

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Wednesday, December 05, 2012



Photo 1: Facing west, panorama of site



Photo 2: Looking NW, observing the spread of material across site

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Wednesday, December 05, 2012



Photo 3: Looking west, observing new berm construction



Photo 4: Looking west, observing terminus of new material

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Jessica Collins
Weather: 30F, Mostly sunny
64%, 30.45" rising
Wind: NW 3 mph
Date: Thursday, December 06, 2012

Personnel On Site

<u>Name and Affiliation</u>
<u>John Clemente-American</u>
<u>Ken Brown-American</u>
<u>Ray Rivera - American</u>
<u>Omar Hernandez - American</u>
<u>Seth Plitt - American</u>
<u>Ron Snider - American</u>
<u>Raphael Canales - American</u>
<u>Bob Braban - American</u>
<u> </u>
<u>Gary Harris - Weeks</u>
<u>Val Olesnovich - Weeks</u>
<u>Ken Smith - Weeks</u>
<u>Benny Sullivan - Weeks</u>
<u> </u>

<u>Name and Affiliation</u>
<u>Jessica Collins- Roux</u>
<u>Jordanna Kendrot- Roux</u>
<u>Tracy Bispham - Roux</u>
<u>Noelle Clarke - Roux</u>
<u> </u>
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<u>Steve Trifiletti - XOM</u>
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Equipment On Site

<u>American</u>	<u>Weeks</u>	<u>Roux</u>
<u>Excavator (2)</u>	<u>Gantry crane/barge</u>	<u>CAMP air monitors</u>
<u>Backhoe</u>	<u> </u>	<u>5-gas Meter</u>
<u>Front End Loader</u>	<u> </u>	<u> </u>
<u>Bulldozer (2)</u>	<u> </u>	<u> </u>
<u>Frac Tank</u>	<u> </u>	<u> </u>
<u>Generator</u>	<u> </u>	<u> </u>
<u>Dump trucks (2)</u>	<u> </u>	<u> </u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Thursday, December 06, 2012

Description of Work Performed:

Offload 1/4 minus material from barges using crane barge

Lay filter fabric and spread fill material

General housekeeping of site

Permanently attach MW extensions

Grubbing of south end of site

Restructured berm moving south. Berm construction is as follows:

- Construction of existing berm is: Existing base material to elevation 4, wrapped with filter fabric and covered with 2 ft of 3-8 inch stone

- Construction of new berm is: 1/4 minus material to elevation 4, wrapped with filter fabric and covered with 2 ft of 3-8 inch stone

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed

Material Delivered To Site:

- Received 1 load of large rip rap and 6 loads of 3-8" rip rap

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling conducted

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- Continue with site grading and tree removal

- Continue spreading material over site, and restructuring berm

- Continue offloading material, and placing of filter fabric

Reviewed by (initials): TB

Thursday, December 6, 2012

24x36 SHEET

WOODWARD & CLARK ENGINEERING P.A.C.
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White Plains, New York 10604
914.941.1000
www.woodwardandclark.com

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NO.	REVISION	DATE
1	ISSUED FOR PERMIT	7/25/12
2	DESIGNED BY	AMS
3	CHECKED BY	AMS
4	DATE	7/25/12

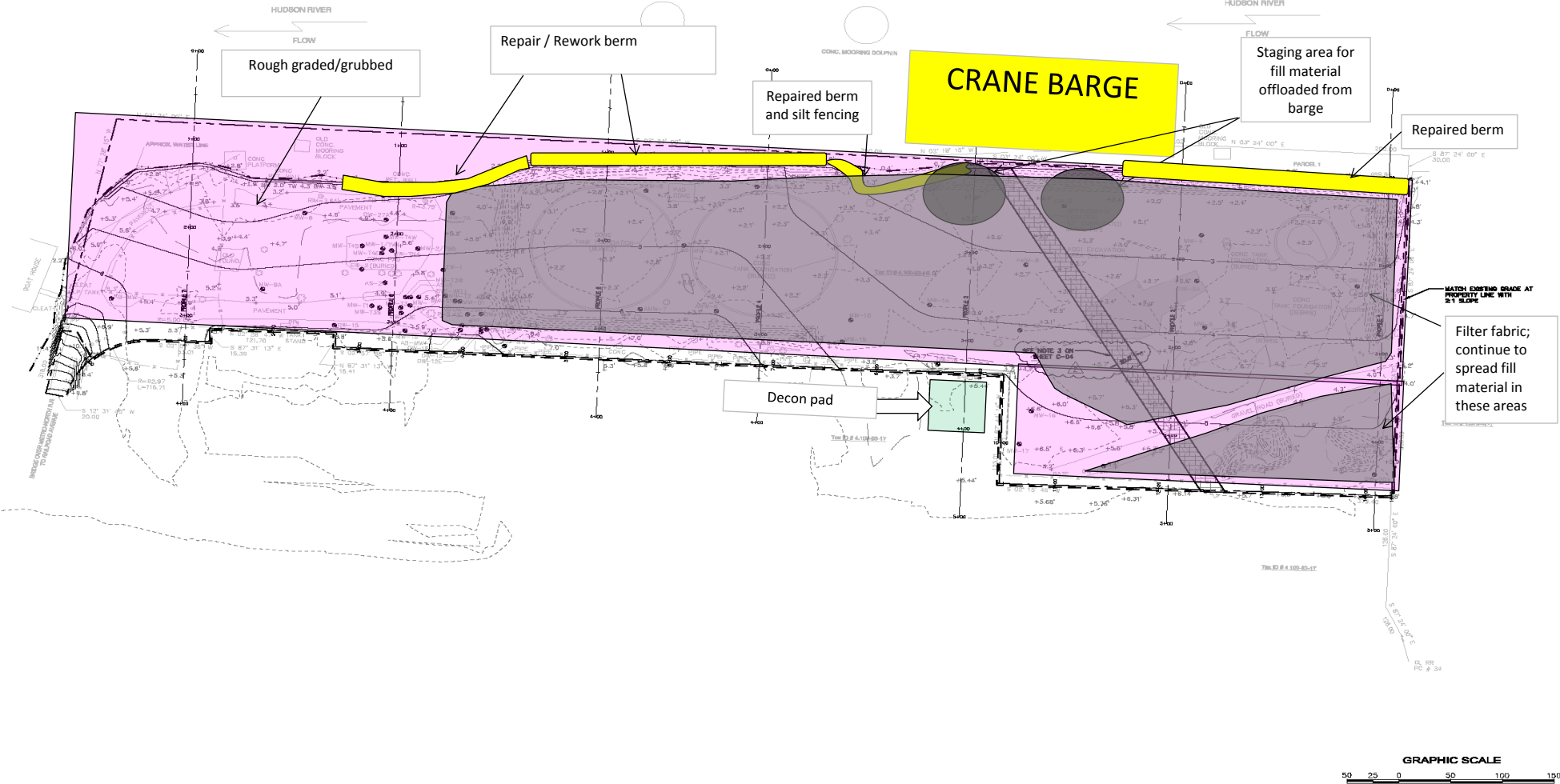
SUB-GRADE PLAN

FORMER MOBIL TAPPAN TERMINAL PROPERTY
HASTINGS-ON-HUDSON, NEW YORK
FORMER TAPPAN TERMINAL
FILLER SITE NO. 10-00-005

CAP DESIGN FOR AOC 1

JOB NO.: 2009020.06
DATE: DECEMBER 2011
SCALE: AS SHOWN
SHEET: 3 OF 3

C-03



ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Thursday, December 06, 2012



Photo 1: Facing east, observing new filter fabric



Photo 2: Looking north, observing the spread of material across site

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Thursday, December 06, 2012



Photo 3: Looking north, observing the spread of new fill material



Photo 4: Looking northwest, observing the crane barge

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Jessica Collins
Weather: 31F, Partly sunny
87%, 30.34" steady
Wind: N 1 mph
Date: Friday, December 07, 2012

Personnel On Site

<u>Name and Affiliation</u>	<u>Name and Affiliation</u>
<u>John Clemente-American</u>	<u>Jessica Collins- Roux</u>
<u>Ken Brown-American</u>	<u>Jordanna Kendrot- Roux</u>
<u>Rob Kearns - American</u>	<u> </u>
<u>Omar Hernandez - American</u>	<u> </u>
<u>Ray Rivera - American</u>	<u> </u>
<u>Ron Snider - American</u>	<u> </u>
<u>Raphael Canales - American</u>	<u> </u>
<u>Bob Braban - American</u>	<u> </u>
<u>Hector - American</u>	<u> </u>
<u> </u>	<u> </u>
<u>Gary Harris - Weeks</u>	<u>Doug Mitchell - Angle of Attack</u>
<u>Val Olesnovich - Weeks</u>	<u> </u>
<u>Ken Smith - Weeks</u>	<u> </u>
<u>Benny Sullivan - Weeks</u>	<u> </u>

Equipment On Site

<u>American</u>	<u>Weeks</u>	<u>Roux</u>
<u>Excavator (2)</u>	<u>Gantry crane/barge</u>	<u>CAMP air monitors</u>
<u>Backhoe</u>	<u> </u>	<u>5-gas Meter</u>
<u>Front End Loader</u>	<u> </u>	<u> </u>
<u>Bulldozer (2)</u>	<u> </u>	<u> </u>
<u>Frac Tank</u>	<u> </u>	<u> </u>
<u>Generator</u>	<u> </u>	<u> </u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Friday, December 07, 2012

Description of Work Performed:

Offload 1/4 minus material from barges using crane barge

Lay filter fabric and spread fill material along roadway

General housekeeping of site

Permanently attach MW extensions

Grubbing of south end of site

Survey property lines, shoot grades on southern side of the property

Restructured / constructed berm moving south. Berm construction is as follows:

- Construction of existing berm is: Existing base material to elevation 4, wrapped with filter fabric and covered with 2 ft of 3-8 inch stone

- Construction of new berm is: 1/4 minus material to elevation 4, wrapped with filter fabric and covered with 2 ft of 3-8 inch stone

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed

Material Delivered To Site:

- No material delivered to site

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling conducted

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- Continue with site grading and tree removal

- Continue spreading material over site, and restructuring berm

- Continue offloading material, and placing of filter fabric

Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Friday, December 07, 2012



Photo 1: Facing north, observing re-worked berm



Photo 2: Facing north east, observing recently grubbed southern portion of site

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Friday, December 07, 2012



Photo 3: Looking west, observing the spread of material over road area



Photo 4: Looking west, observing the crane barge

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Amy Hoffmann
Weather: 44F, Foggy/rain
98%, 29.94" calm
Wind: N 0 mph
Date: Monday, December 10, 2012

Personnel On Site

<u>Name and Affiliation</u>
<u>Ron Snider - American</u>
<u>Ken Brown-American</u>
<u>Ray Rivera- American</u>
<u>Omar Hernandez - American</u>
<u>Raphael Canales - American</u>
<u>Bob Braban - American</u>
<u> </u>
<u>Doug Mitchell-Angle of Attack</u>
<u>Anne Paqazissimus- Angle of Attack</u>
<u> </u>
<u>Gary Harris - Weeks</u>
<u>Val Olesnovich - Weeks</u>
<u>Ken Smith - Weeks</u>
<u>Benny Sullivan - Weeks</u>

<u>Name and Affiliation</u>
<u>Amy Hoffmann- Roux</u>
<u>Jordanna Kendrot- Roux</u>
<u>Jessica Collins- Roux</u>
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Equipment On Site

<u>American</u>
<u>Excavator (2)</u>
<u>Backhoe</u>
<u>Front End Loader</u>
<u>Bulldozer (2)</u>
<u>Generator</u>
<u>Frac Tank</u>
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<u>Weeks</u>
<u>Gantry crane/barge</u>
<u>Material Barge</u>
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<u>CAMP air monitors</u>
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Reveiwed by (initials): TB

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Date: Monday, December 10, 2012

Description of Work Performed:

Offload topsoil material from barges using crane barge

Begin rolling and compacting material on Northern portion in prep for topsoil

Continue establishing subgrade on Southern portion of site

Continue working berm to South. Berm construction is as follows:

- Construction of existing berm is: Existing base material to elevation 4, wrapped with filter fabric and covered with 2 ft of 3-8 inch stone

- Construction of new berm is: 1/4 minus material to elevation 4, wrapped with filter fabric and covered with 2 ft of 3-8 inch stone

Surveyer establish more markers throughout North and Central portion of site.

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed

Material Delivered To Site:

- (2) loads of stone delivered for berm

- Topsoil

Material Removed From Site:

- (1) 60 yard load of tree material removed

Sampling Performed:

- No sampling conducted

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP not performed due to inclement weather conditions.

Description of Upcoming Work Activities:

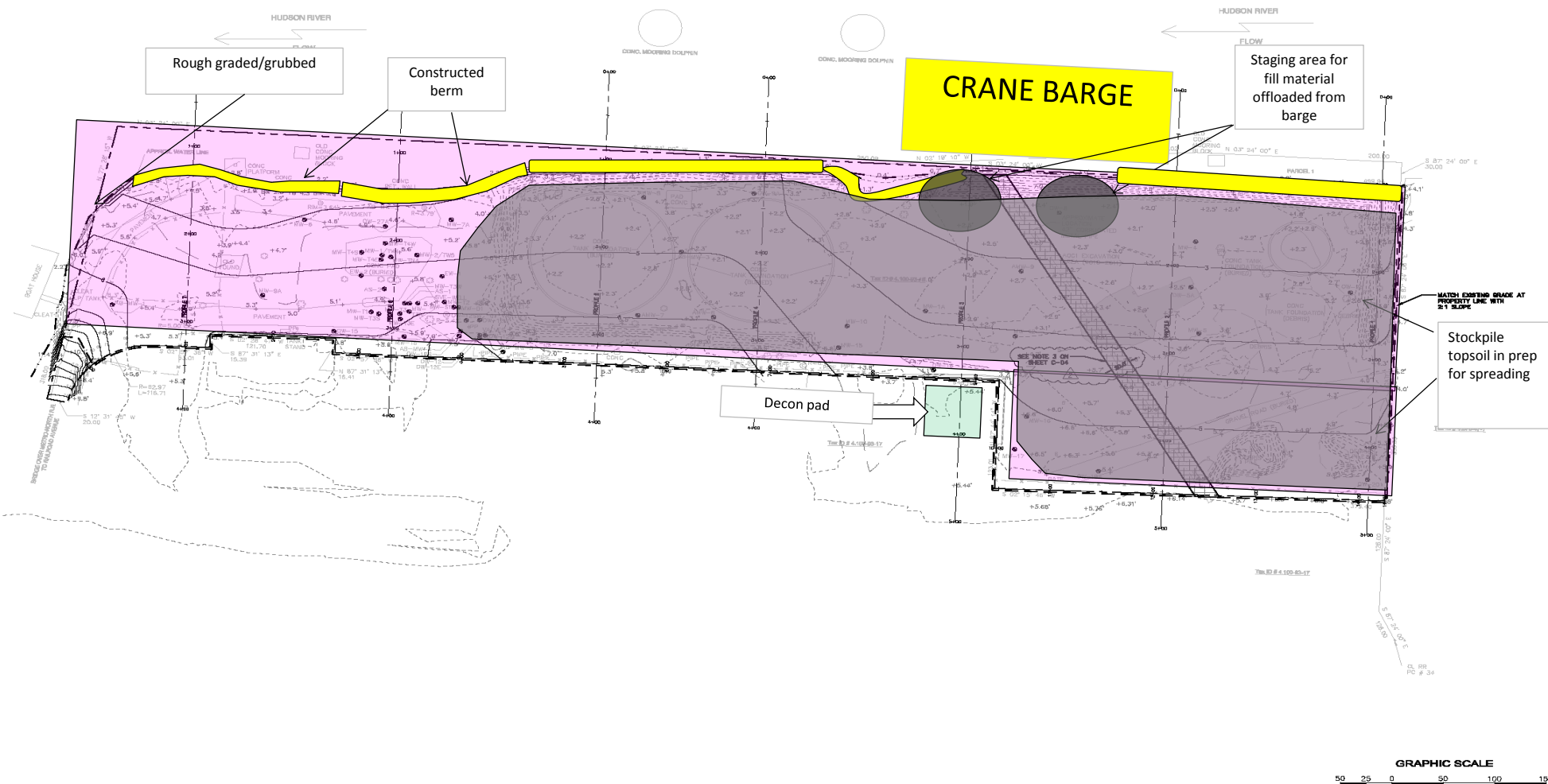
- Continue with site grading

- Continue spreading material over site, and restructuring berm

- Continue offloading material

Reviewed by (initials): TB

Monday, December 10, 2012



24x36 SHEET

WOODWARD & CLARK ENGINEERING P.A.C.
700 Westchester Avenue, Suite 12
White Plains, New York 10604
914.941.1000
www.woodwardandclark.com

**WOODWARD & CLARK**
COMMITMENT & INTEGRITY FOR THE RESULTS

DESIGNED BY: JMS
CHECKED BY: JMS
DATE: 7/25/12

REVISIONS
NO. DESCRIPTION
DATE

SUB-GRADE PLAN

FORMER MOBIL TAPPAN TERMINAL PROPERTY
HASTINGS-ON-HUDSON, NEW YORK
TAPPAN TANK FARM TERMINAL
FILLER SITE NO. 10-00-005

CAP DESIGN FOR AOC 1

JOB NO.: 2009020-06
DATE: DECEMBER 2011
SCALE: AS SHOWN
SHEET: 3 OF 3

C-03

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Amy Hoffmann
Weather: 44F, Rain to clear
82%, 29.96" steady
Wind: NNW 2 mph
Date: Tuesday, December 11, 2012

Personnel On Site

<u>Name and Affiliation</u>
<u>Ron Snider - American</u>
<u>Ken Brown-American</u>
<u>Rob Kearns - American</u>
<u>Omar Hernandez - American</u>
<u>Raphael Canales - American</u>
<u>Bob Braban - American</u>
<u>Ray Rivera- American</u>
<u>Rob Benz- Benz Trucking</u>
<u>Iacinto Quezida- Benz Trucking</u>
<u> </u>
<u>Gary Harris - Weeks</u>
<u>Val Olesnovich - Weeks</u>
<u>Ken Smith - Weeks</u>
<u>Benny Sullivan - Weeks</u>

<u>Name and Affiliation</u>
<u>Amy Hoffmann- Roux</u>
<u>Jordanna Kendrot- Roux</u>
<u> </u>
<u>Steve Trifiletti- ExxonMobil</u>
<u>Deven Sharma - Village of Hastings on Hudson</u>
<u>Doug Hahn- Hahn Engineering</u>
<u>David Herman-NYSDEC</u>
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<u>Dan Hirshberger-American</u>
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Equipment On Site

<u>American</u>
<u>Excavator (2)</u>
<u>Backhoe</u>
<u>Front End Loader</u>
<u>Bulldozer (2)</u>
<u>Frac Tank</u>
<u>Generator</u>
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<u>Weeks</u>
<u>Gantry crane/barge</u>
<u>Material Barge</u>
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<u>Roux</u>
<u>CAMP air monitors</u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Tuesday, December 11, 2012

Description of Work Performed:

Offload topsoil material from barges using crane barge

Rough grading of southern area

Move topsoil material across site using dump trucks

Uncover to inspect vault located on Southern portion of site. Trenches were dug on the west, east and south sides of the vault to verify the presence/absence of any piping associated with the vault. No piping was found. Representatives from the Village, NYSDEC and ExxonMobil were present or available via telephone during the inspection. Vault will be completely backfilled with Item 4 stone, openings to the vault will be covered with steel plated and the area backfilled to grade (vault sits 3 ft below grade).

Measure Southern area to determine amount of fill material still needed

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed

Material Delivered To Site:

- Top Soil

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling conducted

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- Continue with site grading and material movement

- Continue spreading material over site, and restructuring berm

- Continue offloading material

Reviewed by (initials): TB

Tuesday, December 11, 2012

WOODWARD & CURRAN
 Woodard & Curran Engineering P.A.C.
 718 Westchester Avenue, Suite 112
 White Plains, New York 10604
 914.937.4880 | www.woodardcurran.com

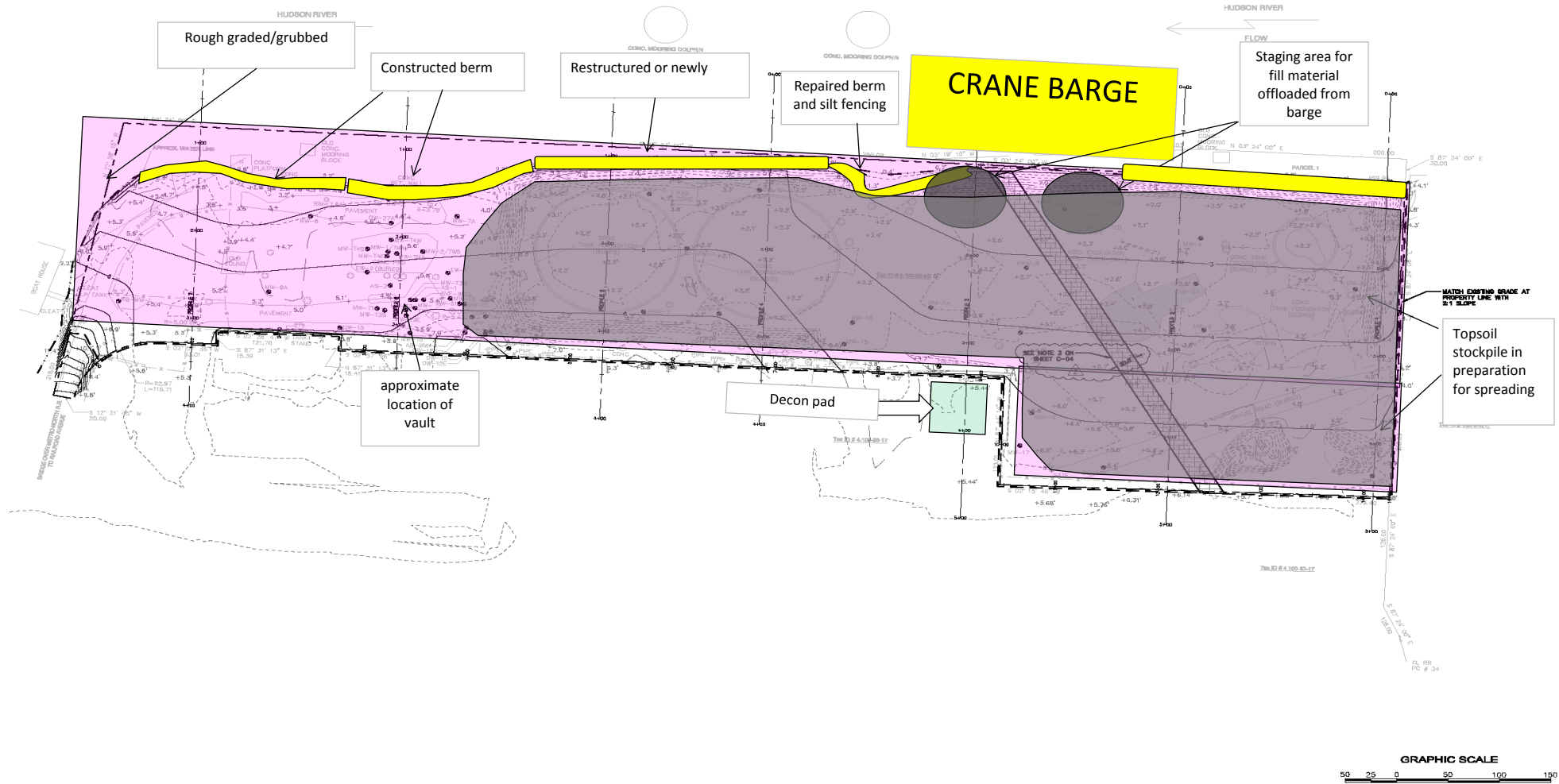
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SUB-GRADE PLAN

FORMER MOBIL TAPPAN TERMINAL PROPERTY HASTINGS-IN-HUSSON, NEW YORK FORMER TAPPAN TERMINAL NYSDC SITE NO. 3-60-015	CAP DESIGN FOR AOC 1
JOB NO.: 200925.06 DATE: DECEMBER 2011 SCALE: AS SHOWN SHEET: 3 OF 5	
C-03	

JOB NO.: 200925.06
 DATE: DECEMBER 2011
 SCALE: AS SHOWN
 SHEET: 3 OF 5
C-03



ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Tuesday, December 11, 2012



Photo 1: Looking west, Crane off loading topsoil



Photo 2: Subsurface investigation around vault

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Tuesday, December 11, 2012



Photo 3: Topsoil stockpile on the NE portion next to road



Photo 4: Stockpiles from crane barge

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Amy Hoffmann
Weather: 34F, Partly sunny
81%, 30.45" calm
Wind: NW 0 mph
Date: Wednesday, December 12, 2012

Personnel On Site

<u>Name and Affiliation</u>
<u>Ron Snider - American</u>
<u>Ken Brown-American</u>
<u>John Clemente- American</u>
<u>Omar Hernandez - American</u>
<u>Raphael Canales - American</u>
<u>Bob Braban - American</u>
<u>Ray Rivera - American</u>
<u>Rob Benz- Benz Trucking</u>
<u>Iacinto Quezada- Benz Trucking</u>
<u> </u>
<u>Gary Harris - Weeks</u>
<u>Val Olesnovich - Weeks</u>
<u>Ken Smith - Weeks</u>
<u>Benny Sullivan - Weeks</u>

<u>Name and Affiliation</u>
<u>Amy Hoffmann- Roux</u>
<u>Jordanna Kendrot- Roux</u>
<u> </u>
<u>Craig Sweet- Woodard and Curran</u>
<u>Alvaro Alfonzo-Larrain- Woodard and Curran</u>
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Equipment On Site

<u>American</u>
<u>Excavator (2)</u>
<u>Backhoe</u>
<u>Front End Loader</u>
<u>Bulldozer (2)</u>
<u>Frac Tank</u>
<u>Generator</u>
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<u>Weeks</u>
<u>Gantry crane/barge</u>
<u>Material Barge</u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Wednesday, December 12, 2012

Description of Work Performed:

Offload material from bottom of barges using crane barge

Continue moving material and stockpiling topsoil throughout site.

Continue rough grading of Southern portion.

Continue working Southern berm with additional stone. Berm constructed as follows:

- Construction of existing berm is: Existing base material to elevation 4, wrapped with filter fabric and covered with 2 ft of 3-8 inch stone

- Construction of new berm is: 1/4 minus material to elevation 4, wrapped with filter fabric and covered with 2 ft of 3-8 inch stone

Woodard and Curran to do inspection of the berm and Zinsser Bridge

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed

Material Delivered To Site:

- No material delivered to site

Material Removed From Site:

- (2) loads of tree material removed

Sampling Performed:

- No sampling conducted

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

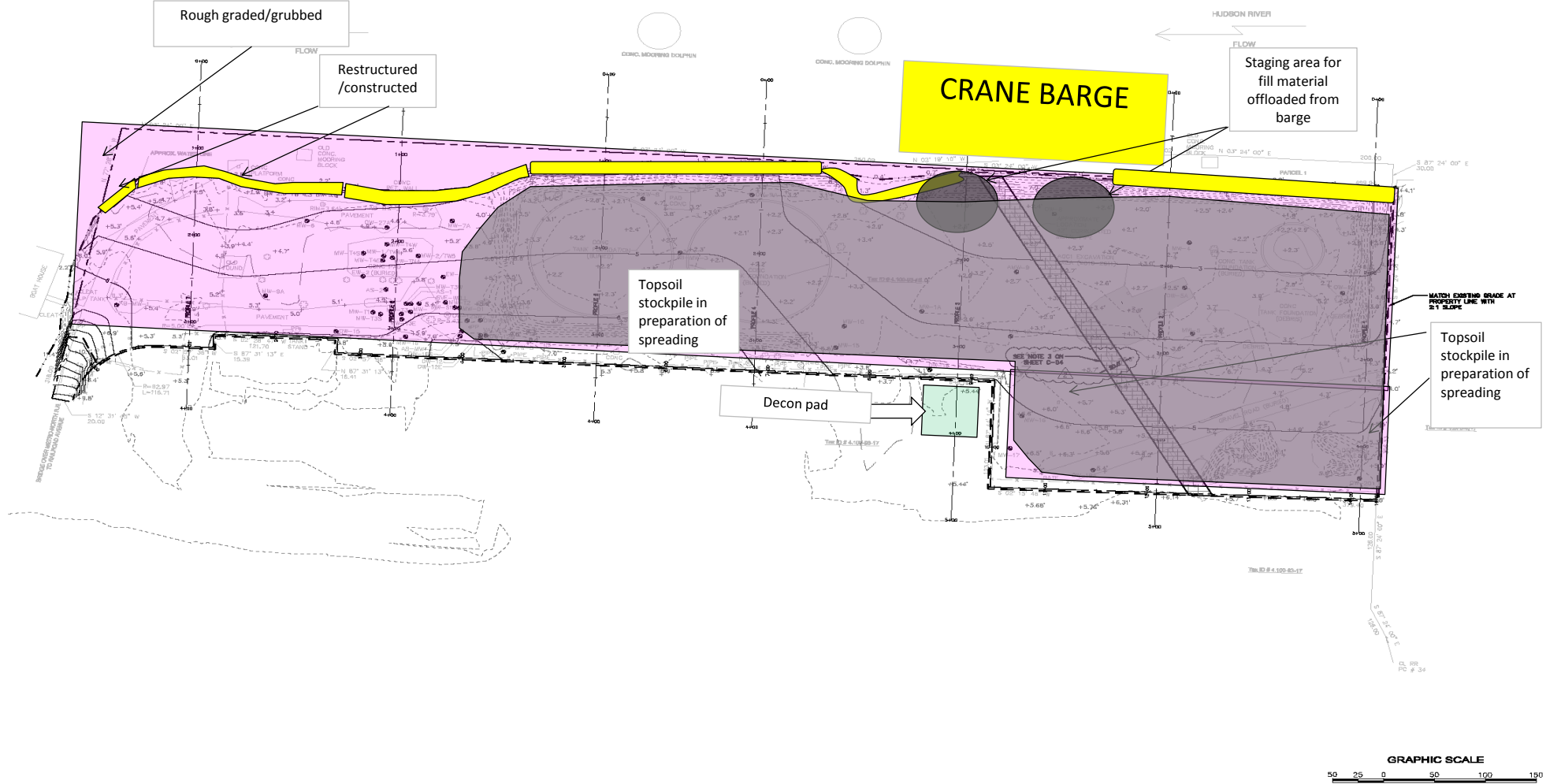
- Continue with site grading and tree removal

- Continue spreading material over site, and restructuring berm

- Continue offloading material, and placing of filter fabric

Reviewed by (initials): TB

Wednesday, December 12, 2012



24x36 SHEET

WOODARD & CURRAN ENGINEERING P.A.C.
710 Westchester Avenue, Suite 112
Yonkers, NY 10710
914.961.1000 | www.woodardcurran.com

**WOODARD & CURRAN**
COMMITMENT & INTEGRITY FOR THE RESULTS

DATE	7/2/12
BY	WJC
CHKD	WJC
APP'D	WJC
DATE	7/2/12
BY	WJC
CHKD	WJC
APP'D	WJC

SUB-GRADE PLAN

FORMER MOBIL TAPPAN THERMAL PROPERTY
HASTINGS-ON-HUDSON, NEW YORK
PROJECT NO. 12-000005
INVEST. SITE NO. 12-000005

CAP DESIGN FOR AOC 1

JOB NO.: 2009020.06
DATE: DECEMBER 2011
SCALE: AS SHOWN
SHEET: 3 OF 5

C-03

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Wednesday, December 12, 2012



Photo 1: Topsoil transported through site via trucks



Photo 2: Continue establishing subgrade of southern portion

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Wednesday, December 12, 2012



Photo 3: Subgrade established along berm on southern portion of the site



Photo 4: Southern berm manipulation

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Amy Hoffmann
Weather: 36F, Partly sunny
72%, 30.38" steady
Wind: S 2 mph
Date: Friday, December 14, 2012

Personnel On Site

<u>Name and Affiliation</u>
<u>Ron Snider - American</u>
<u>Ken Brown-American</u>
<u>Rob Kearns - American</u>
<u>Omar Hernandez - American</u>
<u>Raphael Canales - American</u>
<u>Bob Braban - American</u>
<u>John Clemente- American</u>
<u>Ray Rivera - American</u>
<u>Rob Benz- Benz Trucking</u>
<u>Weeks crew not onsite</u>
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<u>Name and Affiliation</u>
<u>Amy Hoffmann- Roux</u>
<u>Jordanna Kendrot- Roux</u>
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<u> </u>
<u>Doug Mitchell - Angle of Attack</u>
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Equipment On Site

<u>American</u>
<u>Excavator (2)</u>
<u>Backhoe</u>
<u>Front End Loader</u>
<u>Bulldozer (2)</u>
<u>Frack Tank</u>
<u>Generator</u>
<u>Roller</u>
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<u>Weeks</u>
<u>Gantry crane/barge</u>
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<u>Roux</u>
<u>CAMP air monitors</u>
<u>5-gas Meter</u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Friday, December 14, 2012

Description of Work Performed:

Continue moving topsoil to stockpiles throughout site

Continue establishing rough subgrade on Southern portion

Add stone to berm to bring to elevation 6 starting South heading North. Berm constructed as follows:

- Construction of existing berm is: Existing base material to elevation 4, wrapped with filter fabric and covered with 2 ft of 3-8 inch stone

- Construction of new berm is: 1/4 minus material to elevation 4, wrapped with filter fabric and covered with 2 ft of 3-8 inch stone

Survey features (i.e., vault, former concrete slabs /truck pads, etc.) that will remain below cap.

Lay filter fabric to the South

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed

Material Delivered To Site:

- (6) loads of riprap stone

- (8) loads of 1/4 minus material

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling conducted

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

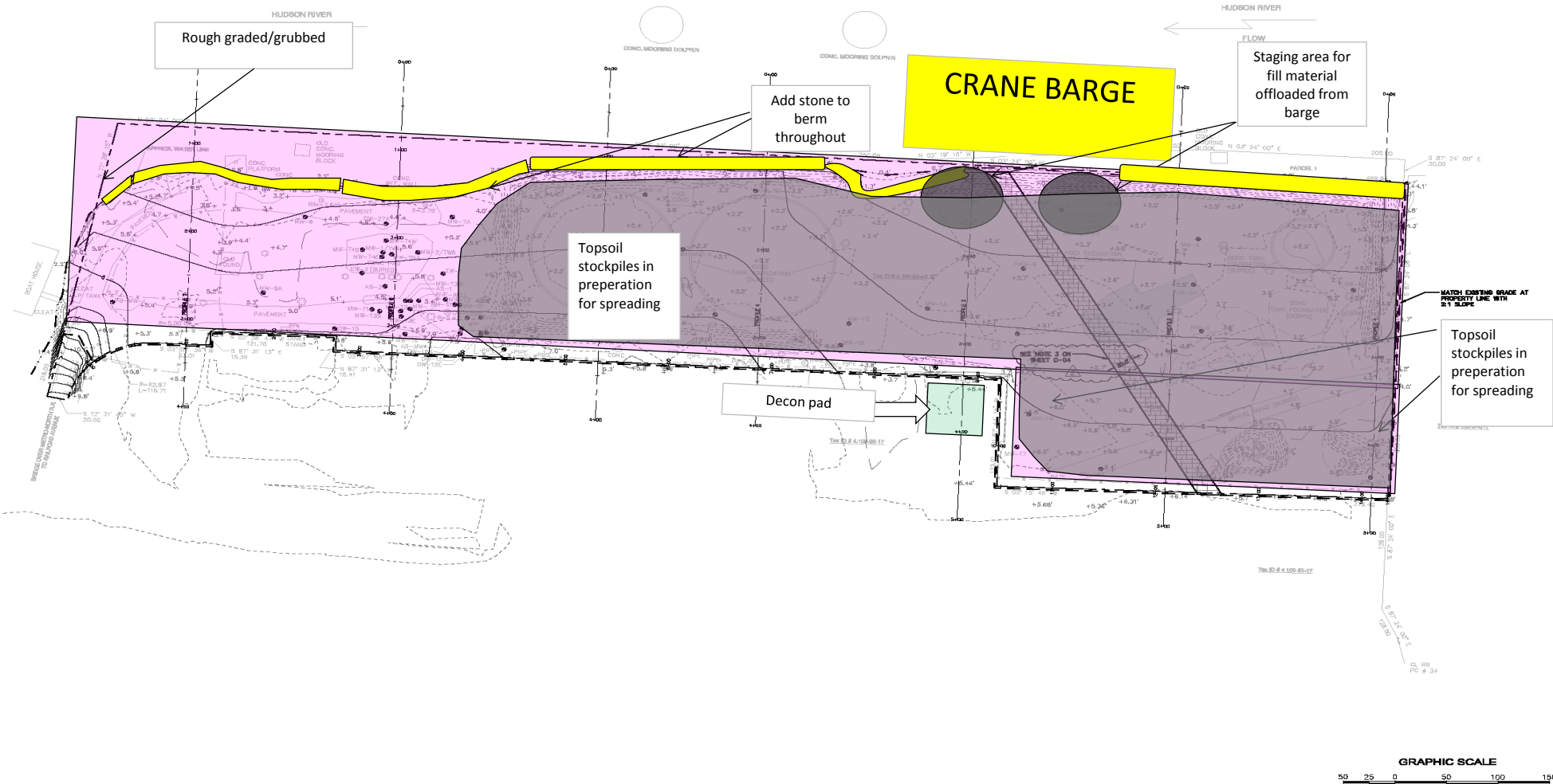
- Continue with site grading

- Continue spreading material over site, and restructuring berm

- Begin spreading topsoil to the North to grade

Reviewed by (initials): TB

Friday, December 14, 2012



24x36 SHEET

WOODWARD & CLARK ENGINEERING P.A.C.
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West Point, New York 10594
914.361.1000
www.woodwardandclark.com

WOODWARD & CLARK
COMMITMENT TO INTEGRITY FOR OUR RESULTS

REVISIONS

NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMIT	7/25/12
2	ISSUED FOR AS-BUILT	12/14/12

FORMER MOBIL TAPPAN TERMINAL PROPERTY
HASTINGS-ON-HUDSON, NEW YORK
FORMER TAPPAN TERMINAL
POLLUTED SITE NO. 10-00-005

CAP DESIGN FOR AOC 1

JOB NO.: 2009020.06
DATE: DECEMBER 2011
SCALE: AS SHOWN
SHEET: 3 OF 3

C-03

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Friday, December 14, 2012



Photo 1: Movement of topsoil from crane staging area



Photo 2: 1/4 minus material brought in by truck

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Friday, December 14, 2012



Photo 3: Establishing final 1/4 grade to the North



Photo 4: Spreading topsoil to the North

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Amy Hoffmann
Weather: 40F, Light rain
96%, 30.01" calm
Wind: N 0 mph
Date: Monday, December 17, 2012

Personnel On Site

<u>Name and Affiliation</u>
<u>Ron Snider - American</u>
<u>Ken Brown-American</u>
<u>Rob Kearns - American</u>
<u>Omar Hernandez - American</u>
<u>Raphael Canales - American</u>
<u>Bob Braban - American</u>
<u>John Clemente- American</u>
<u>Ray Rivera - American</u>
<u> </u>
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<u>Gary Harris - Weeks</u>
<u>Val Olesnovich - Weeks</u>
<u>Ken Smith - Weeks</u>
<u>Benny Sullivan - Weeks</u>

<u>Name and Affiliation</u>
<u>Amy Hoffmann- Roux</u>
<u>Jordanna Kendrot- Roux</u>
<u> </u>
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<u> </u>
<u> </u>
<u>Iacinto Quezada- Benz Trucking</u>
<u>Rob Benz- Benz Trucking</u>
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Equipment On Site

<u>American</u>	<u>Weeks</u>	<u>Roux</u>
<u>Excavator (2)</u>	<u>Gantry crane/barge</u>	<u>CAMP air monitors</u>
<u>Backhoe</u>	<u> </u>	<u>5-gas Meter</u>
<u>Front End Loader</u>	<u> </u>	<u> </u>
<u>Bulldozer (2)</u>	<u> </u>	<u> </u>
<u>Generator</u>	<u> </u>	<u> </u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Monday, December 17, 2012

Description of Work Performed:

Continue moving topsoil to stockpiles throughout site
Continue establishing rough subgrade on Southern portion
Lay filter fabric to South
Offload (1) barge of 1/4 minus material and (1) barge of topsoil

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed

Material Delivered To Site:

- (1) barge of 1/4 minus
- (1) barge of topsoil

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling conducted

CAMP Performed (Note any exceedances or issues with the equipment):

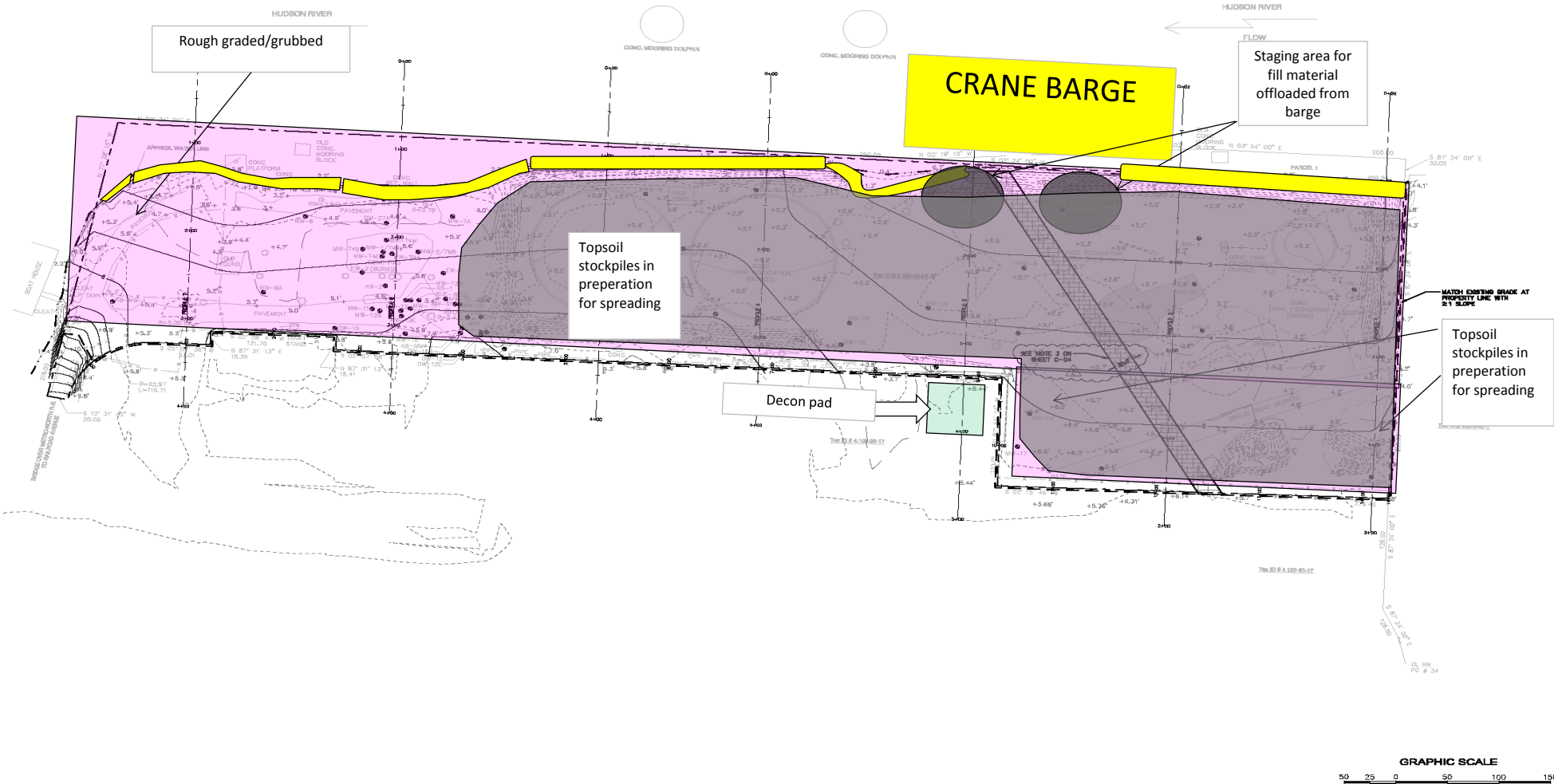
- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- Continue with site grading and laying filter fabric
- Continue spreading material over site, and restructuring berm
- Begin spreading topsoil to the North to grade

Reviewed by (initials): TB

Monday, December 17, 2012



24x36 SHEET

Woodward & Clyde Engineering P.A.C.
700 Westchester Avenue, Suite 12
West Point, New York 10594
www.woodward-clay.com

WOODWARD & CLYDE
COMMITMENT TO INTEGRITY FOR THE RESULTS

NO.	REVISION	DATE
1	ISSUED FOR PERMIT	7/25/12
2	ISSUED FOR AS	
3	ISSUED FOR AS	
4	ISSUED FOR AS	

FORMER MOBIL TAPPAN TERMINAL PROPERTY
HASTINGS-ON-HUDSON, NEW YORK
FORMER TAPPAN TERMINAL
POLLUTED SITE NO. 10-00-005

CAP DESIGN FOR AOC 1

JOB NO.: 2009020.06
DATE: DECEMBER 2011
SCALE: AS SHOWN
SHEET: 3 OF 3

C-03

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Monday, December 17, 2012



Photo 1: Crane offloading material



Photo 2: Establishing 1/4 minus grade in the central portion

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Monday, December 17, 2012



Photo 3: Movement of topsoil throughout site



Photo 4: Laying of filter fabric to South

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Amy Hoffmann
Weather: 44F, Light rain
97%, 29.62" calm
Wind: N 0 mph
Date: Tuesday, December 18, 2012

Personnel On Site

<u>Name and Affiliation</u>
<u>Ron Snider - American</u>
<u>Ken Brown-American</u>
<u>Rob Kearns - American</u>
<u>Omar Hernandez - American</u>
<u>Raphael Canales - American</u>
<u>Bob Braban - American</u>
<u>John Clemente- American</u>
<u>Ray Rivera - American</u>
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<u>Gary Harris - Weeks</u>
<u>Val Olesnovich - Weeks</u>
<u>Ken Smith - Weeks</u>
<u>Benny Sullivan - Weeks</u>

<u>Name and Affiliation</u>
<u>Amy Hoffmann- Roux</u>
<u>Jordanna Kendrot- Roux</u>
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<u>Iacinto Quezada- Benz Trucking</u>
<u>Rob Benz- Benz Trucking</u>
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Equipment On Site

<u>American</u>	<u>Weeks</u>	<u>Roux</u>
<u>Excavator (2)</u>	<u>Gantry crane/barge</u>	<u>CAMP air monitors</u>
<u>Backhoe</u>	<u> </u>	<u>5-gas Meter</u>
<u>Front End Loader</u>	<u> </u>	<u> </u>
<u>Bulldozer (2)</u>	<u> </u>	<u> </u>
<u>Roller</u>	<u> </u>	<u> </u>
<u>Frac Tank</u>	<u> </u>	<u> </u>
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ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Tuesday, December 18, 2012

Description of Work Performed:

Continue moving topsoil to stockpiles throughout site

Continue establishing rough subgrade on Southern portion

Lay filter fabric to South

Offload (1) barge of 1/4 minus material and demobilize crane

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- Gantry crane/barge demobilized

Material Delivered To Site:

- No material delivered

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling conducted

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

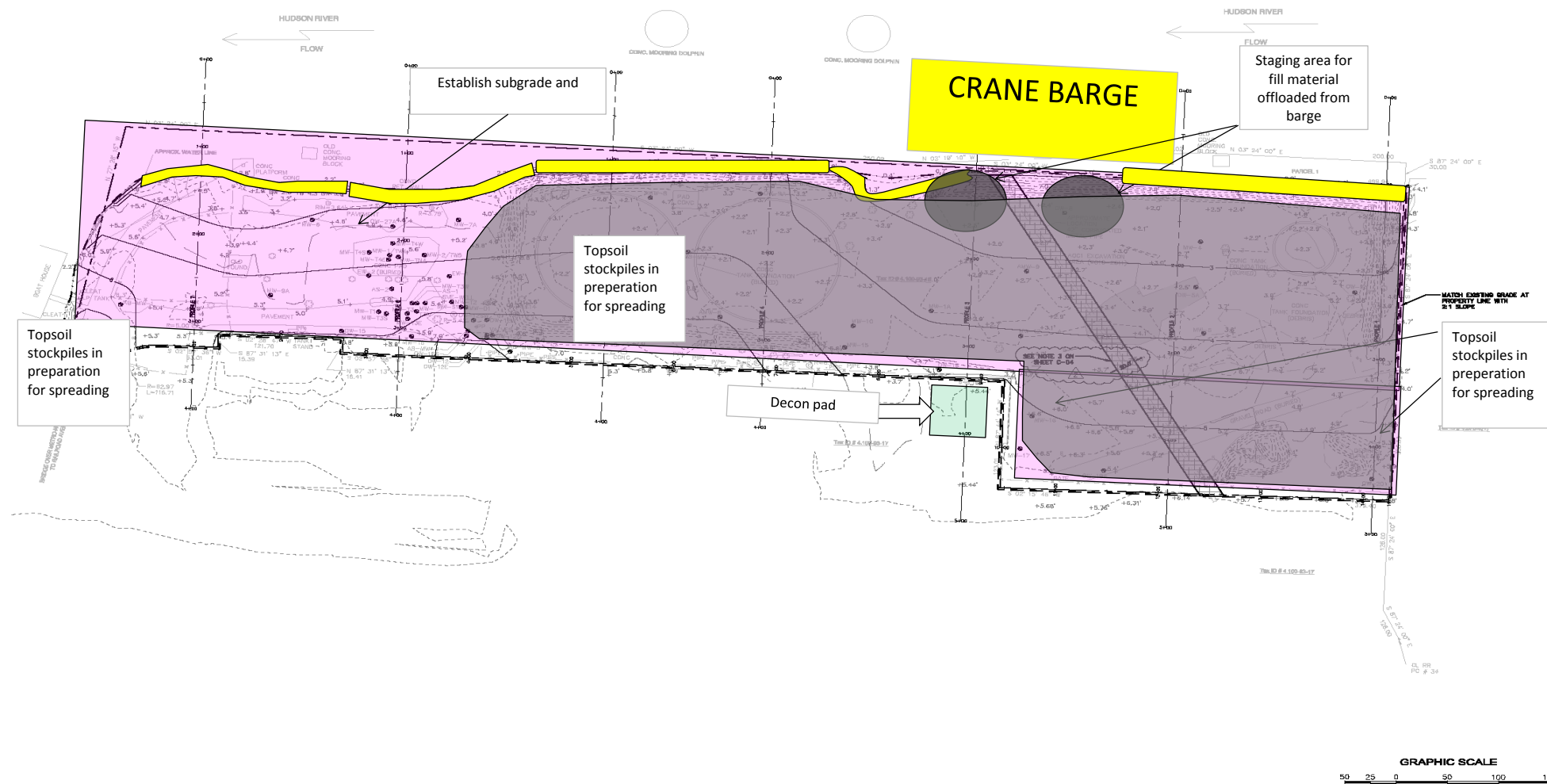
Description of Upcoming Work Activities:

- Continue with site grading and laying filter fabric

- Continue spreading material over site, and restructuring berm

- Begin spreading topsoil to the North to grade

Tuesday, December 18, 2012



SUB-GRADE PLAN

FORMER MOBIL TAPPAN TERMINAL PROPERTY
HASTINGS-ON-HUDSON, NEW YORK
FORMER TAPPAN TERMINAL
NYSDEC SITE NO. 3-60-015

JOB NO.: 200920.00
DATE: DECEMBER 2011
SCALE: AS SHOWN
SHEET: 3 OF 5

C-03

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Amy Hoffmann
Weather: 42F, clear
64%, 29.84" steady
Wind: NNW 8 mph
Date: Wednesday, December 19, 2012

Personnel On Site

<u>Name and Affiliation</u>	<u>Name and Affiliation</u>
<u>Ron Snider - American</u>	<u>Amy Hoffmann- Roux</u>
<u>Ken Brown-American</u>	<u>Jordanna Kendrot- Roux</u>
<u>Rob Kearns - American</u>	<u></u>
<u>Omar Hernandez - American</u>	<u></u>
<u>Raphael Canales - American</u>	<u></u>
<u>Bob Braban - American</u>	<u></u>
<u>John Clemente- American</u>	<u></u>
<u>Ray Rivera - American</u>	<u></u>
<u></u>	<u></u>
<u>Rob Benz - Benz Trucking</u>	<u></u>
<u>Iacinto Quezada- Benz Trucking</u>	<u></u>
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Equipment On Site

<u>American</u>	<u>Weeks</u>	<u>Roux</u>
<u>Excavator (2)</u>	<u></u>	<u>CAMP air monitors</u>
<u>Backhoe</u>	<u></u>	<u>5-gas Meter</u>
<u>Front End Loader</u>	<u></u>	<u></u>
<u>Bulldozer (2)</u>	<u></u>	<u></u>
<u>Generator</u>	<u></u>	<u></u>
<u>Frac Tank</u>	<u></u>	<u></u>
<u>Roller</u>	<u></u>	<u></u>
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ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Wednesday, December 19, 2012

Description of Work Performed:

Continue moving topsoil to stockpiles throughout site

Continue establishing grade of 1/4 minus material on Southern portion

Lay filter fabric to South

Arcadis to drill wells throughout property

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- (20) loads of 1/4 minus arrived onsite via tri-axle trucks (total of 489.68 tons)

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling conducted

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- Continue with site grading and laying filter fabric

- Continue spreading material to grade on Southern portion of the site

- Continue trucking 1/4 minus material into site

- Reconstruct berm in area previously occupied by crane barge

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Amy Hoffmann
Weather: 31F, clear
67%, 30.32" steady
Wind: NNW 3 mph
Date: Thursday, December 20, 2012

Personnel On Site

<u>Name and Affiliation</u>
<u>Ron Snider - American</u>
<u>Ken Brown-American</u>
<u>Rob Kearns - American</u>
<u>Omar Hernandez - American</u>
<u>Raphael Canales - American</u>
<u>Bob Braban - American</u>
<u>John Clemente- American</u>
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<u>Name and Affiliation</u>
<u>Amy Hoffmann- Roux</u>
<u>Jordanna Kendrot- Roux</u>
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<u>Steve Trifiletti- Exxon</u>
<u>Anne Proctor- Woodard & Curran</u>
<u>Tracy Bispham- Roux</u>
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Equipment On Site

<u>American</u>
<u>Excavator (2)</u>
<u>Backhoe</u>
<u>Front End Loader</u>
<u>Bulldozer (2)</u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Thursday, December 20, 2012

Description of Work Performed:

Continue establishing grade of 1/4 minus material on Southern portion

Lay filter fabric to South

Arcadis to drill wells throughout property

Accept multiple loads of 1/4 minus material to be spread South

Reconstruct berm near cove area/section occupied by barge

- Construction of existing berm is: Existing base material to elevation 4, wrapped with filter fabric and covered with 2 ft of 3-8 inch stone

- Construction of new berm is: 1/4 minus material to elevation 4, wrapped with filter fabric and covered with 2 ft of 3-8 inch stone

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- (32) loads of 1/4 minus arrived onsite via tri-axle trucks

- (4) loads of 1/4 minus arrived onsite via trailer

- (6) loads of riprap stone via tri-axle truck

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling conducted

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- No work to be conducted Friday December 21, 2012 due to weather conditions.

- No work to be conducted Monday December 24, 2012 or Tuesday December 25, 2012 due to the holiday

- Work to resume Wednesday December 26, 2012

- Continue with site grading and laying filter fabric

- Continue spreading material to grade on Southern portion of the site

- Continue trucking 1/4 minus material into site

- Begin spreading topsoil throughout Northern portion of the site

Reviewed by (initials): TB

Thursday, December 20, 2012

24x36 SHEET

Woodward & Cory Engineering, P.A.C.
700 Westchester Avenue, Suite 12
White Plains, New York 10614
914.941.1100
www.woodwardandcory.com

**WOODWARD
& CORY**

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NO.	REVISIONS	DATE
1	DESIGN	7/25/12
2	DESIGNED BY: JMS	
3	CHECKED BY: JMS	
4	DATE: 12/20/12	

SUB-GRADE PLAN

FORMER MOBIL TAPPAN TERMINAL PROPERTY
HASTINGS-ON-HUDSON, NEW YORK
FORMER TAPPAN TERMINAL
FEDERAL SITE NO. 10-0-005

CAP DESIGN FOR AOC 1

JOB NO.: 2009020.06
DATE: DECEMBER 2011
SCALE: AS SHOWN
SHEET: 3 OF 3

C-03



ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Thursday, December 20, 2012



Photo 1: Moving topsoil to the North



Photo 2: Berm/Cove Reconstruction

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Thursday, December 20, 2012



Photo 3: Continued 1/4 minus material spreading to the South



Photo 4: Southern most extent of 1/4 minus material

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Jessica Collins
Weather: 32F, 74%, 30.13"
Mostly clear
Wind: NNW @ 3 ph
Date: Friday, December 28, 2012

Personnel On Site

<u>Name and Affiliation</u>
<u>Ron Snider - American</u>
<u>Ken Brown-American</u>
<u>Omar Hernandez - American</u>
<u>Raphael Canales - American</u>
<u>Bob Braban - American</u>
<u>Rob Kearns- American</u>
<u>Hector- American</u>
<u>Louis- American</u>
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<u>Name and Affiliation</u>
<u>Jessica Collins- Roux</u>
<u>Jordanna Kendrot- Roux</u>
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Equipment On Site

<u>American</u>
<u>Excavator (2)</u>
<u>Backhoe</u>
<u>Front End Loader</u>
<u>Bulldozer (2)</u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Friday, December 28, 2012

Description of Work Performed:

Continue establishing grade of 1/4 minus material on Southern portion

Continue cutting and concreteting of well casings

Place remaining stone on berms in low areas

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- Excavator was removed from the site - off rent

Material Delivered To Site:

- (40) loads of 1/4 minus material delivered onsite

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling conducted

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

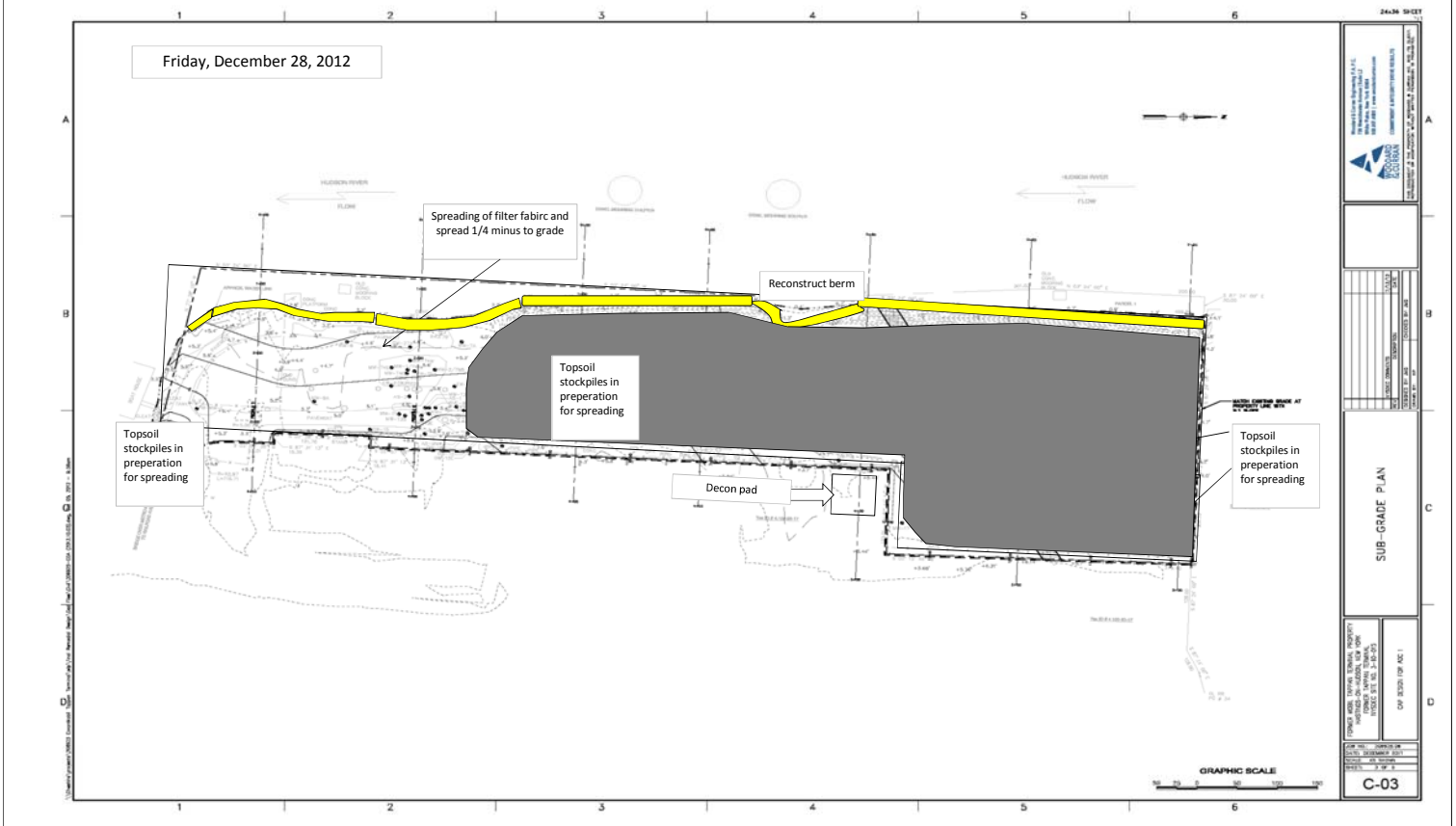
- Continue trucks of 1/4 minus material and spreading material to grade on Southern portion of the site

- Address berm elevations

- Continue well extension installations

- Address entrance access roadway change

Reviewed by (initials): TB



ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Amy Hoffmann
Weather: 30F, overcast
70%, 30.27" steady
Wind: SSW 2 mph
Date: Monday, December 31, 2012

Personnel On Site

<u>Name and Affiliation</u>	<u>Name and Affiliation</u>
<u>Ron Snider - American</u>	<u>Amy Hoffmann- Roux</u>
<u>Ken Brown-American</u>	<u>Jordanna Kendrot- Roux</u>
<u>Rob Kearns - American</u>	<u></u>
<u>Omar Hernandez - American</u>	<u></u>
<u>Louis - American</u>	<u></u>
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Equipment On Site

<u>American</u>		<u>Roux</u>
<u>Excavator</u>	<u></u>	<u>CAMP air monitors</u>
<u>Backhoe</u>	<u></u>	<u>5-gas Meter</u>
<u>Front End Loader</u>	<u></u>	<u></u>
<u>Bulldozer (2)</u>	<u></u>	<u></u>
<u>Generator</u>	<u></u>	<u></u>
<u>Frac Tank</u>	<u></u>	<u></u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Monday, December 31, 2012

Description of Work Performed:

Continue establishing grade of 1/4 minus material on Southern portion

Lay filter fabric to South

Arcadis to drill wells throughout property

Accept multiple loads of 1/4 minus material to be spread South

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- (44) loads of 1/4 minus arrived onsite via tri-axle trucks

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling conducted

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- Continue with site grading and laying filter fabric

- Continue spreading material to grade on Southern portion of the site

- Continue trucking 1/4 minus material into site

- Begin spreading topsoil throughout Northern portion of the site

Reviewed by (initials): TB

Monday, December 31, 2012



24x36 SHEET

Woodward & Cory Engineering P.A.C.
780 Westchester Avenue, Suite 12
White Plains, New York 10614
914.941.1100
www.woodwardandcory.com

WOODWARD & CORY
COMMITMENT & INTEGRITY FOR THE RESULTS

DATE: 7/25/12
DESIGNED BY: JMS
CHECKED BY: JMS
IN CHARGE: JMS

DESIGNED BY: JMS
CHECKED BY: JMS
IN CHARGE: JMS

DESIGNED BY: JMS
CHECKED BY: JMS
IN CHARGE: JMS

DESIGNED BY: JMS
CHECKED BY: JMS
IN CHARGE: JMS

FORMER MOBIL TAPPAN TERMINAL PROPERTY
HASTINGS-ON-HUDSON, NEW YORK
FORMER TAPPAN TERMINAL
POLLUTED SITE NO. 2-85-015

CAP DESIGN FOR AOC 1

JOB NO.: 2009026.06
DATE: DECEMBER 2011
SCALE: AS SHOWN
SHEET: 3 OF 3

C-03

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Monday, December 31, 2012



Photo 1 Established grade of 1/4 minus material



Photo 2 Trucking 1/4 minus material to South end of site

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Monday, December 31, 2012



Photo 3 Property line and area needing 1/4 minus material to the South



Photo 4 View from the trailer of Northern portion of the site.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Amy Hoffmann
Weather: 22F, overcast to sun
68%, 30.14" steady
Wind: NNW 3 mph
Date: Wednesday, January 02, 2013

Personnel On Site

<u>Name and Affiliation</u>	<u>Name and Affiliation</u>
<u>Ron Snider - American</u>	<u>Amy Hoffmann- Roux</u>
<u>Ken Brown-American</u>	<u>Jordanna Kendrot- Roux</u>
<u>Rob Kearns - American</u>	<u></u>
<u>Omar Hernandez - American</u>	<u></u>
<u>John Clemente- American</u>	<u></u>
<u>Ray Rivera- American</u>	<u></u>
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Equipment On Site

<u>American</u>		<u>Roux</u>
<u>Excavator</u>	<u></u>	<u>CAMP air monitors</u>
<u>Backhoe</u>	<u></u>	<u>5-gas Meter</u>
<u>Front End Loader</u>	<u></u>	<u></u>
<u>Bulldozer (2)</u>	<u></u>	<u></u>
<u>Frac Tank</u>	<u></u>	<u></u>
<u>Generator</u>	<u></u>	<u></u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Wednesday, January 02, 2013

Description of Work Performed:

Receive multiple loads of 1/4 minus material to be spread South
Continue establishing grade of 1/4 minus material on Southern portion
Demob front end loader and small dozer

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- Front end loader
- Small Dozer

Material Delivered To Site:

- (39) loads of 1/4 minus arrived onsite via tri-axle trucks for total 874.24 tons

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling conducted

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- Continue spreading material to grade on Southern portion of the site
- Continue trucking 1/4 minus material into site
- Begin spreading topsoil throughout Northern portion of the site

Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Wednesday, January 02, 2013



Photo 1 Moving topsoil stockpiles



Photo 2 Spreading 1/4 minus material to the South

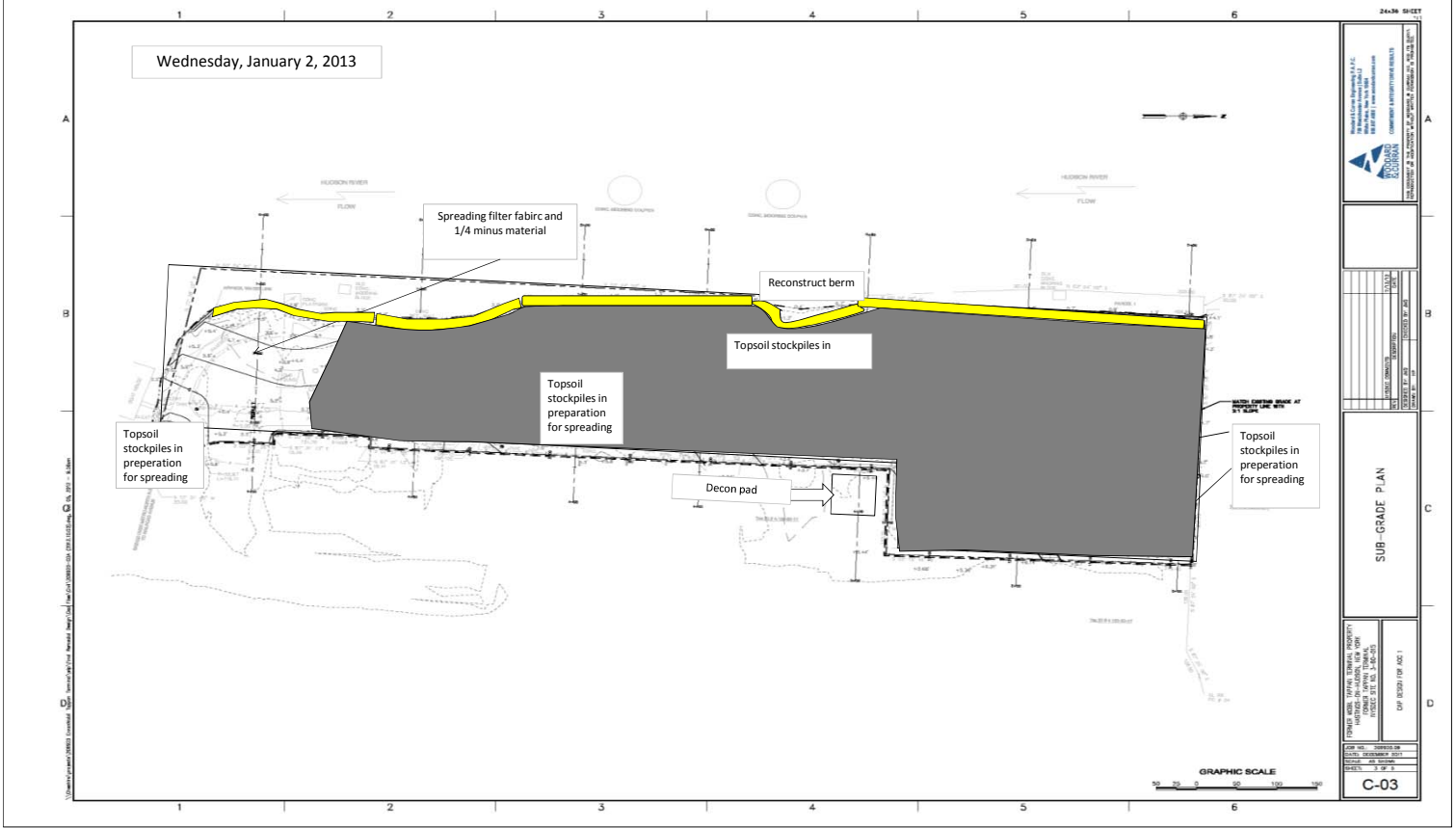
ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Wednesday, January 02, 2013



Photo 3 Eastern property line



ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Amy Hoffmann
Weather: 19F 75% 30.31"
overcast, steady
Wind: N @ 2 mph
Date: Thursday, January 03, 2013

Personnel On Site

<u>Name and Affiliation</u>
<u>Ron Snider - American</u>
<u>Ken Brown-American</u>
<u>Raphael Canales - American</u>
<u>Omar Hernandez - American</u>
<u>John Clemente- American</u>
<u>Ray Rivera- American</u>
<u>Louis- American</u>
<u>Hector -American</u>
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<u>Name and Affiliation</u>
<u>Amy Hoffmann- Roux</u>
<u>Jordanna Kendrot- Roux</u>
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Equipment On Site

<u>American</u>
<u>Excavator</u>
<u>Backhoe</u>
<u>Bulldozer</u>
<u>Frac Tank</u>
<u>Generator</u>
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<u>CAMP air monitors</u>
<u>5-gas Meter</u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Thursday, January 03, 2013

Description of Work Performed:

Accept multiple loads of 1/4 minus material to be spread South
Continue establishing grade of 1/4 minus material on Southern portion
Installation and connection of concrete steel well casings throughout site
Spreading of top soil to dry out before grading
Arcadis onsite to drill two more wells in Northern section of site

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- (43) loads of 1/4 minus arrived onsite via tri-axle trucks for total 980.75 tons

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling conducted

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- Continue spreading material to grade on Southern portion of the site
- Finish berm to grade
- Begin spreading topsoil throughout Northern portion of the site
- Rework roadway

Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Thursday, January 03, 2013



Photo 1 Filter fabric in preparation for 1/4 minus material



Photo 2 1/4 minus material extent looking North

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Thursday, January 03, 2013



Photo 3 Top soil stock pile to South



Photo 4 Grading top soil to the North

Thursday, January 3, 2013

24x36 SHEET

Woodward & Curran Engineering P.A.C.
700 Westchester Avenue, Suite L2
White Plains, New York 10604
(914) 261-2800 | www.woodwardcurran.com



COMMITMENT & INTEGRITY DRIVE RESULTS

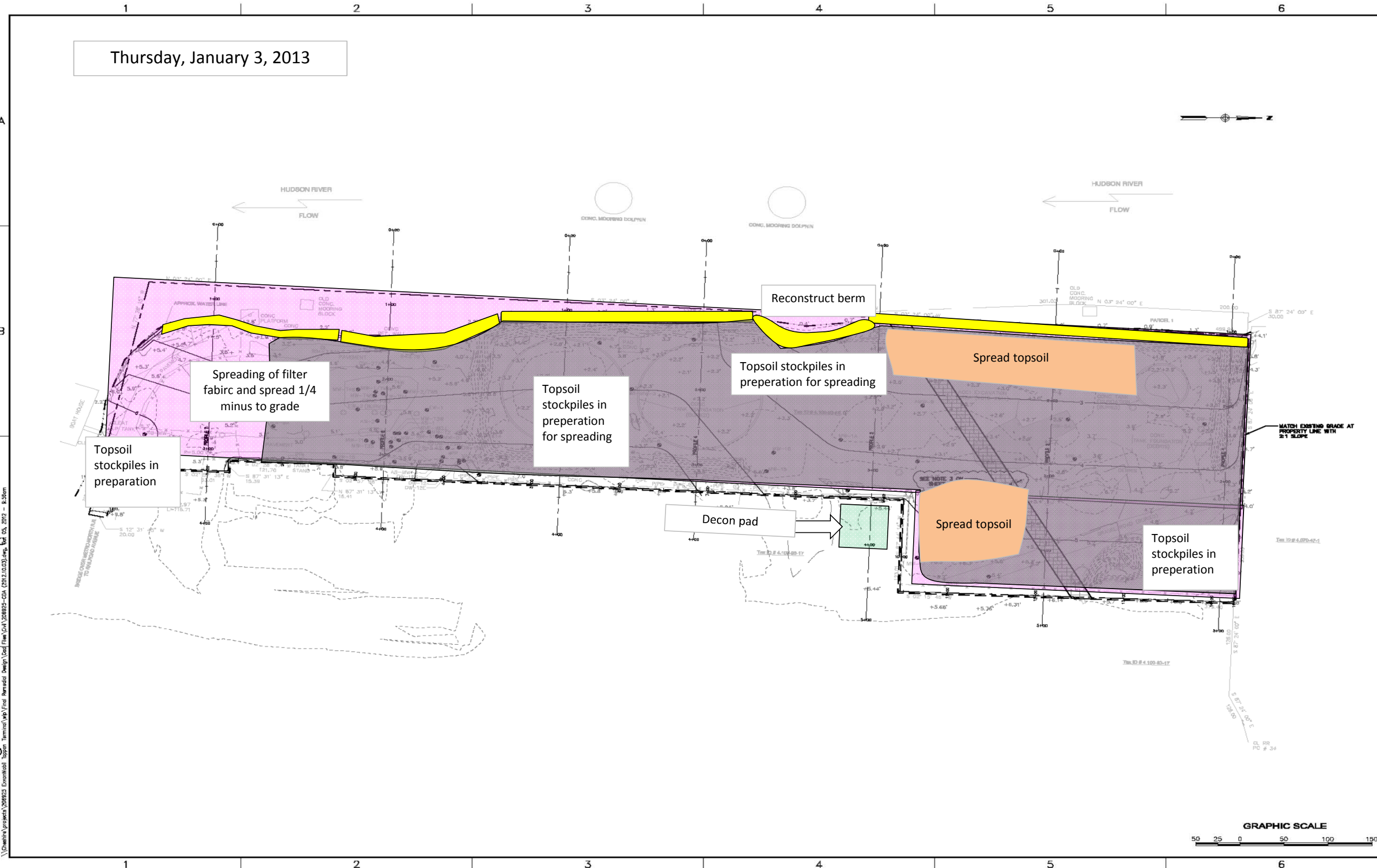
REV	DESCRIPTION	DATE
1	ISSUED FOR PERMIT	7/15/12
2	ISSUED FOR CONSTRUCTION	7/15/12
3	ISSUED FOR AS-BUILT	7/15/12

SUB-GRADE PLAN

FORMER MOBIL TAPPAN TERMINAL PROPERTY
HASTINGS-ON-HUDSON, NEW YORK
FORMER TAPPAN TERMINAL
RISPEC SITE NO. 3-00-015

JOB NO.: 2009250.08
DATE: DECEMBER 2011
SCALE: AS SHOWN
SHEET: 3 OF 5

C-03



ROUX ASSOCIATES, INC.

Client: ExxonMobil Oil Corporation

Location: 1 Railroad Avenue, Hastings-on-Hudson, NY

Project Number: 017.0151Y012

Job: Soil Cap for AOC1

Field Representative: Tracy Bispham

Weather: 30F 68% 30.17"

Overcast/cloudy

Wind: S @ 3 mph

Date: Friday, January 04, 2013

Personnel On Site

Name and Affiliation

John Clemente - American

Ken Brown-American

Omar Hernandez - American

Name and Affiliation

Tracy Bispham- Roux

Jordanna Kendrot- Roux

Noelle Clarke- Roux

Equipment On Site

American

Excavator

Backhoe

Bulldozer

Frac Tank

Generator

Roux

CAMP air monitors

5-gas Meter

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Friday, January 04, 2013

Description of Work Performed:

Received multiple loads of item 4 material to be finish roadway

Grading of topsoil throughout site to the North

Weekly meeting between Roux and other contractors (ExxonMobil, Woddard&Curran, DEC, etc.)

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- (7) loads of item 4 arrived onsite for total 168.6 tons

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling conducted

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

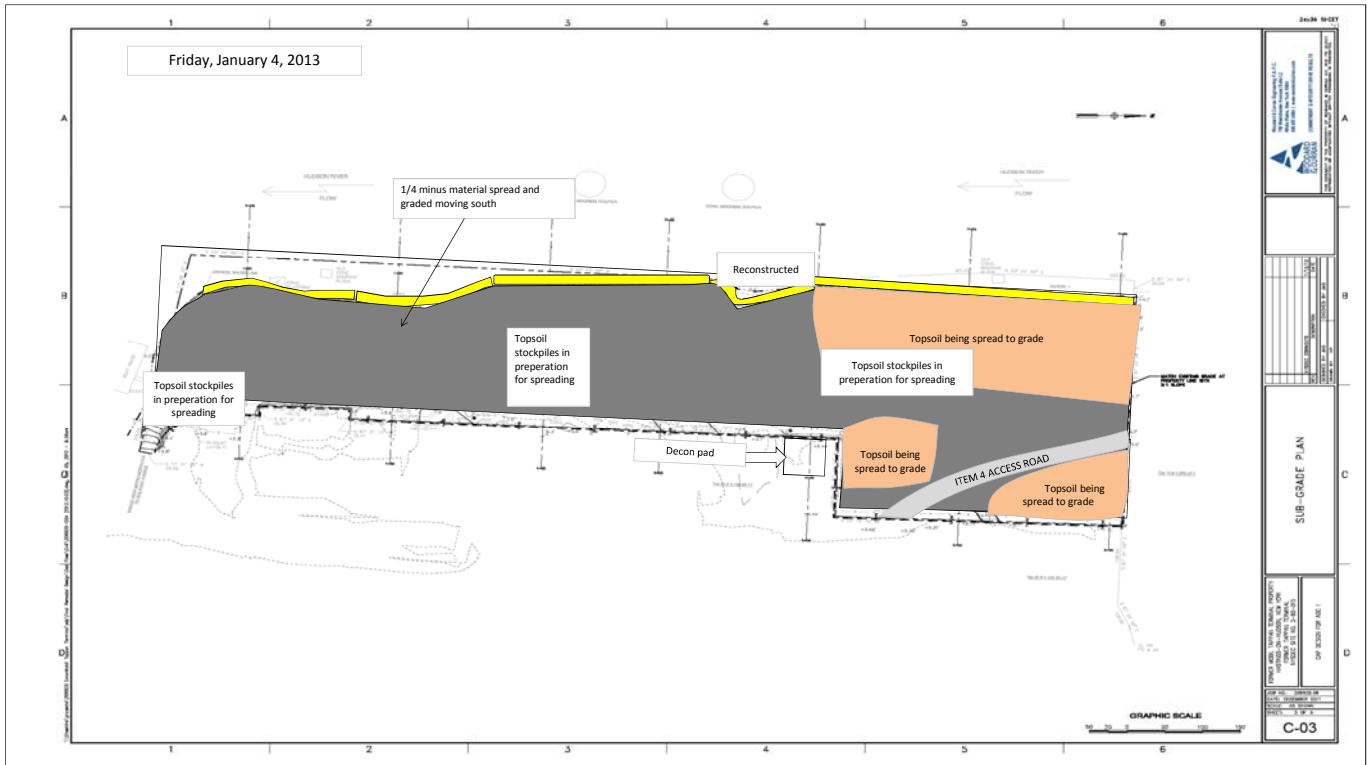
Description of Upcoming Work Activities:

- Continue spreading top soil material to grade on Northern portion of the site

- Survey and finish berm to grade

- Rework roadway

Reviewed by (initials): TB



ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Amy Hoffmann
Weather: 34F 62% 30.28"
overcast, steady
Wind: S @ 2 mph
Date: Saturday, January 05, 2013

Personnel On Site

<u>Name and Affiliation</u>	<u>Name and Affiliation</u>
<u>Ron Snider - American</u>	<u>Amy Hoffmann- Roux</u>
<u>Ken Brown-American</u>	<u>Jordanna Kendrot- Roux</u>
<u>Omar Hernandez - American</u>	
<u>Doug Mitchell- Angle of Attack</u>	
<u>Anne P- Angle of Attack</u>	

Equipment On Site

<u>American</u>		<u>Roux</u>
<u>Excavator</u>		<u>CAMP air monitors</u>
<u>Backhoe</u>		<u>5-gas Meter</u>
<u>Bulldozer</u>		
<u>Frac Tank</u>		
<u>Generator</u>		

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Saturday, January 05, 2013

Description of Work Performed:

Set more grade stakes for fill and berm elevations throughout the site

Continue to grade top soil throughout the Northern portion of the site

Rework roadway with item 4 and roll for compaction

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- No material delivered the site

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling conducted

CAMP Performed (Note any exceedances or issues with the equipment):

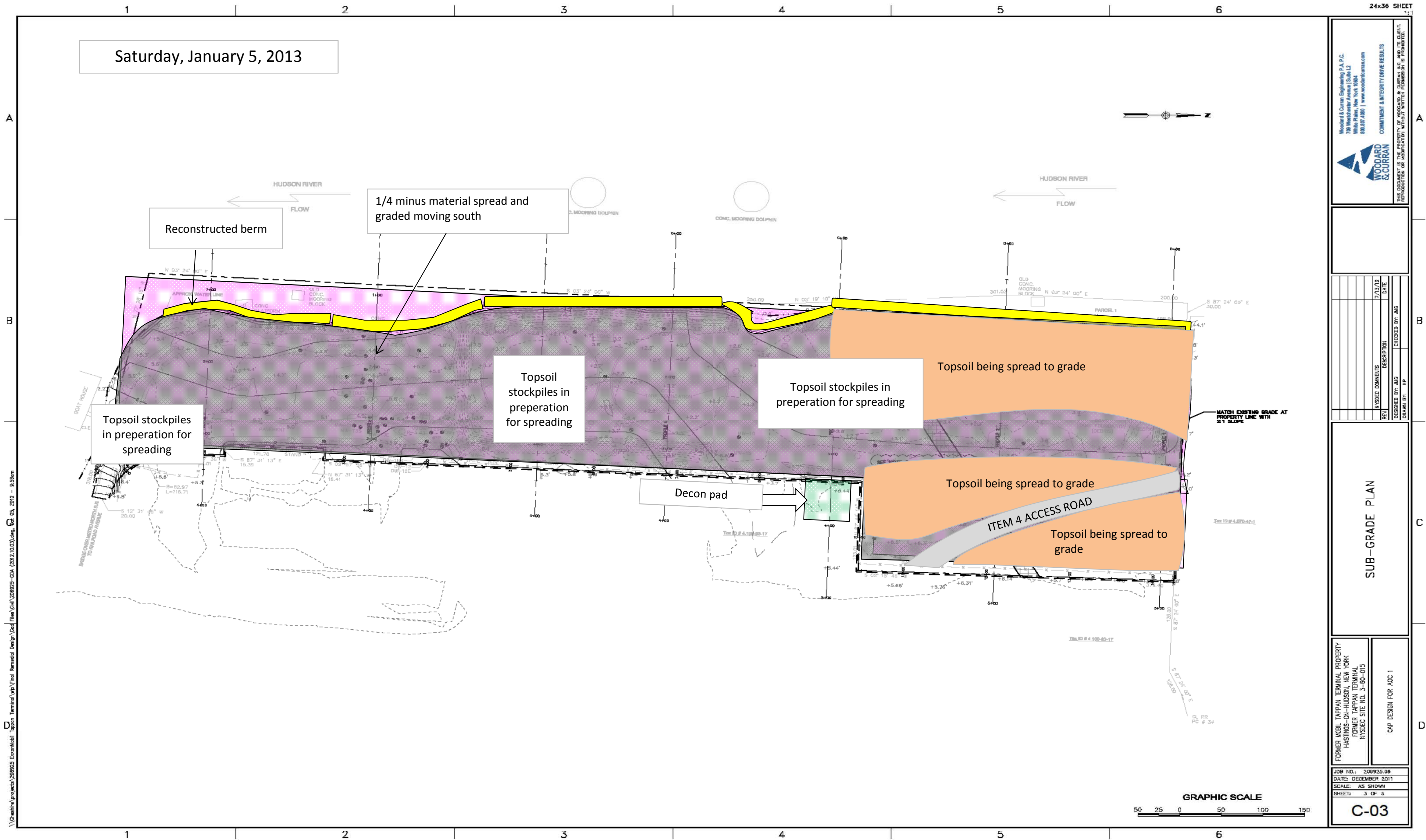
- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- Continue grading top soil along site

- Rework berm to established final elevations

- Repair access roadway



ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Saturday, January 05, 2013



Photo 1 Top soil material spread to grade to the North



Photo 2 Moving of stockpiles to dry in prep for grading work.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Saturday, January 05, 2013



Photo 3 New roadway constructed of item 4 completed and rolled.



Photo 4 Grading topsoil to the North at the beginning of work day.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Amy Hoffmann
Weather: 38F 73% 30.32"
Overcast, steady
Wind: NNW @ 2 mph
Date: Monday, January 07, 2013

Personnel On Site

<u>Name and Affiliation</u>	<u>Name and Affiliation</u>
<u>Ron Snider - American</u>	<u>Amy Hoffmann- Roux</u>
<u>Ken Brown-American</u>	<u>Jordanna Kendrot- Roux</u>
<u>Omar Hernandez - American</u>	<u></u>
<u>Ray Rivera - American</u>	<u></u>
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Equipment On Site

<u>American</u>		<u>Roux</u>
<u>Excavator</u>	<u></u>	<u>CAMP air monitors</u>
<u>Backhoe</u>	<u></u>	<u>5-gas Meter</u>
<u>Bulldozer</u>	<u></u>	<u></u>
<u>Frac Tank</u>	<u></u>	<u></u>
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Reveiwed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Monday, January 07, 2013

Description of Work Performed:

Grade top soil to throughout site, starting in North
Begin soil choking in berm around cove and North
Alter areas of the berm to reach final elevation of 6'
Removal of decon pad

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- Tamper, roller and water truck

Material Delivered To Site:

- No material delivered the site

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling conducted

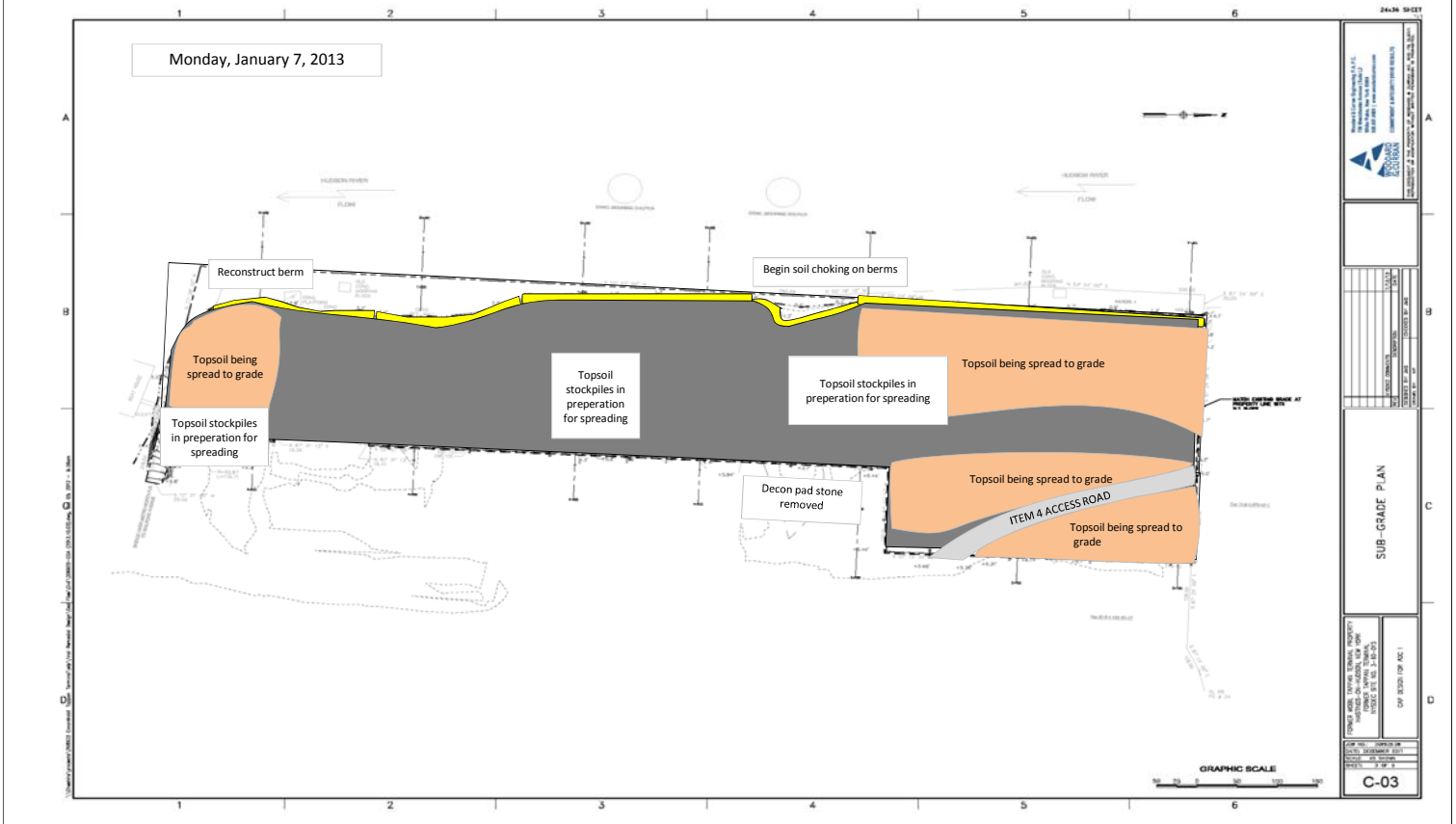
CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- Continue grading top soil along site
- Rework berm to established final elevations
- Repair ARCO access roadway

Reviewed by (initials): TB



ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Monday, January 07, 2013



Photo 1 Graded topsoil to the North for the completed roadway.



Photo 2 Placing top soil between wells/bollards to the South

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Monday, January 07, 2013



Photo 3 Graded topsoil to the South

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Amy Hoffmann
 Weather: 39F 67% 30.53"
Clear, steady
 Wind: S @ 4 mph
 Date: Tuesday, January 08, 2013

Personnel On Site

[illegible][illegible]

Equipment On Site

American
Excavator
Backhoe
Bulldozer
Frac Tank
Generator

[illegible][illegible]

Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Tuesday, January 08, 2013

Description of Work Performed:

Grade top soil throughout site.
Continue choking berms to the North
Repair ARCO access roadway
Fill in topsoil around bollards and wells located in the South and North
Inspect and repair berm against grade sticks

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- No material delivered the site

Material Removed From Site:

- No material removed from site

Sampling Performed:

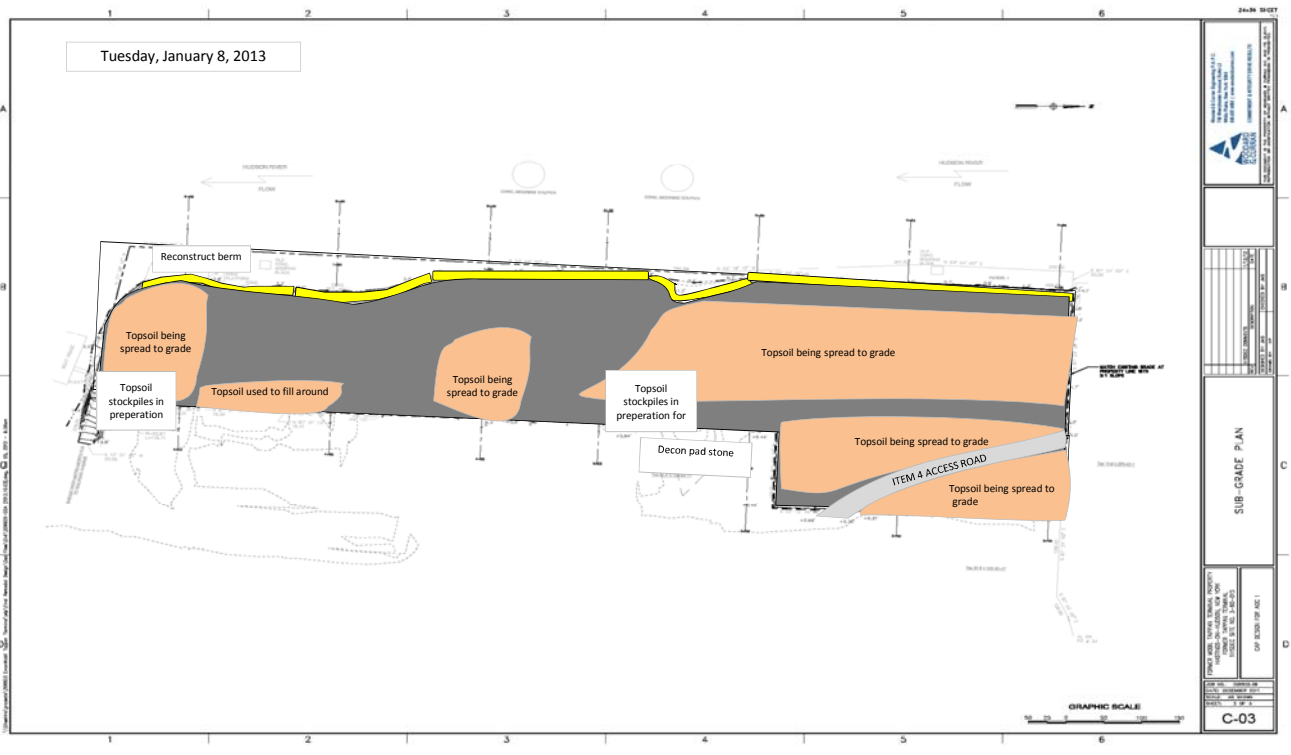
- No sampling conducted

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- Continue grading top soil along site
- Rework berm to established final elevations
- Soil choking of berms



**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Tuesday, January 08, 2013



Photo 1 Grading top soil to the North of quarter minus access road.



Photo 2 Extent of top soil that has been graded; approx. third of site.

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Tuesday, January 08, 2013



Photo 3 Looking South, where quarter minus has been graded.



Photo 4 Looking North, where topsoil is being moved South.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Amy Hoffmann
Weather: 31F 94% 30.49"
Clear to overcast/foggy
Wind: E @ 0 mph
Date: Wednesday, January 09, 2013

Personnel On Site

<u>Name and Affiliation</u>	<u>Name and Affiliation</u>
<u>Ron Snider - American</u>	<u>Amy Hoffmann- Roux</u>
<u>Ken Brown-American</u>	<u>Jordanna Kendrot- Roux</u>
<u>Omar Hernandez - American</u>	<u></u>
<u>Raphael Canales - American</u>	<u></u>
<u>Rob Kearns- American</u>	<u></u>
<u>Bob Barban- American</u>	<u></u>
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Equipment On Site

<u>American</u>		<u>Roux</u>
<u>Excavator</u>	<u></u>	<u>CAMP air monitors</u>
<u>Backhoe</u>	<u></u>	<u>5-gas Meter</u>
<u>Bulldozer</u>	<u></u>	<u></u>
<u>Frac Tank</u>	<u></u>	<u></u>
<u>Generator</u>	<u></u>	<u></u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Wednesday, January 09, 2013

Description of Work Performed:

Grade top soil throughout site
Add additional stone to berms to bring to grade
Continue soil choking
Bring SE corner of property to grade, lay filter fabric, and cover with material

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- Decon pad mats removed from site

Material Delivered To Site:

- (1) load of rip rap stone for berms delivered

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling conducted

CAMP Performed (Note any exceedances or issues with the equipment):

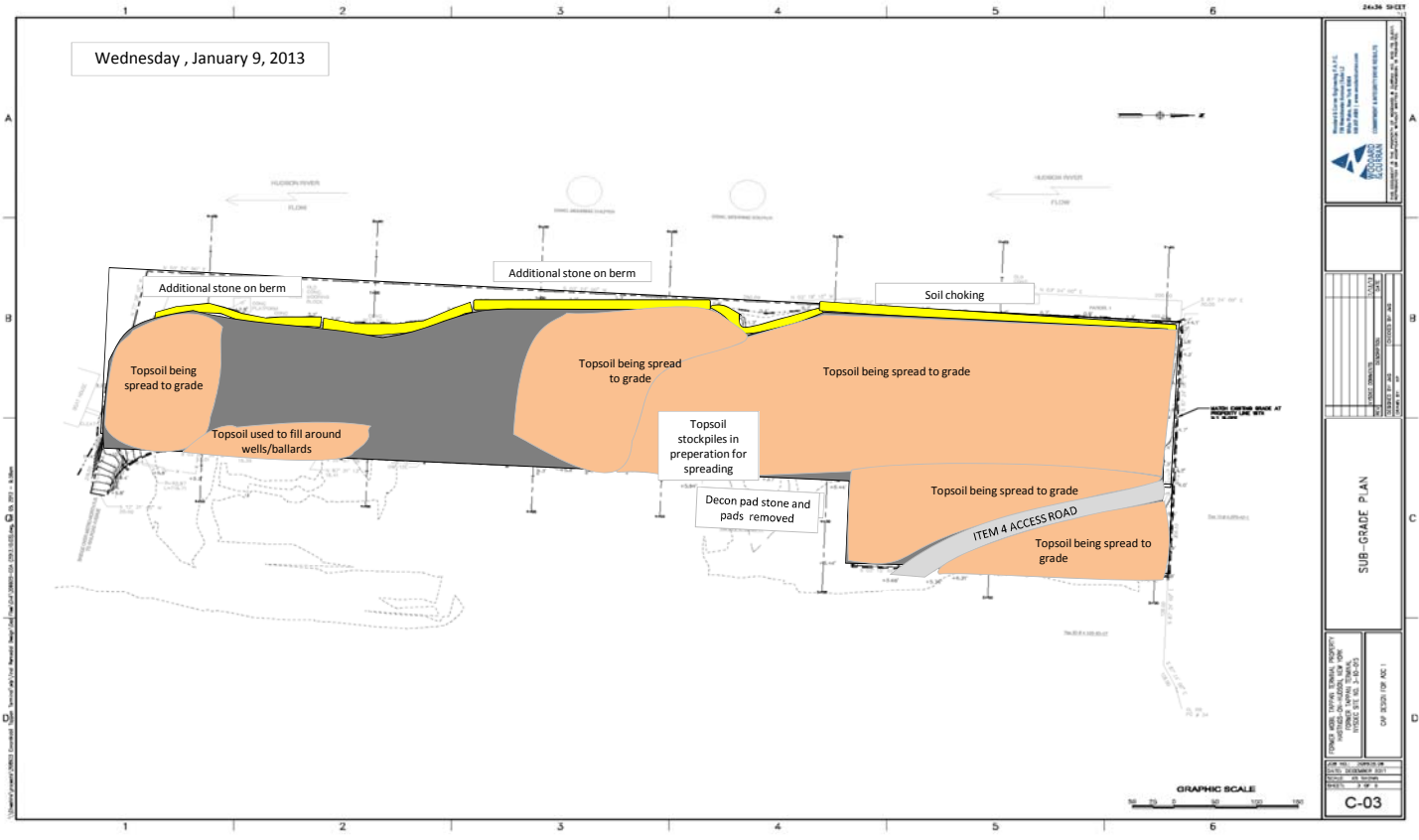
- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- Continue grading top soil along site
- Rework berm to established final elevations
- Soil choking of berms

Reviewed by (initials): TB

Wednesday, January 9, 2013



**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Wednesday, January 09, 2013



Photo 1 Northern area topsoil graded completely, no stockpiles.



Photo 2 Topsoil pushed to this point

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Wednesday, January 09, 2013



Photo 3 Soil choking in berm



Photo 4 Southern corner brought to grade

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Amy Hoffmann
Weather: 41F 60% 30.54"
Clear, steady
Wind: NNW @ 4 mph
Date: Thursday, January 10, 2013

Personnel On Site

<u>Name and Affiliation</u>	<u>Name and Affiliation</u>
<u>Ron Snider - American</u>	<u>Amy Hoffmann- Roux</u>
<u>Ken Brown-American</u>	<u>Jordanna Kendrot- Roux</u>
<u>Omar Hernandez - American</u>	<u> </u>
<u>Raphael Canales - American</u>	<u>Tracy Bispham- Roux</u>
<u> </u>	<u>Noelle Clarke- Roux</u>
<u>John Clemente- American (meeting only)</u>	<u> </u>
<u>Danny Hirshberger- American (meeting only)</u>	<u>Steve Trifiletti - ExxonMobil (site walk only)</u>
<u> </u>	<u> </u>
<u>Rob Benz- Benz trucking</u>	<u> </u>
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Equipment On Site

<u>American</u>	<u> </u>	<u>Roux</u>
<u>Excavator</u>	<u> </u>	<u>CAMP air monitors</u>
<u>Backhoe</u>	<u> </u>	<u>5-gas Meter</u>
<u>Bulldozer</u>	<u> </u>	<u> </u>
<u>Frac Tank</u>	<u> </u>	<u> </u>
<u>Generator</u>	<u> </u>	<u> </u>
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Reviewed by (initials): TB

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Date: Thursday, January 10, 2013

Description of Work Performed:

Continue to grade top soil throughout site

Continue soil choking

Weekly meeting

Silt fence installation to the South

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- No material delivered to the site

Material Removed From Site:

- No material removed from site

Sampling Performed:

- Top soil sent to Lancaster for approval (AGC-TSC1, AGC-TS1, AGC-TS2)

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

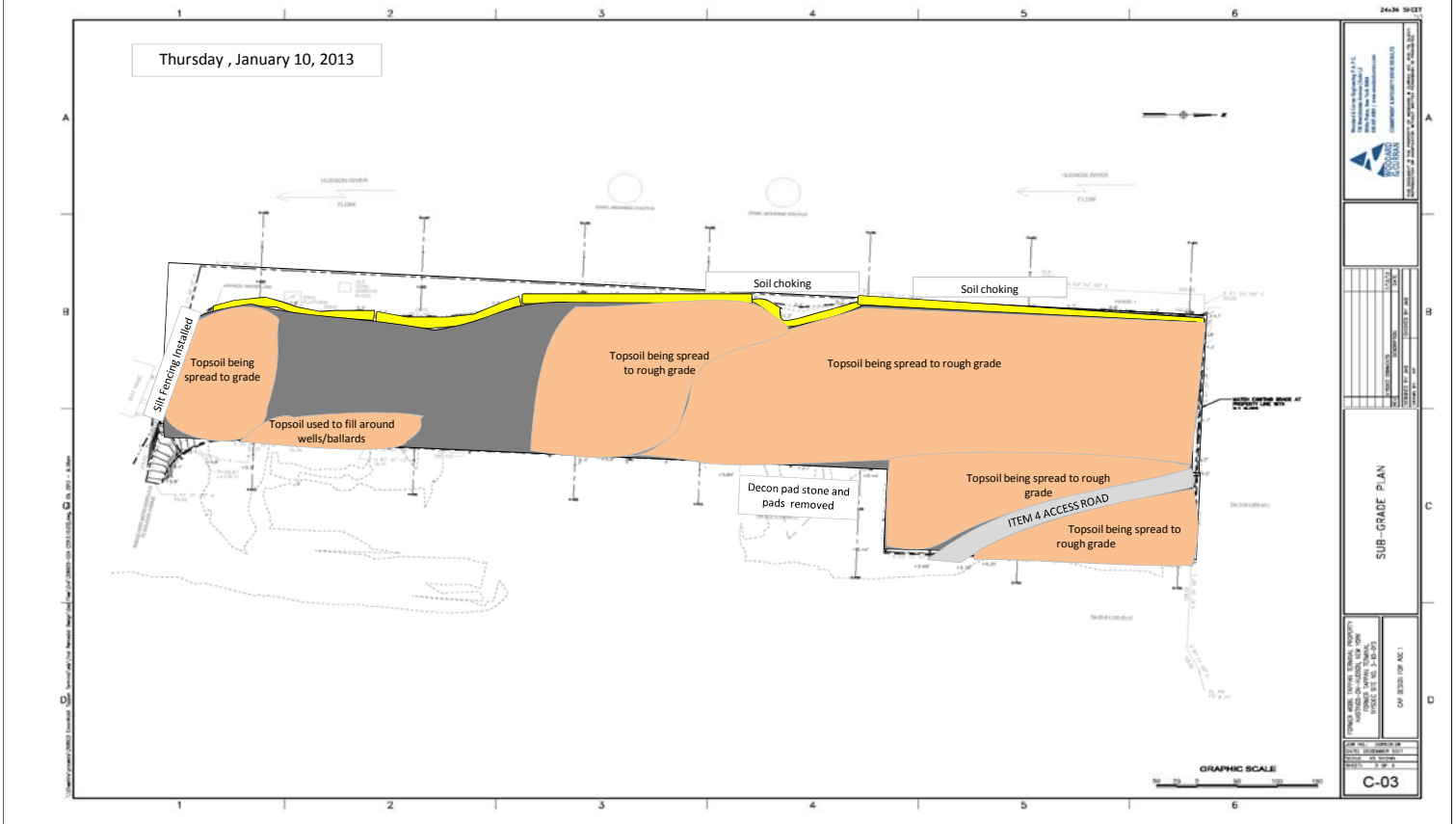
Description of Upcoming Work Activities:

- Continue grading top soil along site

- Rework berm to established final elevations

- Soil choking of berms

Reviewed by (initials): TB



**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Thursday, January 10, 2013



Photo 1 Extent of top soil looking North from endpoint.



Photo 2 Extent of top soil looking West, where topsoil spread has halted.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Thursday, January 10, 2013



Photo 3 Rough grade of topsoil to the North.



Photo 4 Rough grade of material located to the North.

DAILY FIELD ACTIVITY REPORT

Job: Soil Cap for AOC1

Date: Friday, January 11, 2013

Personnel On Site

[illegible][illegible]

Equipment On Site

[illegible][illegible]

Reviewed by (initials): TB

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Date: Friday, January 11, 2013

Description of Work Performed:

Finalize top soil grade on Northern portion

Continue working soil choking with rakes throughout berm

Level topsoil around wells

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- No material delivered to the site

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

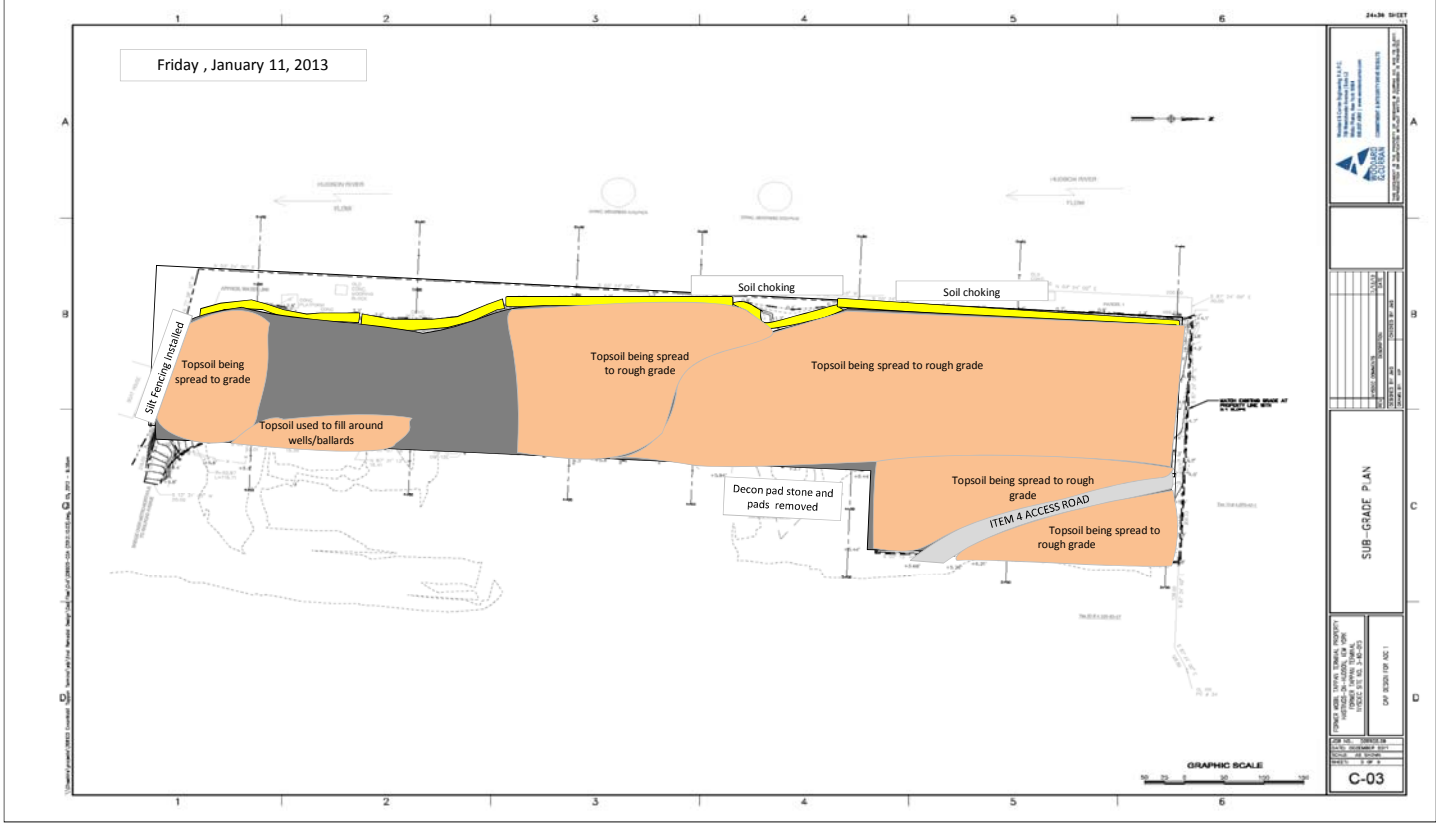
- Continue grading top soil along site

- Rework berm to established final elevations

- Soil choking of berms

- Till top soil for hydroseed application

Reviewed by (initials): TB



ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Friday, January 11, 2013



Photo 1 Silt fence installation along Southern extent.



Photo 2 End of topsoil looking North.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Friday, January 11, 2013



Photo 3 Northern most area graded



Photo 4 Middle area rough graded.

DAILY FIELD ACTIVITY REPORT

Job: Soil Cap for AOC1

Date: Saturday, January 12, 2013

Personnel On Site

Tracy Bispham - Roux

Equipment On Site

Page 1 of 5

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Date: Saturday, January 12, 2013

Description of Work Performed:

Verification of berm elevations

Reconstruction of southern berm elevation

Filter fabric repair to South

Repair of damaged fencing to South

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- No material delivered to the site

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP not required for the work performed.

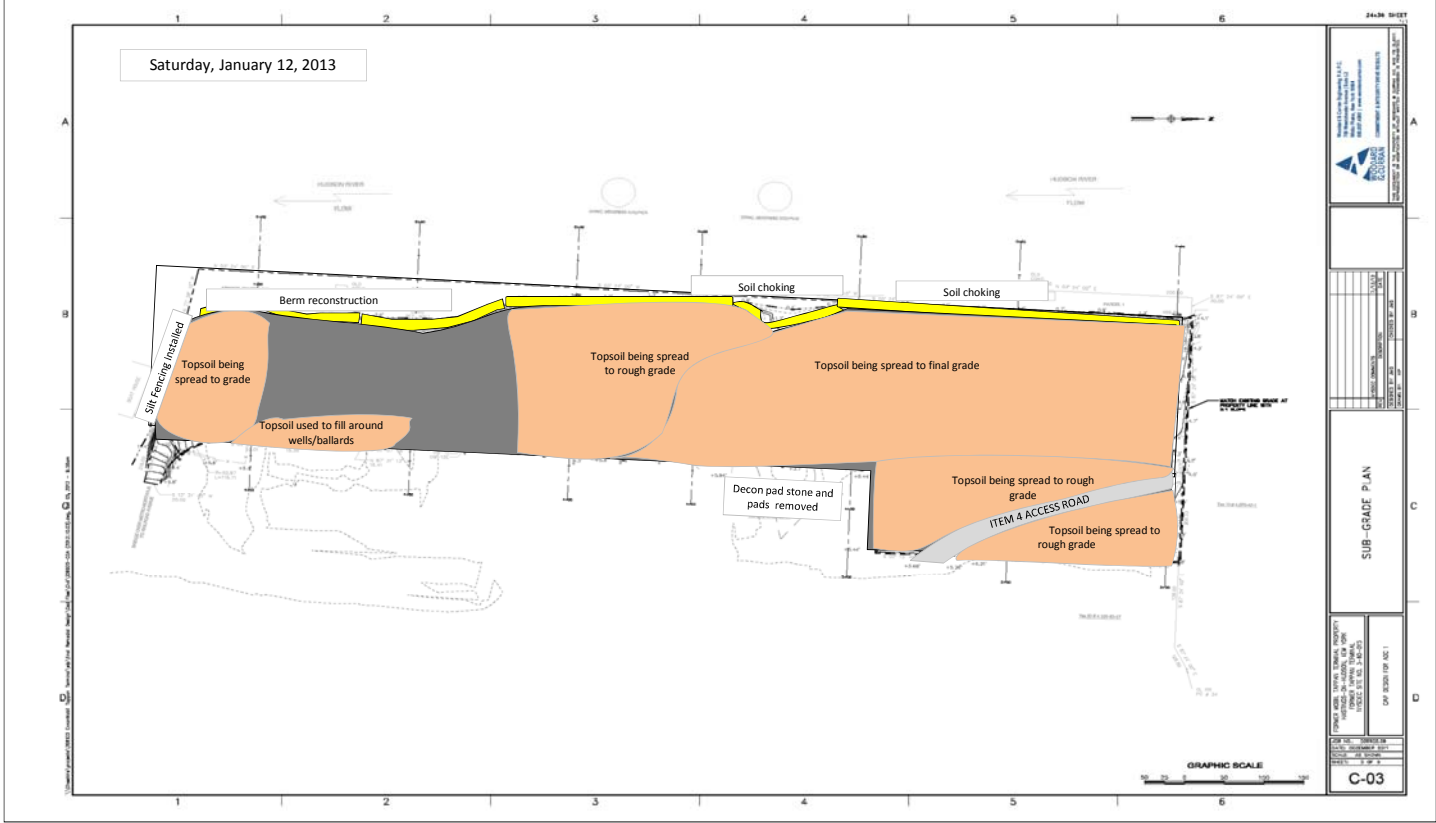
Description of Upcoming Work Activities:

- Continue grading top soil along site

- Soil choking of berms

- Till top soil for hydroseed application

Reviewed by (initials): TB



**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Saturday, January 12, 2013



Photo 1 Repair of fencing at the Southern extent.

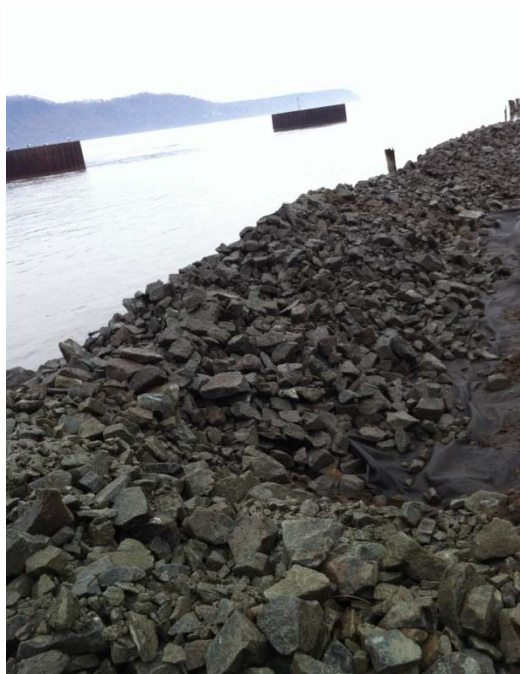


Photo 2 Completion of berm reconstruction to the South.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Saturday, January 12, 2013



Photo 3 Northern most area at final grade.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Tracy Bispham
Weather: 34F 89% 30.30"
Cloudy and overcast, steady
Wind: N @ 8 mph
Date: Tuesday, January 15, 2013

Personnel On Site

<u>Name and Affiliation</u>	<u>Name and Affiliation</u>
<u>Ken Brown-American</u>	<u>Tracy Bispham - Roux</u>
<u>Ron Snider - American</u>	<u>Jordanna Kendrot - Roux</u>
<u>Raphael Canales - American</u>	<u></u>
<u>Omar Hernandez - American</u>	<u></u>
<u>John Clemente - American</u>	<u></u>
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Equipment On Site

<u>American</u>		<u>Roux</u>
<u>Excavator</u>	<u></u>	<u>CAMP air monitors</u>
<u>Backhoe</u>	<u></u>	<u>5-gas Meter</u>
<u>Bulldozer</u>	<u></u>	<u></u>
<u>Frac Tank</u>	<u></u>	<u></u>
<u>Generator</u>	<u></u>	<u></u>
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Reviewed by (initials): TB

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Date: Tuesday, January 15, 2013

Description of Work Performed:

Verification of berm elevations

Reconstruction of southern berm -

- Construction of new berm is: 1/4 minus material to elevation 4, wrapped with filter fabric and covered with 2 ft of 3-8 inch stone

Filter fabric repair to South

Repair of damaged fencing to South

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- No material delivered to the site

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- Continue grading top soil along site
- Soil choking of berms
- Till top soil for hydroseed application
- Installation of fencing

Reviewed by (initials): TB

[illegible]

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Tuesday, January 15, 2013



Photo 1 Repair of fencing at the Southern extent.



Photo 2 Reconstruction of Southern berm.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Tuesday, January 15, 2013



Photo 3 Northern most area at final grade.

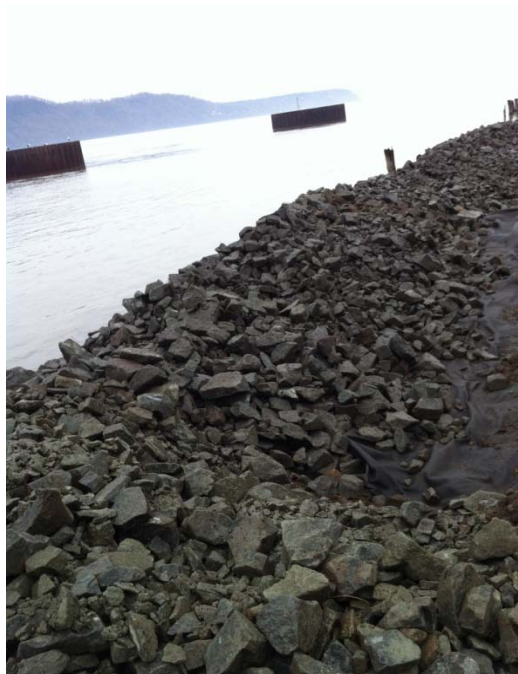


Photo 4 Completion of berm reconstruction to the South.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Tracy Bispham
Weather: 31F 96% 30.08"
Light rain and sleet, falling
Wind: N @ 5 mph
Date: Wednesday, January 16, 2013

Personnel On Site

<u>Name and Affiliation</u>
<u>Seth - American</u>
<u>Ron Snider - American</u>
<u>Raphael Canales - American</u>
<u>Omar Hernandez - American</u>
<u>John Clemente - American</u>
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<u>Antonio - Central Industries (Fence sub-contractor)</u>
<u>2 Laborers - Central Industries</u>
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<u>Doug Mitchell- Angle of Attack</u>
<u>Anne P- Angle of Attack</u>
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<u>Name and Affiliation</u>
<u>Tracy Bispham - Roux</u>
<u>Michele Abbene - Roux</u>
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Equipment On Site

<u>American</u>
<u>Excavator</u>
<u>Backhoe</u>
<u>Bulldozer</u>
<u>Frac Tank</u>
<u>Generator</u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Wednesday, January 16, 2013

Description of Work Performed:

Verification of berm elevations with surveyor

Installation of permanent fencing to the South

Equipment Delivered To Site:

- Skid steer tiller delivered onsite

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- No material delivered to the site

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- Continue grading top soil along site

- Soil choking of berms

- Till top soil for hydroseed application

- Measurement for additional top soil purchase

- Fence sub-contractors onsite to complete fencing job (2-day job)

Reviewed by (initials): TB

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Wednesday, January 16, 2013



Photo 1 Skid steer (tiller) mobilized onsite.



Photo 2 Construction of permanent fencing to the South.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Wednesday, January 16, 2013



Photo 3 View from the East, across the North section of the site.



Photo 4 Installation of posts for fence in concrete.

DAILY FIELD ACTIVITY REPORT

Job: Soil Cap for AOC1

Date: Thursday, January 17, 2013

Personnel On Site

Equipment On Site

Page 11

Reviewed by (initials): TB

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Date: Thursday, January 17, 2013

Description of Work Performed:

Measurement of uncovered site to determine additional top soil needed

Verification of final berm elevation to the South

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- No material delivered to the site

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

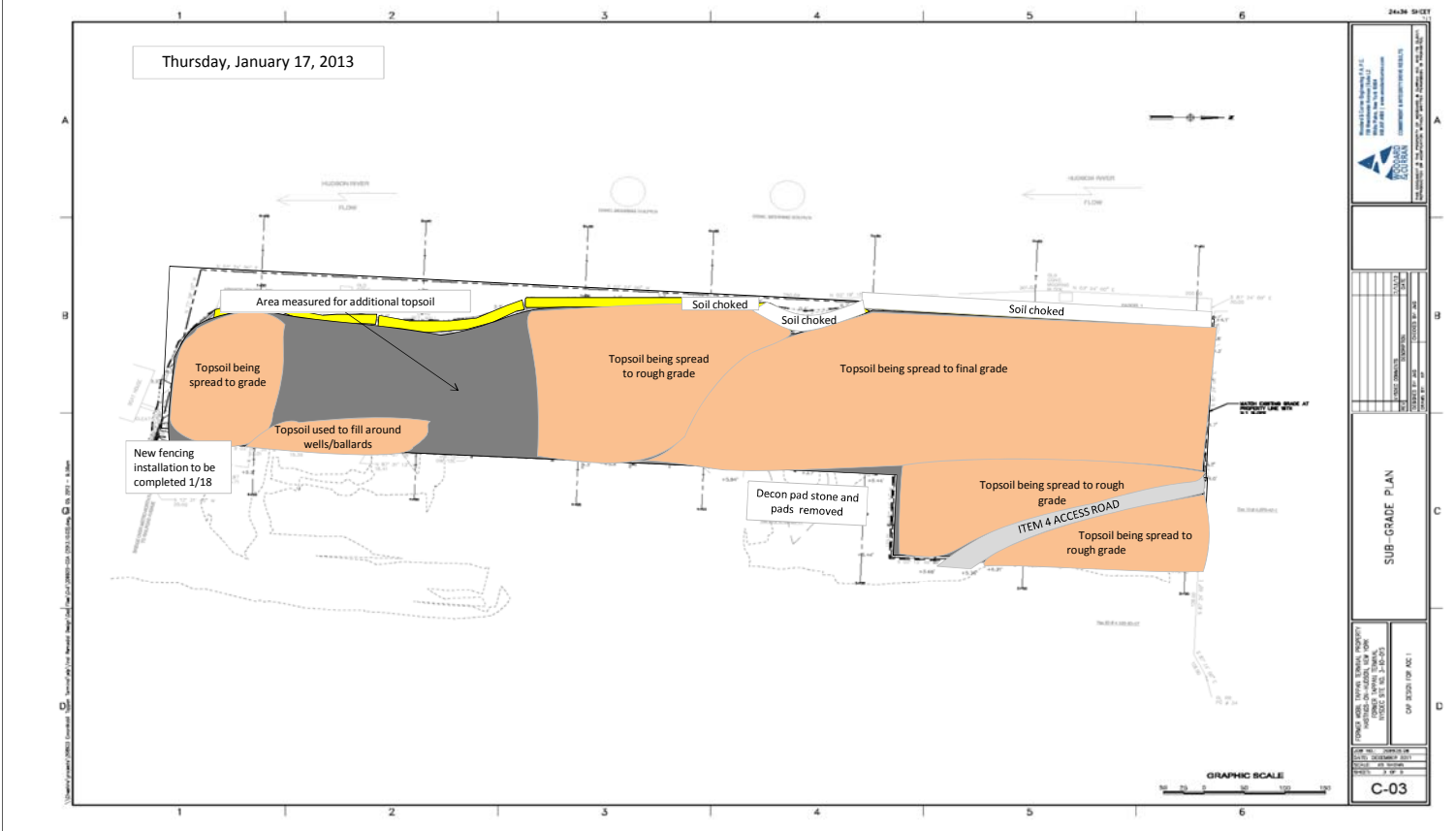
- Order additional topsoil to cover rest fo site

- Soil choking of berms

- Till top soil in North for hydroseed application

- Fence sub-contractors onsite to complete fencing job tomorrow

Reviewed by (initials): TB



**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Thursday, January 17, 2013



Photo 1 Completed berm mid-site.



Photo 2 Quarter minus at final grade without topsoil.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Thursday, January 17, 2013



Photo 3 Unchoked berm at final elevation.



Photo 4 Berm to the South at the final, verified elevation.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Tracy Bispham
Weather: 25F 65% 30.36"
Sunny with clouds, rising
Wind: N @ 2 mph
Date: Friday, January 18, 2013

Personnel On Site

<u>Name and Affiliation</u>
<u>Ron Snider - American</u>
<u>Ken Brown - American</u>
<u>Omar Hernandez - American</u>
<u>John Clemente - American</u>
<u> </u>
<u>Antonio - Central Industries (Fence sub-contractor)</u>
<u>1 Laborer - Central Industries</u>
<u> </u>
<u>3 Trucks - Benz Trucking (American sub-contractor)</u>
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<u>Name and Affiliation</u>
<u>Tracy Bispham - Roux</u>
<u>Jordanna Kendrot - Roux</u>
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Equipment On Site

<u>American</u>
<u>Excavator</u>
<u>Backhoe</u>
<u>Bulldozer</u>
<u>Frac Tank</u>
<u>Generator</u>
<u>Skid Steer (Tiller)</u>
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Reviewed by (initials): TB

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Date: Friday, January 18, 2013

Description of Work Performed:

Completion of fencing to the South by fence sub-contractor

Move Port of Coeyman material from mid-site closer to the berm

Receive approx. 300 cu yards of material from Amodio's Garden Center, Nursery & Flower Shop

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- (14) loads by Benz Trucking of top soil (280 cu yds)

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

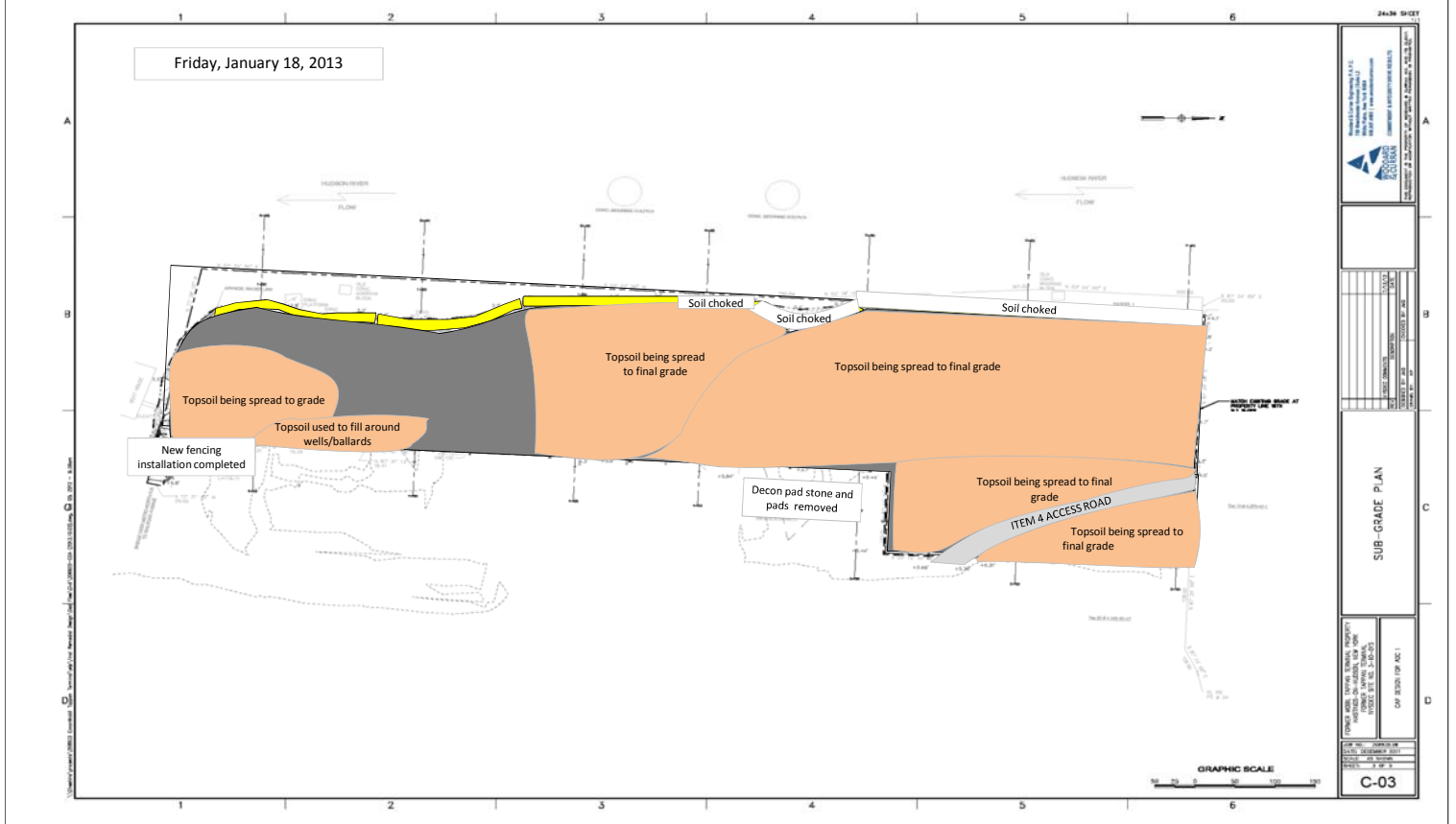
- Continued soil choking of berms

- Move new topsoil to South end of site

- Till top soil to North for future hydroseed application

- Continued delivery of additional topsoil as needed

Reviewed by (initials): TB



**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Friday, January 18, 2013



Photo 1 Completion of fencing to the South of site.



Photo 2 Offloading of Amodio's material on top of final grade quarter minus.

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Friday, January 18, 2013



Photo 3 Silt fencing still in place to the South.



Photo 4 Amodio's material could not be used within 50' of berm. Additional Port of Coeyman topsoil ordered.

DAILY FIELD ACTIVITY REPORT

Job: Soil Cap for AOC1

Date: Saturday, January 19, 2013

Personnel On Site

Jordanna Kendrot - Roux

Equipment On Site

5-gas Meter

Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Saturday, January 19, 2013

Description of Work Performed:

Move Port of Coeyman material from mid-site closer to the berm

Receive approx. 300 cu yards of material from Amodio's Garden Center, Nursery & Flower Shop

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- (14) loads by Benz Trucking of top soil (280 cu yds)

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- Continued soil choking of berms

- Move new topsoil to South end of site

- Till top soil to North for future hydroseed application

- Continued delivery of additional topsoil as needed

- Schedule pickup of box filled with scrap metal

Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Saturday, January 19, 2013



Photo 1 Completed North with choking and final grade topsoil.



Photo 2 Topsoil around wells and ballards.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Saturday, January 19, 2013



Photo 3: Quarter minus road used by Benze trucking to dump topsoil onto site.



Photo 4 Amodio's material could not be used within 50' of berm. Additional Port of Coeyman topsoil ordered.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Tracy Bispham
Weather: 27F 55% 30.19"
Sunny with heavy clouds, steady
Wind: SSW @ 1 mph
Date: Monday, January 21, 2013

Personnel On Site

<u>Name and Affiliation</u>	<u>Name and Affiliation</u>
<u>Omar Hernandez - American</u>	<u>Tracy Bispham - Roux</u>
<u>Ken Brown - American</u>	<u>Jordanna Kendrot - Roux</u>
<u>Ron Snider - American</u>	
<u>John Clemente - American</u>	
<u>3 Trucks - Benz Trucking (American sub-contractor)</u>	

Equipment On Site

<u>American</u>		<u>Roux</u>
<u>Excavator</u>		<u>CAMP air monitors</u>
<u>Backhoe</u>		<u>5-gas Meter</u>
<u>Bulldozer</u>		
<u>Frac Tank</u>		
<u>Generator</u>		
<u>Skid Steer (Tiller)</u>		

Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Monday, January 21, 2013

Description of Work Performed:

Move Port of Coeyman material from mid-site closer to the berm

Receive material from Amodio's Garden Center, Nursery & Flower Shop

Pickup of box with scrap steel

Equipment Delivered To Site:

- Exchange of skid steer tiller with same make/model that has a cabin to protect operator from cold

Equipment Removed From Site:

- Air monitoring equipment (MiniRae 2000 PID x2)

- MultiRae 5-gas monitoring meter

- Skid steer till (bobcat) without closed cabin

Material Delivered To Site:

- (15) loads by Benz Trucking of top soil (312 cu yds)

Material Removed From Site:

- Box filled with scrap steel

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- Continued soil choking of berms

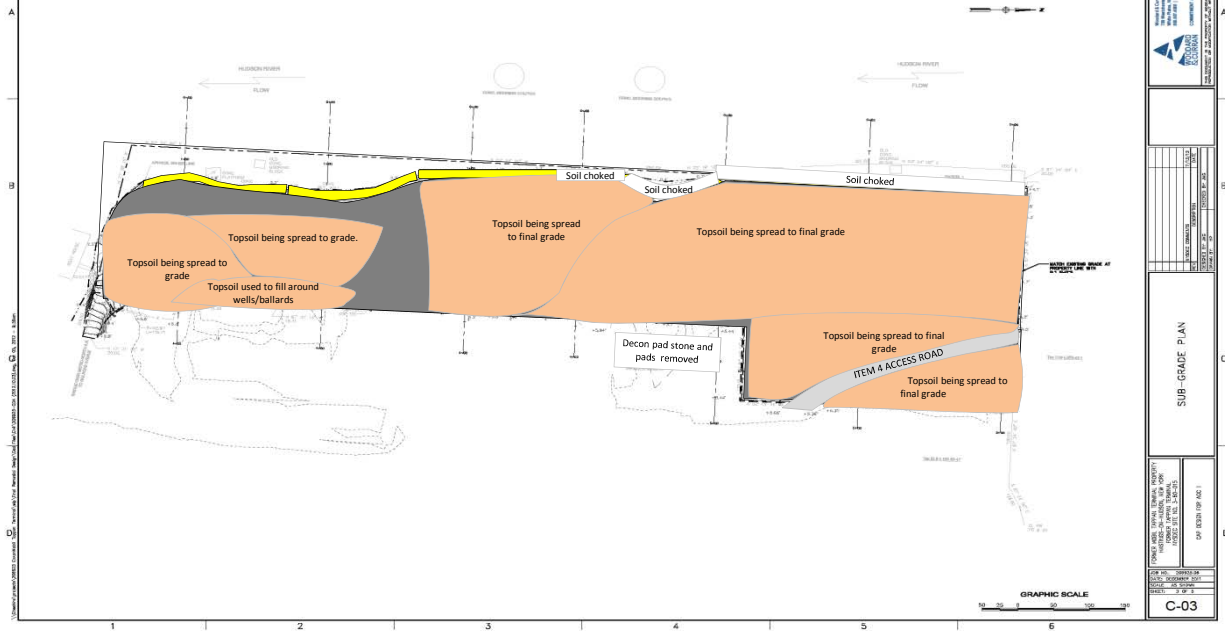
- Move new topsoil to South end of site

- Till top soil to North for future hydroseed application

- Continued delivery of additional topsoil as needed

Reviewed by (initials): TB

Monday, January 21, 2013



ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Tracy Bispham
Weather: 21F 55% 30.10"
Sunny with clouds, rising
Wind: N @ 5 mph
Date: Tuesday, January 22, 2013

Personnel On Site

<u>Name and Affiliation</u>
<u>Omar Hernandez - American</u>
<u>Ken Brown - American</u>
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<u>2 Trucks - Benz Trucking (American sub-contractor)</u>
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<u>Name and Affiliation</u>
<u>Tracy Bispham - Roux</u>
<u>Jordanna Kendrot - Roux</u>
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Equipment On Site

<u>American</u>
<u>Excavator</u>
<u>Backhoe</u>
<u>Bulldozer</u>
<u>Frac Tank</u>
<u>Generator</u>
<u>Skid Steer (Tiller)</u>
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<u>Roux</u>
<u>CAMP air monitors (dust only)</u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Tuesday, January 22, 2013

Description of Work Performed:

Move Port of Coeyman material from mid-site closer to the berm

Receive material from Amodio's Garden Center, Nursery & Flower Shop

Spread material across site, maintaining 50' distance from berm

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- (6) loads by Benz Trucking of top soil (120 cu yds)

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

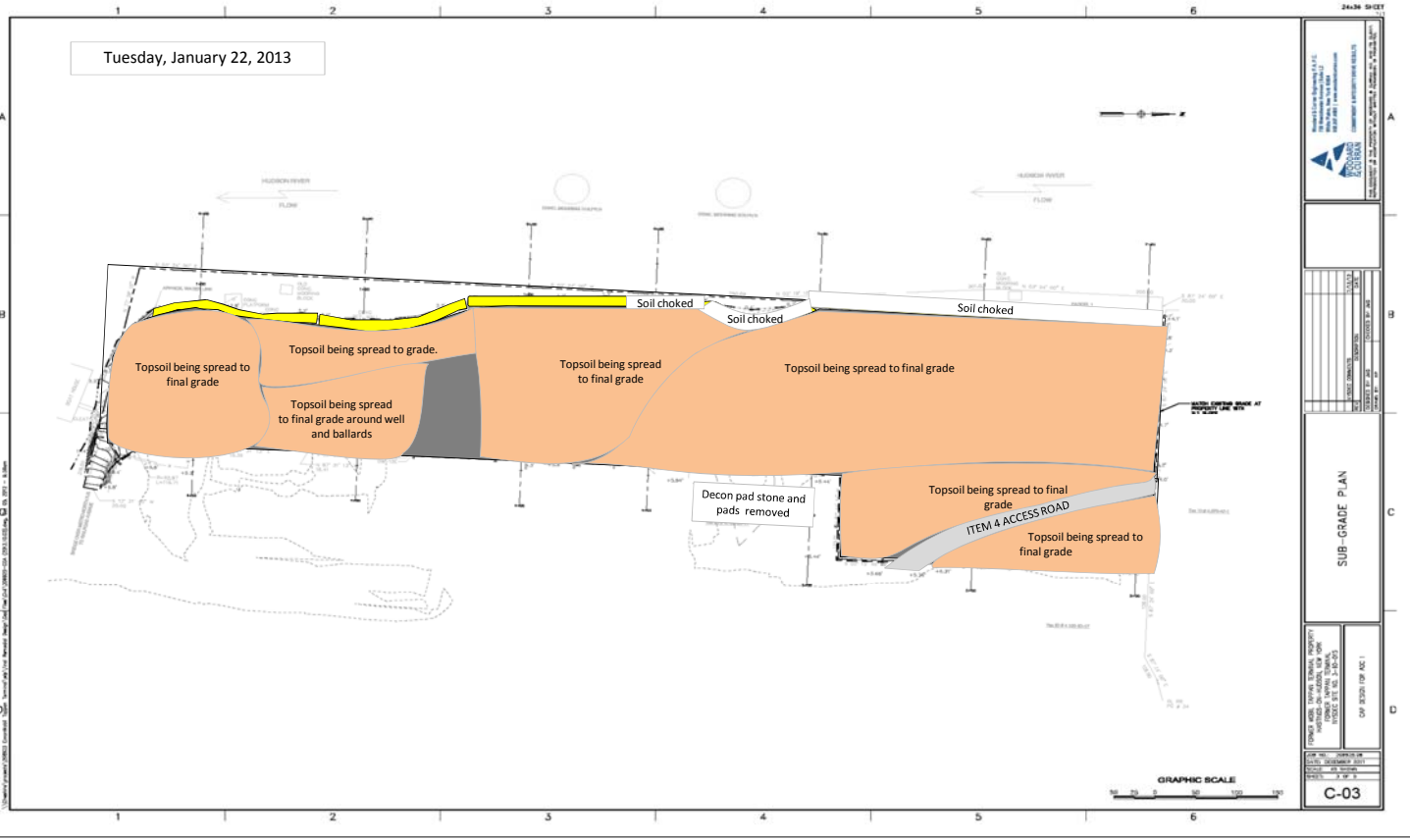
- Move soil to the North to finalize grade

- Till top soil to North

- Survey North for final elevations

Reviewed by (initials): TB

Tuesday, January 22, 2013



**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Tuesday, January 22, 2013



Photo 1 End of choking North of site.



Photo 2 Choking and final grade topsoil.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Tuesday, January 22, 2013



Photo 3 Port of Coeyman topsoil to the South.



Photo 4 Silt fencing installed 01/10/13 to the South.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Jordanna Kendrot
Weather: 10F 40% 30.36'
Hazy with clouds, rising
Wind: N @ 0 mph
Date: Wednesday, January 23, 2013

Personnel On Site

<u>Name and Affiliation</u>	<u>Name and Affiliation</u>
<u>Ron Snider - American</u>	<u>Jordanna Kendrot - Roux</u>
<u>Ken Brown - American</u>	<u> </u>
<u>Danny Hirshberger- American</u>	<u> </u>
<u>Dirk - Ameircan (CT office)</u>	<u> </u>
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<u>2 Trucks - Benz Trucking (American sub-contractor)</u>	<u> </u>
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Equipment On Site

<u>American</u>	<u> </u>	<u>Roux</u>
<u>Excavator</u>	<u> </u>	<u>CAMP air monitors (dust only)</u>
<u>Backhoe</u>	<u> </u>	<u> </u>
<u>Bulldozer</u>	<u> </u>	<u> </u>
<u>Frac Tank</u>	<u> </u>	<u> </u>
<u>Generator</u>	<u> </u>	<u> </u>
<u>Skid Steer (Tiller)</u>	<u> </u>	<u> </u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Wednesday, January 23, 2013

Description of Work Performed:

Survey site using laser level

Regrade North end after survey

Movement of Port of Coeyman soil across site to North

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- No material delivered to site

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

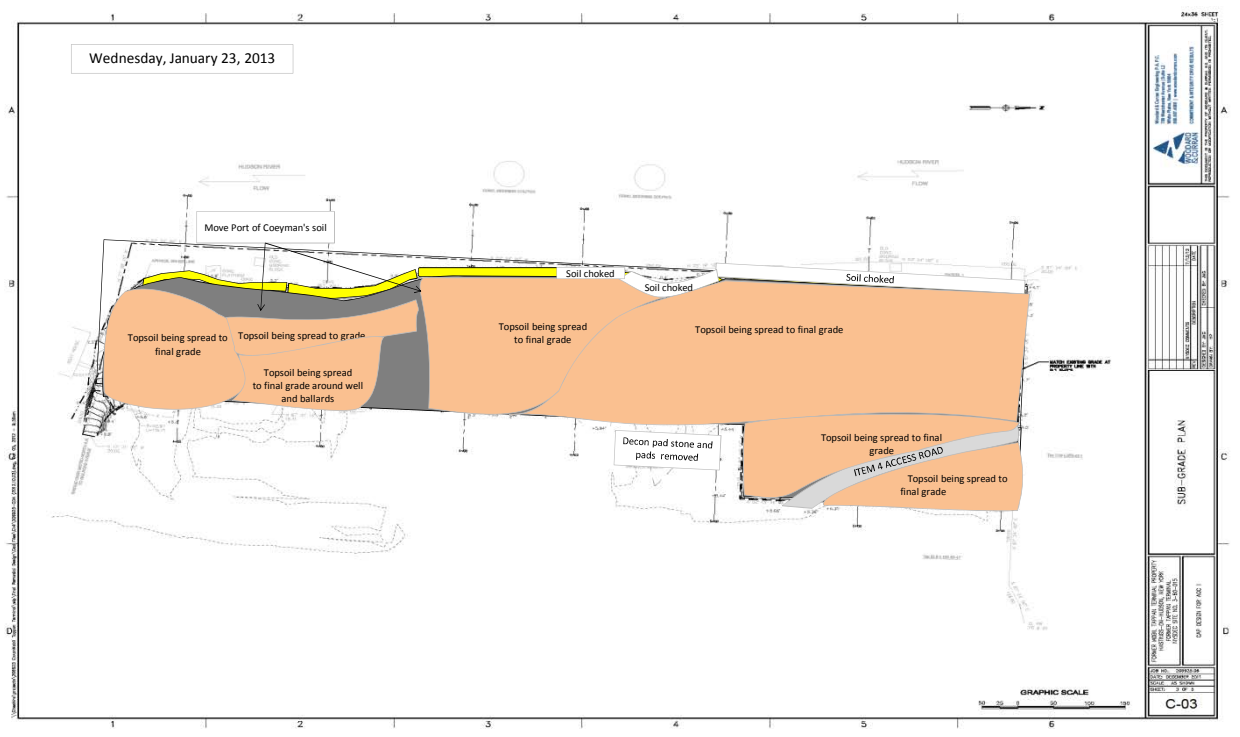
- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- Spread topsoil to North and grade

- Continued delivery of additional topsoil as needed

Reviewed by (initials): TB



ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Wednesday, January 23, 2013



Photo 1 Mid site looking North to graded topsoil.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Jordanna Kendrot
Weather: 11F 70% 30.30'
Sunny with clouds, steady
Wind: N @ 0 mph
Date: Thursday, January 24, 2013

Personnel On Site

<u>Name and Affiliation</u>
<u>Omar Hernandez - American</u>
<u>Ken Brown - American</u>
<u>John Clemente - American (site visit)</u>
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<u>3 Trucks - Benz Trucking (American sub-contractor)</u>
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<u>Name and Affiliation</u>
<u>Jordanna Kendrot - Roux</u>
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Equipment On Site

<u>American</u>
<u>Excavator</u>
<u>Backhoe</u>
<u>Bulldozer</u>
<u>Frac Tank</u>
<u>Generator</u>
<u>Skid Steer (Tiller)</u>
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<u>Roux</u>
<u>CAMP air monitors (dust only)</u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Thursday, January 24, 2013

Description of Work Performed:

Move Port of Coeyman material from mid-site closer to the berm

Receive material from Amodio's Garden Center, Nursery & Flower Shop

Spread material across site, maintaining 50' distance from berm

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- (15) loads by Benz Trucking of top soil (300 cu yds)

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- Spread topsoil to North and grade

- Continued delivery of additional topsoil as needed

Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Tracy Bispham
Weather: 14F 63% 30.51'
Overcast and very cloudy, steady
Wind: NNE @ 5 mph
Date: Friday, January 25, 2013

Personnel On Site

<u>Name and Affiliation</u>
<u>Omar Hernandez - American</u>
<u>Ken Brown - American</u>
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<u>2 Trucks - Benz Trucking (American sub-contractor)</u>
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<u>Name and Affiliation</u>
<u>Jordanna Kendrot - Roux</u>
<u>Tracy Bispham - Roux</u>
<u>Ray Fitzpatrick - Roux (Field visit)</u>
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Equipment On Site

<u>American</u>
<u>Excavator</u>
<u>Backhoe</u>
<u>Bulldozer</u>
<u>Frac Tank</u>
<u>Generator</u>
<u>Skid Steer (Tiller)</u>
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<u>Roux</u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Friday, January 25, 2013

Description of Work Performed:

Move Port of Coeyman material from mid-site closer to the berm

Receive material from Amodio's Garden Center, Nursery & Flower Shop

Spread material across site, maintaining 50' distance from berm

Field visit by R. Fitzpatrick (Roux LPO/H&S Officer)

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- (6) loads by Benz Trucking of top soil (120 cu yds)

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. Equipment malfunctioning due to cold weather. No data taken.

Description of Upcoming Work Activities:

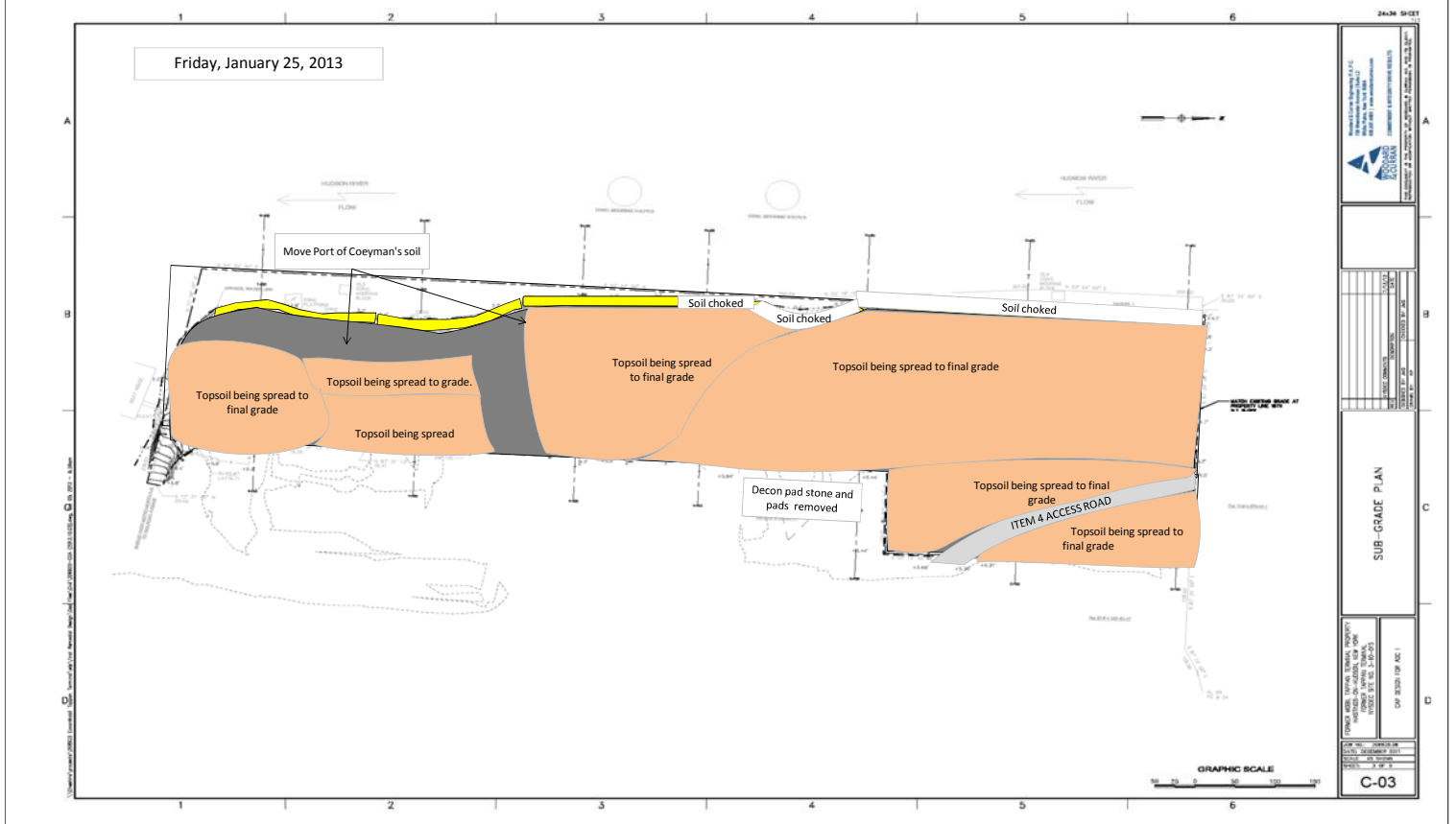
- Spread topsoil to North and grade

- Continued delivery of additional topsoil as needed

- Receive material from Port of Coeyman for berm area

- Final grade site to mid-point/5A mark

Reviewed by (initials): TB



**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Friday, January 25, 2013



Photo 1 Removal of Port of Coeyman material to be used to North.



Photo 2 End of topsoil placement, approx. at mid-point of site.

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Friday, January 25, 2013



Photo 3 Topsoil graded to the South of site with installed silt fencing.



Photo 4 Choking of berm midsite.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Jordanna Kendrot
Weather: 29F 64% 30.52'
Overcast and cloudy, steady
Wind: E @ 0 mph
Date: Monday, January 28, 2013

Personnel On Site

<u>Name and Affiliation</u>
<u>Omar Hernandez - American</u>
<u>Ken Brown - American</u>
<u>Ron Snider - American</u>
<u>Danny Hirshberger- American</u>
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<u>Doug Mitchell- Angle of Attack</u>
<u>Anne P- Angle of Attack</u>
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<u>8 Trailers - Port of Coeyman</u>
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<u>Name and Affiliation</u>
<u>Jordanna Kendrot - Roux</u>
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Equipment On Site

<u>American</u>
<u>Excavator</u>
<u>Backhoe</u>
<u>Bulldozer</u>
<u>Frac Tank</u>
<u>Generator</u>
<u>Skid Steer (Tiller)</u>
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<u>Roux</u>
<u>CAMP air monitors (dust only)</u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Monday, January 28, 2013

Description of Work Performed:

Spread Port of Coeyman material within 50' of berm

Arcadis and sub-contractor electricians onsite to South, out of area of work

Survey and check of North to mid of site for pre-final survey

Begin soil choking midsite with new material

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- (8) Trailers from Port of Coeyman offload soil (240 cu yds)

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- Spread topsoil to North and grade

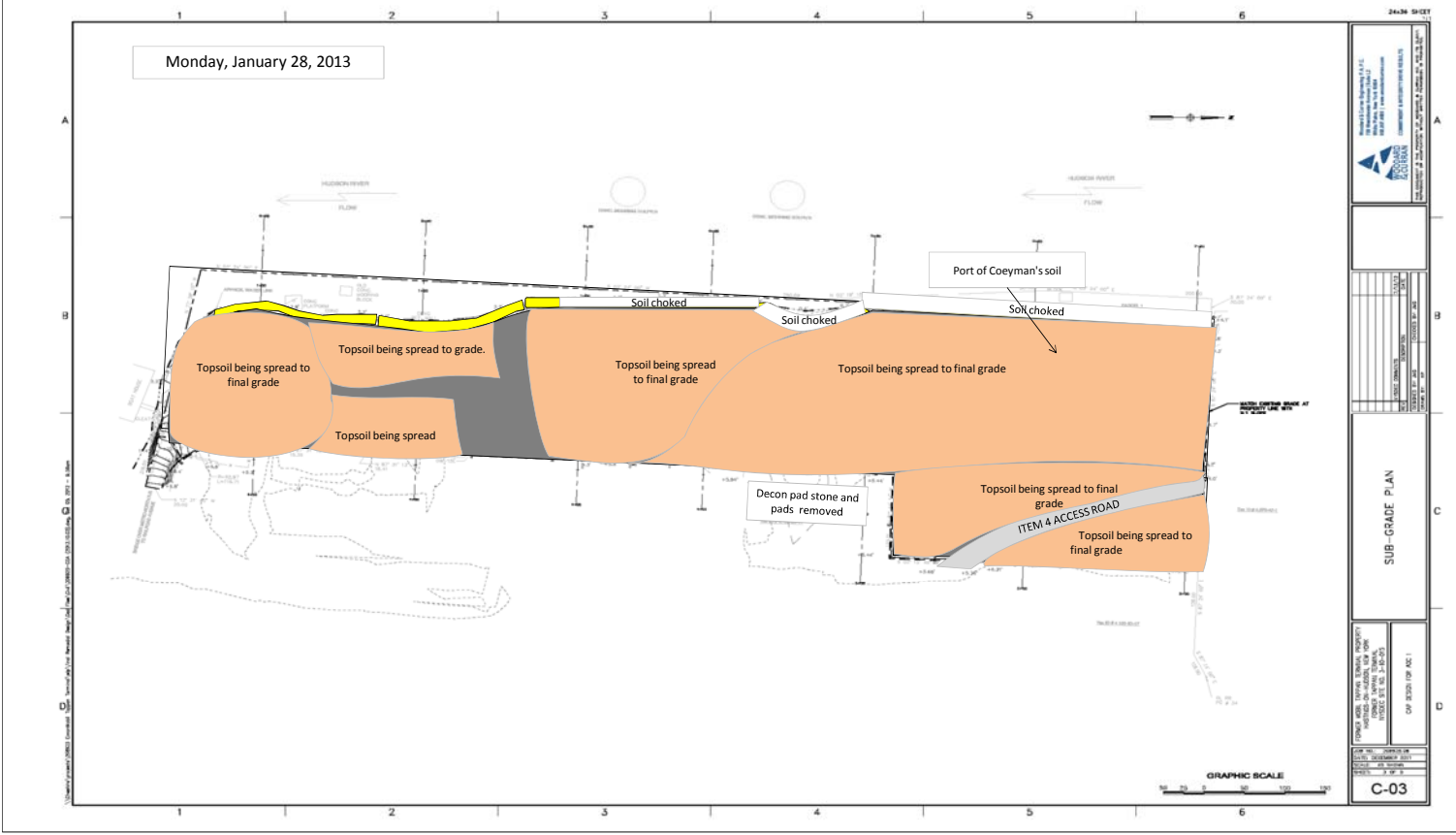
- Continued delivery of additional topsoil as needed

- Receive material from Port of Coeyman for berm area

- Choke berm with Port of Coeyman's soil (complete midsite and move South)

- Install silt fencing midsite where berm is flush with topsoil

Reviewed by (initials): TB



ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Monday, January 28, 2013



Photo 1 Final grading of soil to the North



Photo 2 Topsoil placement from Port of Coeyman's.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Jordanna Kendrot
Weather: 38F 96% 30.21'
Overcast and windy, rising
Wind: N @ 0 mph
Date: Tuesday, January 29, 2013

Personnel On Site

<u>Name and Affiliation</u>
<u>Omar Hernandez - American</u>
<u>Ken Brown - American</u>
<u>Ron Snider - American</u>
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<u>8 Trailers - Port of Coeyman</u>
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<u>Name and Affiliation</u>
<u>Jordanna Kendrot - Roux</u>
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Equipment On Site

<u>American</u>
<u>Excavator</u>
<u>Backhoe</u>
<u>Bulldozer</u>
<u>Frac Tank</u>
<u>Generator</u>
<u>Skid Steer (Tiller)</u>
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<u>Roux</u>
<u>CAMP air monitors (dust only)</u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Tuesday, January 29, 2013

Description of Work Performed:

Spread Port of Coeyman material within 50' of berm

Arcadis and sub-contractor electricians onsite to South, only one truck allowed onsite

Installation of silt fencing where berm and topsoil are flush midsite

Finish soil choking midsite with new material

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- (8) Trailers from Port of Coeyman offload soil (240 cu yds)

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- Continued delivery of additional topsoil as needed

- Receive material from Port of Coeyman for berm area

- Choke berm with Port of Coeyman's soil to the South

- Complete hay bale placement

Reviewed by (initials): TB

[illegible]

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Tuesday, January 29, 2013



Photo 1 Grading of Port fo Coeyman's topsoil to the South.



Photo 2 Topsoil grading with material from Port of Coeyman's midsite.

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Tuesday, January 29, 2013



Photo 3 Topsoil placement to the South.



Photo 4 Silt fence installation midsite where berm and topsoil are flush.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Jordanna Kendrot
Weather: 42F 100% 30.15'
Hvy. fog/low visibility
Wind: NNW @ 2 mph
Date: Wednesday, January 30, 2013

Personnel On Site

<u>Name and Affiliation</u>
<u>Omar Hernandez - American</u>
<u>Ken Brown - American</u>
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<u>8 Trailers - Port of Coeyman</u>
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<u>Name and Affiliation</u>
<u>Jordanna Kendrot - Roux</u>
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Equipment On Site

<u>American</u>
<u>Excavator</u>
<u>Backhoe</u>
<u>Bulldozer</u>
<u>Frac Tank</u>
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<u>Skid Steer (Tiller)</u>
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<u>Roux</u>
<u>CAMP air monitors (dust only)</u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Wednesday, January 30, 2013

Description of Work Performed:

Spread Port of Coeyman material within 50' of berm

Finish hay bale installation along silt fencing

Continue soil choking to the South

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- Skid Steer (Tiller) removed from site

Material Delivered To Site:

- (8) Trailers from Port of Coeyman offload soil (240 cu yds)

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP not performed due to heavy fog conditions/adverse weather.

Description of Upcoming Work Activities:

- Continued delivery of additional topsoil as needed

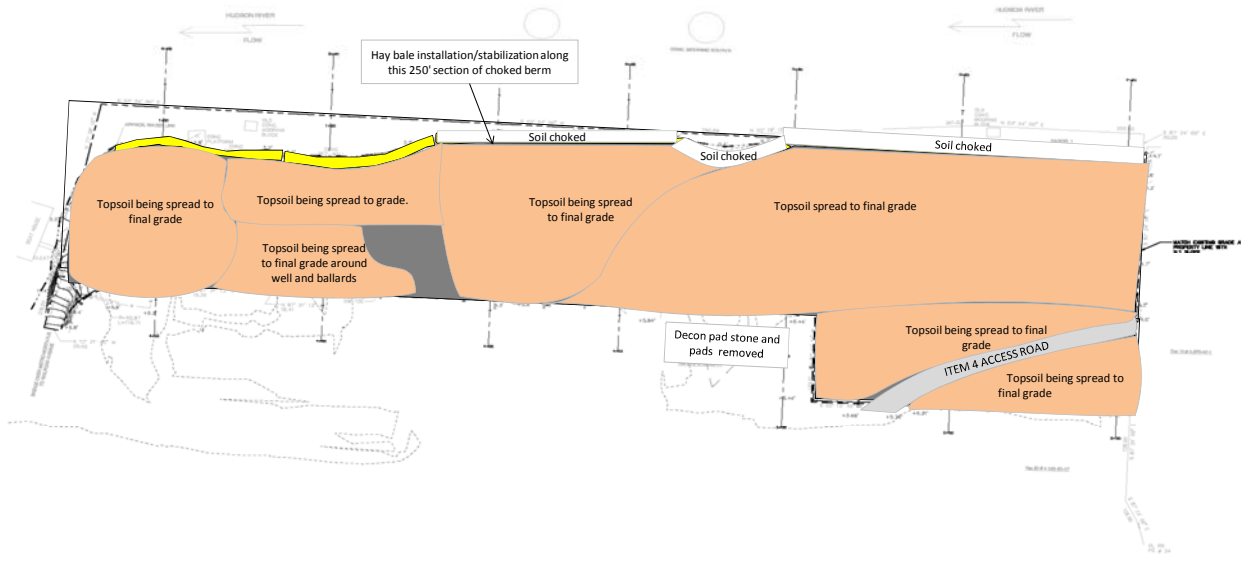
- Receive material from Port of Coeyman for berm area

- Choke berm with Port of Coeyman's soil to the South

- Complete hay bale placement

Reviewed by (initials): TB

Wednesday, January 30, 2013



ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Wednesday, January 30, 2013



Photo 1 Foggy conditions onsite, looking west towards the Hudson River.



Photo 2 Topsoil graded to final elevation looking towards the Hudson River.

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Wednesday, January 30, 2013



Photo 3 Topsoil placement to the North of the site.



Photo 4 Silt fence midsite where berm and topsoil are flush, hay bale installation has been completed.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Jordanna Kendrot
Weather: 28F 61% 29.95"
Partly cloudy, steady
Wind: S @ 0 mph
Date: Friday, February 01, 2013

Personnel On Site

<u>Name and Affiliation</u>
<u>Omar Hernandez - American</u>
<u>Ken Brown - American</u>
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<u>2 Trucks - Benz Trucking (American sub-contractor)</u>
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<u>Name and Affiliation</u>
<u>Jordanna Kendrot - Roux</u>
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Equipment On Site

<u>American</u>
<u>Excavator</u>
<u>Backhoe</u>
<u>Bulldozer</u>
<u>Frac Tank</u>
<u>Generator</u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Friday, February 01, 2013

Description of Work Performed:

Receive material from Amodio's Garden Center, Nursery & Flower Shop for >50' from MHW

Choke berm with additional POC soil, midsite

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- (10) loads by Benz Trucking of top soil (200 cu yds)

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- Continued delivery of additional topsoil as needed for the South

- Receive additional material from Amodio's Garden Center, Nursery & Flower Shop for South

Reviewed by (initials): TB

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Friday, February 01, 2013



Photo 1 Hay bale and silt fencing installed at midpoint of site where berm and topsoil are flush.



Photo 2 Berm completion to the South of site

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Friday, February 01, 2013



Photo 3 Newly choked berm to the South of the installed silt fencing at the midpoint.



Photo 4 Slight flooding and erosion. Erosion controls prevented offsite movement of soil.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Jordanna Kendrot
Weather: 23F 59% 30.03"
Clear, steady
Wind: NNW @ 3-6 mph
Date: Monday, February 04, 2013

Personnel On Site

<u>Name and Affiliation</u>
<u>Omar Hernandez - American</u>
<u>Ken Brown - American</u>
<u>Ron Snider - American</u>
<u>Danny H. - American (site visit)</u>
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<u>2 Trucks - Benz Trucking (American sub-contractor)</u>
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<u>Name and Affiliation</u>
<u>Jordanna Kendrot - Roux</u>
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Equipment On Site

<u>American</u>
<u>Excavator</u>
<u>Backhoe</u>
<u>Bulldozer</u>
<u>Frac Tank</u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Monday, February 04, 2013

Description of Work Performed:

Receive material from Amodio's Garden Center, Nursery & Flower Shop

Finish off roadway and edges of site to the South (no vehicular traffic allowed on new topsoil)

Finish installing hay bales along silt fencing (mid-site and south)

Grade over tracks made from vehicles throughout site surface

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- (6) loads by Benz Trucking of top soil (120 cu yds)

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

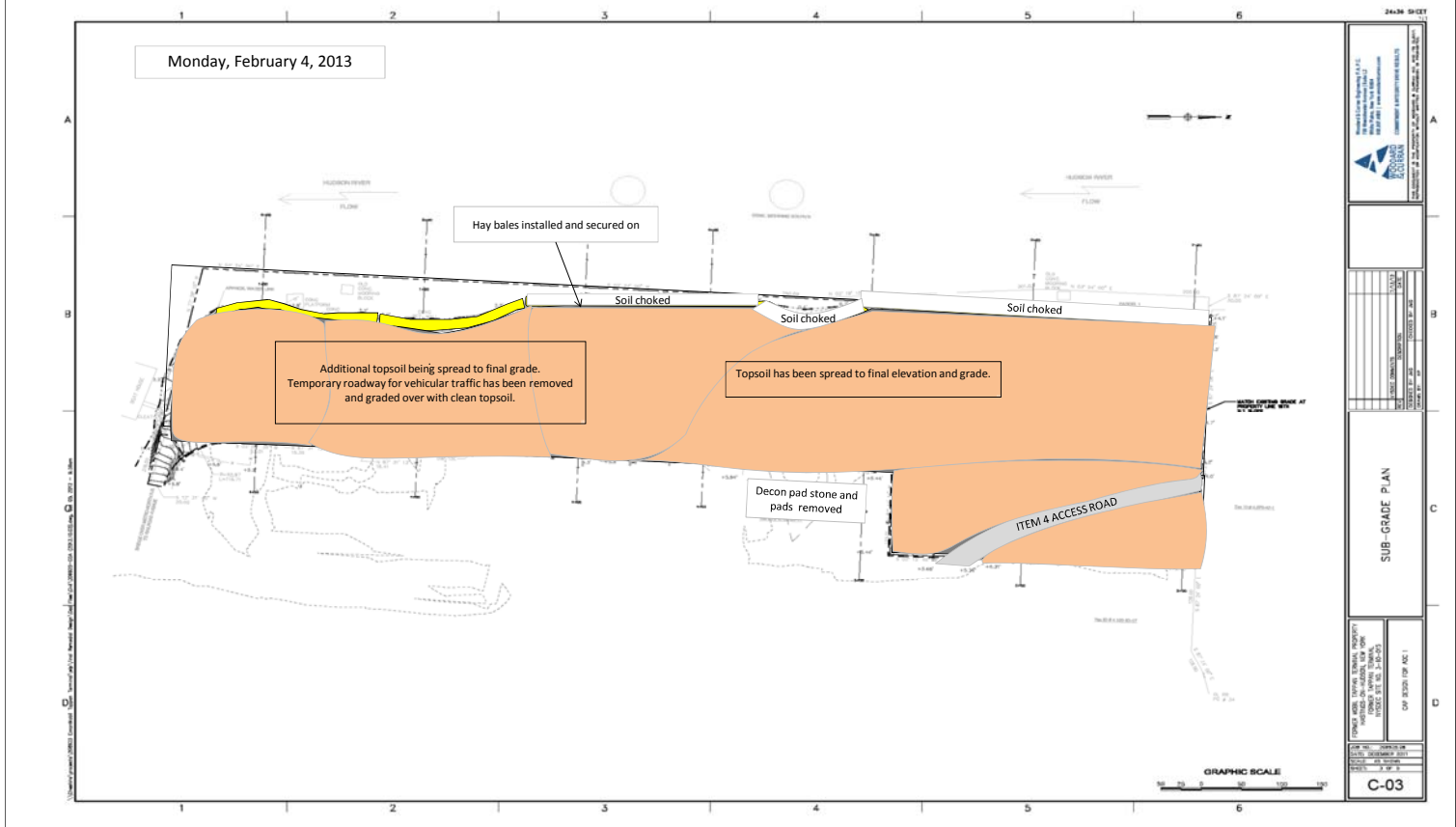
Description of Upcoming Work Activities:

- Finish final grade to approximate elevations

- Schedule final survey sitewide at later date

- Prepare dozer for pickup at a later date

Reviewed by (initials): TB



ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Monday, February 04, 2013



Photo 1 Hay bale and silt fence final installation/stabilization at midpoint where berm and topsoil are flush.



Photo 2 Choked berm that is located south of mid point; topsoil graded to final elevation.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Monday, February 04, 2013



Photo 3 Topsoil at final elevation and grade; this is final truckload to remove temporary roadway into site.



Photo 4 Final elevation and grading of topsoil midpoint of site, after roadway and tracks have been removed

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y012
Job: Soil Cap for AOC1

Field Representative: Jordanna Kendrot
Weather: 26F 85% 30.07"
Snowy/overcast, steady
Wind: N @ 0-2 mph
Date: Tuesday, February 05, 2013

Personnel On Site

<u>Name and Affiliation</u>
<u>Omar Hernandez - American</u>
<u>Ken Brown - American</u>
<u>Ron Snider - American</u>
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<u>Name and Affiliation</u>
<u>Jordanna Kendrot - Roux</u>
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Equipment On Site

<u>American</u>
<u>Excavator</u>
<u>Backhoe</u>
<u>Bulldozer</u>
<u>Frac Tank</u>
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Reviewed by (initials): TB

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Tuesday, February 05, 2013

Description of Work Performed:

Finalize the grades/touch up where truck tracks are still present in topsoil

Prepare the dozer for pick up at later date (next week)

Fix exclusion zone signs/barriers for long-term offsite stability

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- x2 MIE DataRam4000 (Camp dust equipment)

Material Delivered To Site:

- No material delivered to site.

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP performed. No exceedances.

Description of Upcoming Work Activities:

- Mark and lock all monitoring wells (MW) onsite that belong to Roux

-Schedule survey of structures to remain (monument installation, newly installed monitoring wells)

- Dozer pick up by hertz equipment from BP property

- Demob of all Pine Environmental rented equipment

Reviewed by (initials): TB

Tuesday, February 5, 2013

SUB-GRADE PLAN

DATE: 02/05/13
DRAWN BY: [Name]
CHECKED BY: [Name]
APPROVED BY: [Signature]

GRAPHIC SCALE

C-03

[illegible]

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Tuesday, February 05, 2013



Photo 1 Completed berm to the North fo site.



Photo 2 Graded topsoil at fianl elevations looking towards the East.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Tuesday, February 05, 2013



Photo 3 Erosion control measures mid-site



Photo 4 Southern end of the site, fully graded and at final elevations.

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Date: Wednesday, February 13, 2013

Description of Work Performed:

- Cleared snow from trailer area (heavy snow occurred Feb 8-9).
- Snow ranged from 0 to over 12 inches (higher amounts to the south due to drifting).
- Dozer picked up by Hertz
- American removed leaking tire from backhoe for repair in the shop
- SWPPP inspection
- Reset cones at site entrance

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- Dozer
- Backhoe tire

Material Delivered To Site:

- No material delivered to site.

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

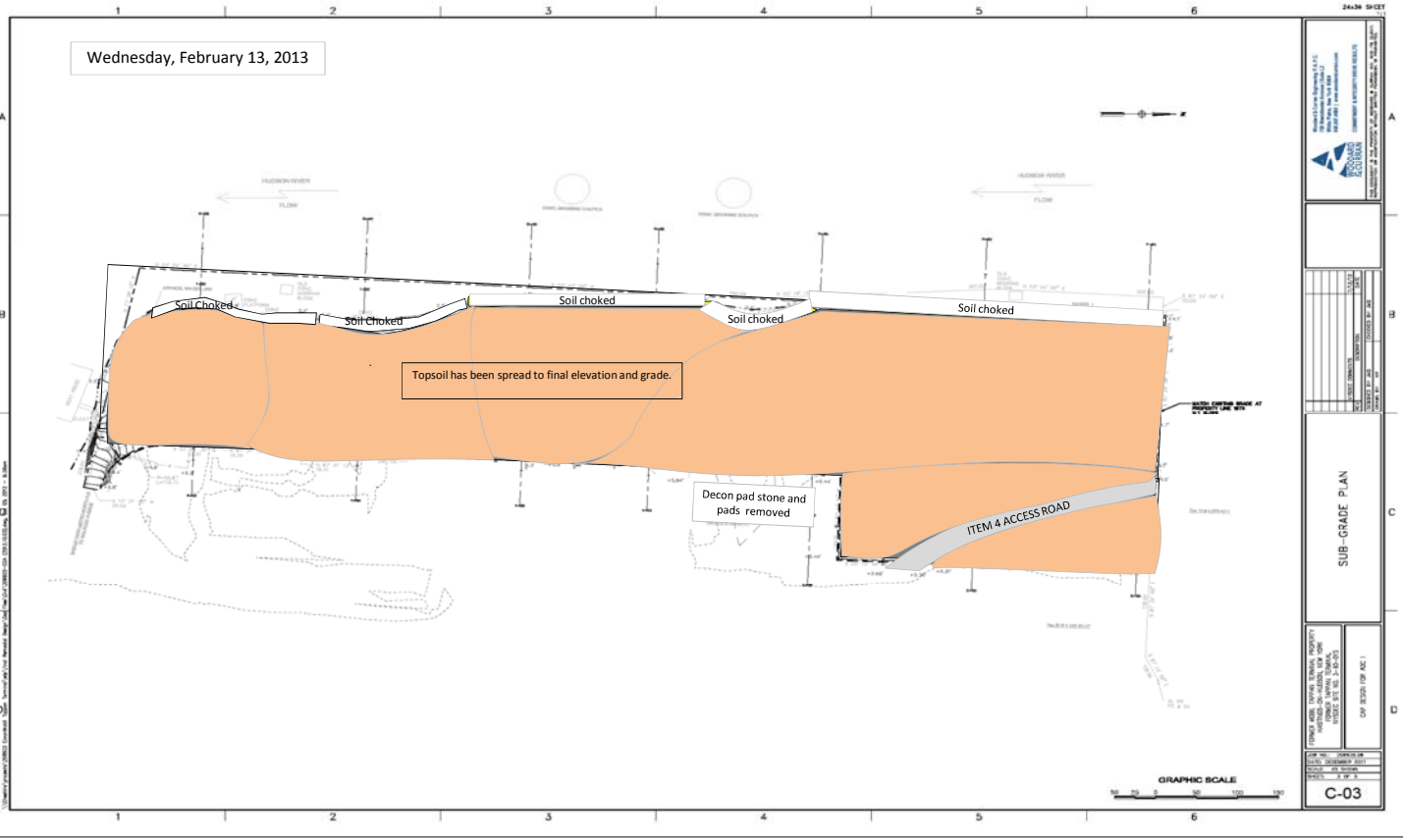
- CAMP not performed, earthwork complete.

Description of Upcoming Work Activities:

- SWPPP inspections weekly
- Final Survey
- Demob of remaining equipment

Reviewed by (initials): NC

Wednesday, February 13, 2013



ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Wednesday, February 13, 2013



Photo 1 Silt fence on south side sagging due to snow drifting. No offsite erosion observed. Silt fence repair and hay bale installation scheduled for next visit.



Photo 2 Silt fence mid-site sagging. Hay bales intact. No offsite erosion observed. Silt fence repair scheduled for next visit.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Wednesday, February 13, 2013



Photo 3 Mid-site looking south.



Photo 4 Northern end of site

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y014
Job: Soil Cap for AOC1

Field Representative: Jessica Collins
Weather: Temp: 20s; Sunny/clear
Precip: 0.00
Wind: NW; 30 MPH
Date: Thursday, February 21, 2013

Personnel On Site

<u>Name and Affiliation</u>
<u>Seth Plitt - American</u>
<u>Danny Hirschburger - American</u>
<u>Luis - American</u>
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<u>Angle of Attack Surveying (x2)</u>
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<u>Name and Affiliation</u>
<u>Jessica Collins - Roux</u>
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Equipment On Site

<u>American</u>
<u>Excavator</u>
<u>Backhoe</u>
<u>Frac Tanks</u>
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Reviewed by (initials): NC

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Thursday, February 21, 2013

Description of Work Performed:

- Survey final grade elevations on site
- Silt fence repair and hay bale installation on south side
- SWPPP inspection

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment moved offsite

Material Delivered To Site:

- No material delivered to site.

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

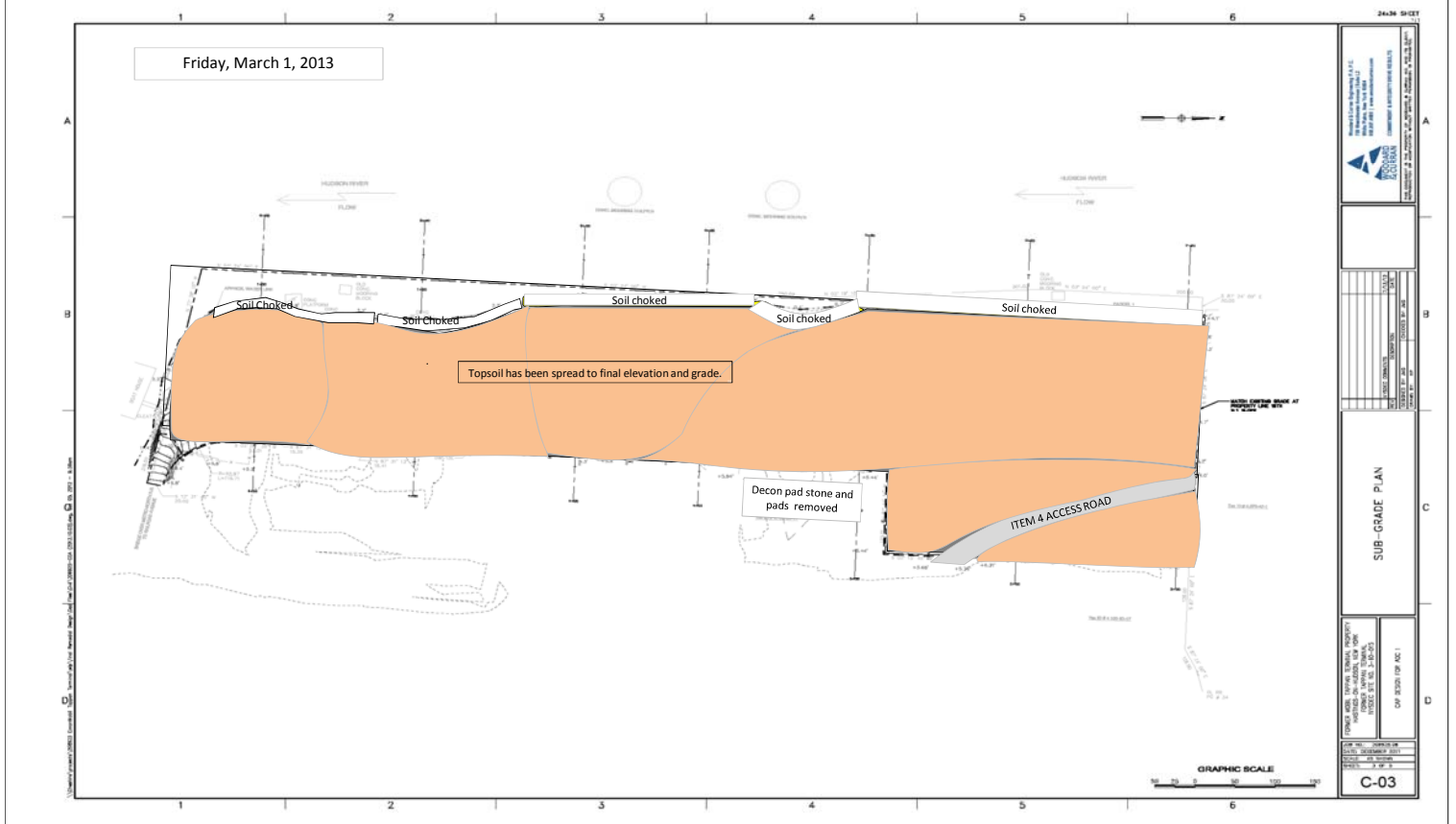
CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP not performed

Description of Upcoming Work Activities:

- SWPPP inspections weekly
- Complete final survey of wells and onsite structures
- Demob of remaining equipment
- Installation of surveying monuments

Reviewed by (initials): NC



ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Thursday, February 21, 2013



Photo 1 Site looking south



Photo 2 Site looking southwest

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Thursday, February 21, 2013



Photo 3 Northern end of site looking west

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y014
Job: Soil Cap for AOC1

Field Representative: Jordanna Kendrot
Weather: Temp: 30s; Sunny/clear
Precip: 0.00
Wind: N; 0-1MPH
Date: Friday, March 01, 2013

Personnel On Site

<u>Name and Affiliation</u>
<u>Omar Hernandez - American</u>
<u>Danny Hirschburger - American</u>
<u>Hector Ramirez - American</u>
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<u>Angle of Attack Surveying (x2)</u>
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<u>Name and Affiliation</u>
<u>Jordanna Kendrot - Roux</u>
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Equipment On Site

<u>American</u>
<u>Excavator</u>
<u>Backhoe</u>
<u>Frac Tanks</u>
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Reviewed by (initials): NC

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Friday, March 01, 2013

Description of Work Performed:

- Attempt to survey final grade elevations on site
- Site too wet due to rain earlier in the week and warmer temperatures
- Labeling and locking of all Roux-owned monitoring wells
- SWPPP inspection

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment moved offsite

Material Delivered To Site:

- No material delivered to site.

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

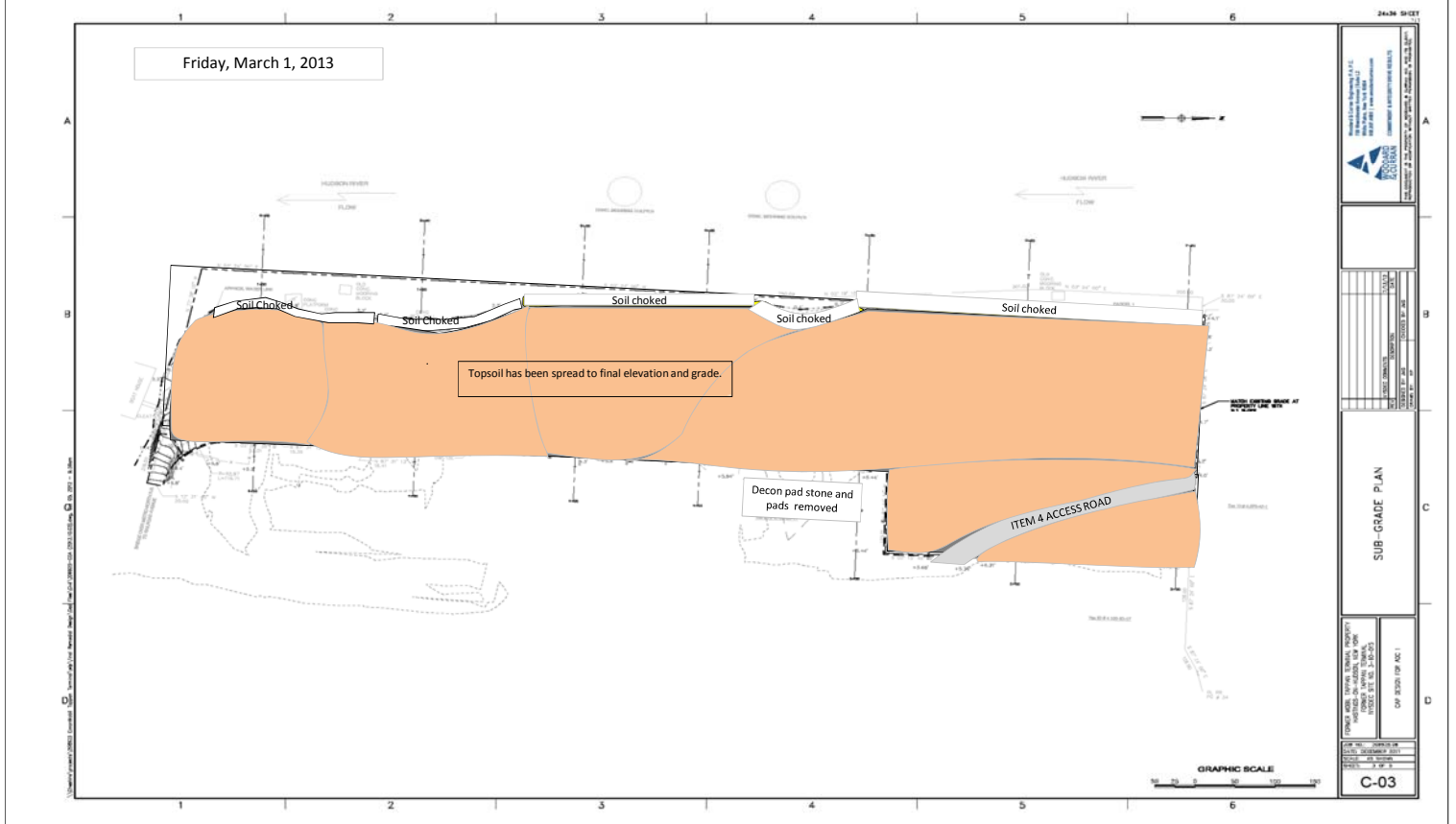
CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP not performed, earthwork complete.

Description of Upcoming Work Activities:

- SWPPP inspections weekly
- Final Survey
- Demob of remaining equipment
- Installation of surveying monuments

Reviewed by (initials): NC



**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Friday, March 01, 2013



Photo 1 Example of monitoring well maintained by Roux that has been labeled and locked.



Photo 2 Looking towards the North end of site; due to rain and snow previously during the week, site has become difficult to traverse.

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Friday, March 01, 2013



Photo 3 Mid-site looking south.



Photo 4 Northern end of site

ROUX ASSOCIATES, INC.

Client: ExxonMobil Oil Corporation

Location: 1 Railroad Avenue, Hastings-on-Hudson, NY

Project Number: 017.0151Y014

Job: Soil Cap for AOC1

Field Representative: Jordanna Kendrot

Weather: Temp: 30s; Sunny/clear

Precip: 0.00

Wind: N; 6-9 MPH

Date: Friday, March 15, 2013

Personnel On Site

Name and Affiliation

Omar Hernandez - American

Danny Hirschburger - American

Hector Ramirez - American

Ken Brown - American

Name and Affiliation

Jordanna Kendrot - Roux

Equipment On Site

American

Excavator

Backhoe

Frac Tanks

Roux

Reviewed by (initials): NC

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Date: Friday, March 15, 2013

Description of Work Performed:

- Install surveying monuments at five equi-distant points within 50' of mean high water
- Repair choking on berm midsite
- Replace backhoe tire
- Repair damaged silt fencing to South
- SWPPP inspection

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- No material delivered to site.

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

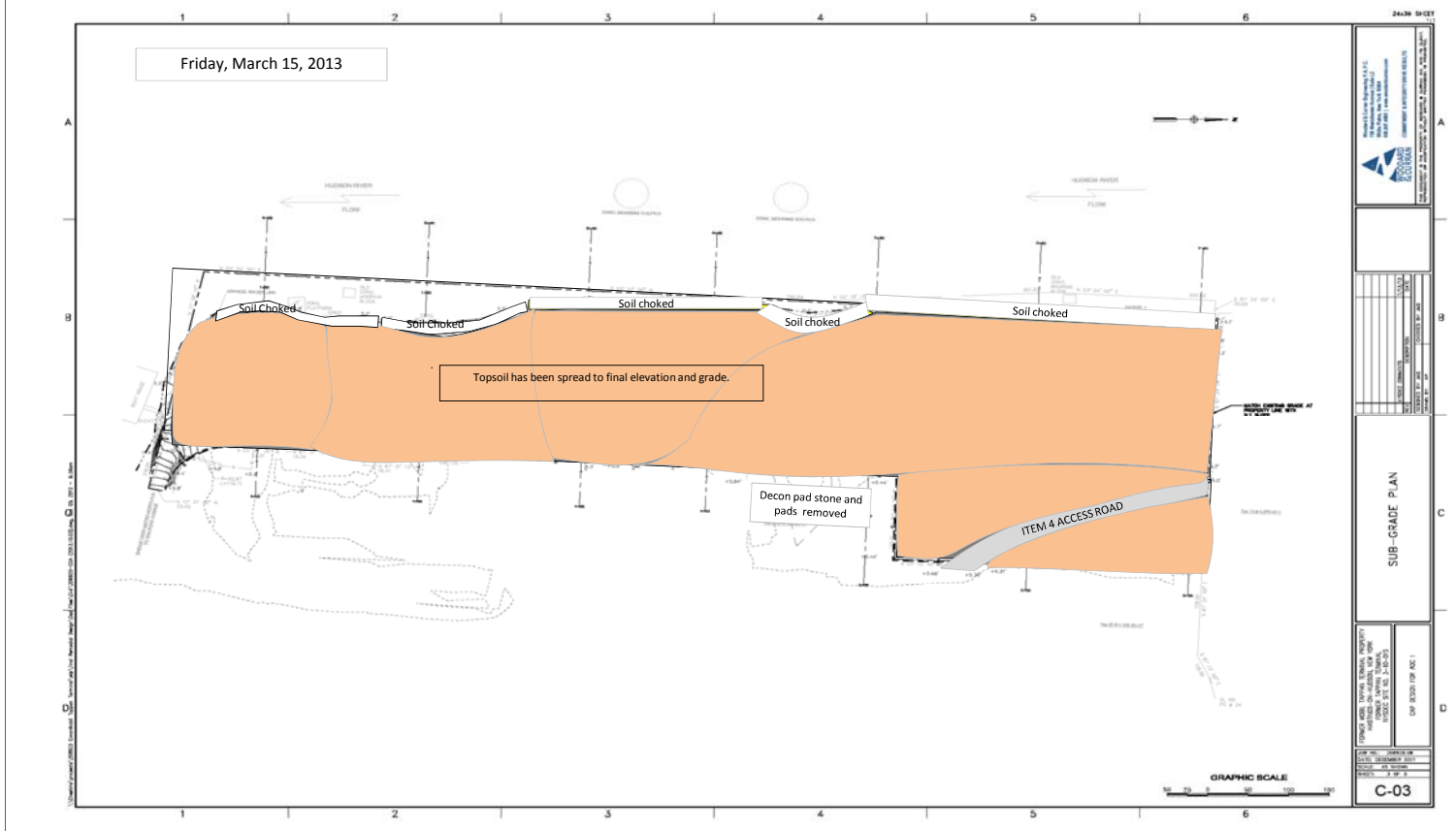
CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP not performed

Description of Upcoming Work Activities:

- SWPPP inspections weekly
- Final Survey
- Demob of remaining equipment

Reviewed by (initials): NC



**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Friday, March 15, 2013



Photo 1 Permanent monument installation at five locations along site.



Photo 2 Use of backhoe to move clean soil to repair choking midsite.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Friday, March 15, 2013



Photo 3 Repaired cove berm with clean topsoil.



Photo 4 Site graded to final elevation, pending surveying.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y014
Job: Soil Cap for AOC1

Field Representative: Noelle Clarke
Weather: Temp: 30-40s; Sunny/clear
Precip: 0.00
Wind: N; 10-20 MPH
Date: Wednesday, March 20, 2013

Personnel On Site

<u>Name and Affiliation</u>
<u>John Clemente - American</u>
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<u>Danny Hirschberger - American</u>
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<u>Wayne Warehouse Fertilizer (Hydroseeder x1)</u>
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<u>Name and Affiliation</u>
<u>Noelle Clarke - Roux</u>
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Equipment On Site

<u>American</u>
<u>Excavator</u>
<u>Backhoe</u>
<u>Frac Tanks</u>
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Reviewed by (initials): NC

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Wednesday, March 20, 2013

Description of Work Performed:

- Meet with hydroseeding sub to review site conditions and take measurments
- Check southern gate, chain was cut, AEAC pulled chain together and re-installed lock

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- No material delivered to site.

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

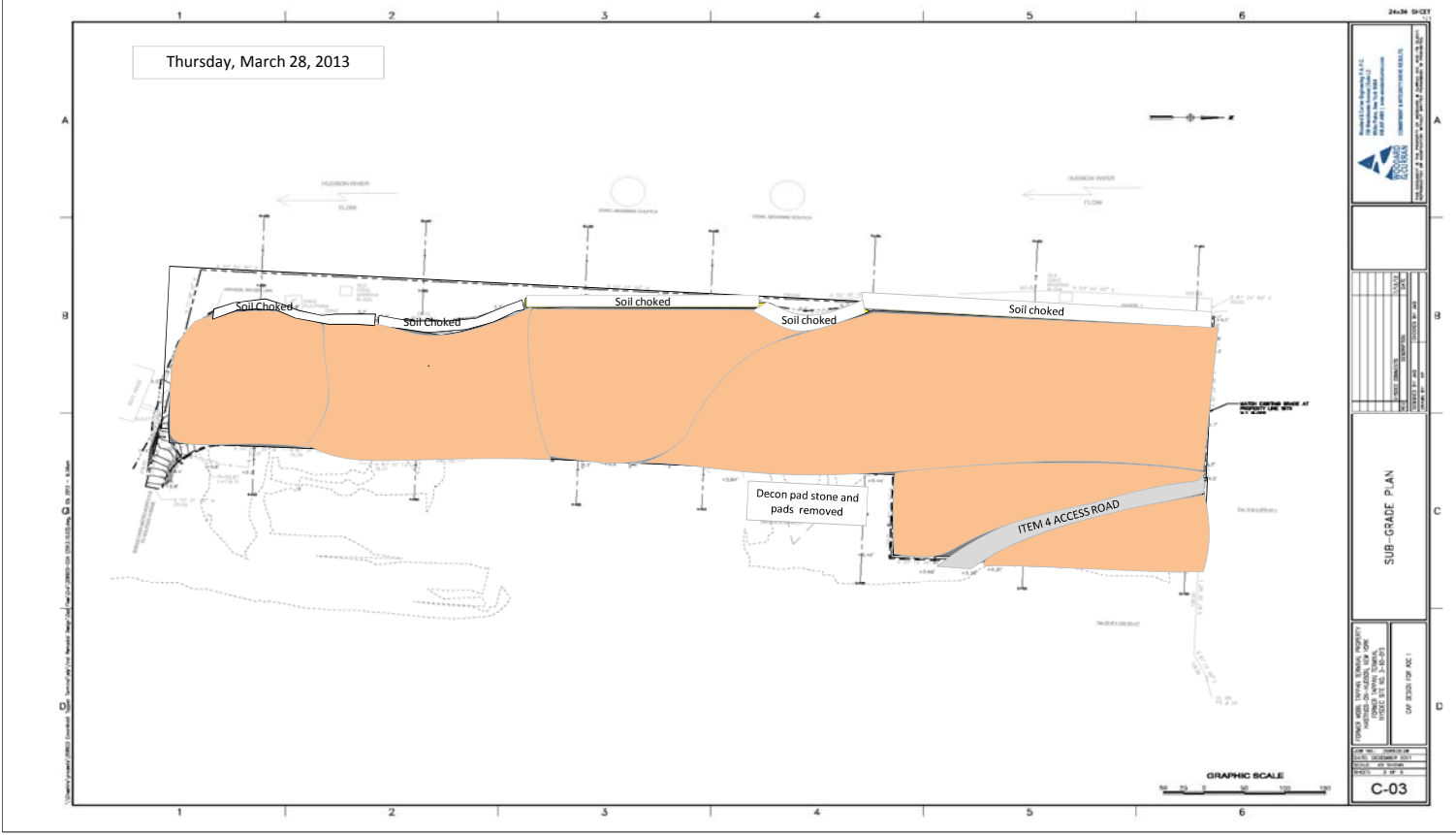
CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP not performed

Description of Upcoming Work Activities:

- SWPPP inspections weekly
- Complete hydroseeding
- Demob of remaining equipment

Reviewed by (initials): NC



ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Wednesday, March 20, 2013



Photo 1 Site looking North



Photo 2 Mid site

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Wednesday, March 20, 2013



Photo 3 Mid site



Photo 4 South side

DAILY FIELD ACTIVITY REPORT

Job: Soil Cap for AOC1

Date: Friday, March 22, 2013

Personnel On Site

[illegible]

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

Equipment On Site

[illegible][illegible]

Reviewed by (initials): NC

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Friday, March 22, 2013

Description of Work Performed:

- Complete final survey of site
- Adjust final grade with clean fill (POC topsoil) in areas that do not meet final cap thickness (localized areas only)
- Demob of backhoe
- Demob trailer offsite
- SWPPP inspection
- Repair of ARCO access road.

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- Site trailer removed from site
- Backhoe removed from site

Material Delivered To Site:

- One load of RCA from 110 Sand and Gravel for Arco road repair

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

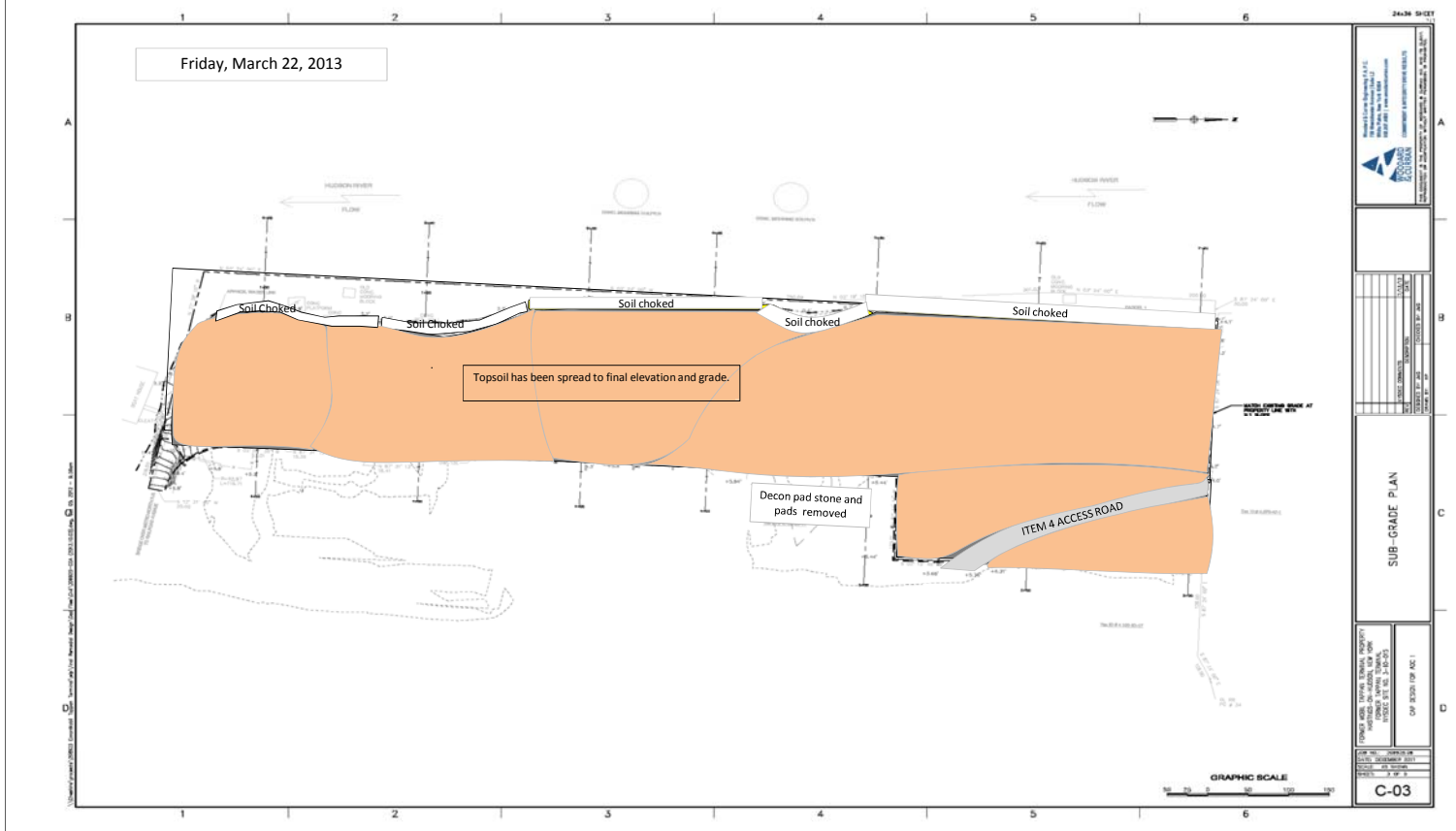
CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP not performed

Description of Upcoming Work Activities:

- SWPPP inspections weekly
- LPS training of Hydroseeders
- Demob of remaining equipment
- Complete hydroseeding

Reviewed by (initials): NC



**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Friday, March 22, 2013



Photo 1 Settling of permanent monuments into ground; elevation and location will be surveyed.



Photo 2 Third party tire tracks (ARCADIS) that were graded before final survey.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Friday, March 22, 2013



Photo 3 Clean topsoil secured if needed in the future.



Photo 4 Site trailer removed from the site.

DAILY FIELD ACTIVITY REPORT

Job: Soil Cap for AOC1

Date: Tuesday, March 26, 2013

Personnel On Site

Jordanna Kendrot - Roux

Equipment On Site

Roux

Reviewed by (initials): NC

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Tuesday, March 26, 2013

Description of Work Performed:

- LPS training of hydroseeding crew onsite
- Mobilization of hydroseeding equipment

Equipment Delivered To Site:

- Hydroseeder trailer filled with supplies delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- No material delivered to site.

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

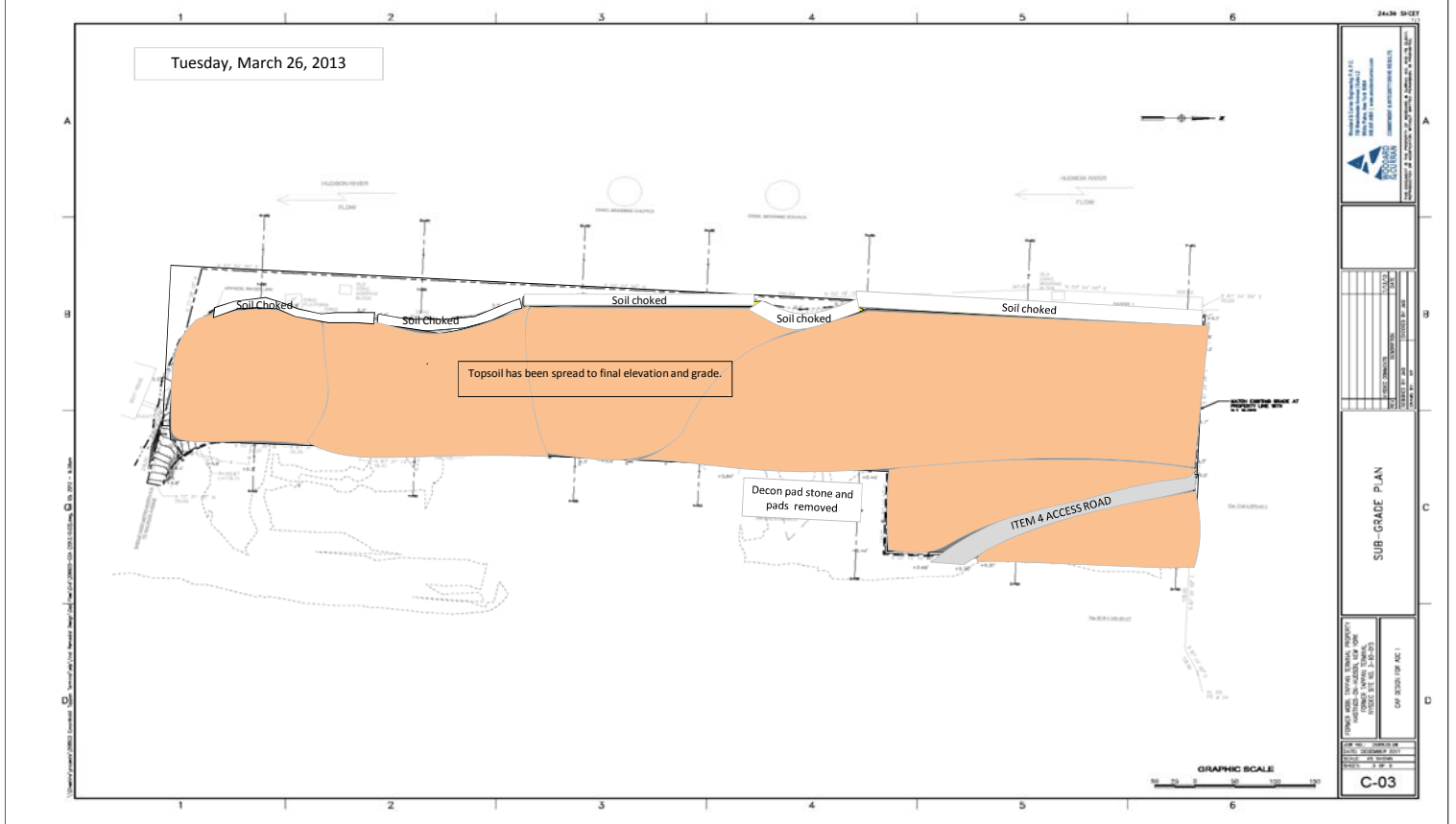
CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP not performed

Description of Upcoming Work Activities:

- SWPPP inspections weekly
- Complete hydroseeding
- Demob of remaining equipment

Reviewed by (initials): NC



**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Tuesday, March 26, 2013



Photo 1 Looking towards the North



Photo 2 Looking to the South of site.

DAILY FIELD ACTIVITY REPORT

Job: Soil Cap for AOC1

Date: Thursday, March 28, 2013

Personnel On Site

Jordanna Kendrot - Roux

Equipment On Site

Roux

Reviewed by (initials): NC

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Thursday, March 28, 2013

Description of Work Performed:

- Begin Hydroseeding of site
- Prepare one Frac Tank for demob
- Mobilization of hydroseeding equipment truck
- Prepare excavator for demob
- SWPPP inspection

Equipment Delivered To Site:

- Hydroseeding equipment used to spray site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- No material delivered to site.

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

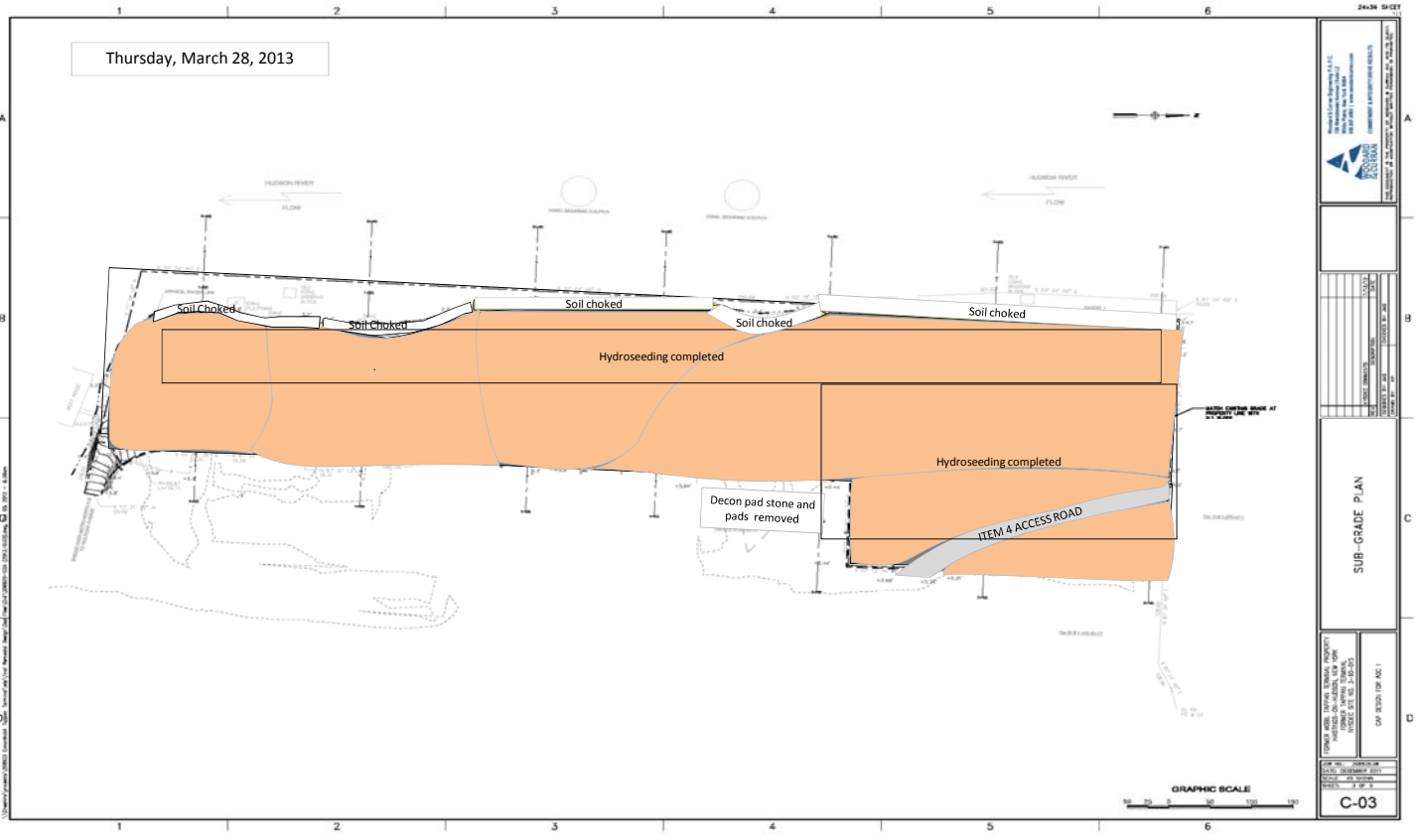
- CAMP not performed

Description of Upcoming Work Activities:

- SWPPP inspections weekly
- Complete hydroseeding
- Demob of remaining equipment

Reviewed by (initials): NC

Thursday, March 28, 2013



24x36 SHEET

ROUX ASSOCIATES, INC.
10000 W. 10th Ave., Suite 100
Denver, CO 80202
TEL: 303.755.1000
WWW.ROUXASSOCIATES.COM

PROJECT: [REDACTED]
SHEET: [REDACTED]
DATE: [REDACTED]

SUB-GRADE PLAN

DATE: [REDACTED]
BY: [REDACTED]
CHECKED: [REDACTED]
APPROVED: [REDACTED]

C-03

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Thursday, March 28, 2013



Photo 1 Mixing of hydroseeding material.



Photo 2 Site in process of being hydroseeded with conservation seed mix 50' from mean high water.

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Thursday, March 28, 2013



Photo 3 Completion of conservation seed mix hydroseeding 50' from mean high water.



Photo 4 Hydroseeding completed for the day (~65%)

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y014
Job: Soil Cap for AOC1

Field Representative: Jordanna Kendrot
Weather: Temp: 30s; Sunny/clear
Precip: 0.00
Wind: NW; 1 MPH
Date: Friday, March 29, 2013

Personnel On Site

<u>Name and Affiliation</u>
<u>Ken Brown - American</u>
<u>Rob - American</u>
<u>John Clemente - American</u>
<u>Wayne Warehouse Fertilizer (Hydroseeder x3)</u>
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<u>Name and Affiliation</u>
<u>Jordanna Kendrot - Roux</u>
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Equipment On Site

<u>American</u>
<u>Excavator</u>
<u>Frac Tank</u>
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Reviewed by (initials): NC

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Friday, March 29, 2013

Description of Work Performed:

- Complete hydroseeding of the site
- One frac tank demob from site
- Prepare other frac tank for demob at later date
- Demob excavator

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- Hydroseeding equipment (Hydroseeding equipment used to spray and trailer with material) removed from site
- Excavator

Material Delivered To Site:

- No material delivered to site.

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

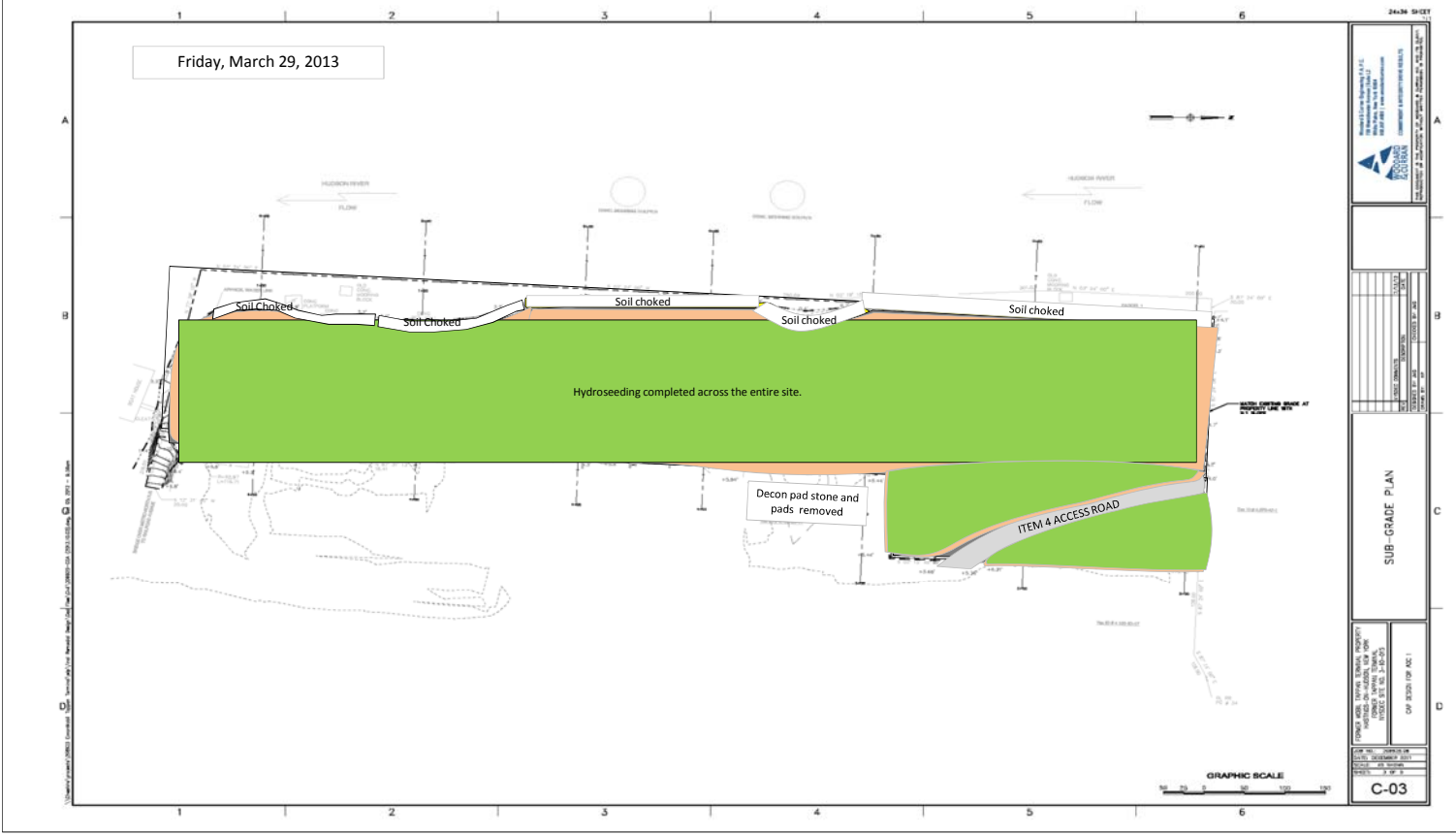
CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP not performed

Description of Upcoming Work Activities:

- SWPPP inspections weekly
- Demob of remaining equipment (1 Frac Tank)
- Plant shrubs (late April/early May)
- Disposal of 3 drums.

Reviewed by (initials): NC



**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Friday, March 29, 2013



Photo 1 Continuing the hydroseed on East half of property



Photo 2 Excavator being moved off site for demob

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Friday, March 29, 2013



Photo 3 Hydroseeding completed for site



**Photo 4 Three labeled, sealed drums with impacted soil from hydraulic leak and remnant piping in 2012.
Drums will disposed of at later date.**

DAILY FIELD ACTIVITY REPORT

Job: Soil Cap for AOC1

Date: Thursday, April 04, 2013

Personnel On Site

Kathryn Sommo - Roux

Equipment On Site

Roux

Reviewed by (initials): NC

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Thursday, April 04, 2013

Description of Work Performed:

- Meet fence contractor on east side of bridge to discuss security options
- Weekly SWPPP Inspection
- Check southern gate and lock - secure

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No removed from the site

Material Delivered To Site:

- No material delivered to site.

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

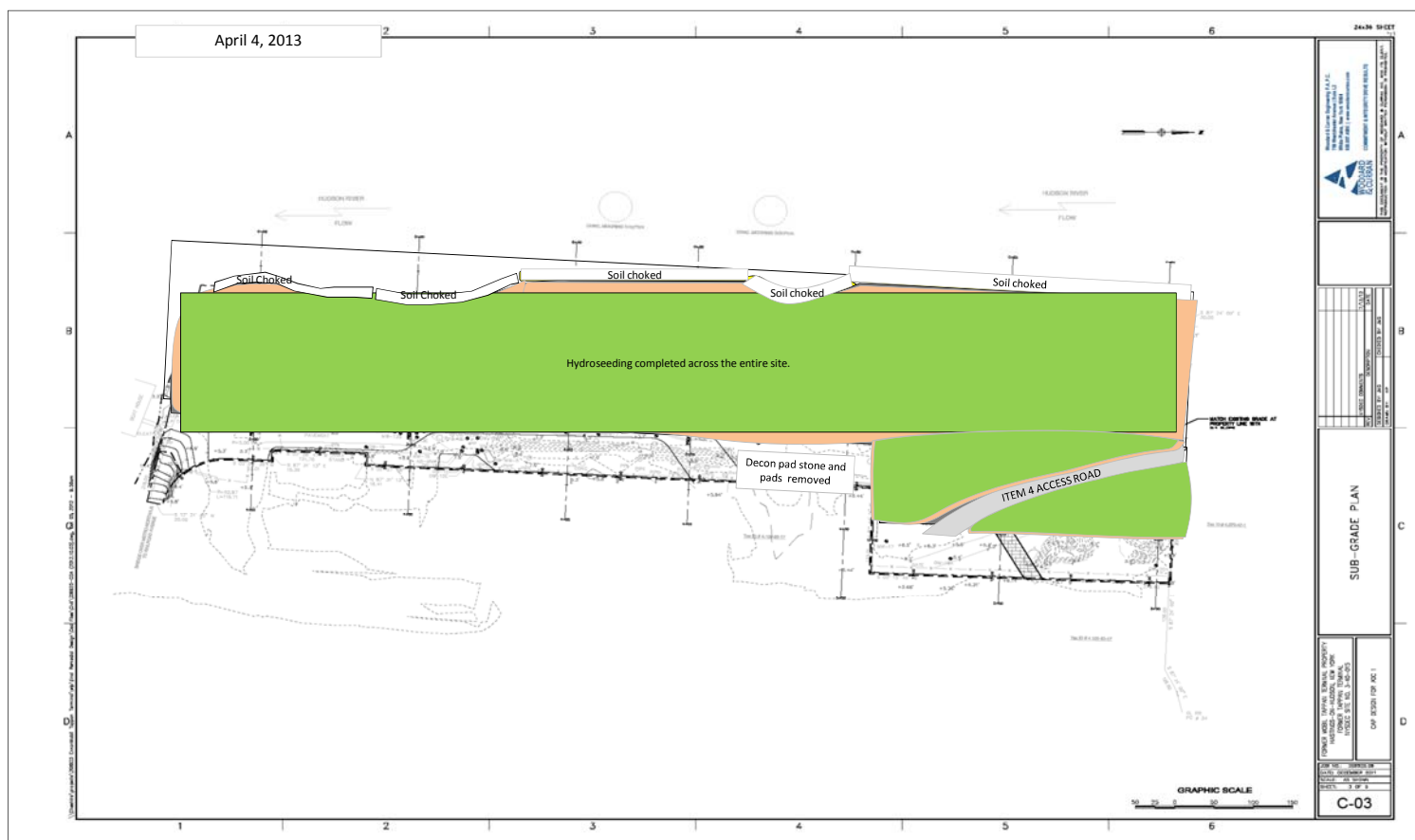
CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP not performed

Description of Upcoming Work Activities:

- SWPPP inspections weekly
- Adler to remove frac tank
- Disposal of 3 drums.
- Plant shrubs (late April/early May)
- Remove temporary fence and road signs
- Remove port-o-sans when planting is complete

Reviewed by (initials): NC



ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Thursday, April 04, 2013



Photo 1 South side erosion control measures



Photo 2 Mid site erosion control measures

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Thursday, April 04, 2013



Photo 3 Looking west from east side of Zinsser bridge where new fence and gate may be installed



Photo 4 Site looking north. Hydromulch in place.

DAILY FIELD ACTIVITY REPORT

Job: Soil Cap for AOC1

Date: Friday, April 12, 2013

Personnel On Site

Jordanna Kendrot - Roux

Equipment On Site

Roux

Reviewed by (initials): NC

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Friday, April 12, 2013

Description of Work Performed:

- Demob final frac tank onsite
- Weekly SWPPP Inspection

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- Frac Tank (x1)

Material Delivered To Site:

- No material delivered to site.

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP not performed

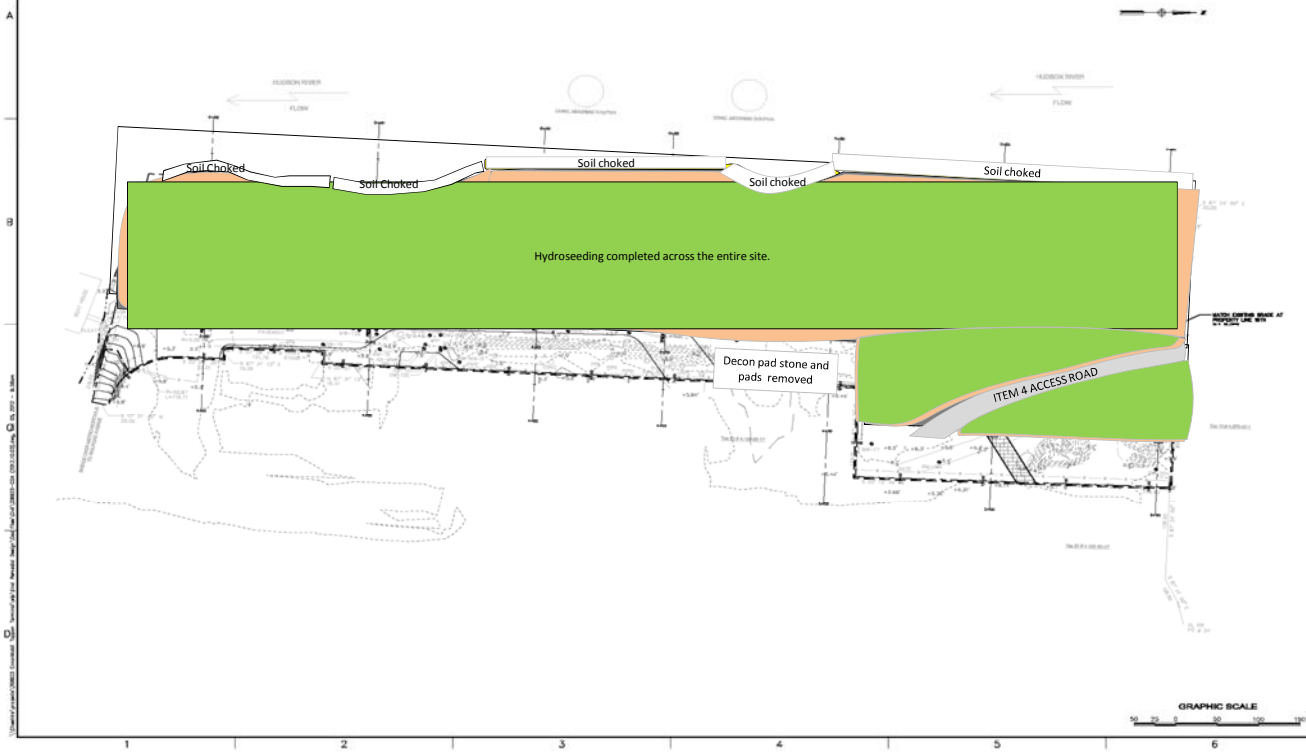
Description of Upcoming Work Activities:

- SWPPP inspections weekly
- Adler to remove frac tank lining
- Disposal of 3 drums.
- Plant shrubs (late April/early May)
- Remove temporary fence and road signs
- Remove port-o-sans when planting is complete

Reviewed by (initials): NC

Friday, April 12, 2013

4.36 D-CIT 723



SUB-GRADE PLAN	
OWNER: STATE OF TEXAS PROJECT: STATE HIGHWAY 100 LOCATION: SECTION 10, T. 10N, R. 10E, S. 10E DATE: 10/10/2010	DRAWN BY: 1000 CHECKED BY: 1000 DATE: 10/10/2010
SCALE: 1" = 40'	
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**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Friday, April 12, 2013



Photo 1 Frac tank demob offsite by Adler Tank Rental.



Photo 2 Frac tank demob offsite by Adler Tank Rental; heavy plastic liner beneath frac tank determined to be too heavy to be moved by onsite personnel. Adler will return at later date to take offsite.

DAILY FIELD ACTIVITY REPORT

Job: Soil Cap for AOC1

Date: Friday, April 19, 2013

Personnel On Site

Noelle Clarke - Roux

Equipment On Site

Roux

Reviewed by (initials): NC

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Friday, April 19, 2013

Description of Work Performed:

- Meeting with Deven Sharma of the Village
- Weekly SWPPP Inspection
- Check southern gate and lock - secure
- Apply new lock to northern gate to ExxonMobil property

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from the site

Material Delivered To Site:

- No material delivered to site.

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

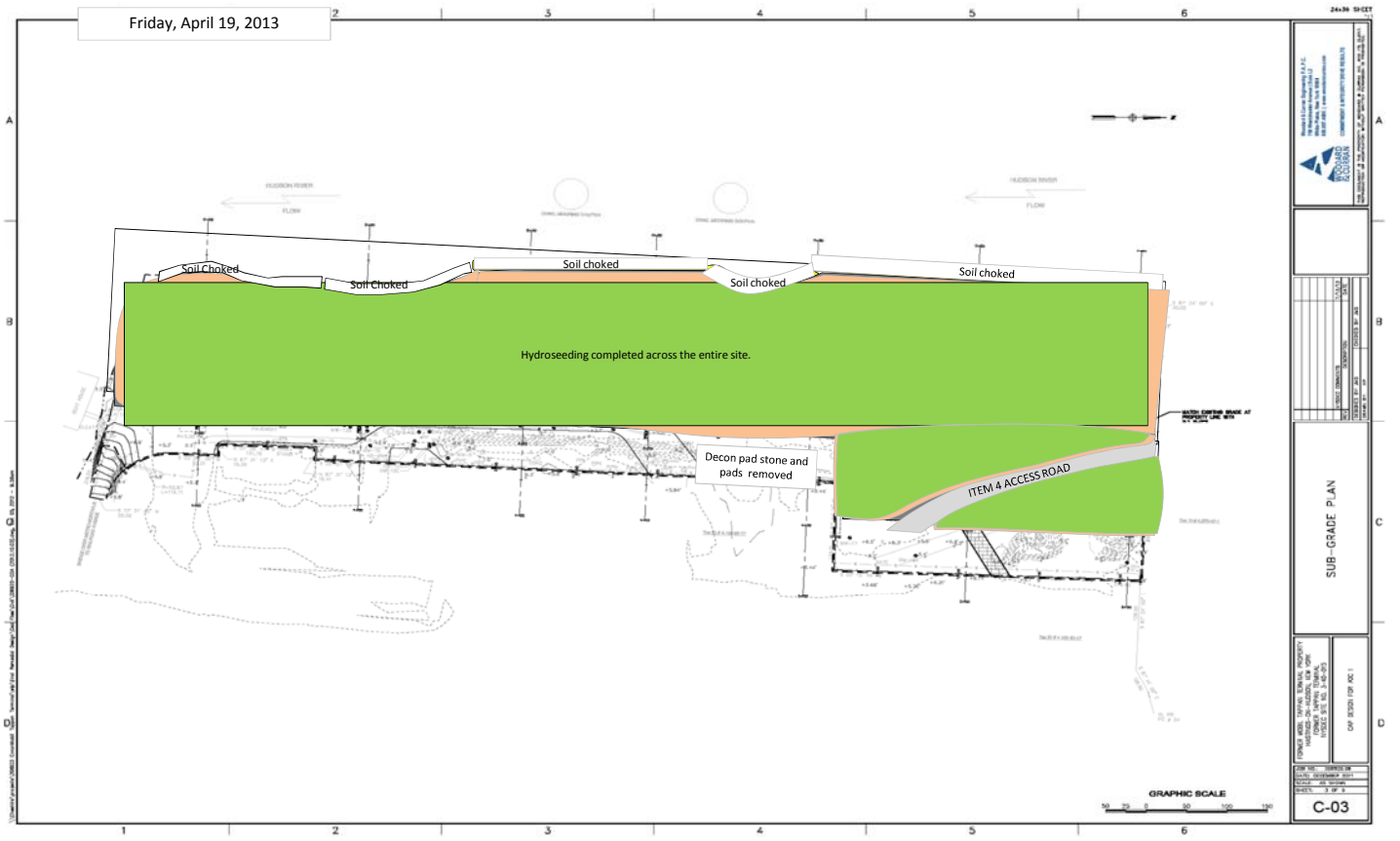
- CAMP not performed

Description of Upcoming Work Activities:

- SWPPP inspections weekly
- Adler to remove frac tank lining
- Disposal of 3 drums.
- Plant shrubs (late April/early May)
- Remove temporary fence and road signs
- Remove port-o-sans when planting is complete

Reviewed by (initials): NC

Friday, April 19, 2013



ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Friday, April 19, 2013



Photo 1 Site looking south. Hydromulch in place. Limited vegetation sprouting.



Photo 2 One of five permanent survey markers.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Friday, April 19, 2013



Photo 3 Mid-site erosion controls.



Photo 4 NYSDEC sign to be moved from temporary fence to permanent fence between Chevron and XOM property when temporary fence is removed.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y014
Job: Soil Cap for AOC1

Field Representative: Kathryn Sommo
Weather: Temp: 60s; Partly Cloudy
Precip: 0.0
Wind: NW; 5 MPH
Date: Friday, April 26, 2013

Personnel On Site

<u>Name and Affiliation</u>
<u>Danny Hirschberger - American</u>
<u>Ron Snider - American</u>
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<u>Name and Affiliation</u>
<u>Kathryn Sommo - Roux</u>
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Equipment On Site

<u>American</u>
<u>Temporary fence on south side</u>
<u>Road signs and sign stands</u>
<u>Port-o-sans</u>
<u>Liner for frac tank</u>
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Reviewed by (initials): NC

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Date: Friday, April 26, 2013

Description of Work Performed:

- Weekly SWPPP Inspection
- Check southern gate - secure

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- No material delivered to site.

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP not performed

Description of Upcoming Work Activities:

- SWPPP inspections weekly
- Adler to remove frac tank lining
- Disposal of 3 drums.
- Plant shrubs (late April/early May)
- Remove temporary fence and road signs
- Remove port-o-sans when planting is complete

Reviewed by (initials): NC



**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Friday, April 26, 2013



**Photo 1 Mid-site erosion control measures looking northwest. Hay bales in good condition.
Silt fence sagging, repairs scheduled for 4/29.**



**Photo 2 Southern erosion control measures looking southwest. Hay bales in good condition.
Silt fence sagging, repairs scheduled for 4/29.**

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Monday, April 29, 2013

Description of Work Performed:

- Establish planting holes for shrub installation with use of hand augers
- Take down signs and temporary fence and remove off site
- Secure silt fencing to posts with stapler
- Check southern gate - secure

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- Signs and temporary fence

Material Delivered To Site:

- No material delivered to site.

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

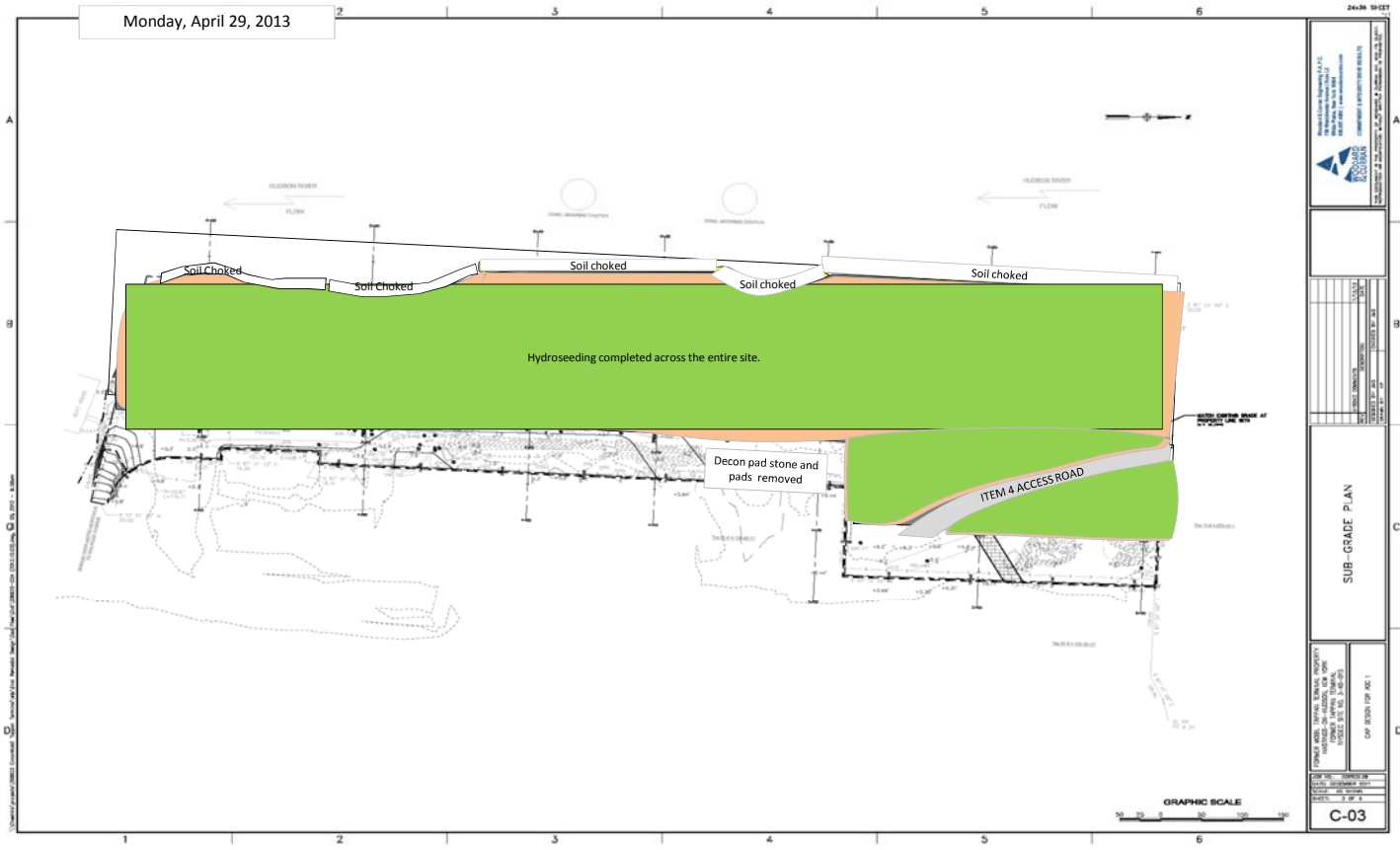
- CAMP not performed

Description of Upcoming Work Activities:

- SWPPP inspections weekly
- Adler to remove frac tank lining
- Disposal of 3 drums.
- Plant shrubs (late April/early May)
- Remove port-o-sans when planting is complete

Reviewed by (initials): NC

Monday, April 29, 2013



ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Monday, April 29, 2013



Photo 1 Establish planting holes.



Photo 2 Silt fencing secured to wooden posts.

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Monday, April 29, 2013



Photo 3 Vegetation emergence post-hydroseeding.

DAILY FIELD ACTIVITY REPORT

Job: Soil Cap for AOC1

Date: Tuesday, April 30, 2013

Personnel On Site

[illegible][illegible]

Equipment On Site

[illegible]

Reviewed by (initials): NC

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Tuesday, April 30, 2013

Description of Work Performed:

- Establish planting holes for shrub installation with use of hand augers
- Check southern gate - secure

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- No material delivered to site.

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

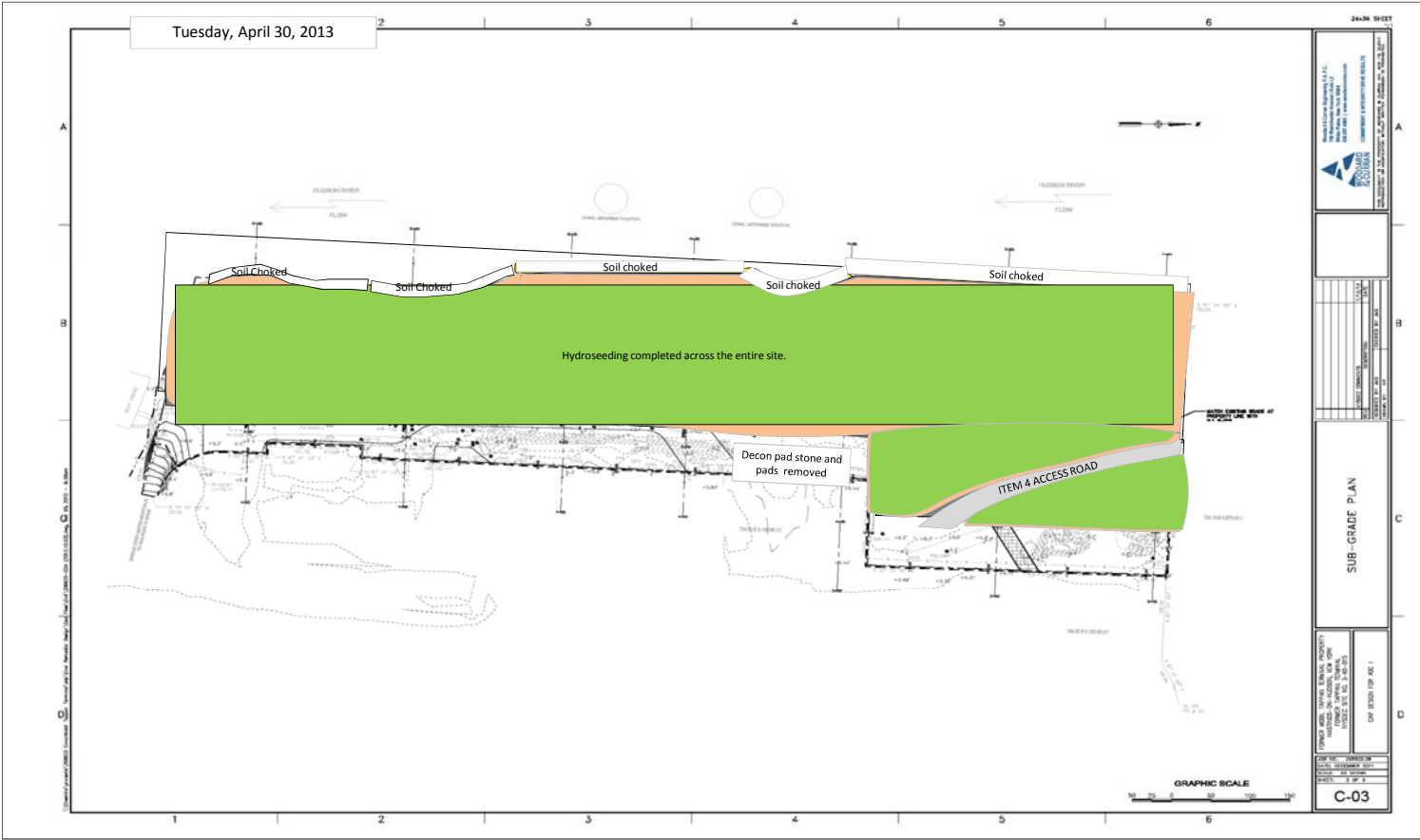
CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP not performed

Description of Upcoming Work Activities:

- SWPPP inspections weekly
- Adler to remove frac tank lining
- Disposal of 3 drums.
- Plant shrubs (late April/early May)
- Remove port-o-sans when planting is complete

Reviewed by (initials): NC



**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Tuesday, April 30, 2013



Photo 1 Established planting holes up to southern end of erosion controls located midway along shoreline berm.



Photo 2 Planting holes installed no greater than 2-feet from the established 50-foot buffer area from mean high water line.

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation
Location: 1 Railroad Avenue, Hastings-on-Hudson, NY
Project Number: 017.0151Y014
Job: Soil Cap for AOC1

Field Representative: Kathryn Sommo
Weather: Temp: 60s; Sunny
Precip: 0.0
Wind: ENE; 0-5 MPH
Date: Wednesday, May 01, 2013

Personnel On Site

<u>Name and Affiliation</u>
<u>Ron Snider - American</u>
<u>Omar Hernandez - American</u>
<u>Hector Diaz - American</u>
<u>Rafael Dahales - American</u>
<u>Danny Hirschberger - American</u>
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<u>Name and Affiliation</u>
<u>Kathryn Sommo - Roux</u>
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Equipment On Site

<u>American</u>
<u>Box Truck with water tank</u>
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Reviewed by (initials): NC

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Wednesday, May 01, 2013

Description of Work Performed:

- Establish planting holes for shrub installation with use of hand augers
- Install speckled alder and black chokeberry shrubs in planting holes ("Transplant Plus" added to each hole prior to planting)
- Water plants with hose attached to water tank

Equipment Delivered To Site:

- Box truck with water tank

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- Shrubs - Speckled Alder and Black Chokeberry.

612 ea. Alnus Rugosa 2 ½" Plugs

1538 ea. Aronia Melanocarpa Herb 2 ½" Plugs

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

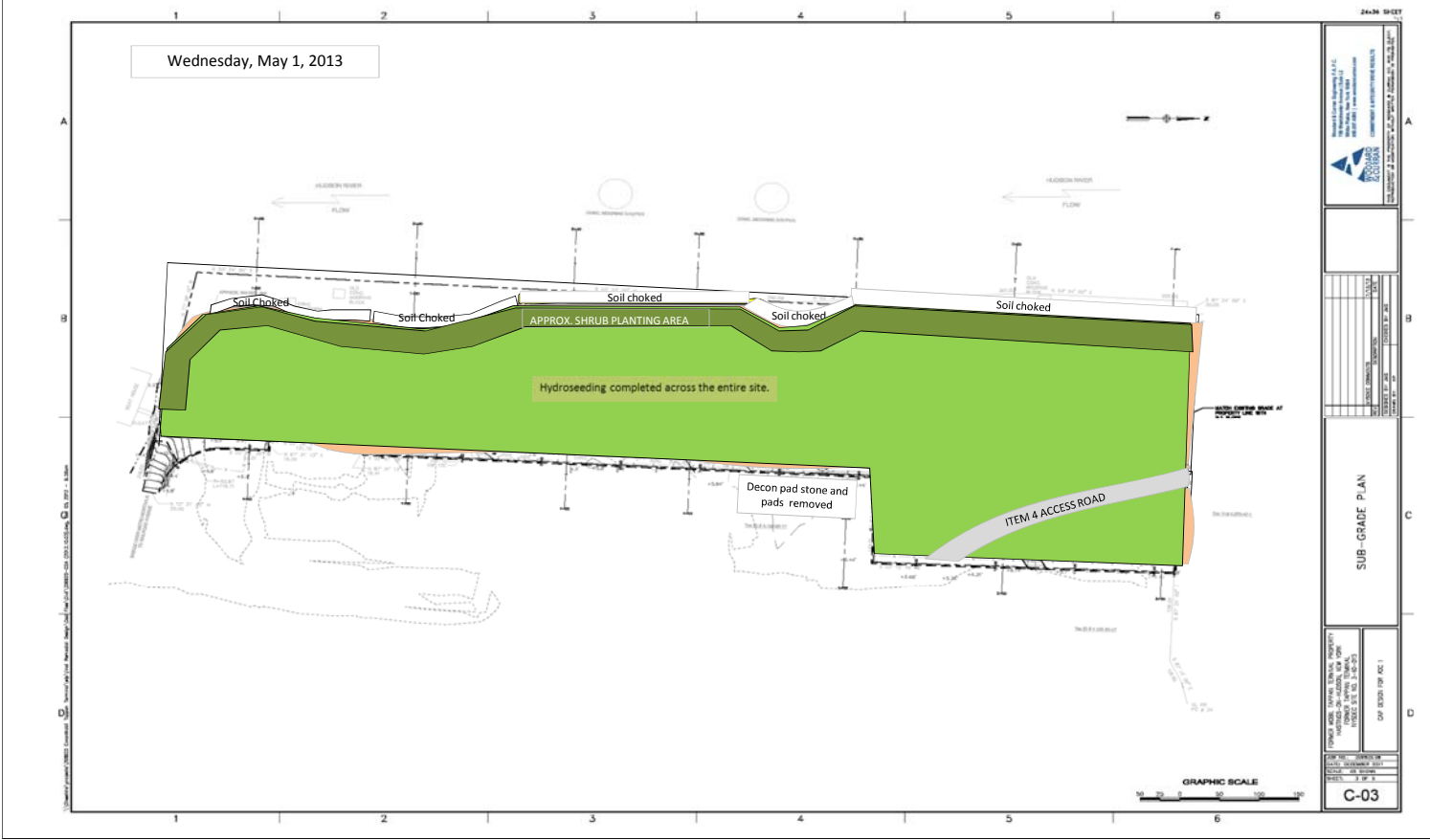
CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP not performed

Description of Upcoming Work Activities:

- SWPPP inspections weekly
- Adler to remove frac tank lining on 5/3
- Disposal of 3 drums on 5/8.

Reviewed by (initials): NC



**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Wednesday, May 01, 2013



Photo 1 Initiated shrub planting at southern end of restoration area adjacent to boat house.



Photo 2 Shrubs installed staggered, on 5-foot centers. Photo viewpoint facing west of extent of planting by end of day.

ASSOCIATE

DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation

Field Representative: Kathryn Sommo

Location: 1 Railroad Avenue, Hastings-on-Hudson, NY

Weather: Temp: 60s; Sunny

Project Number: 017.0151Y014

Precip: 0.0

Job: Soil Cap for AOC1

Wind: ENE; 0-5 MPHDate: Thursday, May 02, 2013

Personnel On Site

Name and Affiliation

Ron Snider - American

Omar Hernandez - American

Hector Diaz - American

Rafael Dahales - American

Name and Affiliation

Kathryn Sommo - Roux

Equipment On Site

American

Box Truck with water tank

Roux

Reviewed by (initials): NC

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Thursday, May 02, 2013

Description of Work Performed:

- Install speckled alder and black chokeberry shrubs in planting holes ("Transplant Plus" added to each hole prior to planting)
- Water plants with hose attached to water tank

Equipment Delivered To Site:

- No equipment delivered to site

Equipment Removed From Site:

- No equipment removed from site

Material Delivered To Site:

- Shrubs

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP not performed

Description of Upcoming Work Activities:

- SWPPP inspections weekly
- Adler to remove frac tank lining on 5/3
- Disposal of 3 drums on 5/8.

Reviewed by (initials): NC

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Photographs of Work Performed:

Date: Thursday, May 02, 2013



Photo 1 Shrub planting resumes within 50-foot buffer area; photo viewpoint facing west.



Photo 2 Black chokeberry shown in left photo, speckled alder shown shown in right photo.

ASSOCIATE

DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation

Field Representative: Kathryn Sommo

Location: 1 Railroad Avenue, Hastings-on-Hudson, NY

Weather: Temp: high 50s; Sunny

Project Number: 017.0151Y014

Precip: 0.0

Job: Soil Cap for AOC1

Wind: NE; 5 MPHDate: Friday, May 03, 2013

Personnel On Site

Name and Affiliation

Ron Snider - American

Omar Hernandez - American

Hector Diaz - American

Rafael Dahales - American

Name and Affiliation

Kathryn Sommo - Roux

Equipment On Site

American

Box Truck with water tank

Roux

Reviewed by (initials): NC

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Date: Friday, May 03, 2013

Description of Work Performed:

- Install speckled alder and black chokeberry shrubs in planting holes ("Transplant Plus" added to each hole prior to planting)
- Water plants with hose attached to water tank

Equipment Delivered To Site:

- Box Truck with water tank

Equipment Removed From Site:

- Box Truck with water tank

Material Delivered To Site:

- No material delivered to Site

Material Removed From Site:

- No material removed from site

Sampling Performed:

- No sampling performed

CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP not performed

Description of Upcoming Work Activities:

- SWPPP inspections weekly
- Adler to remove frac tank lining on 5/6
- Disposal of 3 drums on 5/8.

Reviewed by (initials): NC

**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Friday, May 03, 2013



Photo 1 Photo viewpoint facing west toward northern extent of planting area within 50-foot buffer.
Shrub planting on 5-foot centers completed .



Photo 2 All shrubs were watered upon planting.

ASSOCIATE

DAILY FIELD ACTIVITY REPORT

Client: ExxonMobil Oil Corporation

Field Representative: Kathryn Sommo

Location: 1 Railroad Avenue, Hastings-on-Hudson, NY

Weather: Temp: high 50s; Sunny

Project Number: 017.0151Y014

Precip: 0.0

Job: Soil Cap for AOC1

Wind: NE; 0-5 MPH

Date: Monday, May 06, 2013

Personnel On Site

Name and Affiliation

Ron Snider - American

Omar Hernandez - American

Hector Diaz - American

Rafael Dahales - American

Name and Affiliation

Kathryn Sommo - Roux

Equipment On Site

American

Dump Truck with water tank

Roux

Reviewed by (initials): NC

ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT

Date: Monday, May 06, 2013

Description of Work Performed:

- Install remaining speckled alder and black chokeberry shrubs ("Transplant Plus" added to each hole prior to planting)
- Water all shrubs installed within the buffer area via hose attached to water tank
- Remove Frac tank liner and transport off Site
- Remove port-a-potties and transport off Site

Equipment Delivered To Site:

- Dump Truck with water tank

Equipment Removed From Site:

- Dump Truck with water tank
- Port-a-potties removed from Site

Material Delivered To Site:

- No material delivered to Site

Material Removed From Site:

- Frac Tank Liner removed from Site.

Sampling Performed:

- No sampling performed

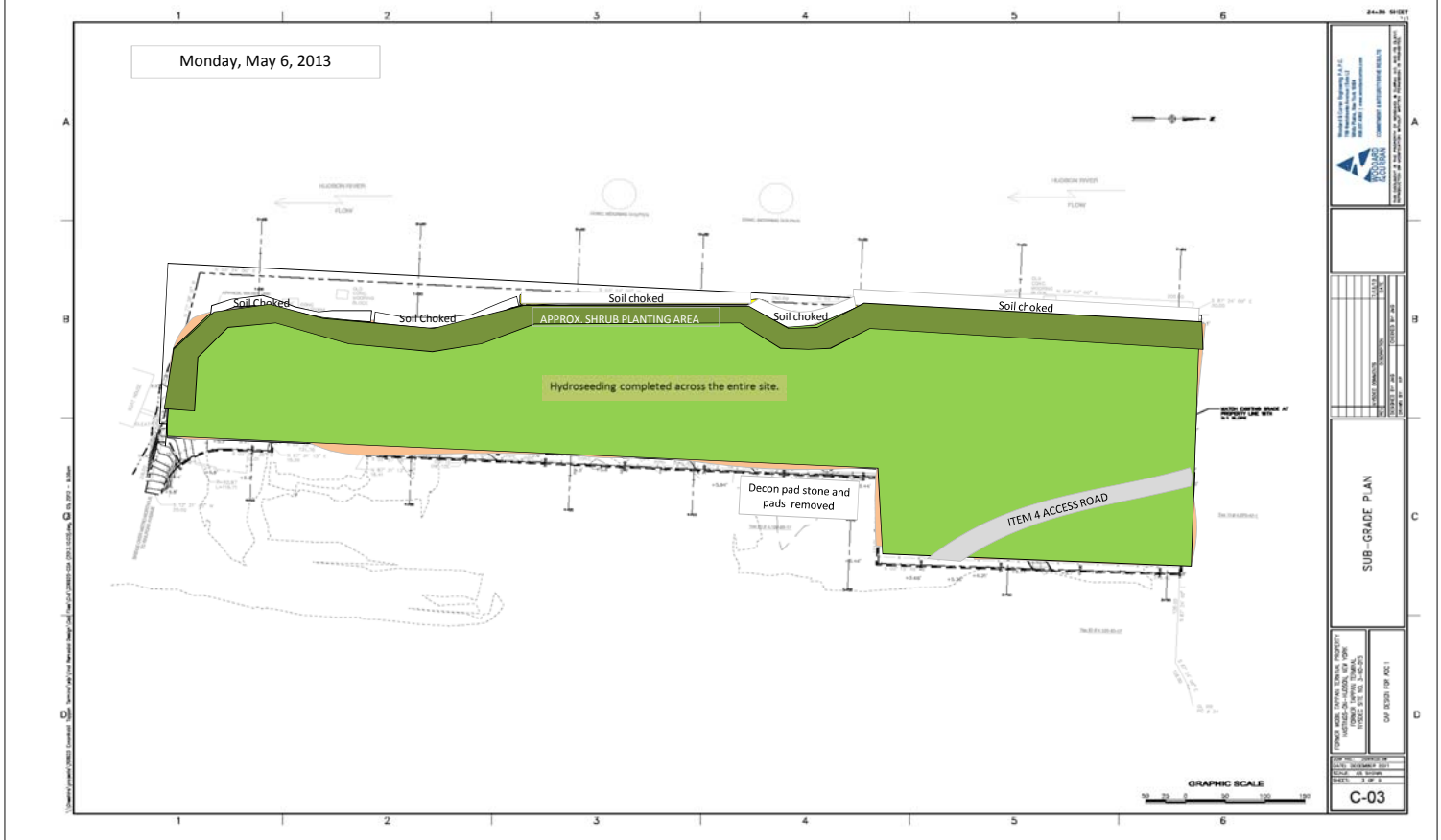
CAMP Performed (Note any exceedances or issues with the equipment):

- CAMP not performed

Description of Upcoming Work Activities:

- SWPPP inspections weekly
- Disposal of 3 drums on 5/8.

Reviewed by (initials): NC



**ROUX ASSOCIATES, INC.
DAILY FIELD ACTIVITY REPORT**

Photographs of Work Performed:

Date: Monday, May 06, 2013



Photo 1 Photo viewpoint facing north toward northern extent of planting area within 50-foot buffer.
Supplemental shrub planting with 197 remaining shrubs.



Photo 2 All shrubs were watered.

APPENDIX F: ANALYTICAL LABORATORY REPORTS

(Documents located on enclosed CD located under Appendix E)

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

November 13, 2012

Project: Tappan Terminal

Submittal Date: 10/24/2012

Group Number: 1344367

SDG: TAP01

PO Number: 4410017954

Release Number: TRIFILETTI

State of Sample Origin: NY

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
CM-TS1 Grab Soil	6834467
CM-TS2 Grab Soil	6834468
CM-TSC1 Composite Soil	6834469
TCN-ST1 Grab Soil	6834470
TCN-ST2 Grab Soil	6834471
TCN-STC1 Composite Soil	6834472
NYSS-ST1 Grab Soil	6834473
NYSS-ST2 Grab Soil	6834474
NYSS-STC1 Composite Soil	6834475
NYSS-SA1 Grab Soil	6834476
NYSS-SA2 Grab Soil	6834477
NYSS-SAC1 Composite Soil	6834478
POC-TS1 Grab Soil	6834479
POC-TS2 Grab Soil	6834480
POC-TSC1 Composite Soil	6834481

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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COPY TORoux Associates

Data Package Group
Exxon Mobil: Woodard & Curran

Attn: Tracy Bispham

Attn: Anne Proctor

Respectfully Submitted,



Barbara A. Weyandt
Specialist

(717) 556-7264

Project Name: Tappan Terminal
LLI Group #: 1344367

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:

SW-846 8260B, GC/MS Volatiles

Batch #: B122991AA (Sample number(s): 6834467-6834468, 6834470-6834471, 6834473-6834474, 6834476-6834477, 6834479-6834480 UNSPK: P833381)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Methylcyclohexane, 1,1,2-Trichloroethane, 1,1,2,2-Tetrachloroethane, 2-Hexanone, Methylene Chloride

The relative percent difference(s) for the following analyte(s) in the MS/MSD were outside outside acceptance windows: Methylcyclohexane, Carbon Tetrachloride, Trichloroethene, Toluene, 1,1,2-Trichloroethane, Tetrachloroethene, Dibromochloromethane, Chlorobenzene, Ethylbenzene, Styrene, Bromoform, 1,1,2,2-Tetrachloroethane, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dichlorobenzene, 1,2-Dibromo-3-chloropropane, 1,2,4-Trichlorobenzene, Carbon Disulfide, trans-1,3-Dichloropropene, cis-1,3-Dichloropropene, 2-Hexanone, Xylene (Total), Freon 113

SW-846 8270C, GC/MS Semivolatiles

Batch #: 12298SLE026 (Sample number(s): 6834469, 6834472, 6834475, 6834478, 6834481 UNSPK: 6834469)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Hexachlorocyclopentadiene

The relative percent difference(s) for the following analyte(s) in the MS/MSD were outside outside acceptance windows: 2,4-Dinitrophenol, 3,3'-Dichlorobenzidine, Benzo(b)fluoranthene

SW-846 8081A, Pesticides/PCBs

Sample #s: 6834469, 6834481

Reporting limits were raised due to interference from the sample matrix.

SW-846 8082, Pesticides/PCBs

Sample #s: 6834469

Reporting limits were raised due to interference from the sample matrix.

SW-846 8151A, Herbicides

Batch #: 122990021A (Sample number(s): 6834469, 6834472, 6834475, 6834478, 6834481
UNSPK: 6834478)

The relative percent difference(s) for the following analyte(s) in the MS/MSD were outside outside acceptance windows: Dinoseb

SW-846 6010B, Metals

Batch #: 122985708003 (Sample number(s): 6834469, 6834472, 6834475, 6834478, 6834481 UNSPK: P833808 BKG: P833808)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Aluminum, Iron, Magnesium, Potassium, Antimony, Beryllium, Chromium, Lead, Manganese, Zinc

The relative percent difference(s) for the following analyte(s) in the MS/MSD were outside outside acceptance windows: Iron, Magnesium, Lead

The duplicate RPD for the following analyte(s) exceeded the acceptance window: Arsenic, Antimony, Barium, Vanadium

Sample #s: 6834475

Reporting limits were raised due to interference from the sample matrix.

SW-846 7196A, wet Chemistry

Sample #s: 6834481

Reporting limits were raised due to interference from the sample matrix.

Sample Description: CM-TS1 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834467
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/19/2012 09:00 by TB

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 10/24/2012 09:20
 Reported: 11/13/2012 13:35

CMTS1 SDG#: TAP01-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1
10237	Benzene	71-43-2	0.0008 J	0.0005	1
10237	Bromodichloromethane	75-27-4	N.D.	0.001	1
10237	Bromoform	75-25-2	N.D.	0.001	1
10237	Bromomethane	74-83-9	N.D.	0.002	1
10237	2-Butanone	78-93-3	N.D.	0.004	1
10237	Carbon Disulfide	75-15-0	N.D.	0.001	1
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1
10237	Chlorobenzene	108-90-7	N.D.	0.001	1
10237	Chloroethane	75-00-3	N.D.	0.002	1
10237	Chloroform	67-66-3	N.D.	0.001	1
10237	Chloromethane	74-87-3	N.D.	0.002	1
10237	Cyclohexane	110-82-7	N.D.	0.001	1
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	1
10237	Dibromochloromethane	124-48-1	N.D.	0.001	1
10237	1,2-Dibromoethane	106-93-4	N.D.	0.001	1
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.002	1
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1
10237	1,2-Dichloropropane	78-87-5	N.D.	0.001	1
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	1
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	1
10237	Freon 113	76-13-1	N.D.	0.002	1
10237	2-Hexanone	591-78-6	N.D.	0.003	1
10237	Isopropylbenzene	98-82-8	N.D.	0.001	1
10237	Methyl Acetate	79-20-9	N.D.	0.002	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.003	1
10237	Methylcyclohexane	108-87-2	N.D.	0.001	1
10237	Methylene Chloride	75-09-2	0.002 J	0.002	1
10237	Styrene	100-42-5	N.D.	0.001	1
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	1
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1
10237	Toluene	108-88-3	0.003 J	0.001	1
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	1
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	1
10237	Trichloroethene	79-01-6	N.D.	0.001	1
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1

Wet Chemistry

SM20 2540 G

%

%

Sample Description: CM-TS1 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834467
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/19/2012 09:00 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

CMTS1 SDG#: TAP01-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Wet Chemistry					
00111	Moisture	n.a.	6.6	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles 4.3 8260B Soil	SW-846 8260B	1	B122991AA	10/25/2012 05:25	Stephanie A Selis	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:23	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201229829174	10/24/2012 13:22	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:09	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: CM-TS2 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834468
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/19/2012 09:05 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20
Reported: 11/13/2012 13:35

CMTS2 SDG#: TAP01-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.97
10237	Benzene	71-43-2	0.001 J	0.0005	0.97
10237	Bromodichloromethane	75-27-4	N.D.	0.001	0.97
10237	Bromoform	75-25-2	N.D.	0.001	0.97
10237	Bromomethane	74-83-9	N.D.	0.002	0.97
10237	2-Butanone	78-93-3	N.D.	0.004	0.97
10237	Carbon Disulfide	75-15-0	N.D.	0.001	0.97
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.97
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.97
10237	Chloroethane	75-00-3	N.D.	0.002	0.97
10237	Chloroform	67-66-3	N.D.	0.001	0.97
10237	Chloromethane	74-87-3	N.D.	0.002	0.97
10237	Cyclohexane	110-82-7	N.D.	0.001	0.97
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	0.97
10237	Dibromochloromethane	124-48-1	N.D.	0.001	0.97
10237	1,2-Dibromoethane	106-93-4	N.D.	0.001	0.97
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.97
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.97
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.97
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.002	0.97
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.97
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.97
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.97
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.97
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.97
10237	1,2-Dichloropropane	78-87-5	N.D.	0.001	0.97
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	0.97
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	0.97
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.97
10237	Freon 113	76-13-1	N.D.	0.002	0.97
10237	2-Hexanone	591-78-6	N.D.	0.003	0.97
10237	Isopropylbenzene	98-82-8	N.D.	0.001	0.97
10237	Methyl Acetate	79-20-9	N.D.	0.002	0.97
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.97
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.003	0.97
10237	Methylcyclohexane	108-87-2	N.D.	0.001	0.97
10237	Methylene Chloride	75-09-2	0.006	0.002	0.97
10237	Styrene	100-42-5	N.D.	0.001	0.97
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	0.97
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.97
10237	Toluene	108-88-3	0.005 J	0.001	0.97
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	0.97
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.97
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	0.97
10237	Trichloroethene	79-01-6	N.D.	0.001	0.97
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.97
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.97
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.97

Wet Chemistry

SM20 2540 G

%

%

Sample Description: CM-TS2 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834468
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/19/2012 09:05 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

CMTS2 SDG#: TAP01-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Wet Chemistry					
00111	Moisture	n.a.	5.8	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles 4.3 8260B Soil	SW-846 8260B	1	B122991AA	10/25/2012 05:47	Stephanie A Selis	0.97
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:22	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201229829174	10/24/2012 13:23	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:10	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: CM-TSC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834469
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/19/2012 09:10 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

MTSC1 SDG#: TAP01-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	14 J	4	1
10727	Acenaphthylene	208-96-8	11 J	4	1
10727	Acetophenone	98-86-2	N.D.	18	1
10727	Anthracene	120-12-7	27	4	1
10727	Atrazine	1912-24-9	N.D.	36	1
10727	Benzaldehyde	100-52-7	N.D.	72	1
10727	Benzo(a)anthracene	56-55-3	34	4	1
10727	Benzo(a)pyrene	50-32-8	23	4	1
10727	Benzo(b)fluoranthene	205-99-2	59	4	1
10727	Benzo(g,h,i)perylene	191-24-2	17 J	4	1
10727	Benzo(k)fluoranthene	207-08-9	18 J	4	1
10727	1,1'-Biphenyl	92-52-4	N.D.	18	1
10727	4-Bromophenyl-phenylether	101-55-3	N.D.	18	1
10727	Butylbenzylphthalate	85-68-7	N.D.	72	1
10727	Di-n-butylphthalate	84-74-2	N.D.	72	1
10727	Caprolactam	105-60-2	N.D.	36	1
10727	Carbazole	86-74-8	N.D.	18	1
10727	4-Chloro-3-methylphenol	59-50-7	N.D.	18	1
10727	4-Chloroaniline	106-47-8	N.D.	18	1
10727	bis(2-Chloroethoxy)methane	111-91-1	N.D.	18	1
10727	bis(2-Chloroethyl)ether	111-44-4	N.D.	18	1
10727	2-Chloronaphthalene	91-58-7	N.D.	8	1
10727	2-Chlorophenol	95-57-8	N.D.	18	1
10727	4-Chlorophenyl-phenylether	7005-72-3	N.D.	18	1
10727	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	18	1
Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
10727	Chrysene	218-01-9	52	4	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	4	1
10727	Dibenzofuran	132-64-9	N.D.	18	1
10727	3,3'-Dichlorobenzidine	91-94-1	N.D.	110	1
10727	2,4-Dichlorophenol	120-83-2	N.D.	18	1
10727	Diethylphthalate	84-66-2	N.D.	72	1
10727	2,4-Dimethylphenol	105-67-9	N.D.	18	1
10727	Dimethylphthalate	131-11-3	N.D.	72	1
10727	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	180	1
10727	2,4-Dinitrophenol	51-28-5	N.D.	320	1
10727	2,4-Dinitrotoluene	121-14-2	N.D.	72	1
10727	2,6-Dinitrotoluene	606-20-2	N.D.	18	1
10727	bis(2-Ethylhexyl)phthalate	117-81-7	310	72	1
10727	Fluoranthene	206-44-0	180	4	1
10727	Fluorene	86-73-7	18 J	4	1
10727	Hexachlorobenzene	118-74-1	N.D.	4	1
10727	Hexachlorobutadiene	87-68-3	N.D.	18	1
10727	Hexachlorocyclopentadiene	77-47-4	N.D.	180	1
10727	Hexachloroethane	67-72-1	N.D.	36	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	14 J	4	1
10727	Isophorone	78-59-1	N.D.	18	1

Sample Description: CM-TSC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834469
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/19/2012 09:10 by TB

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 10/24/2012 09:20
 Reported: 11/13/2012 13:35

MTSC1 SDG#: TAP01-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
			ug/kg	ug/kg	
10727	2-Methylnaphthalene	91-57-6	11 J	4	1
10727	2-Methylphenol	95-48-7	N.D.	18	1
10727	4-Methylphenol	106-44-5	48	18	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.				
10727	Naphthalene	91-20-3	14 J	4	1
10727	2-Nitroaniline	88-74-4	N.D.	18	1
10727	3-Nitroaniline	99-09-2	N.D.	72	1
10727	4-Nitroaniline	100-01-6	N.D.	72	1
10727	Nitrobenzene	98-95-3	N.D.	18	1
10727	2-Nitrophenol	88-75-5	N.D.	18	1
10727	4-Nitrophenol	100-02-7	N.D.	180	1
10727	N-Nitroso-di-n-propylamine	621-64-7	N.D.	18	1
10727	N-Nitrosodiphenylamine	86-30-6	N.D.	18	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
10727	Di-n-octylphthalate	117-84-0	N.D.	72	1
10727	Pentachlorophenol	87-86-5	N.D.	36	1
10727	Phenanthrene	85-01-8	75	4	1
10727	Phenol	108-95-2	28 J	18	1
10727	Pyrene	129-00-0	170	4	1
10727	2,4,5-Trichlorophenol	95-95-4	N.D.	18	1
10727	2,4,6-Trichlorophenol	88-06-2	N.D.	18	1
Herbicides SW-846 8151A					
			ug/kg	ug/kg	
10401	2,4-D	94-75-7	N.D.	13	1
10401	Dalapon	75-99-0	N.D.	47	1
10401	2,4-DB	94-82-6	N.D.	6.7	1
10401	Dicamba	1918-00-9	N.D.	4.3	1
10401	Dinoseb	88-85-7	N.D.	8.6	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.				
10401	2,4-DP (Dichloroprop)	120-36-5	N.D.	9.7	1
10401	MCPA	94-74-6	N.D.	820	1
10401	MCPP (Mecoprop)	93-65-2	N.D.	810	1
10401	Pentachlorophenol	87-86-5	7.1	0.35	1
10401	2,4,5-T	93-76-5	N.D.	0.88	1
10401	2,4,5-TP	93-72-1	N.D.	0.81	1
Pesticides/PCBs SW-846 8081A					
			ug/kg	ug/kg	
10738	Aldrin	309-00-2	N.D.	0.44	1
10738	Alpha BHC	319-84-6	N.D.	0.18	1
10738	Beta BHC	319-85-7	N.D.	1.0	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.18	1
10738	Alpha Chlordane	5103-71-9	6.1	0.18	1
10738	Gamma Chlordane	5103-74-2	N.D.	100	20
10738	p,p-DDD	72-54-8	N.D.	0.45	1

Sample Description: CM-TSC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834469
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/19/2012 09:10 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

MTSC1 SDG#: TAP01-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	
10738	p,p-DDE	72-55-9	1.9	0.35	1
10738	p,p-DDT	50-29-3	1.3 J	0.35	1
10738	Delta BHC	319-86-8	N.D.	0.48	1
10738	Dieldrin	60-57-1	2.1	0.35	1
10738	Endosulfan I	959-98-8	0.49 J	0.24	1
10738	Endosulfan II	33213-65-9	N.D.	0.35	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.42	1
10738	Endrin	72-20-8	N.D.	0.35	1
10738	Endrin Aldehyde	7421-93-4	N.D.	0.35	1
10738	Endrin Ketone	53494-70-5	N.D.	0.64	1
10738	Heptachlor	76-44-8	0.30 J	0.18	1
10738	Heptachlor Epoxide	1024-57-3	0.96	0.18	1
10738	Methoxychlor	72-43-5	N.D.	1.8	1
10738	Toxaphene	8001-35-2	N.D.	13	1
Reporting limits were raised due to interference from the sample matrix.					
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	8.6	1
10736	PCB-1221	11104-28-2	N.D.	4.9	1
10736	PCB-1232	11141-16-5	N.D.	8.6	1
10736	PCB-1242	53469-21-9	N.D.	7.5	1
10736	PCB-1248	12672-29-6	N.D.	8.6	1
10736	PCB-1254	11097-69-1	N.D.	6.4	1
10736	PCB-1260	11096-82-5	N.D.	5.6	1
Reporting limits were raised due to interference from the sample matrix.					
Metals		SW-846 6010B	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	16,800	8.04	1
06944	Antimony	7440-36-0	0.595 J	0.521	1
06935	Arsenic	7440-38-2	6.84	0.344	1
06946	Barium	7440-39-3	89.7	0.0344	1
06947	Beryllium	7440-41-7	0.951	0.0699	1
06949	Cadmium	7440-43-9	0.247 J	0.0344	1
01650	Calcium	7440-70-2	3,530	4.19	1
06951	Chromium	7440-47-3	20.5	0.0918	1
06952	Cobalt	7440-48-4	6.47	0.0939	1
06953	Copper	7440-50-8	56.7	0.188	1
01654	Iron	7439-89-6	19,100	3.96	1
06955	Lead	7439-92-1	17.0	0.490	1
01657	Magnesium	7439-95-4	3,670	1.80	1
06958	Manganese	7439-96-5	552	0.0866	1
06961	Nickel	7440-02-0	13.4	0.115	1
01662	Potassium	7440-09-7	2,700	14.1	1
06936	Selenium	7782-49-2	N.D.	0.751	1
06966	Silver	7440-22-4	0.310 J	0.146	1
01667	Sodium	7440-23-5	344	17.4	1
06925	Thallium	7440-28-0	N.D.	0.386	1
06971	Vanadium	7440-62-2	27.6	0.115	1
06972	Zinc	7440-66-6	78.5	0.209	1

Sample Description: CM-TSC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834469
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/19/2012 09:10 by TB

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 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

MTSC1 SDG#: TAP01-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Metals		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	20.5	0.54	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0445 J	0.0107	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.19	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.54	1
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	6.9	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	TCL 4.3 SVOC 8270C Soil	SW-846 8270C	1	12298SLE026	10/25/2012 10:30	Brian K Graham	1
10809	BNA Soil Microwave	SW-846 3546	1	12298SLE026	10/24/2012 18:00	Sally L Appleyard	1
10401	Herbicides 8151A Soil	SW-846 8151A	1	122990021A	10/26/2012 11:17	John W Perkins	1
10738	TCL Pesticides 8081A Soil	SW-846 8081A	1	123010012A	11/03/2012 05:15	Jamie L Brillhart	1
10738	TCL Pesticides 8081A Soil	SW-846 8081A	1	123010012A	11/07/2012 01:14	Jamie L Brillhart	20
10736	PCBs 8082 Soil	SW-846 8082	1	122980012A	10/25/2012 11:51	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	122980012A	10/24/2012 15:35	JoElla L Rice	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	2	123010012A	10/28/2012 05:00	Sherry L Morrow	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	122990021A	10/25/2012 20:50	Karen L Beyer	1
01643	Aluminum	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06944	Antimony	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1

Sample Description: CM-TSC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834469
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

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 38 Varick Street
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Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

MTSC1 SDG#: TAP01-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06935	Arsenic	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06946	Barium	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
01650	Calcium	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06951	Chromium	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06953	Copper	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
01654	Iron	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06955	Lead	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06958	Manganese	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06961	Nickel	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
01662	Potassium	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06936	Selenium	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06966	Silver	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
01667	Sodium	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06925	Thallium	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06972	Zinc	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123052829001	10/31/2012 04:20	Deborah A Krady	1
00159	Mercury	SW-846 7471A	1	122985711001	10/26/2012 06:10	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	122985708003	10/25/2012 09:23	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	122985711001	10/25/2012 12:00	Denise K Conners	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12299103201A	10/25/2012 16:19	Venia B McFadden	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12299102201A	10/25/2012 16:06	Venia B McFadden	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12299103201A	10/25/2012 08:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12299102201A	10/25/2012 08:40	Nancy J Shoop	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12302042501A	10/28/2012 22:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12302042501A	10/28/2012 22:30	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: TCN-ST1 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834470
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 11:45 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

CNST1 SDG#: TAP01-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1.01
10237	Benzene	71-43-2	N.D.	0.0005	1.01
10237	Bromodichloromethane	75-27-4	N.D.	0.001	1.01
10237	Bromoform	75-25-2	N.D.	0.001	1.01
10237	Bromomethane	74-83-9	N.D.	0.002	1.01
10237	2-Butanone	78-93-3	N.D.	0.004	1.01
10237	Carbon Disulfide	75-15-0	N.D.	0.001	1.01
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.01
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.01
10237	Chloroethane	75-00-3	N.D.	0.002	1.01
10237	Chloroform	67-66-3	N.D.	0.001	1.01
10237	Chloromethane	74-87-3	N.D.	0.002	1.01
10237	Cyclohexane	110-82-7	N.D.	0.001	1.01
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	1.01
10237	Dibromochloromethane	124-48-1	N.D.	0.001	1.01
10237	1,2-Dibromoethane	106-93-4	N.D.	0.001	1.01
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.01
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.01
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.01
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.002	1.01
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.01
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.01
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.01
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.01
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.01
10237	1,2-Dichloropropane	78-87-5	N.D.	0.001	1.01
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	1.01
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	1.01
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.01
10237	Freon 113	76-13-1	N.D.	0.002	1.01
10237	2-Hexanone	591-78-6	N.D.	0.003	1.01
10237	Isopropylbenzene	98-82-8	N.D.	0.001	1.01
10237	Methyl Acetate	79-20-9	0.002 J	0.002	1.01
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.01
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.003	1.01
10237	Methylcyclohexane	108-87-2	N.D.	0.001	1.01
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.01
10237	Styrene	100-42-5	N.D.	0.001	1.01
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	1.01
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.01
10237	Toluene	108-88-3	N.D.	0.001	1.01
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	1.01
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.01
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	1.01
10237	Trichloroethene	79-01-6	N.D.	0.001	1.01
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.01
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.01
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.01

Wet Chemistry

SM20 2540 G

%

%

Sample Description: TCN-ST1 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834470
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 11:45 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

CNST1 SDG#: TAP01-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Wet Chemistry					
00111	Moisture	n.a.	5.5	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles 4.3 8260B Soil	SW-846 8260B	1	B122991AA	10/25/2012 06:10	Stephanie A Selis	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:22	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201229829174	10/24/2012 13:22	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:02	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: TCN-ST2 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834471
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 11:50 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

CNST2 SDG#: TAP01-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.98
10237	Benzene	71-43-2	N.D.	0.0005	0.98
10237	Bromodichloromethane	75-27-4	N.D.	0.001	0.98
10237	Bromoform	75-25-2	N.D.	0.001	0.98
10237	Bromomethane	74-83-9	N.D.	0.002	0.98
10237	2-Butanone	78-93-3	N.D.	0.004	0.98
10237	Carbon Disulfide	75-15-0	N.D.	0.001	0.98
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.98
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.98
10237	Chloroethane	75-00-3	N.D.	0.002	0.98
10237	Chloroform	67-66-3	N.D.	0.001	0.98
10237	Chloromethane	74-87-3	N.D.	0.002	0.98
10237	Cyclohexane	110-82-7	N.D.	0.001	0.98
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	0.98
10237	Dibromochloromethane	124-48-1	N.D.	0.001	0.98
10237	1,2-Dibromoethane	106-93-4	N.D.	0.001	0.98
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.98
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.98
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.98
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.002	0.98
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.98
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.98
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.98
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.98
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.98
10237	1,2-Dichloropropane	78-87-5	N.D.	0.001	0.98
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	0.98
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	0.98
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.98
10237	Freon 113	76-13-1	N.D.	0.002	0.98
10237	2-Hexanone	591-78-6	N.D.	0.003	0.98
10237	Isopropylbenzene	98-82-8	N.D.	0.001	0.98
10237	Methyl Acetate	79-20-9	0.002 J	0.002	0.98
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.98
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.003	0.98
10237	Methylcyclohexane	108-87-2	N.D.	0.001	0.98
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.98
10237	Styrene	100-42-5	N.D.	0.001	0.98
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	0.98
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.98
10237	Toluene	108-88-3	0.001 J	0.001	0.98
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	0.98
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.98
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	0.98
10237	Trichloroethene	79-01-6	N.D.	0.001	0.98
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.98
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.98
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.98

Wet Chemistry

SM20 2540 G

%

%

Sample Description: TCN-ST2 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834471
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 11:50 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

CNST2 SDG#: TAP01-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Wet Chemistry					
00111	Moisture	n.a.	6.2	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles 4.3 8260B Soil	SW-846 8260B	1	B122991AA	10/25/2012 06:33	Stephanie A Selis	0.98
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:23	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201229829174	10/24/2012 13:23	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:04	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: TCN-STC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834472
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 11:55 by TB

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

NSTC1 SDG#: TAP01-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	4	1
10727	Acenaphthylene	208-96-8	N.D.	4	1
10727	Acetophenone	98-86-2	N.D.	18	1
10727	Anthracene	120-12-7	N.D.	4	1
10727	Atrazine	1912-24-9	N.D.	35	1
10727	Benzaldehyde	100-52-7	N.D.	71	1
10727	Benzo(a)anthracene	56-55-3	N.D.	4	1
10727	Benzo(a)pyrene	50-32-8	N.D.	4	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	4	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	4	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	4	1
10727	1,1'-Biphenyl	92-52-4	N.D.	18	1
10727	4-Bromophenyl-phenylether	101-55-3	N.D.	18	1
10727	Butylbenzylphthalate	85-68-7	N.D.	71	1
10727	Di-n-butylphthalate	84-74-2	N.D.	71	1
10727	Caprolactam	105-60-2	N.D.	35	1
10727	Carbazole	86-74-8	N.D.	18	1
10727	4-Chloro-3-methylphenol	59-50-7	N.D.	18	1
10727	4-Chloroaniline	106-47-8	N.D.	18	1
10727	bis(2-Chloroethoxy)methane	111-91-1	N.D.	18	1
10727	bis(2-Chloroethyl)ether	111-44-4	N.D.	18	1
10727	2-Chloronaphthalene	91-58-7	N.D.	7	1
10727	2-Chlorophenol	95-57-8	N.D.	18	1
10727	4-Chlorophenyl-phenylether	7005-72-3	N.D.	18	1
10727	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	18	1
Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
10727	Chrysene	218-01-9	N.D.	4	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	4	1
10727	Dibenzofuran	132-64-9	N.D.	18	1
10727	3,3'-Dichlorobenzidine	91-94-1	N.D.	110	1
10727	2,4-Dichlorophenol	120-83-2	N.D.	18	1
10727	Diethylphthalate	84-66-2	N.D.	71	1
10727	2,4-Dimethylphenol	105-67-9	N.D.	18	1
10727	Dimethylphthalate	131-11-3	N.D.	71	1
10727	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	180	1
10727	2,4-Dinitrophenol	51-28-5	N.D.	320	1
10727	2,4-Dinitrotoluene	121-14-2	N.D.	71	1
10727	2,6-Dinitrotoluene	606-20-2	N.D.	18	1
10727	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	71	1
10727	Fluoranthene	206-44-0	N.D.	4	1
10727	Fluorene	86-73-7	N.D.	4	1
10727	Hexachlorobenzene	118-74-1	N.D.	4	1
10727	Hexachlorobutadiene	87-68-3	N.D.	18	1
10727	Hexachlorocyclopentadiene	77-47-4	N.D.	180	1
10727	Hexachloroethane	67-72-1	N.D.	35	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	4	1
10727	Isophorone	78-59-1	N.D.	18	1

Sample Description: TCN-STC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834472
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 11:55 by TB

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

NSTC1 SDG#: TAP01-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	2-Methylnaphthalene	91-57-6	N.D.	4	1
10727	2-Methylphenol	95-48-7	N.D.	18	1
10727	4-Methylphenol	106-44-5	N.D.	18	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.				
10727	Naphthalene	91-20-3	N.D.	4	1
10727	2-Nitroaniline	88-74-4	N.D.	18	1
10727	3-Nitroaniline	99-09-2	N.D.	71	1
10727	4-Nitroaniline	100-01-6	N.D.	71	1
10727	Nitrobenzene	98-95-3	N.D.	18	1
10727	2-Nitrophenol	88-75-5	N.D.	18	1
10727	4-Nitrophenol	100-02-7	N.D.	180	1
10727	N-Nitroso-di-n-propylamine	621-64-7	N.D.	18	1
10727	N-Nitrosodiphenylamine	86-30-6	N.D.	18	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
10727	Di-n-octylphthalate	117-84-0	N.D.	71	1
10727	Pentachlorophenol	87-86-5	N.D.	35	1
10727	Phenanthrene	85-01-8	4 J	4	1
10727	Phenol	108-95-2	N.D.	18	1
10727	Pyrene	129-00-0	6 J	4	1
10727	2,4,5-Trichlorophenol	95-95-4	N.D.	18	1
10727	2,4,6-Trichlorophenol	88-06-2	N.D.	18	1
Herbicides SW-846 8151A					
10401	2,4-D	94-75-7	N.D.	13	1
10401	Dalapon	75-99-0	N.D.	47	1
10401	2,4-DB	94-82-6	N.D.	6.6	1
10401	Dicamba	1918-00-9	N.D.	4.2	1
10401	Dinoseb	88-85-7	N.D.	8.5	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.				
10401	2,4-DP (Dichloroprop)	120-36-5	N.D.	9.6	1
10401	MCPA	94-74-6	N.D.	810	1
10401	MCPP (Mecoprop)	93-65-2	N.D.	800	1
10401	Pentachlorophenol	87-86-5	N.D.	0.35	1
10401	2,4,5-T	93-76-5	N.D.	0.87	1
10401	2,4,5-TP	93-72-1	N.D.	0.80	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.18	1
10738	Alpha BHC	319-84-6	N.D.	0.18	1
10738	Beta BHC	319-85-7	N.D.	1.0	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.18	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.18	1
10738	Gamma Chlordane	5103-74-2	N.D.	0.18	1
10738	p,p-DDD	72-54-8	N.D.	0.35	1

Sample Description: TCN-STC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834472
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 11:55 by TB

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

NSTC1 SDG#: TAP01-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	
10738	p,p-DDE	72-55-9	N.D.	0.35	1
10738	p,p-DDT	50-29-3	N.D.	0.35	1
10738	Delta BHC	319-86-8	N.D.	0.48	1
10738	Dieldrin	60-57-1	N.D.	0.35	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.35	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.35	1
10738	Endrin	72-20-8	N.D.	0.35	1
10738	Endrin Aldehyde	7421-93-4	N.D.	0.35	1
10738	Endrin Ketone	53494-70-5	N.D.	0.64	1
10738	Heptachlor	76-44-8	N.D.	0.18	1
10738	Heptachlor Epoxide	1024-57-3	N.D.	0.18	1
10738	Methoxychlor	72-43-5	N.D.	1.8	1
10738	Toxaphene	8001-35-2	N.D.	13	1
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	3.8	1
10736	PCB-1221	11104-28-2	N.D.	4.9	1
10736	PCB-1232	11141-16-5	N.D.	8.5	1
10736	PCB-1242	53469-21-9	N.D.	3.5	1
10736	PCB-1248	12672-29-6	N.D.	3.5	1
10736	PCB-1254	11097-69-1	N.D.	3.5	1
10736	PCB-1260	11096-82-5	N.D.	5.2	1
Metals		SW-846 6010B	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	23,500	8.13	1
06944	Antimony	7440-36-0	0.787 J	0.527	1
06935	Arsenic	7440-38-2	2.21	0.348	1
06946	Barium	7440-39-3	20.1	0.0348	1
06947	Beryllium	7440-41-7	1.06	0.0706	1
06949	Cadmium	7440-43-9	0.368 J	0.0348	1
01650	Calcium	7440-70-2	16,800	4.24	1
06951	Chromium	7440-47-3	5.71	0.0928	1
06952	Cobalt	7440-48-4	17.1	0.0949	1
06953	Copper	7440-50-8	138	0.190	1
01654	Iron	7439-89-6	28,600	8.01	2
06955	Lead	7439-92-1	3.71	0.496	1
01657	Magnesium	7439-95-4	7,020	1.82	1
06958	Manganese	7439-96-5	225	0.0875	1
06961	Nickel	7440-02-0	14.9	0.116	1
01662	Potassium	7440-09-7	855	14.2	1
06936	Selenium	7782-49-2	N.D.	0.759	1
06966	Silver	7440-22-4	0.250 J	0.148	1
01667	Sodium	7440-23-5	3,850	17.6	1
06925	Thallium	7440-28-0	N.D.	0.390	1
06971	Vanadium	7440-62-2	108	0.116	1
06972	Zinc	7440-66-6	46.5	0.211	1

Sample Description: TCN-STC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834472
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 11:55 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

NSTC1 SDG#: TAP01-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Metals					
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	5.7	0.53	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0108	1
Wet Chemistry					
		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.18	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.53	1
Wet Chemistry					
		SM20 2540 G	%	%	
00111	Moisture	n.a.	6.1	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	TCL 4.3 SVOC 8270C Soil	SW-846 8270C	1	12298SLE026	10/25/2012 11:45	Brian K Graham	1
10809	BNA Soil Microwave	SW-846 3546	1	12298SLE026	10/24/2012 18:00	Sally L Appleyard	1
10401	Herbicides 8151A Soil	SW-846 8151A	1	122990021A	10/26/2012 11:44	John W Perkins	1
10738	TCL Pesticides 8081A Soil	SW-846 8081A	1	123010012A	11/03/2012 05:57	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	122980012A	10/25/2012 12:02	Monica M Souders	1
10497	PCB Microwave Soil	SW-846 3546	1	122980012A	10/24/2012 15:35	JoElla L Rice	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	2	123010012A	10/28/2012 05:00	Sherry L Morrow	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	122990021A	10/25/2012 20:50	Karen L Beyer	1
01643	Aluminum	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06944	Antimony	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06946	Barium	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1

Sample Description: TCN-STC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834472
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 11:55 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

NSTC1 SDG#: TAP01-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06947	Beryllium	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
01650	Calcium	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06951	Chromium	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06953	Copper	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
01654	Iron	SW-846 6010B	1	122985708003	10/26/2012 06:11	Joanne M Gates	2
06955	Lead	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06958	Manganese	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06961	Nickel	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
01662	Potassium	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06936	Selenium	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06966	Silver	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
01667	Sodium	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06925	Thallium	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06972	Zinc	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123052829001	10/31/2012 04:20	Deborah A Krady	1
00159	Mercury	SW-846 7471A	1	122985711001	10/26/2012 06:12	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	122985708003	10/25/2012 09:23	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	122985711001	10/25/2012 12:00	Denise K Conners	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12299103201A	10/25/2012 16:22	Venia B McFadden	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12299102201A	10/25/2012 16:07	Venia B McFadden	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12299103201A	10/25/2012 08:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12299102201A	10/25/2012 08:40	Nancy J Shoop	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12302042501A	10/28/2012 22:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12302042501A	10/28/2012 22:30	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: NYSS-ST1 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834473
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:15 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

SSST1 SDG#: TAP01-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	0.037	0.008	1.02
10237	Benzene	71-43-2	N.D.	0.0006	1.02
10237	Bromodichloromethane	75-27-4	N.D.	0.001	1.02
10237	Bromoform	75-25-2	N.D.	0.001	1.02
10237	Bromomethane	74-83-9	N.D.	0.002	1.02
10237	2-Butanone	78-93-3	N.D.	0.004	1.02
10237	Carbon Disulfide	75-15-0	N.D.	0.001	1.02
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.02
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.02
10237	Chloroethane	75-00-3	N.D.	0.002	1.02
10237	Chloroform	67-66-3	N.D.	0.001	1.02
10237	Chloromethane	74-87-3	N.D.	0.002	1.02
10237	Cyclohexane	110-82-7	N.D.	0.001	1.02
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	1.02
10237	Dibromochloromethane	124-48-1	N.D.	0.001	1.02
10237	1,2-Dibromoethane	106-93-4	N.D.	0.001	1.02
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.02
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.02
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.02
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.002	1.02
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.02
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.02
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.02
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.02
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.02
10237	1,2-Dichloropropane	78-87-5	N.D.	0.001	1.02
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	1.02
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.02
10237	Freon 113	76-13-1	N.D.	0.002	1.02
10237	2-Hexanone	591-78-6	N.D.	0.003	1.02
10237	Isopropylbenzene	98-82-8	N.D.	0.001	1.02
10237	Methyl Acetate	79-20-9	0.013	0.002	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	1.02
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.003	1.02
10237	Methylcyclohexane	108-87-2	N.D.	0.001	1.02
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.02
10237	Styrene	100-42-5	N.D.	0.001	1.02
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	1.02
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.02
10237	Toluene	108-88-3	0.001 J	0.001	1.02
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	1.02
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.02
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	1.02
10237	Trichloroethene	79-01-6	N.D.	0.001	1.02
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.02
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.02

Wet Chemistry

SM20 2540 G

%

%

Sample Description: NYSS-ST1 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834473
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:15 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

SSST1 SDG#: TAP01-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Wet Chemistry					
00111	Moisture	n.a.	8.1	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles 4.3 8260B Soil	SW-846 8260B	1	B122991AA	10/25/2012 06:56	Stephanie A Selis	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:22	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201229829174	10/24/2012 13:22	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:05	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: NYSS-ST2 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834474
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:20 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

SSST2 SDG#: TAP01-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	0.039	0.008	1.04
10237	Benzene	71-43-2	N.D.	0.0006	1.04
10237	Bromodichloromethane	75-27-4	N.D.	0.001	1.04
10237	Bromoform	75-25-2	N.D.	0.001	1.04
10237	Bromomethane	74-83-9	N.D.	0.002	1.04
10237	2-Butanone	78-93-3	N.D.	0.005	1.04
10237	Carbon Disulfide	75-15-0	N.D.	0.001	1.04
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.04
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.04
10237	Chloroethane	75-00-3	N.D.	0.002	1.04
10237	Chloroform	67-66-3	N.D.	0.001	1.04
10237	Chloromethane	74-87-3	N.D.	0.002	1.04
10237	Cyclohexane	110-82-7	N.D.	0.001	1.04
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	1.04
10237	Dibromochloromethane	124-48-1	N.D.	0.001	1.04
10237	1,2-Dibromoethane	106-93-4	N.D.	0.001	1.04
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.04
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.04
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.04
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.002	1.04
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.04
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.04
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.04
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.04
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.04
10237	1,2-Dichloropropane	78-87-5	N.D.	0.001	1.04
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	1.04
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	1.04
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.04
10237	Freon 113	76-13-1	N.D.	0.002	1.04
10237	2-Hexanone	591-78-6	N.D.	0.003	1.04
10237	Isopropylbenzene	98-82-8	N.D.	0.001	1.04
10237	Methyl Acetate	79-20-9	0.015	0.002	1.04
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	1.04
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.003	1.04
10237	Methylcyclohexane	108-87-2	N.D.	0.001	1.04
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.04
10237	Styrene	100-42-5	N.D.	0.001	1.04
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	1.04
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.04
10237	Toluene	108-88-3	0.003 J	0.001	1.04
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	1.04
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.04
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	1.04
10237	Trichloroethene	79-01-6	N.D.	0.001	1.04
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.04
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.04
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.04

Wet Chemistry

SM20 2540 G

%

%

Sample Description: NYSS-ST2 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834474
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:20 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

SSST2 SDG#: TAP01-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Wet Chemistry					
00111	Moisture	n.a.	9.6	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles 4.3 8260B Soil	SW-846 8260B	1	B122991AA	10/25/2012 07:19	Stephanie A Selis	1.04
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:23	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201229829174	10/24/2012 13:22	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:07	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: NYSS-STC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834475
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:30 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

SSTC1 SDG#: TAP01-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	4	1
10727	Acenaphthylene	208-96-8	N.D.	4	1
10727	Acetophenone	98-86-2	N.D.	19	1
10727	Anthracene	120-12-7	4 J	4	1
10727	Atrazine	1912-24-9	N.D.	39	1
10727	Benzaldehyde	100-52-7	N.D.	77	1
10727	Benzo(a)anthracene	56-55-3	N.D.	4	1
10727	Benzo(a)pyrene	50-32-8	N.D.	4	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	4	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	4	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	4	1
10727	1,1'-Biphenyl	92-52-4	N.D.	19	1
10727	4-Bromophenyl-phenylether	101-55-3	N.D.	19	1
10727	Butylbenzylphthalate	85-68-7	N.D.	77	1
10727	Di-n-butylphthalate	84-74-2	N.D.	77	1
10727	Caprolactam	105-60-2	N.D.	39	1
10727	Carbazole	86-74-8	N.D.	19	1
10727	4-Chloro-3-methylphenol	59-50-7	N.D.	19	1
10727	4-Chloroaniline	106-47-8	N.D.	19	1
10727	bis(2-Chloroethoxy)methane	111-91-1	N.D.	19	1
10727	bis(2-Chloroethyl)ether	111-44-4	N.D.	19	1
10727	2-Chloronaphthalene	91-58-7	N.D.	8	1
10727	2-Chlorophenol	95-57-8	N.D.	19	1
10727	4-Chlorophenyl-phenylether	7005-72-3	N.D.	19	1
10727	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	19	1
Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
10727	Chrysene	218-01-9	N.D.	4	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	4	1
10727	Dibenzofuran	132-64-9	N.D.	19	1
10727	3,3'-Dichlorobenzidine	91-94-1	N.D.	120	1
10727	2,4-Dichlorophenol	120-83-2	N.D.	19	1
10727	Diethylphthalate	84-66-2	N.D.	77	1
10727	2,4-Dimethylphenol	105-67-9	N.D.	19	1
10727	Dimethylphthalate	131-11-3	N.D.	77	1
10727	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	190	1
10727	2,4-Dinitrophenol	51-28-5	N.D.	350	1
10727	2,4-Dinitrotoluene	121-14-2	N.D.	77	1
10727	2,6-Dinitrotoluene	606-20-2	N.D.	19	1
10727	bis(2-Ethylhexyl)phthalate	117-81-7	160 J	77	1
10727	Fluoranthene	206-44-0	5 J	4	1
10727	Fluorene	86-73-7	N.D.	4	1
10727	Hexachlorobenzene	118-74-1	N.D.	4	1
10727	Hexachlorobutadiene	87-68-3	N.D.	19	1
10727	Hexachlorocyclopentadiene	77-47-4	N.D.	190	1
10727	Hexachloroethane	67-72-1	N.D.	39	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	4	1
10727	Isophorone	78-59-1	N.D.	19	1

Sample Description: NYSS-STC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834475
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:30 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

SSTC1 SDG#: TAP01-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	2-Methylnaphthalene	91-57-6	N.D.	4	1
10727	2-Methylphenol	95-48-7	N.D.	19	1
10727	4-Methylphenol	106-44-5	N.D.	19	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.				
10727	Naphthalene	91-20-3	N.D.	4	1
10727	2-Nitroaniline	88-74-4	N.D.	19	1
10727	3-Nitroaniline	99-09-2	N.D.	77	1
10727	4-Nitroaniline	100-01-6	N.D.	77	1
10727	Nitrobenzene	98-95-3	N.D.	19	1
10727	2-Nitrophenol	88-75-5	N.D.	19	1
10727	4-Nitrophenol	100-02-7	N.D.	190	1
10727	N-Nitroso-di-n-propylamine	621-64-7	N.D.	19	1
10727	N-Nitrosodiphenylamine	86-30-6	N.D.	19	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
10727	Di-n-octylphthalate	117-84-0	N.D.	77	1
10727	Pentachlorophenol	87-86-5	N.D.	39	1
10727	Phenanthrene	85-01-8	8 J	4	1
10727	Phenol	108-95-2	N.D.	19	1
10727	Pyrene	129-00-0	13 J	4	1
10727	2,4,5-Trichlorophenol	95-95-4	N.D.	19	1
10727	2,4,6-Trichlorophenol	88-06-2	N.D.	19	1
Herbicides SW-846 8151A					
10401	2,4-D	94-75-7	N.D.	14	1
10401	Dalapon	75-99-0	N.D.	50	1
10401	2,4-DB	94-82-6	N.D.	7.1	1
10401	Dicamba	1918-00-9	N.D.	4.6	1
10401	Dinoseb	88-85-7	N.D.	9.1	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.				
10401	2,4-DP (Dichloroprop)	120-36-5	N.D.	10	1
10401	MCPA	94-74-6	N.D.	870	1
10401	MCPP (Mecoprop)	93-65-2	N.D.	860	1
10401	Pentachlorophenol	87-86-5	N.D.	0.38	1
10401	2,4,5-T	93-76-5	N.D.	0.94	1
10401	2,4,5-TP	93-72-1	N.D.	0.86	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.19	1
10738	Alpha BHC	319-84-6	N.D.	0.19	1
10738	Beta BHC	319-85-7	N.D.	1.1	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.19	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.19	1
10738	Gamma Chlordane	5103-74-2	N.D.	0.19	1
10738	p,p-DDD	72-54-8	0.57 J	0.38	1

Sample Description: NYSS-STC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834475
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:30 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

SSTC1 SDG#: TAP01-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs SW-846 8081A ug/kg					
10738	p,p-DDE	72-55-9	N.D.	0.38	1
10738	p,p-DDT	50-29-3	N.D.	0.38	1
10738	Delta BHC	319-86-8	N.D.	0.51	1
10738	Dieldrin	60-57-1	N.D.	0.38	1
10738	Endosulfan I	959-98-8	N.D.	0.25	1
10738	Endosulfan II	33213-65-9	N.D.	0.38	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.38	1
10738	Endrin	72-20-8	N.D.	0.38	1
10738	Endrin Aldehyde	7421-93-4	N.D.	0.38	1
10738	Endrin Ketone	53494-70-5	N.D.	0.68	1
10738	Heptachlor	76-44-8	N.D.	0.19	1
10738	Heptachlor Epoxide	1024-57-3	N.D.	0.19	1
10738	Methoxychlor	72-43-5	N.D.	1.9	1
10738	Toxaphene	8001-35-2	N.D.	14	1
Pesticides/PCBs SW-846 8082 ug/kg					
10736	PCB-1016	12674-11-2	N.D.	4.2	1
10736	PCB-1221	11104-28-2	N.D.	5.3	1
10736	PCB-1232	11141-16-5	N.D.	9.2	1
10736	PCB-1242	53469-21-9	N.D.	3.8	1
10736	PCB-1248	12672-29-6	N.D.	3.8	1
10736	PCB-1254	11097-69-1	N.D.	3.8	1
10736	PCB-1260	11096-82-5	N.D.	5.7	1
Metals SW-846 6010B mg/kg					
01643	Aluminum	7429-90-5	17,300	8.91	1
06944	Antimony	7440-36-0	1.51 J	0.578	1
06935	Arsenic	7440-38-2	1.81 J	0.382	1
06946	Barium	7440-39-3	191	0.0382	1
06947	Beryllium	7440-41-7	0.806	0.0775	1
06949	Cadmium	7440-43-9	0.821	0.0382	1
01650	Calcium	7440-70-2	3,640	4.65	1
06951	Chromium	7440-47-3	33.1	0.102	1
06952	Cobalt	7440-48-4	17.3	0.104	1
06953	Copper	7440-50-8	41.9	0.208	1
01654	Iron	7439-89-6	29,800	8.79	2
06955	Lead	7439-92-1	5.59	0.543	1
01657	Magnesium	7439-95-4	8,060	2.00	1
06958	Manganese	7439-96-5	181	0.0960	1
06961	Nickel	7440-02-0	30.8	0.127	1
01662	Potassium	7440-09-7	10,300	31.2	2
06936	Selenium	7782-49-2	N.D.	0.832	1
06966	Silver	7440-22-4	N.D.	0.162	1
01667	Sodium	7440-23-5	318	19.3	1
06925	Thallium	7440-28-0	2.11 J	0.855	2
Reporting limits were raised due to interference from the sample matrix.					
06971	Vanadium	7440-62-2	50.4	0.127	1
06972	Zinc	7440-66-6	394	0.231	1

Sample Description: NYSS-STC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834475
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:30 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

SSTC1 SDG#: TAP01-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Metals		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	33.1	0.58	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0116	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.20	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.20	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.58	1
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	13.5	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	TCL 4.3 SVOC 8270C Soil	SW-846 8270C	1	12298SLE026	10/25/2012 12:10	Brian K Graham	1
10809	BNA Soil Microwave	SW-846 3546	1	12298SLE026	10/24/2012 18:00	Sally L Appleyard	1
10401	Herbicides 8151A Soil	SW-846 8151A	1	122990021A	10/26/2012 12:12	John W Perkins	1
10738	TCL Pesticides 8081A Soil	SW-846 8081A	1	123010012A	11/03/2012 06:11	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	122980012A	10/25/2012 12:14	Monica M Souders	1
10497	PCB Microwave Soil	SW-846 3546	1	122980012A	10/24/2012 15:35	JoElla L Rice	1
10496	PPL Pest. Microwave	SW-846 3546	2	123010012A	10/28/2012 05:00	Sherry L Morrow	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	122990021A	10/25/2012 20:50	Karen L Beyer	1
01643	Aluminum	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06944	Antimony	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06946	Barium	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1

Sample Description: NYSS-STC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834475
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:30 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

SSTC1 SDG#: TAP01-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06947	Beryllium	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
01650	Calcium	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06951	Chromium	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06953	Copper	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
01654	Iron	SW-846 6010B	1	122985708003	10/26/2012 06:15	Joanne M Gates	2
06955	Lead	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06958	Manganese	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06961	Nickel	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
01662	Potassium	SW-846 6010B	1	122985708003	10/26/2012 06:15	Joanne M Gates	2
06936	Selenium	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06966	Silver	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
01667	Sodium	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06925	Thallium	SW-846 6010B	1	122985708003	10/26/2012 06:15	Joanne M Gates	2
06971	Vanadium	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06972	Zinc	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123052829001	10/31/2012 04:20	Deborah A Krady	1
00159	Mercury	SW-846 7471A	1	122985711001	10/26/2012 06:14	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	122985708003	10/25/2012 09:23	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	122985711001	10/25/2012 12:00	Denise K Conners	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12299103201A	10/25/2012 16:24	Venia B McFadden	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12299102201A	10/25/2012 16:09	Venia B McFadden	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12299103201A	10/25/2012 08:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12299102201A	10/25/2012 08:40	Nancy J Shoop	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12302042501A	10/28/2012 22:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12302042501A	10/28/2012 22:30	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: NYSS-SA1 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834476
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:35 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

SSSA1 SDG#: TAP01-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.95
10237	Benzene	71-43-2	N.D.	0.0005	0.95
10237	Bromodichloromethane	75-27-4	N.D.	0.001	0.95
10237	Bromoform	75-25-2	N.D.	0.001	0.95
10237	Bromomethane	74-83-9	N.D.	0.002	0.95
10237	2-Butanone	78-93-3	N.D.	0.004	0.95
10237	Carbon Disulfide	75-15-0	N.D.	0.001	0.95
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.95
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.95
10237	Chloroethane	75-00-3	N.D.	0.002	0.95
10237	Chloroform	67-66-3	N.D.	0.001	0.95
10237	Chloromethane	74-87-3	N.D.	0.002	0.95
10237	Cyclohexane	110-82-7	N.D.	0.001	0.95
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	0.95
10237	Dibromochloromethane	124-48-1	N.D.	0.001	0.95
10237	1,2-Dibromoethane	106-93-4	N.D.	0.001	0.95
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.95
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.95
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.95
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.002	0.95
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.95
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.95
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.95
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.95
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.95
10237	1,2-Dichloropropane	78-87-5	N.D.	0.001	0.95
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	0.95
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	0.95
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.95
10237	Freon 113	76-13-1	N.D.	0.002	0.95
10237	2-Hexanone	591-78-6	N.D.	0.003	0.95
10237	Isopropylbenzene	98-82-8	N.D.	0.001	0.95
10237	Methyl Acetate	79-20-9	N.D.	0.002	0.95
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.95
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.003	0.95
10237	Methylcyclohexane	108-87-2	N.D.	0.001	0.95
10237	Methylene Chloride	75-09-2	0.003 J	0.002	0.95
10237	Styrene	100-42-5	N.D.	0.001	0.95
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	0.95
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.95
10237	Toluene	108-88-3	N.D.	0.001	0.95
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	0.95
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.95
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	0.95
10237	Trichloroethene	79-01-6	N.D.	0.001	0.95
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.95
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.95
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.95

Wet Chemistry

SM20 2540 G

%

%

Sample Description: NYSS-SA1 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834476
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:35 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

SSSA1 SDG#: TAP01-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Wet Chemistry					
00111	Moisture	n.a.	4.3	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles 4.3 8260B Soil	SW-846 8260B	1	B122991AA	10/25/2012 07:43	Stephanie A Selis	0.95
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:22	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201229829174	10/24/2012 13:22	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:12	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: NYSS-SA2 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834477
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:40 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

SSSA2 SDG#: TAP01-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.99
10237	Benzene	71-43-2	N.D.	0.0005	0.99
10237	Bromodichloromethane	75-27-4	N.D.	0.001	0.99
10237	Bromoform	75-25-2	N.D.	0.001	0.99
10237	Bromomethane	74-83-9	N.D.	0.002	0.99
10237	2-Butanone	78-93-3	N.D.	0.004	0.99
10237	Carbon Disulfide	75-15-0	N.D.	0.001	0.99
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.99
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.99
10237	Chloroethane	75-00-3	N.D.	0.002	0.99
10237	Chloroform	67-66-3	N.D.	0.001	0.99
10237	Chloromethane	74-87-3	N.D.	0.002	0.99
10237	Cyclohexane	110-82-7	N.D.	0.001	0.99
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	0.99
10237	Dibromochloromethane	124-48-1	N.D.	0.001	0.99
10237	1,2-Dibromoethane	106-93-4	N.D.	0.001	0.99
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.99
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.99
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.99
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.002	0.99
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.99
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.99
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.99
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.99
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.99
10237	1,2-Dichloropropane	78-87-5	N.D.	0.001	0.99
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	0.99
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.99
10237	Freon 113	76-13-1	N.D.	0.002	0.99
10237	2-Hexanone	591-78-6	N.D.	0.003	0.99
10237	Isopropylbenzene	98-82-8	N.D.	0.001	0.99
10237	Methyl Acetate	79-20-9	0.002 J	0.002	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.99
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.003	0.99
10237	Methylcyclohexane	108-87-2	N.D.	0.001	0.99
10237	Methylene Chloride	75-09-2	0.003 J	0.002	0.99
10237	Styrene	100-42-5	N.D.	0.001	0.99
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	0.99
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.99
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	0.99
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.99
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	0.99
10237	Trichloroethene	79-01-6	N.D.	0.001	0.99
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.99
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.99

Wet Chemistry

SM20 2540 G

%

%

Sample Description: NYSS-SA2 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834477
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:40 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

SSSA2 SDG#: TAP01-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Wet Chemistry					
00111	Moisture	n.a.	4.3	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles 4.3 8260B Soil	SW-846 8260B	1	B122991AA	10/25/2012 08:06	Stephanie A Selis	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:23	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201229829174	10/24/2012 13:22	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:14	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: NYSS-SAC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834478
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:45 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

SSAC1 SDG#: TAP01-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	3	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Acetophenone	98-86-2	N.D.	17	1
10727	Anthracene	120-12-7	8 J	3	1
10727	Atrazine	1912-24-9	N.D.	35	1
10727	Benzaldehyde	100-52-7	N.D.	70	1
10727	Benzo(a)anthracene	56-55-3	11 J	3	1
10727	Benzo(a)pyrene	50-32-8	10 J	3	1
10727	Benzo(b)fluoranthene	205-99-2	11 J	3	1
10727	Benzo(g,h,i)perylene	191-24-2	8 J	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	1,1'-Biphenyl	92-52-4	N.D.	17	1
10727	4-Bromophenyl-phenylether	101-55-3	N.D.	17	1
10727	Butylbenzylphthalate	85-68-7	N.D.	70	1
10727	Di-n-butylphthalate	84-74-2	N.D.	70	1
10727	Caprolactam	105-60-2	N.D.	35	1
10727	Carbazole	86-74-8	N.D.	17	1
10727	4-Chloro-3-methylphenol	59-50-7	N.D.	17	1
10727	4-Chloroaniline	106-47-8	N.D.	17	1
10727	bis(2-Chloroethoxy)methane	111-91-1	N.D.	17	1
10727	bis(2-Chloroethyl)ether	111-44-4	N.D.	17	1
10727	2-Chloronaphthalene	91-58-7	N.D.	7	1
10727	2-Chlorophenol	95-57-8	N.D.	17	1
10727	4-Chlorophenyl-phenylether	7005-72-3	N.D.	17	1
10727	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	17	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.				
10727	Chrysene	218-01-9	12 J	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	3,3'-Dichlorobenzidine	91-94-1	N.D.	100	1
10727	2,4-Dichlorophenol	120-83-2	N.D.	17	1
10727	Diethylphthalate	84-66-2	N.D.	70	1
10727	2,4-Dimethylphenol	105-67-9	N.D.	17	1
10727	Dimethylphthalate	131-11-3	N.D.	70	1
10727	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	170	1
10727	2,4-Dinitrophenol	51-28-5	N.D.	310	1
10727	2,4-Dinitrotoluene	121-14-2	N.D.	70	1
10727	2,6-Dinitrotoluene	606-20-2	N.D.	17	1
10727	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	70	1
10727	Fluoranthene	206-44-0	22	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Hexachlorobenzene	118-74-1	N.D.	3	1
10727	Hexachlorobutadiene	87-68-3	N.D.	17	1
10727	Hexachlorocyclopentadiene	77-47-4	N.D.	170	1
10727	Hexachloroethane	67-72-1	N.D.	35	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	5 J	3	1
10727	Isophorone	78-59-1	N.D.	17	1

Sample Description: NYSS-SAC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834478
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:45 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

SSAC1 SDG#: TAP01-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	2-Methylnaphthalene	91-57-6	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.				
10727	Naphthalene	91-20-3	N.D.	3	1
10727	2-Nitroaniline	88-74-4	N.D.	17	1
10727	3-Nitroaniline	99-09-2	N.D.	70	1
10727	4-Nitroaniline	100-01-6	N.D.	70	1
10727	Nitrobenzene	98-95-3	N.D.	17	1
10727	2-Nitrophenol	88-75-5	N.D.	17	1
10727	4-Nitrophenol	100-02-7	N.D.	170	1
10727	N-Nitroso-di-n-propylamine	621-64-7	N.D.	17	1
10727	N-Nitrosodiphenylamine	86-30-6	N.D.	17	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
10727	Di-n-octylphthalate	117-84-0	N.D.	70	1
10727	Pentachlorophenol	87-86-5	N.D.	35	1
10727	Phenanthrene	85-01-8	16 J	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	23	3	1
10727	2,4,5-Trichlorophenol	95-95-4	N.D.	17	1
10727	2,4,6-Trichlorophenol	88-06-2	N.D.	17	1
Herbicides SW-846 8151A					
10401	2,4-D	94-75-7	N.D.	13	1
10401	Dalapon	75-99-0	N.D.	46	1
10401	2,4-DB	94-82-6	N.D.	6.5	1
10401	Dicamba	1918-00-9	N.D.	4.2	1
10401	Dinoseb	88-85-7	N.D.	8.4	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.				
10401	2,4-DP (Dichloroprop)	120-36-5	N.D.	9.4	1
10401	MCPA	94-74-6	N.D.	800	1
10401	MCPP (Mecoprop)	93-65-2	N.D.	790	1
10401	Pentachlorophenol	87-86-5	N.D.	0.35	1
10401	2,4,5-T	93-76-5	N.D.	0.86	1
10401	2,4,5-TP	93-72-1	N.D.	0.79	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.18	1
10738	Alpha BHC	319-84-6	N.D.	0.18	1
10738	Beta BHC	319-85-7	N.D.	1.0	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.18	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.18	1
10738	Gamma Chlordane	5103-74-2	N.D.	0.18	1
10738	p,p-DDD	72-54-8	N.D.	0.35	1

Sample Description: NYSS-SAC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834478
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:45 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

SSAC1 SDG#: TAP01-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs SW-846 8081A ug/kg					
10738	p,p-DDE	72-55-9	N.D.	0.35	1
10738	p,p-DDT	50-29-3	N.D.	0.35	1
10738	Delta BHC	319-86-8	N.D.	0.47	1
10738	Dieldrin	60-57-1	N.D.	0.35	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.35	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.35	1
10738	Endrin	72-20-8	N.D.	0.35	1
10738	Endrin Aldehyde	7421-93-4	N.D.	0.35	1
10738	Endrin Ketone	53494-70-5	N.D.	0.63	1
10738	Heptachlor	76-44-8	N.D.	0.18	1
10738	Heptachlor Epoxide	1024-57-3	N.D.	0.18	1
10738	Methoxychlor	72-43-5	N.D.	1.8	1
10738	Toxaphene	8001-35-2	N.D.	13	1
Pesticides/PCBs SW-846 8082 ug/kg					
10736	PCB-1016	12674-11-2	N.D.	3.8	1
10736	PCB-1221	11104-28-2	N.D.	4.8	1
10736	PCB-1232	11141-16-5	N.D.	8.4	1
10736	PCB-1242	53469-21-9	N.D.	3.5	1
10736	PCB-1248	12672-29-6	N.D.	3.5	1
10736	PCB-1254	11097-69-1	N.D.	3.5	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals SW-846 6010B mg/kg					
01643	Aluminum	7429-90-5	1,770	8.08	1
06944	Antimony	7440-36-0	N.D.	0.524	1
06935	Arsenic	7440-38-2	3.10	0.346	1
06946	Barium	7440-39-3	4.52	0.0346	1
06947	Beryllium	7440-41-7	0.223 J	0.0702	1
06949	Cadmium	7440-43-9	0.0377 J	0.0346	1
01650	Calcium	7440-70-2	2,500	4.21	1
06951	Chromium	7440-47-3	5.35	0.0922	1
06952	Cobalt	7440-48-4	1.69	0.0943	1
06953	Copper	7440-50-8	1.83	0.189	1
01654	Iron	7439-89-6	6,880	3.98	1
06955	Lead	7439-92-1	2.34	0.493	1
01657	Magnesium	7439-95-4	1,010	1.81	1
06958	Manganese	7439-96-5	55.3	0.0870	1
06961	Nickel	7440-02-0	3.51	0.115	1
01662	Potassium	7440-09-7	768	14.2	1
06936	Selenium	7782-49-2	N.D.	0.755	1
06966	Silver	7440-22-4	N.D.	0.147	1
01667	Sodium	7440-23-5	433	17.5	1
06925	Thallium	7440-28-0	N.D.	0.388	1
06971	Vanadium	7440-62-2	7.60	0.115	1
06972	Zinc	7440-66-6	10.4	0.210	1

Sample Description: NYSS-SAC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834478
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:45 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

SSAC1 SDG#: TAP01-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Metals		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	4.0	0.52	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0107	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.19	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	1.3 J	0.52	1
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	4.6	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	TCL 4.3 SVOC 8270C Soil	SW-846 8270C	1	12298SLE026	10/25/2012 12:35	Brian K Graham	1
10809	BNA Soil Microwave	SW-846 3546	1	12298SLE026	10/24/2012 18:00	Sally L Appleyard	1
10401	Herbicides 8151A Soil	SW-846 8151A	1	122990021A	10/26/2012 12:39	John W Perkins	1
10738	TCL Pesticides 8081A Soil	SW-846 8081A	1	123010012A	11/03/2012 06:25	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	122980012A	10/25/2012 12:25	Monica M Souders	1
10497	PCB Microwave Soil	SW-846 3546	1	122980012A	10/24/2012 15:35	JoElla L Rice	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	2	123010012A	10/28/2012 05:00	Sherry L Morrow	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	122990021A	10/25/2012 20:50	Karen L Beyer	1
01643	Aluminum	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06944	Antimony	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06946	Barium	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1

Sample Description: NYSS-SAC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834478
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:45 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

SSAC1 SDG#: TAP01-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06947	Beryllium	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
01650	Calcium	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06951	Chromium	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06953	Copper	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
01654	Iron	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06955	Lead	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06958	Manganese	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06961	Nickel	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
01662	Potassium	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06936	Selenium	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06966	Silver	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
01667	Sodium	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06925	Thallium	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06972	Zinc	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123052829001	10/31/2012 04:20	Deborah A Krady	1
00159	Mercury	SW-846 7471A	1	122985711001	10/26/2012 06:16	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	122985708003	10/25/2012 09:23	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	122985711001	10/25/2012 12:00	Denise K Conners	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12299103201A	10/25/2012 16:25	Venia B McFadden	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12299102201A	10/25/2012 16:10	Venia B McFadden	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12299103201A	10/25/2012 08:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12299102201A	10/25/2012 08:40	Nancy J Shoop	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12302042501A	10/28/2012 22:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12302042501A	10/28/2012 22:30	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: POC-TS1 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834479
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 10:00 by TB

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

OCTS1 SDG#: TAP01-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.009	1.05
10237	Benzene	71-43-2	0.0009 J	0.0007	1.05
10237	Bromodichloromethane	75-27-4	N.D.	0.001	1.05
10237	Bromoform	75-25-2	N.D.	0.001	1.05
10237	Bromomethane	74-83-9	N.D.	0.003	1.05
10237	2-Butanone	78-93-3	N.D.	0.005	1.05
10237	Carbon Disulfide	75-15-0	N.D.	0.001	1.05
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.05
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.05
10237	Chloroethane	75-00-3	N.D.	0.003	1.05
10237	Chloroform	67-66-3	N.D.	0.001	1.05
10237	Chloromethane	74-87-3	N.D.	0.003	1.05
10237	Cyclohexane	110-82-7	N.D.	0.001	1.05
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.003	1.05
10237	Dibromochloromethane	124-48-1	N.D.	0.001	1.05
10237	1,2-Dibromoethane	106-93-4	N.D.	0.001	1.05
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.05
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.05
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.05
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.003	1.05
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.05
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.05
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.05
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.05
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.05
10237	1,2-Dichloropropane	78-87-5	N.D.	0.001	1.05
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	1.05
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	1.05
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.05
10237	Freon 113	76-13-1	N.D.	0.003	1.05
10237	2-Hexanone	591-78-6	N.D.	0.004	1.05
10237	Isopropylbenzene	98-82-8	N.D.	0.001	1.05
10237	Methyl Acetate	79-20-9	N.D.	0.003	1.05
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0007	1.05
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.004	1.05
10237	Methylcyclohexane	108-87-2	N.D.	0.001	1.05
10237	Methylene Chloride	75-09-2	N.D.	0.003	1.05
10237	Styrene	100-42-5	N.D.	0.001	1.05
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	1.05
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.05
10237	Toluene	108-88-3	0.004 J	0.001	1.05
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	1.05
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.05
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	1.05
10237	Trichloroethene	79-01-6	N.D.	0.001	1.05
10237	Trichlorofluoromethane	75-69-4	N.D.	0.003	1.05
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.05
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.05

Wet Chemistry

SM20 2540 G

%

%

Sample Description: POC-TS1 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834479
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 10:00 by TB

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

OCTS1 SDG#: TAP01-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Wet Chemistry SM20 2540 G					
00111	Moisture	n.a.	22.6	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles 4.3 8260B Soil	SW-846 8260B	1	B122991AA	10/25/2012 08:29	Stephanie A Selis	1.05
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:23	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201229829174	10/24/2012 13:23	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:21	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: POC-TS2 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834480
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 10:05 by TB

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

OCTS2 SDG#: TAP01-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.009	0.95
10237	Benzene	71-43-2	0.0009 J	0.0006	0.95
10237	Bromodichloromethane	75-27-4	N.D.	0.001	0.95
10237	Bromoform	75-25-2	N.D.	0.001	0.95
10237	Bromomethane	74-83-9	N.D.	0.002	0.95
10237	2-Butanone	78-93-3	N.D.	0.005	0.95
10237	Carbon Disulfide	75-15-0	N.D.	0.001	0.95
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.95
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.95
10237	Chloroethane	75-00-3	N.D.	0.002	0.95
10237	Chloroform	67-66-3	N.D.	0.001	0.95
10237	Chloromethane	74-87-3	N.D.	0.002	0.95
10237	Cyclohexane	110-82-7	N.D.	0.001	0.95
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	0.95
10237	Dibromochloromethane	124-48-1	N.D.	0.001	0.95
10237	1,2-Dibromoethane	106-93-4	N.D.	0.001	0.95
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.95
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.95
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.95
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.002	0.95
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.95
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.95
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.95
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.95
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.95
10237	1,2-Dichloropropane	78-87-5	N.D.	0.001	0.95
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	0.95
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	0.95
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.95
10237	Freon 113	76-13-1	N.D.	0.002	0.95
10237	2-Hexanone	591-78-6	N.D.	0.004	0.95
10237	Isopropylbenzene	98-82-8	N.D.	0.001	0.95
10237	Methyl Acetate	79-20-9	N.D.	0.002	0.95
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	0.95
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.004	0.95
10237	Methylcyclohexane	108-87-2	N.D.	0.001	0.95
10237	Methylene Chloride	75-09-2	0.003 J	0.002	0.95
10237	Styrene	100-42-5	N.D.	0.001	0.95
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	0.95
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.95
10237	Toluene	108-88-3	0.004 J	0.001	0.95
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	0.95
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.95
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	0.95
10237	Trichloroethene	79-01-6	N.D.	0.001	0.95
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.95
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.95
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.95

Wet Chemistry

SM20 2540 G

%

%

Sample Description: POC-TS2 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834480
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 10:05 by TB

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

OCTS2 SDG#: TAP01-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	22.4	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles 4.3 8260B Soil	SW-846 8260B	1	B122991AA	10/25/2012 12:50	Stephanie A Selis	0.95
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:23	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201229829174	10/24/2012 13:23	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:19	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: POC-TSC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834481
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 10:10 by TB

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

CTSC1 SDG#: TAP01-15*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	4	1
10727	Acenaphthylene	208-96-8	7 J	4	1
10727	Acetophenone	98-86-2	27 J	21	1
10727	Anthracene	120-12-7	11 J	4	1
10727	Atrazine	1912-24-9	N.D.	43	1
10727	Benzaldehyde	100-52-7	160 J	86	1
10727	Benzo(a)anthracene	56-55-3	31	4	1
10727	Benzo(a)pyrene	50-32-8	39	4	1
10727	Benzo(b)fluoranthene	205-99-2	56	4	1
10727	Benzo(g,h,i)perylene	191-24-2	29	4	1
10727	Benzo(k)fluoranthene	207-08-9	24	4	1
10727	1,1'-Biphenyl	92-52-4	N.D.	21	1
10727	4-Bromophenyl-phenylether	101-55-3	N.D.	21	1
10727	Butylbenzylphthalate	85-68-7	N.D.	86	1
10727	Di-n-butylphthalate	84-74-2	N.D.	86	1
10727	Caprolactam	105-60-2	N.D.	43	1
10727	Carbazole	86-74-8	N.D.	21	1
10727	4-Chloro-3-methylphenol	59-50-7	N.D.	21	1
10727	4-Chloroaniline	106-47-8	N.D.	21	1
10727	bis(2-Chloroethoxy)methane	111-91-1	N.D.	21	1
10727	bis(2-Chloroethyl)ether	111-44-4	N.D.	21	1
10727	2-Chloronaphthalene	91-58-7	N.D.	9	1
10727	2-Chlorophenol	95-57-8	N.D.	21	1
10727	4-Chlorophenyl-phenylether	7005-72-3	N.D.	21	1
10727	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	21	1
Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
10727	Chrysene	218-01-9	45	4	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	4	1
10727	Dibenzofuran	132-64-9	N.D.	21	1
10727	3,3'-Dichlorobenzidine	91-94-1	N.D.	130	1
10727	2,4-Dichlorophenol	120-83-2	N.D.	21	1
10727	Diethylphthalate	84-66-2	N.D.	86	1
10727	2,4-Dimethylphenol	105-67-9	N.D.	21	1
10727	Dimethylphthalate	131-11-3	N.D.	86	1
10727	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	210	1
10727	2,4-Dinitrophenol	51-28-5	N.D.	390	1
10727	2,4-Dinitrotoluene	121-14-2	N.D.	86	1
10727	2,6-Dinitrotoluene	606-20-2	N.D.	21	1
10727	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	86	1
10727	Fluoranthene	206-44-0	52	4	1
10727	Fluorene	86-73-7	N.D.	4	1
10727	Hexachlorobenzene	118-74-1	N.D.	4	1
10727	Hexachlorobutadiene	87-68-3	N.D.	21	1
10727	Hexachlorocyclopentadiene	77-47-4	N.D.	210	1
10727	Hexachloroethane	67-72-1	N.D.	43	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	27	4	1
10727	Isophorone	78-59-1	N.D.	21	1

Sample Description: POC-TSC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834481
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 10:10 by TB

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

CTSC1 SDG#: TAP01-15*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
			ug/kg	ug/kg	
10727	2-Methylnaphthalene	91-57-6	29	4	1
10727	2-Methylphenol	95-48-7	N.D.	21	1
10727	4-Methylphenol	106-44-5	N.D.	21	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.				
10727	Naphthalene	91-20-3	24	4	1
10727	2-Nitroaniline	88-74-4	N.D.	21	1
10727	3-Nitroaniline	99-09-2	N.D.	86	1
10727	4-Nitroaniline	100-01-6	N.D.	86	1
10727	Nitrobenzene	98-95-3	N.D.	21	1
10727	2-Nitrophenol	88-75-5	N.D.	21	1
10727	4-Nitrophenol	100-02-7	N.D.	210	1
10727	N-Nitroso-di-n-propylamine	621-64-7	N.D.	21	1
10727	N-Nitrosodiphenylamine	86-30-6	N.D.	21	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
10727	Di-n-octylphthalate	117-84-0	N.D.	86	1
10727	Pentachlorophenol	87-86-5	N.D.	43	1
10727	Phenanthrene	85-01-8	36	4	1
10727	Phenol	108-95-2	48	21	1
10727	Pyrene	129-00-0	59	4	1
10727	2,4,5-Trichlorophenol	95-95-4	N.D.	21	1
10727	2,4,6-Trichlorophenol	88-06-2	N.D.	21	1
Herbicides SW-846 8151A					
			ug/kg	ug/kg	
10401	2,4-D	94-75-7	N.D.	15	1
10401	Dalapon	75-99-0	N.D.	56	1
10401	2,4-DB	94-82-6	N.D.	7.9	1
10401	Dicamba	1918-00-9	N.D.	5.1	1
10401	Dinoseb	88-85-7	N.D.	10	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.				
10401	2,4-DP (Dichloroprop)	120-36-5	N.D.	11	1
10401	MCPA	94-74-6	N.D.	970	1
10401	MCPP (Mecoprop)	93-65-2	N.D.	950	1
10401	Pentachlorophenol	87-86-5	0.70 J	0.42	1
10401	2,4,5-T	93-76-5	N.D.	1.0	1
10401	2,4,5-TP	93-72-1	N.D.	0.95	1
Pesticides/PCBs SW-846 8081A					
			ug/kg	ug/kg	
10738	Aldrin	309-00-2	N.D.	0.22	1
10738	Alpha BHC	319-84-6	N.D.	0.22	1
10738	Beta BHC	319-85-7	N.D.	1.2	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.22	1
10738	Alpha Chlordane	5103-71-9	N.D.	2.3	1
10738	Gamma Chlordane	5103-74-2	N.D.	0.22	1
10738	p,p-DDD	72-54-8	1.1 J	0.42	1

Sample Description: POC-TSC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834481
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 10:10 by TB

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

CTSC1 SDG#: TAP01-15*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	
10738	p,p-DDE	72-55-9	3.9	0.42	1
10738	p,p-DDT	50-29-3	2.9	0.42	1
10738	Delta BHC	319-86-8	N.D.	0.58	1
10738	Dieldrin	60-57-1	N.D.	2.8	1
10738	Endosulfan I	959-98-8	N.D.	0.31	1
10738	Endosulfan II	33213-65-9	N.D.	0.42	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.42	1
10738	Endrin	72-20-8	N.D.	0.42	1
10738	Endrin Aldehyde	7421-93-4	N.D.	0.42	1
10738	Endrin Ketone	53494-70-5	N.D.	0.77	1
10738	Heptachlor	76-44-8	N.D.	0.22	1
10738	Heptachlor Epoxide	1024-57-3	N.D.	0.22	1
10738	Methoxychlor	72-43-5	N.D.	2.2	1
10738	Toxaphene	8001-35-2	N.D.	15	1
Reporting limits were raised due to interference from the sample matrix.					
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	4.6	1
10736	PCB-1221	11104-28-2	N.D.	5.9	1
10736	PCB-1232	11141-16-5	N.D.	10	1
10736	PCB-1242	53469-21-9	N.D.	4.2	1
10736	PCB-1248	12672-29-6	N.D.	4.2	1
10736	PCB-1254	11097-69-1	N.D.	4.2	1
10736	PCB-1260	11096-82-5	N.D.	6.3	1
Metals		SW-846 6010B	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	20,900	9.81	1
06944	Antimony	7440-36-0	0.808 J	0.636	1
06935	Arsenic	7440-38-2	7.87	0.420	1
06946	Barium	7440-39-3	119	0.0420	1
06947	Beryllium	7440-41-7	1.34	0.0853	1
06949	Cadmium	7440-43-9	0.585 J	0.0420	1
01650	Calcium	7440-70-2	7,730	5.12	1
06951	Chromium	7440-47-3	24.8	0.112	1
06952	Cobalt	7440-48-4	13.3	0.115	1
06953	Copper	7440-50-8	17.9	0.229	1
01654	Iron	7439-89-6	31,600	4.84	1
06955	Lead	7439-92-1	27.0	0.598	1
01657	Magnesium	7439-95-4	4,750	2.20	1
06958	Manganese	7439-96-5	959	0.106	1
06961	Nickel	7440-02-0	17.6	0.140	1
01662	Potassium	7440-09-7	3,130	17.2	1
06936	Selenium	7782-49-2	N.D.	0.916	1
06966	Silver	7440-22-4	N.D.	0.178	1
01667	Sodium	7440-23-5	113 J	21.3	1
06925	Thallium	7440-28-0	N.D.	0.471	1
06971	Vanadium	7440-62-2	40.4	0.140	1
06972	Zinc	7440-66-6	80.8	0.255	1

Sample Description: POC-TSC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834481
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 10:10 by TB

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

CTSC1 SDG#: TAP01-15*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Metals		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	24.8	3.2	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0617 J	0.0130	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.22	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.23	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	3.2	5
Reporting limits were raised due to interference from the sample matrix.					
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	22.2	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	TCL 4.3 SVOC 8270C Soil	SW-846 8270C	1	12298SLE026	10/25/2012 13:00	Brian K Graham	1
10809	BNA Soil Microwave	SW-846 3546	1	12298SLE026	10/24/2012 18:00	Sally L Appleyard	1
10401	Herbicides 8151A Soil	SW-846 8151A	1	122990021A	10/26/2012 13:07	John W Perkins	1
10738	TCL Pesticides 8081A Soil	SW-846 8081A	1	123010012A	11/03/2012 06:54	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	122980012A	10/25/2012 12:37	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	122980012A	10/24/2012 15:35	JoElla L Rice	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	2	123010012A	10/28/2012 05:00	Sherry L Morrow	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	122990021A	10/25/2012 20:50	Karen L Beyer	1
01643	Aluminum	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06944	Antimony	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1

Sample Description: POC-TSC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834481
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 10:10 by TB

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

CTSC1 SDG#: TAP01-15*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06946	Barium	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
01650	Calcium	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06951	Chromium	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06953	Copper	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
01654	Iron	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06955	Lead	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06958	Manganese	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06961	Nickel	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
01662	Potassium	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06936	Selenium	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06966	Silver	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
01667	Sodium	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06925	Thallium	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06972	Zinc	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123052829001	10/31/2012 04:20	Deborah A Krady	1
00159	Mercury	SW-846 7471A	1	122985711001	10/26/2012 06:18	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	122985708003	10/25/2012 09:23	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	122985711001	10/25/2012 12:00	Denise K Conners	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12299103201A	10/25/2012 16:26	Venia B McFadden	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12299102201A	10/25/2012 16:13	Venia B McFadden	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12299103201A	10/25/2012 08:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12299102201A	10/25/2012 08:40	Nancy J Shoop	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12302042501A	10/28/2012 22:30	Daniel S Smith	5
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12302042501A	10/28/2012 22:30	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/13/12 at 01:35 PM

Group Number: 1344367

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B122991AA Sample number(s): 6834467-6834468, 6834470-6834471, 6834473-6834474, 6834476-6834477, 6834479-6834480								
Acetone	N.D.	0.007	mg/kg	68	70	32-209	3	30
Benzene	N.D.	0.0005	mg/kg	96	95	80-120	1	30
Bromodichloromethane	N.D.	0.001	mg/kg	97	98	75-114	0	30
Bromoform	N.D.	0.001	mg/kg	94	93	70-120	1	30
Bromomethane	N.D.	0.002	mg/kg	93	92	32-162	1	30
2-Butanone	N.D.	0.004	mg/kg	86	87	37-155	2	30
Carbon Disulfide	N.D.	0.001	mg/kg	92	91	59-129	1	30
Carbon Tetrachloride	N.D.	0.001	mg/kg	102	100	69-122	2	30
Chlorobenzene	N.D.	0.001	mg/kg	98	98	80-120	1	30
Chloroethane	N.D.	0.002	mg/kg	89	87	37-154	2	30
Chloroform	N.D.	0.001	mg/kg	99	97	80-120	2	30
Chloromethane	N.D.	0.002	mg/kg	89	87	49-115	3	30
Cyclohexane	N.D.	0.001	mg/kg	87	86	59-131	1	30
1,2-Dibromo-3-chloropropane	N.D.	0.002	mg/kg	96	96	55-128	0	30
Dibromochloromethane	N.D.	0.001	mg/kg	99	98	77-120	1	30
1,2-Dibromoethane	N.D.	0.001	mg/kg	98	99	80-120	1	30
1,2-Dichlorobenzene	N.D.	0.001	mg/kg	102	101	79-120	1	30
1,3-Dichlorobenzene	N.D.	0.001	mg/kg	103	101	78-120	2	30
1,4-Dichlorobenzene	N.D.	0.001	mg/kg	102	100	79-120	1	30
Dichlorodifluoromethane	N.D.	0.002	mg/kg	83	81	20-120	2	30
1,1-Dichloroethane	N.D.	0.001	mg/kg	98	98	80-120	0	30
1,2-Dichloroethane	N.D.	0.001	mg/kg	103	103	70-137	1	30
1,1-Dichloroethene	N.D.	0.001	mg/kg	98	99	73-129	0	30
cis-1,2-Dichloroethene	N.D.	0.001	mg/kg	100	100	80-120	0	30
trans-1,2-Dichloroethene	N.D.	0.001	mg/kg	99	97	79-120	2	30
1,2-Dichloropropane	N.D.	0.001	mg/kg	95	94	77-120	1	30
cis-1,3-Dichloropropene	N.D.	0.001	mg/kg	103	103	74-120	0	30
trans-1,3-Dichloropropene	N.D.	0.001	mg/kg	94	94	77-120	0	30
Ethylbenzene	N.D.	0.001	mg/kg	97	97	80-120	0	30
Freon 113	N.D.	0.002	mg/kg	92	91	64-137	1	30
2-Hexanone	N.D.	0.003	mg/kg	79	81	37-141	4	30
Isopropylbenzene	N.D.	0.001	mg/kg	100	99	76-120	0	30
Methyl Acetate	N.D.	0.002	mg/kg	86	88	62-175	2	30
Methyl Tertiary Butyl Ether	N.D.	0.0005	mg/kg	101	102	74-121	1	30
4-Methyl-2-pentanone	N.D.	0.003	mg/kg	90	89	61-134	0	30
Methylcyclohexane	N.D.	0.001	mg/kg	90	89	49-147	1	30
Methylene Chloride	N.D.	0.002	mg/kg	100	98	76-124	2	30
Styrene	N.D.	0.001	mg/kg	96	95	76-120	1	30
1,1,2,2-Tetrachloroethane	N.D.	0.001	mg/kg	99	99	71-123	1	30
Tetrachloroethene	N.D.	0.001	mg/kg	105	105	78-126	0	30
Toluene	N.D.	0.001	mg/kg	97	95	80-120	2	30
1,2,4-Trichlorobenzene	N.D.	0.001	mg/kg	108	107	68-113	1	30

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/13/12 at 01:35 PM

Group Number: 1344367

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,1,1-Trichloroethane	N.D.	0.001	mg/kg	112	111	71-125	1	30
1,1,2-Trichloroethane	N.D.	0.001	mg/kg	100	99	80-120	0	30
Trichloroethene	N.D.	0.001	mg/kg	100	97	80-120	3	30
Trichlorofluoromethane	N.D.	0.002	mg/kg	98	94	58-133	3	30
Vinyl Chloride	N.D.	0.001	mg/kg	86	86	53-120	0	30
Xylene (Total)	N.D.	0.001	mg/kg	98	97	80-120	1	30

Batch number: 12298SLE026	Sample number(s): 6834469, 6834472, 6834475, 6834478, 6834481							
Acenaphthene	N.D.	3.	ug/kg	91		83-111		
Acenaphthylene	N.D.	3.	ug/kg	99		83-127		
Acetophenone	N.D.	17.	ug/kg	88		70-106		
Anthracene	N.D.	3.	ug/kg	93		83-111		
Atrazine	N.D.	33.	ug/kg	100		69-122		
Benzaldehyde	N.D.	67.	ug/kg	36		10-74		
Benzo(a)anthracene	N.D.	3.	ug/kg	86		73-123		
Benzo(a)pyrene	N.D.	3.	ug/kg	96		80-123		
Benzo(b)fluoranthene	N.D.	3.	ug/kg	100		76-124		
Benzo(g,h,i)perylene	N.D.	3.	ug/kg	88		77-122		
Benzo(k)fluoranthene	N.D.	3.	ug/kg	91		71-135		
1,1'-Biphenyl	N.D.	17.	ug/kg	90		82-106		
4-Bromophenyl-phenylether	N.D.	17.	ug/kg	86		79-117		
Butylbenzylphthalate	N.D.	67.	ug/kg	94		77-125		
Di-n-butylphthalate	N.D.	67.	ug/kg	96		79-112		
Caprolactam	N.D.	33.	ug/kg	99		65-113		
Carbazole	N.D.	17.	ug/kg	95		83-111		
4-Chloro-3-methylphenol	N.D.	17.	ug/kg	100		74-119		
4-Chloroaniline	N.D.	17.	ug/kg	34		10-97		
bis(2-Chloroethoxy)methane	N.D.	17.	ug/kg	88		75-121		
bis(2-Chloroethyl)ether	N.D.	17.	ug/kg	83		77-115		
2-Chloronaphthalene	N.D.	7.	ug/kg	83		50-117		
2-Chlorophenol	N.D.	17.	ug/kg	85		61-142		
4-Chlorophenyl-phenylether	N.D.	17.	ug/kg	92		79-110		
2,2'-oxybis(1-Chloropropane)	N.D.	17.	ug/kg	83		59-127		
Chrysene	N.D.	3.	ug/kg	83		73-119		
Dibenz(a,h)anthracene	N.D.	3.	ug/kg	88		67-129		
Dibenzofuran	N.D.	17.	ug/kg	93		78-116		
3,3'-Dichlorobenzidine	N.D.	100.	ug/kg	42		17-116		
2,4-Dichlorophenol	N.D.	17.	ug/kg	103		81-123		
Diethylphthalate	N.D.	67.	ug/kg	96		82-113		
2,4-Dimethylphenol	N.D.	17.	ug/kg	94		83-120		
Dimethylphthalate	N.D.	67.	ug/kg	96		80-120		
4,6-Dinitro-2-methylphenol	N.D.	170.	ug/kg	109		60-113		
2,4-Dinitrophenol	N.D.	300.	ug/kg	128		28-131		
2,4-Dinitrotoluene	N.D.	67.	ug/kg	109		80-116		
2,6-Dinitrotoluene	N.D.	17.	ug/kg	98		79-115		
bis(2-Ethylhexyl)phthalate	N.D.	67.	ug/kg	95		75-124		
Fluoranthene	N.D.	3.	ug/kg	96		80-113		
Fluorene	N.D.	3.	ug/kg	95		81-117		
Hexachlorobenzene	N.D.	3.	ug/kg	87		79-115		
Hexachlorobutadiene	N.D.	17.	ug/kg	86		70-112		
Hexachlorocyclopentadiene	N.D.	170.	ug/kg	94		64-127		
Hexachloroethane	N.D.	33.	ug/kg	79		76-109		
Indeno(1,2,3-cd)pyrene	N.D.	3.	ug/kg	87		64-128		
Isophorone	N.D.	17.	ug/kg	84		72-107		
2-Methylnaphthalene	N.D.	3.	ug/kg	99		79-110		
2-Methylphenol	N.D.	17.	ug/kg	91		75-126		

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/13/12 at 01:35 PM

Group Number: 1344367

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
4-Methylphenol	N.D.	17.	ug/kg	87		74-116		
Naphthalene	N.D.	3.	ug/kg	85		77-115		
2-Nitroaniline	N.D.	17.	ug/kg	113		83-118		
3-Nitroaniline	N.D.	67.	ug/kg	97		66-114		
4-Nitroaniline	N.D.	67.	ug/kg	78		52-92		
Nitrobenzene	N.D.	17.	ug/kg	86		78-122		
2-Nitrophenol	N.D.	17.	ug/kg	112		81-114		
4-Nitrophenol	N.D.	170.	ug/kg	107		57-131		
N-Nitroso-di-n-propylamine	N.D.	17.	ug/kg	82		70-113		
N-Nitrosodiphenylamine	N.D.	17.	ug/kg	95		79-124		
Di-n-octylphthalate	N.D.	67.	ug/kg	114		65-141		
Pentachlorophenol	N.D.	33.	ug/kg	95		60-134		
Phenanthrene	N.D.	3.	ug/kg	91		77-119		
Phenol	N.D.	17.	ug/kg	82		69-126		
Pyrene	N.D.	3.	ug/kg	92		80-121		
2,4,5-Trichlorophenol	N.D.	17.	ug/kg	99		84-109		
2,4,6-Trichlorophenol	N.D.	17.	ug/kg	100		81-123		

Batch number: 122990021A	Sample number(s): 6834469, 6834472, 6834475, 6834478, 6834481
2,4-D	N.D. 12. ug/kg 90 67-126
Dalapon	N.D. 44. ug/kg 46 30-102
2,4-DB	N.D. 6.2 ug/kg 96 56-121
Dicamba	N.D. 4.0 ug/kg 84 40-144
Dinoseb	N.D. 8.0 ug/kg 19 10-36
2,4-DP (Dichloroprop)	N.D. 9.0 ug/kg 111 77-144
MCPA	N.D. 760. ug/kg 89 46-130
MCPP (Mecoprop)	N.D. 750. ug/kg 78 36-133
Pentachlorophenol	N.D. 0.33 ug/kg 67 13-124
2,4,5-T	N.D. 0.82 ug/kg 81 57-137
2,4,5-TP	N.D. 0.75 ug/kg 90 60-111

Batch number: 122980012A	Sample number(s): 6834469, 6834472, 6834475, 6834478, 6834481
PCB-1016	N.D. 3.6 ug/kg 100 64-121
PCB-1221	N.D. 4.6 ug/kg
PCB-1232	N.D. 8.0 ug/kg
PCB-1242	N.D. 3.3 ug/kg
PCB-1248	N.D. 3.3 ug/kg
PCB-1254	N.D. 3.3 ug/kg
PCB-1260	N.D. 4.9 ug/kg 102 72-123

Batch number: 123010012A	Sample number(s): 6834469, 6834472, 6834475, 6834478, 6834481
Aldrin	N.D. 0.17 ug/kg 95 62-134
Alpha BHC	N.D. 0.17 ug/kg 99 67-131
Beta BHC	N.D. 0.96 ug/kg 98 59-161
Gamma BHC - Lindane	N.D. 0.17 ug/kg 100 66-132
Alpha Chlordane	N.D. 0.17 ug/kg 99 64-140
Gamma Chlordane	N.D. 0.17 ug/kg 99 69-135
p,p-DDD	N.D. 0.33 ug/kg 100 73-131
p,p-DDE	N.D. 0.33 ug/kg 97 72-132
p,p-DDT	N.D. 0.33 ug/kg 100 65-131
Delta BHC	N.D. 0.45 ug/kg 100 44-145
Dieldrin	N.D. 0.33 ug/kg 101 71-134
Endosulfan I	N.D. 0.22 ug/kg 98 57-127
Endosulfan II	N.D. 0.33 ug/kg 101 63-127
Endosulfan Sulfate	N.D. 0.33 ug/kg 102 80-137
Endrin	N.D. 0.33 ug/kg 98 66-136

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- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/13/12 at 01:35 PM

Group Number: 1344367

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Endrin Aldehyde	N.D.	0.33	ug/kg	87		68-128		
Endrin Ketone	N.D.	0.60	ug/kg	97		60-144		
Heptachlor	N.D.	0.17	ug/kg	94		68-132		
Heptachlor Epoxide	N.D.	0.17	ug/kg	98		62-149		
Methoxychlor	N.D.	1.7	ug/kg	102		60-133		
Toxaphene	N.D.	12.	ug/kg					

Batch number: 122985708003	Sample number(s): 6834469, 6834472, 6834475, 6834478, 6834481							
Aluminum	N.D.	7.49	mg/kg	96		80-120		
Antimony	N.D.	0.485	mg/kg	103		80-120		
Arsenic	N.D.	0.320	mg/kg	102		80-120		
Barium	N.D.	0.0320	mg/kg	99		80-120		
Beryllium	N.D.	0.0650	mg/kg	106		80-120		
Cadmium	N.D.	0.0320	mg/kg	101		80-120		
Calcium	7.72	3.90	mg/kg	101		80-120		
Chromium	N.D.	0.0854	mg/kg	102		80-120		
Cobalt	N.D.	0.0874	mg/kg	102		80-120		
Copper	N.D.	0.175	mg/kg	99		80-120		
Iron	N.D.	3.69	mg/kg	100		80-120		
Lead	N.D.	0.456	mg/kg	103		80-120		
Magnesium	N.D.	1.68	mg/kg	103		80-120		
Manganese	N.D.	0.0806	mg/kg	99		80-120		
Nickel	N.D.	0.107	mg/kg	103		80-120		
Potassium	N.D.	13.1	mg/kg	99		80-120		
Selenium	N.D.	0.699	mg/kg	100		80-120		
Silver	N.D.	0.136	mg/kg	95		80-120		
Sodium	N.D.	16.2	mg/kg	101		80-120		
Thallium	N.D.	0.359	mg/kg	96		80-120		
Vanadium	N.D.	0.107	mg/kg	102		80-120		
Zinc	N.D.	0.194	mg/kg	97		80-120		

Batch number: 122985711001	Sample number(s): 6834469, 6834472, 6834475, 6834478, 6834481							
Mercury	N.D.	0.0096	mg/kg	108		80-120		

Batch number: 12299102201A	Sample number(s): 6834469, 6834472, 6834475, 6834478, 6834481							
Total Cyanide (solid)	N.D.	0.13	mg/kg	103		90-110		

Batch number: 12299103201A	Sample number(s): 6834469, 6834472, 6834475, 6834478, 6834481							
Amenable Cyanide (solid)	N.D.	0.18	mg/kg	0		-20-20		

Batch number: 12302042501A	Sample number(s): 6834469, 6834472, 6834475, 6834478, 6834481							
Hexavalent Chromium (SOLIDS)	N.D.	0.50	mg/kg	100		80-120		

Batch number: 12298820003B	Sample number(s): 6834467-6834481							
Moisture				100		99-101		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
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*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/13/12 at 01:35 PM

Group Number: 1344367

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: B122991AA	Sample number(s): 6834467-6834468, 6834470-6834471, 6834473-6834474, 6834476-6834477, 6834479-6834480 UNSPK: P833381								
Acetone	56	73	31-195	24	30				
Benzene	110	78	55-143	30	30				
Bromodichloromethane	106	99	53-136	3	30				
Bromoform	103	66	38-124	41*	30				
Bromomethane	100	94	42-168	2	30				
2-Butanone	78	79	37-163	4	30				
Carbon Disulfide	127	79	48-146	44*	30				
Carbon Tetrachloride	114	71	45-153	43*	30				
Chlorobenzene	106	60	49-135	52*	30				
Chloroethane	98	89	39-152	5	30				
Chloroform	104	87	61-142	13	30				
Chloromethane	101	96	51-163	1	30				
Cyclohexane	111	124	57-151	15	30				
1,2-Dibromo-3-chloropropane	117	54	30-139	70*	30				
Dibromochloromethane	108	73	51-128	34*	30				
1,2-Dibromoethane	108	89	54-129	15	30				
1,2-Dichlorobenzene	102	45	36-133	75*	30				
1,3-Dichlorobenzene	106	45	34-134	77*	30				
1,4-Dichlorobenzene	104	45	35-136	75*	30				
Dichlorodifluoromethane	93	93	26-151	3	30				
1,1-Dichloroethane	111	89	63-142	18	30				
1,2-Dichloroethane	110	92	68-131	15	30				
1,1-Dichloroethene	113	90	61-149	19	30				
cis-1,2-Dichloroethene	114	88	60-136	23	30				
trans-1,2-Dichloroethene	111	87	59-142	21	30				
1,2-Dichloropropane	108	85	62-135	20	30				
cis-1,3-Dichloropropene	118	81	51-131	33*	30				
trans-1,3-Dichloropropene	107	75	49-129	32*	30				
Ethylbenzene	108	58	44-141	57*	30				
Freon 113	106	69	56-156	39*	30				
2-Hexanone	90	508*	32-160	142*	30				
Isopropylbenzene	101	132	38-144	28	30				
Methyl Acetate	99	77	48-161	21	30				
Methyl Tertiary Butyl Ether	112	96	55-129	11	30				
4-Methyl-2-pentanone	103	97	46-139	2	30				
Methylcyclohexane	83	287*	39-168	99*	30				
Methylene Chloride	53*	95	61-141	18	30				
Styrene	105	59	35-134	53*	30				
1,1,2,2-Tetrachloroethane	117	1164*	40-152	165*	30				
Tetrachloroethene	115	54	42-149	70*	30				
Toluene	109	67	50-146	44*	30				
1,2,4-Trichlorobenzene	102	13	10-136	153*	30				
1,1,1-Trichloroethane	122	88	64-142	28	30				
1,1,2-Trichloroethane	110	543*	54-139	135*	30				
Trichloroethene	114	74	53-144	39*	30				
Trichlorofluoromethane	107	91	47-163	12	30				
Vinyl Chloride	101	90	50-154	8	30				
Xylene (Total)	107	57	44-136	58*	30				

Batch number: 12298SLE026

Sample number(s): 6834469, 6834472, 6834475, 6834478, 6834481 UNSPK: 6834469

*- Outside of specification

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- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/13/12 at 01:35 PM

Group Number: 1344367

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Acenaphthene	80	85	33-140	6	30				
Acenaphthylene	92	93	47-137	0	30				
Acetophenone	87	80	29-133	9	30				
Anthracene	79	84	40-147	5	30				
Atrazine	84	88	52-124	4	30				
Benzaldehyde	57	51	10-85	10	30				
Benzo(a)anthracene	58	66	32-150	14	30				
Benzo(a)pyrene	48	66	30-150	30	30				
Benzo(b)fluoranthene	53	77	29-150	35*	30				
Benzo(g,h,i)perylene	48	54	31-152	12	30				
Benzo(k)fluoranthene	51	60	35-148	16	30				
1,1'-Biphenyl	87	88	51-127	1	30				
4-Bromophenyl-phenylether	91	89	46-131	2	30				
Butylbenzylphthalate	92	87	42-146	6	30				
Di-n-butylphthalate	93	89	44-143	4	30				
Caprolactam	81	79	34-131	3	30				
Carbazole	80	84	36-148	6	30				
4-Chloro-3-methylphenol	83	84	50-137	1	30				
4-Chloroaniline	74	75	11-114	1	30				
bis(2-Chloroethoxy)methane	88	81	49-125	8	30				
bis(2-Chloroethyl)ether	80	80	57-123	0	30				
2-Chloronaphthalene	80	77	22-131	3	30				
2-Chlorophenol	86	82	30-149	4	30				
4-Chlorophenyl-phenylether	85	79	42-130	7	30				
2,2'-oxybis(1-Chloropropane)	86	82	38-134	5	30				
Chrysene	55	66	33-142	17	30				
Dibenz(a,h)anthracene	45	46	37-151	3	30				
Dibenzofuran	81	83	38-148	2	30				
3,3'-Dichlorobenzidine	41	56	10-143	31*	30				
2,4-Dichlorophenol	97	91	54-135	6	30				
Diethylphthalate	86	83	53-132	4	30				
2,4-Dimethylphenol	87	84	49-134	4	30				
Dimethylphthalate	84	85	54-125	1	30				
4,6-Dinitro-2-methylphenol	50	38	10-148	28	30				
2,4-Dinitrophenol	38	27	20-143	35*	30				
2,4-Dinitrotoluene	90	88	39-144	2	30				
2,6-Dinitrotoluene	89	87	44-140	2	30				
bis(2-Ethylhexyl)phthalate	93	88	38-151	5	30				
Fluoranthene	74	92	30-151	19	30				
Fluorene	81	79	36-140	2	30				
Hexachlorobenzene	80	80	38-143	0	30				
Hexachlorobutadiene	81	82	33-133	1	30				
Hexachlorocyclopentadiene	0*	0*	10-153	0	30				
Hexachloroethane	55	46	24-138	19	30				
Indeno(1,2,3-cd)pyrene	42	48	31-154	14	30				
Isophorone	80	78	54-122	3	30				
2-Methylnaphthalene	87	90	45-134	3	30				
2-Methylphenol	86	84	32-146	2	30				
4-Methylphenol	86	83	36-149	3	30				
Naphthalene	81	82	35-141	2	30				
2-Nitroaniline	108	108	46-146	0	30				
3-Nitroaniline	89	88	15-153	1	30				

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control SummaryClient Name: ExxonMobil Refining & Supply
Reported: 11/13/12 at 01:35 PM

Group Number: 1344367

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
4-Nitroaniline	77	77	17-142	1	30				
Nitrobenzene	84	80	51-130	5	30				
2-Nitrophenol	104	102	39-142	2	30				
4-Nitrophenol	86	85	25-142	2	30				
N-Nitroso-di-n-propylamine	81	75	58-120	8	30				
N-Nitrosodiphenylamine	101	93	23-141	7	30				
Di-n-octylphthalate	101	101	43-149	0	30				
Pentachlorophenol	80	76	23-145	6	30				
Phenanthrene	80	101	34-147	22	30				
Phenol	75	73	39-151	2	30				
Pyrene	76	98	29-148	22	30				
2,4,5-Trichlorophenol	87	87	41-141	1	30				
2,4,6-Trichlorophenol	93	94	41-142	1	30				

Batch number: 122990021A

Sample number(s): 6834469, 6834472, 6834475, 6834478, 6834481 UNSPK: 6834478

2,4-D	71	90	13-167	23	35
Dalapon	35	43	10-110	20	50
2,4-DB	76	99	10-190	26	50
Dicamba	68	85	10-172	23	50
Dinoseb	19	28	10-46	40*	35
2,4-DP (Dichloroprop)	87	112	32-171	25	50
MCPA	70	95	10-185	30	50
MCPP (Mecoprop)	63	81	10-169	24	50
Pentachlorophenol	55	71	10-170	26	30
2,4,5-T	65	83	10-181	24	35
2,4,5-TP	71	93	10-142	27	35

Batch number: 122980012A

Sample number(s): 6834469, 6834472, 6834475, 6834478, 6834481 UNSPK: P833381

PCB-1016	62	60	29-146	2	50
PCB-1260	69	70	39-149	2	50

Batch number: 123010012A

Sample number(s): 6834469, 6834472, 6834475, 6834478, 6834481 UNSPK: 6834481

Aldrin	82	82	18-138	0	50
Alpha BHC	82	79	9-143	4	50
Beta BHC	87	80	14-168	8	50
Gamma BHC - Lindane	83	82	14-143	1	50
Alpha Chlordane	83	82	15-153	2	50
Gamma Chlordane	93	88	10-158	5	50
p,p-DDD	77	74	17-163	4	50
p,p-DDE	74	80	22-169	5	50
p,p-DDT	68	66	4-159	2	50
Delta BHC	85	85	30-144	0	50
Dieldrin	85	82	17-163	4	50
Endosulfan I	81	78	8-137	3	50
Endosulfan II	81	80	17-146	1	50
Endosulfan Sulfate	80	77	6-190	3	50
Endrin	85	82	25-166	4	50
Endrin Aldehyde	70	67	12-159	3	35
Endrin Ketone	72	69	23-152	4	50
Heptachlor	98	93	25-148	5	50
Heptachlor Epoxide	81	80	12-169	1	50
Methoxychlor	96	94	45-135	2	50

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Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/13/12 at 01:35 PM

Group Number: 1344367

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 122985708003	Sample number(s): 6834469, 6834472, 6834475, 6834478, 6834481 UNSPK: P833808 BKG: P833808								
Aluminum	8591 (2)	7701 (2)	90-110	7	20	10,400	10,100	2	20
Antimony	45*	47*	75-125	5	20	1.29 J	1.60 J	21* (1)	20
Arsenic	98	99	75-125	0	20	9.00	24.3	92* (1)	20
Barium	109	104	75-125	4	20	74.2	59.9	21*	20
Beryllium	117*	117*	83-111	0	20	0.797	0.913	14 (1)	20
Cadmium	100	100	75-125	1	20	0.217 J	0.265 J	20 (1)	20
Calcium	121	102	75-125	15	20	87.7	95.3	8 (1)	20
Chromium	157*	153*	75-125	2	20	24.1	24.5	2	20
Cobalt	105	102	78-113	2	20	3.09	3.19	3	20
Copper	124	110	75-125	7	20	19.3	21.2	9	20
Iron	813 (2)	9048 (2)	75-125	25*	20	28,600	32,100	12	20
Lead	224*	39*	75-125	40*	20	49.1	41.6	17	20
Magnesium	769 (2)	452 (2)	75-125	24*	20	1,390	1,450	4	20
Manganese	161*	129*	75-125	12	20	59.7	63.1	6	20
Nickel	117	112	75-125	4	20	7.99	7.70	4	20
Potassium	256*	198*	75-125	16	20	1,430	1,400	2	20
Selenium	93	98	75-125	5	20	N.D.	N.D.	0 (1)	20
Silver	95	97	75-125	2	20	N.D.	N.D.	0 (1)	20
Sodium	103	101	75-125	2	20	123	122	0 (1)	20
Thallium	94	97	75-125	3	20	N.D.	N.D.	0 (1)	20
Vanadium	120	125	75-125	2	20	38.1	54.6	36*	20
Zinc	149*	131*	75-125	9	20	36.4	39.4	8	20
Batch number: 122985711001	Sample number(s): 6834469, 6834472, 6834475, 6834478, 6834481 UNSPK: P833381 BKG: P833381								
Mercury	88	90	80-120	2	20	N.D.	N.D.	0 (1)	20
Batch number: 12299102201A	Sample number(s): 6834469, 6834472, 6834475, 6834478, 6834481 UNSPK: 6834478 BKG: 6834478								
Total Cyanide (solid)	102		68-134			N.D.	N.D.	0 (1)	20
Batch number: 12299103201A	Sample number(s): 6834469, 6834472, 6834475, 6834478, 6834481 UNSPK: 6834469 BKG: 6834469								
Amenable Cyanide (solid)	0		-20-20			N.D.	N.D.	0 (1)	20
Batch number: 12302042501A	Sample number(s): 6834469, 6834472, 6834475, 6834478, 6834481 UNSPK: 6834478 BKG: 6834478								
Hexavalent Chromium (SOLIDS)	90		75-125			1.2 J	1.5	18 (1)	20
Batch number: 12298820003B	Sample number(s): 6834467-6834481 BKG: P831494								
Moisture						12.2	11.8	3	13

Surrogate Quality Control

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/13/12 at 01:35 PM

Group Number: 1344367

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 Benzene and Toluene

Batch number: B122991AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6834467	104	102	98	85
6834468	106	101	99	83
6834470	103	103	94	90
6834471	104	105	94	90
6834473	103	101	95	90
6834474	104	103	96	90
6834476	107	105	95	91
6834477	106	100	96	89
6834479	106	101	100	81
6834480	103	107	97	91
Blank	104	103	96	92
LCS	102	101	100	98
LCSD	103	101	99	97
MS	101	104	99	97
MSD	104	102	110	86

Limits: 50-141 54-135 52-141 50-131

Analysis Name: TCL 8270 (microwave)

Batch number: 12298SLE026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6834469	86	83	75	90	82	78
6834472	101	95	82	87	86	96
6834475	89	76	37	86	90	98
6834478	84	83	62	87	93	100
6834481	83	79	63	70	87	92
Blank	68	70	73	69	71	79
LCS	87	86	97	88	88	96
MS	84	85	77	87	87	85
MSD	84	82	75	81	87	83

Limits: 42-130 48-136 28-139 45-123 47-126 46-143

Analysis Name: PCBs in Soil (microwave)

Batch number: 122980012A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6834469	82	78
6834472	104	86
6834475	101	85
6834478	113	92
6834481	100	81
Blank	97	114
LCS	103	120
MS	70	85
MSD	71	91

Limits: 33-143 24-164

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/13/12 at 01:35 PM

Group Number: 1344367

Surrogate Quality Control

Analysis Name: Herbicide soils 8151A Master
Batch number: 122990021A
2,4-Dichlorophenylacetic
acid

6834469	95
6834472	87
6834475	87
6834478	84
6834481	110
Blank	66
LCS	80
MS	76
MSD	97

Limits: 36-156

Analysis Name: TCL Pesticides 8081A Soil
Batch number: 123010012A
Tetrachloro-m-xylene Decachlorobiphenyl

	Tetrachloro-m-xylene	Decachlorobiphenyl
6834469	73	105
6834472	90	100
6834475	83	94
6834478	86	92
6834481	90	89
Blank	88	92
LCS	89	100
MS	92	79
MSD	79	77

Limits: 33-140

45-150

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Acct. # 10629

For Lancaster Laboratories use only
Group # 1344367 Sample # 6834467-81
Instructions on reverse side correspond with circled numbers.

Eurolins Lancaster Laboratories, Inc. • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

The white copy should accompany samples to Lancaster Laboratories. The yellow copy should be retained by the client.

Issued by Dept. 40 Management
7053.01

For Lancaster Laboratories use only
Acct. # 10629 Group # 1344367 Sample # 6834467-81
Instructions on reverse side correspond with circled numbers.

Eurofins Lancaster Laboratories, Inc. • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300
The white copy should accompany samples to Lancaster Laboratories. The yellow copy should be retained by the client.

Issued by Dept. 40 Management
7053.01

Environmental Sample Administration
Receipt Documentation Log

1344367

Client/Project: Rox AssociatesShipping Container Sealed: YES NODate of Receipt: 10/24/12Custody Seal Present *: YES NOTime of Receipt: 0920* Custody seal was intact unless otherwise noted in the
discrepancy sectionSource Code: 50Package: Chilled Not Chilled

Temperature of Shipping Containers

Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	424951	2.2	TB	WI	y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Pat Gyle 3472 Date/Time: 10/24/12 1028

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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NYSDEC ASP Category A Data Package

Prepared for:

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Project: Tappan Terminal
Soil Samples
Collected on 10/19/12-10/23/12

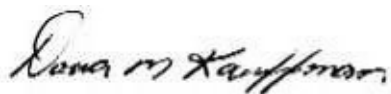
SDG# TAP01

GROUP	SAMPLE NUMBERS
1344367	6834467-6834481

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-08A-TX

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client.

Authorized by:



Date: 11/14/2012

Dana M. Kauffman
Manager

Any questions or concerns you might have regarding this data package should be directed to your client representative, Barbara Weyandt at Ext. 1576.

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SDG# TAP01

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Sample Reference List for SDG Number TAP01
with a Data Package Type of NYSDEC A
10629 - ExxonMobil Refining & Supply
Project: Tappan Terminal

Lab Sample Number	Lab Sample Code	<u>Client Sample Description</u>
6834467	CMTS1	CM-TS1 Grab Soil S2010L4632
6834468	CMTS2	CM-TS2 Grab Soil S2010L4632
6834469	MTSC1	CM-TSC1 Composite Soil S2010L4632
6834470	CNST1	TCN-ST1 Grab Soil S2010L4632
6834471	CNST2	TCN-ST2 Grab Soil S2010L4632
6834472	NSTC1	TCN-STC1 Composite Soil S2010L4632
6834473	SSST1	NYSS-ST1 Grab Soil S2010L4632
6834474	SSST2	NYSS-ST2 Grab Soil S2010L4632
6834475	SSTC1	NYSS-STC1 Composite Soil S2010L4632
6834476	SSSA1	NYSS-SA1 Grab Soil S2010L4632
6834477	SSSA2	NYSS-SA2 Grab Soil S2010L4632
6834478	SSAC1	NYSS-SAC1 Composite Soil S2010L4632
6834479	OCTS1	POC-TS1 Grab Soil S2010L4632
6834480	OCTS2	POC-TS2 Grab Soil S2010L4632
6834481	CTSC1	POC-TSC1 Composite Soil S2010L4632

ExxonMobil Analysis Request/Chain of Custody



Lancaster
Laboratories

Acct. # 10629 Group # 1344367 Sample # 6834467-81

For Lancaster Laboratories use only
Instructions on reverse side correspond with circled numbers.

1 Client Information				4 Matrix		5 Analyses Requested		6 Preservation Codes		7 Turnaround Time Requested (TAT) (please circle)		8 Data Package (circle if required)		9			
Facility #/SID Former Tappan Terminal / S2010L4632 Site Address 1 Railroad Avenue, Hastings on Hudson NY ExxonMobil PM Steve Trifiletti Consultant/Office Roux Associates Consultant PM T. Bispham Consultant Phone # 631-232-2600				Sediment ☐ Soil ☒ Composite ☐ Ground ☐ Surface ☐ NPDES ☐ Air ☐ Oil ☐		VOCs (8260) X SVOCs (8270) X TAT Metals (6010) X Hexavalent Chromium (6011) X Mercury (7471) X PCBs (8082) X Herbicides (815) X		H = HCl N = HNO ₃ S = H ₂ SO ₄ T = Thiourea B = NaOH O = Other		Standard 5 day 72 hour 48 hour 24 hour		Type I - Full Type VI (Raw Data) NJ Reduced Other		Received by Date Time Received by Date Time Received by Date Time Received by Date Time		Custody Seals Intact? Yes No Temperature Upon Receipt 2.2 °C	
Sample Identification CM - TS1 CM - TS2 CM - TS3				Collected Date Time 10-19-12 900 10-19-12 905 10-19-12 910		Total # of Containers 1 1 1		Remarks (5)		Relinquished by Date Time Relinquished by Date Time Relinquished by Date Time		Relinquished by Commercial Carrier UPS FedEx Other		Date Time 10/24/12 0920		No	

ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories

Acct. # 10629 Group # 1344367 Sample # 6834467-81

For Lancaster Laboratories use only
Instructions on reverse side correspond with circled numbers.

1 Client Information				2 Matrix		3 Analyses Requested		4 Preservation Codes		5 Remarks			
Facility #/SID Former Tappan Terminal / S2010L4632 Site Address 1 Railroad Ave, Hastings on Hudson, NY ExonMobil PM Steve Trifiletti Consultant/Office Row Associates Consultant PM T. Bispham Consultant Phone # 631-232-2600 Sampler T. Bispham / J. Kendroth				☐ Sediment ☐ Potable ☐ NPDES ☐ Surface ☐ Air ☐ Oil		Total # of Containers VOCs (8260) SVOCs (8270) TAL Metals (6010) Hexavalent Chromium (6010) Mercury (7471) Pesticides (8082) PCBs (8082) Herbicides (8151)		Preservation Codes H = HCl N = HNO ₃ S = H ₂ SO ₄ T = Thiou sulfate B = NaOH O = Other		Remarks (6)			
Turnaround Time Requested (TAT) (please circle) Standard 4 day 72 hour 48 hour 24 hour				Relinquished by Relinquished by Relinquished by Relinquished by Commercial Carrier UPS FedEx Other		Date 10-23-12 Date 10-23-12 Date 10-23-12 Date 10-23-12		Time 1530 Time 1530 Time 1530 Time 1530		Date 10-23-12 Date 10-23-12 Date 10-23-12 Date 10-23-12		Time 1530 Time 1530 Time 1530 Time 1530	
Data Package (circle if required) Type I - Full Type VI (Raw Data) NJ Reduced Other				EDD (circle if required) Locus EIM (default) Other		Temperature Upon Receipt 5.2 °C Custody Seals Intact? Yes No		Date 10/24/12 Time 0920		No			

Environmental Sample Administration
Receipt Documentation Log

1344367

Client/Project: Rox AssociatesShipping Container Sealed: YES NODate of Receipt: 10/24/12Custody Seal Present *: YES NOTime of Receipt: 0920* Custody seal was intact unless otherwise noted in the
discrepancy sectionSource Code: SOPackage: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	429951	2.2	TB	WI	y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Pat Glick 3472 Date/Time: 10/24/12 1028

Issued by Dept. 6042 Management

2174.06

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 · 717-656-2300 Fax: 717-656-2681 · www.lancasterlabs.com

10237 8260 Ext. Soil Master w/GRO

The soil sample is purged and the volatile compounds are collected on a sorbent trap that is subsequently desorbed onto the GC/MS system for chromatographic and mass spectral analysis.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8260B, December 1996

00159 Mercury

The solution resulting from the mercury digestion is analyzed by Cold Vapor AA.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 7471A, September 1994

02829 Trivalent Chromium soils

Calculation performed by subtracting hexavalent chromium from total chromium.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 6010B Modified, December 1996.

05711 SW SW846 Hg Digest

The sample is heated at 95 c with nitric acid, sulfuric acid, potassium persulfate, and potassium permanganate. Excess potassium permanganate is reduced with sodium chloride/hydroxylamine hydrochloride. Mercuric ions are reduced to mercury metal using stannous chloride.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 7471A Modified, September 1994.

01643 Aluminum
06944 Antimony
06935 Arsenic
06946 Barium
06947 Beryllium
06949 Cadmium
01650 Calcium
06951 Chromium
06952 Cobalt
06953 Copper
01654 Iron
06955 Lead
01657 Magnesium
06958 Manganese
06961 Nickel
01662 Potassium
06936 Selenium
06966 Silver
01667 Sodium
06925 Thallium
06971 Vanadium
06972 Zinc

The solution resulting from the metals digestion is analyzed by Trace ICP.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 6010B, December 1996.

05708 SW SW846 ICP/ICP MS Digest

The sample is digested with nitric acid, hydrochloric acid and hydrogen peroxide.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 3050B, December 1996

10738 Pesticides in Soil (microwave)

The sample is solvent extracted and exchanged to hexane. Florisil cleanup is performed to reduce potential matrix interferences. The extract is analyzed using gas chromatography on two capillary columns (primary and confirmation) with electron capture detectors.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8081A, December 1996.

10401 Herbicide soils 8151A Master

The sample is acidified and solvent extracted. The extract is then hydrolyzed, solvent washed, and acidified for final extraction. The chlorophenoxy acids, phenols and related target compounds are converted to the methyl esters using diazomethane. Florisil cleanup is performed to reduce potential matrix interferences.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8151A, December 1996.

04181 Herbicide Soil Extraction

The sample is acidified and solvent extracted. The extract is then hydrolyzed, solvent washed, and acidified for final extraction. The chlorophenoxy acids, phenols and related target compounds are converted to the methyl esters using diazomethane. Florisil cleanup is performed to reduce potential matrix interferences.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Methods 3550B & 8151A, December 1996.

10736 PCBs in Soil (microwave)

The sample is solvent-extracted and exchanged to hexane. Sulfuric acid and Florisil cleanups are performed to reduce potential matrix interferences. The extract is analyzed using gas chromatography on two capillary columns (primary and confirmation) with electron capture detectors.

Reference: Test Methods for Evaluating Solid Waste, SW-846 Method 8082, December 1996.

10497 PCB Microwave Soil Extraction**10809 BNA Soil Microwave**

The sample aliquot is extracted using microwave extraction with 1:1 methylene chloride and acetone. The extract is concentrated prior to analysis.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 3546, Revision 0, February 2007.

10496 PPL Pest. Microwave Extraction

The sample aliquot is extracted using microwave extraction with 1:1 hexane and acetone. The extract is concentrated prior to analysis.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 3546, Revision 0, February 2007.

10727 TCL 8270 (microwave)

The sample extract is analyzed by capillary column Gas Chromatography/Mass Spectrometry.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8270C, December 1996

05895 Total Cyanide (solid)

During the distillation step, complex cyanides are converted to hydrogen cyanide which readily reacts with chloramine T. Simple cyanides are converted to cyanogen chloride by reaction with chloramine T. This reacts with pyridine and barbituric acid to give a red colored complex determined colorimetrically.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 9012B, August 2002.

05896 Cyanide Solid Distillation

The sample is acidified and distilled. Cyanide is released as hydrogen cyanide and is absorbed in a sodium hydroxide solution.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 9012B, August 2002.

05898 Amenable Cyanide (solid)**05897 Amenable Cyanide Solid Distill**

A portion of the sample is pretreated with chlorine to release the dissociable cyanide. Both treated and untreated portions of the sample are acidified and distilled. Cyanide is released as hydrogen cyanide and is absorbed in a sodium hydroxide solution. The amenable cyanide is calculated as the difference between the untreated and chlorine treated portions.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 9012B, August 2002.

00425 Hexavalent Chromium (SOLIDS)

The filtrate from method #7825 is analyzed colorimetrically using diphenylcarbazide to produce a red-violet color. The absorbance is read at 540 nm and compared to a standard curve.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 7196A, July 1992.

07825 Hexavalent Cr (Extraction)

The sample is digested using a 3% sodium carbonate - 2% sodium hydroxide solution and then filtered through a 0.45 micron filter.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 3060A, December 1996

00111 Moisture

A well-mixed sample is placed in a tared container and dried to a constant weight in an oven at 103-105C. The increase in weight is the total solids.

Reference: Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998, Method 2540 G

00374 GC/MS - Bulk Soil Prep

Samples are field collected in glass containers, and preserved within 48 hours. An aliquot of the soil sample is prepared in reagent water and is purged at 40oC with helium.

Reference: Test Methods for Evaluating Solid Waste, SW-846, Method 5035A Modified, July 2002.

06646 GC/MS HL Bulk Sample Prep

Samples are field collected in glass containers, and preserved within 48 hours. An aliquot of the methanolic extract of the sample is diluted in reagent water and purged at ambient temperature with helium.

Reference: Test Methods for Evaluating Solid Waste, SW-846, Method 5035A Modified, July 2002.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

November 13, 2012

Project: Tappan Terminal

Submittal Date: 10/24/2012

Group Number: 1344367

SDG: TAP01

PO Number: 4410017954

Release Number: TRIFILETTI

State of Sample Origin: NY

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
CM-TS1 Grab Soil	6834467
CM-TS2 Grab Soil	6834468
CM-TSC1 Composite Soil	6834469
TCN-ST1 Grab Soil	6834470
TCN-ST2 Grab Soil	6834471
TCN-STC1 Composite Soil	6834472
NYSS-ST1 Grab Soil	6834473
NYSS-ST2 Grab Soil	6834474
NYSS-STC1 Composite Soil	6834475
NYSS-SA1 Grab Soil	6834476
NYSS-SA2 Grab Soil	6834477
NYSS-SAC1 Composite Soil	6834478
POC-TS1 Grab Soil	6834479
POC-TS2 Grab Soil	6834480
POC-TSC1 Composite Soil	6834481

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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Roux Associates

Data Package Group

Exxon Mobil: Woodard & Curran

Attn: Tracy Bispham

Attn: Anne Proctor

Respectfully Submitted,

Barbara Weyandt

Barbara A. Weyandt
Specialist

(717) 556-7264

Sample Description: CM-TS1 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834467
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/19/2012 09:00 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

CMTS1 SDG#: TAP01-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1
10237	Benzene	71-43-2	0.0008 J	0.0005	1
10237	Bromodichloromethane	75-27-4	N.D.	0.001	1
10237	Bromoform	75-25-2	N.D.	0.001	1
10237	Bromomethane	74-83-9	N.D.	0.002	1
10237	2-Butanone	78-93-3	N.D.	0.004	1
10237	Carbon Disulfide	75-15-0	N.D.	0.001	1
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1
10237	Chlorobenzene	108-90-7	N.D.	0.001	1
10237	Chloroethane	75-00-3	N.D.	0.002	1
10237	Chloroform	67-66-3	N.D.	0.001	1
10237	Chloromethane	74-87-3	N.D.	0.002	1
10237	Cyclohexane	110-82-7	N.D.	0.001	1
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	1
10237	Dibromochloromethane	124-48-1	N.D.	0.001	1
10237	1,2-Dibromoethane	106-93-4	N.D.	0.001	1
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.002	1
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1
10237	1,2-Dichloropropane	78-87-5	N.D.	0.001	1
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	1
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	1
10237	Freon 113	76-13-1	N.D.	0.002	1
10237	2-Hexanone	591-78-6	N.D.	0.003	1
10237	Isopropylbenzene	98-82-8	N.D.	0.001	1
10237	Methyl Acetate	79-20-9	N.D.	0.002	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.003	1
10237	Methylcyclohexane	108-87-2	N.D.	0.001	1
10237	Methylene Chloride	75-09-2	0.002 J	0.002	1
10237	Styrene	100-42-5	N.D.	0.001	1
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	1
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1
10237	Toluene	108-88-3	0.003 J	0.001	1
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	1
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	1
10237	Trichloroethene	79-01-6	N.D.	0.001	1
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1

Wet Chemistry

SM20 2540 G

%

%

Sample Description: CM-TS1 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834467
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/19/2012 09:00 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

CMTS1 SDG#: TAP01-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
	Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	6.6	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles 4.3 8260B Soil	SW-846 8260B	1	B122991AA	10/25/2012 05:25	Stephanie A Selis	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:23	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201229829174	10/24/2012 13:22	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:09	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: CM-TS2 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834468
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/19/2012 09:05 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street
Brooklyn NY 11222

CMTS2 SDG#: TAP01-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.97
10237	Benzene	71-43-2	0.001 J	0.0005	0.97
10237	Bromodichloromethane	75-27-4	N.D.	0.001	0.97
10237	Bromoform	75-25-2	N.D.	0.001	0.97
10237	Bromomethane	74-83-9	N.D.	0.002	0.97
10237	2-Butanone	78-93-3	N.D.	0.004	0.97
10237	Carbon Disulfide	75-15-0	N.D.	0.001	0.97
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.97
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.97
10237	Chloroethane	75-00-3	N.D.	0.002	0.97
10237	Chloroform	67-66-3	N.D.	0.001	0.97
10237	Chloromethane	74-87-3	N.D.	0.002	0.97
10237	Cyclohexane	110-82-7	N.D.	0.001	0.97
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	0.97
10237	Dibromochloromethane	124-48-1	N.D.	0.001	0.97
10237	1,2-Dibromoethane	106-93-4	N.D.	0.001	0.97
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.97
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.97
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.97
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.002	0.97
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.97
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.97
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.97
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.97
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.97
10237	1,2-Dichloropropane	78-87-5	N.D.	0.001	0.97
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	0.97
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	0.97
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.97
10237	Freon 113	76-13-1	N.D.	0.002	0.97
10237	2-Hexanone	591-78-6	N.D.	0.003	0.97
10237	Isopropylbenzene	98-82-8	N.D.	0.001	0.97
10237	Methyl Acetate	79-20-9	N.D.	0.002	0.97
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.97
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.003	0.97
10237	Methylcyclohexane	108-87-2	N.D.	0.001	0.97
10237	Methylene Chloride	75-09-2	0.006	0.002	0.97
10237	Styrene	100-42-5	N.D.	0.001	0.97
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	0.97
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.97
10237	Toluene	108-88-3	0.005 J	0.001	0.97
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	0.97
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.97
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	0.97
10237	Trichloroethene	79-01-6	N.D.	0.001	0.97
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.97
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.97
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.97

Wet Chemistry

SM20 2540 G

%

%

Sample Description: CM-TS2 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834468
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/19/2012 09:05 by TB

ExxonMobil Refining & Supply

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Submitted: 10/24/2012 09:20

38 Varick Street

Reported: 11/13/2012 13:35

Brooklyn NY 11222

CMTS2 SDG#: TAP01-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	SM20 2540 G		%	%	
00111	Moisture	n.a.	5.8	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles 4.3 8260B Soil	SW-846 8260B	1	B122991AA	10/25/2012 05:47	Stephanie A Selis	0.97
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:22	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201229829174	10/24/2012 13:23	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:10	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: CM-TSC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834469
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/19/2012 09:10 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street
Brooklyn NY 11222

MTSC1 SDG#: TAP01-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	14 J	4	1
10727	Acenaphthylene	208-96-8	11 J	4	1
10727	Acetophenone	98-86-2	N.D.	18	1
10727	Anthracene	120-12-7	27	4	1
10727	Atrazine	1912-24-9	N.D.	36	1
10727	Benzaldehyde	100-52-7	N.D.	72	1
10727	Benzo(a)anthracene	56-55-3	34	4	1
10727	Benzo(a)pyrene	50-32-8	23	4	1
10727	Benzo(b)fluoranthene	205-99-2	59	4	1
10727	Benzo(g,h,i)perylene	191-24-2	17 J	4	1
10727	Benzo(k)fluoranthene	207-08-9	18 J	4	1
10727	1,1'-Biphenyl	92-52-4	N.D.	18	1
10727	4-Bromophenyl-phenylether	101-55-3	N.D.	18	1
10727	Butylbenzylphthalate	85-68-7	N.D.	72	1
10727	Di-n-butylphthalate	84-74-2	N.D.	72	1
10727	Caprolactam	105-60-2	N.D.	36	1
10727	Carbazole	86-74-8	N.D.	18	1
10727	4-Chloro-3-methylphenol	59-50-7	N.D.	18	1
10727	4-Chloroaniline	106-47-8	N.D.	18	1
10727	bis(2-Chloroethoxy)methane	111-91-1	N.D.	18	1
10727	bis(2-Chloroethyl)ether	111-44-4	N.D.	18	1
10727	2-Chloronaphthalene	91-58-7	N.D.	8	1
10727	2-Chlorophenol	95-57-8	N.D.	18	1
10727	4-Chlorophenyl-phenylether	7005-72-3	N.D.	18	1
10727	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	18	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.				
10727	Chrysene	218-01-9	52	4	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	4	1
10727	Dibenzofuran	132-64-9	N.D.	18	1
10727	3,3'-Dichlorobenzidine	91-94-1	N.D.	110	1
10727	2,4-Dichlorophenol	120-83-2	N.D.	18	1
10727	Diethylphthalate	84-66-2	N.D.	72	1
10727	2,4-Dimethylphenol	105-67-9	N.D.	18	1
10727	Dimethylphthalate	131-11-3	N.D.	72	1
10727	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	180	1
10727	2,4-Dinitrophenol	51-28-5	N.D.	320	1
10727	2,4-Dinitrotoluene	121-14-2	N.D.	72	1
10727	2,6-Dinitrotoluene	606-20-2	N.D.	18	1
10727	bis(2-Ethylhexyl)phthalate	117-81-7	310	72	1
10727	Fluoranthene	206-44-0	180	4	1
10727	Fluorene	86-73-7	18 J	4	1
10727	Hexachlorobenzene	118-74-1	N.D.	4	1
10727	Hexachlorobutadiene	87-68-3	N.D.	18	1
10727	Hexachlorocyclopentadiene	77-47-4	N.D.	180	1
10727	Hexachloroethane	67-72-1	N.D.	36	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	14 J	4	1
10727	Isophorone	78-59-1	N.D.	18	1

Sample Description: CM-TSC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834469
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/19/2012 09:10 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

MTSC1 SDG#: TAP01-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
			ug/kg	ug/kg	
10727	2-Methylnaphthalene	91-57-6	11 J	4	1
10727	2-Methylphenol	95-48-7	N.D.	18	1
10727	4-Methylphenol	106-44-5	48	18	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.				
10727	Naphthalene	91-20-3	14 J	4	1
10727	2-Nitroaniline	88-74-4	N.D.	18	1
10727	3-Nitroaniline	99-09-2	N.D.	72	1
10727	4-Nitroaniline	100-01-6	N.D.	72	1
10727	Nitrobenzene	98-95-3	N.D.	18	1
10727	2-Nitrophenol	88-75-5	N.D.	18	1
10727	4-Nitrophenol	100-02-7	N.D.	180	1
10727	N-Nitroso-di-n-propylamine	621-64-7	N.D.	18	1
10727	N-Nitrosodiphenylamine	86-30-6	N.D.	18	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
10727	Di-n-octylphthalate	117-84-0	N.D.	72	1
10727	Pentachlorophenol	87-86-5	N.D.	36	1
10727	Phenanthrene	85-01-8	75	4	1
10727	Phenol	108-95-2	28 J	18	1
10727	Pyrene	129-00-0	170	4	1
10727	2,4,5-Trichlorophenol	95-95-4	N.D.	18	1
10727	2,4,6-Trichlorophenol	88-06-2	N.D.	18	1
Herbicides SW-846 8151A					
			ug/kg	ug/kg	
10401	2,4-D	94-75-7	N.D.	13	1
10401	Dalapon	75-99-0	N.D.	47	1
10401	2,4-DB	94-82-6	N.D.	6.7	1
10401	Dicamba	1918-00-9	N.D.	4.3	1
10401	Dinoseb	88-85-7	N.D.	8.6	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.				
10401	2,4-DP (Dichloroprop)	120-36-5	N.D.	9.7	1
10401	MCPA	94-74-6	N.D.	820	1
10401	MCPP (Mecoprop)	93-65-2	N.D.	810	1
10401	Pentachlorophenol	87-86-5	7.1	0.35	1
10401	2,4,5-T	93-76-5	N.D.	0.88	1
10401	2,4,5-TP	93-72-1	N.D.	0.81	1
Pesticides/PCBs SW-846 8081A					
			ug/kg	ug/kg	
10738	Aldrin	309-00-2	N.D.	0.44	1
10738	Alpha BHC	319-84-6	N.D.	0.18	1
10738	Beta BHC	319-85-7	N.D.	1.0	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.18	1
10738	Alpha Chlordane	5103-71-9	6.1	0.18	1
10738	Gamma Chlordane	5103-74-2	N.D.	100	20
10738	p,p-DDD	72-54-8	N.D.	0.45	1

Sample Description: CM-TSC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834469
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/19/2012 09:10 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

MTSC1 SDG#: TAP01-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	
10738	p,p-DDE	72-55-9	1.9	0.35	1
10738	p,p-DDT	50-29-3	1.3 J	0.35	1
10738	Delta BHC	319-86-8	N.D.	0.48	1
10738	Dieldrin	60-57-1	2.1	0.35	1
10738	Endosulfan I	959-98-8	0.49 J	0.24	1
10738	Endosulfan II	33213-65-9	N.D.	0.35	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.42	1
10738	Endrin	72-20-8	N.D.	0.35	1
10738	Endrin Aldehyde	7421-93-4	N.D.	0.35	1
10738	Endrin Ketone	53494-70-5	N.D.	0.64	1
10738	Heptachlor	76-44-8	0.30 J	0.18	1
10738	Heptachlor Epoxide	1024-57-3	0.96	0.18	1
10738	Methoxychlor	72-43-5	N.D.	1.8	1
10738	Toxaphene	8001-35-2	N.D.	13	1

Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	8.6	1
10736	PCB-1221	11104-28-2	N.D.	4.9	1
10736	PCB-1232	11141-16-5	N.D.	8.6	1
10736	PCB-1242	53469-21-9	N.D.	7.5	1
10736	PCB-1248	12672-29-6	N.D.	8.6	1
10736	PCB-1254	11097-69-1	N.D.	6.4	1
10736	PCB-1260	11096-82-5	N.D.	5.6	1

Reporting limits were raised due to interference from the sample matrix.

Metals		SW-846 6010B	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	16,800	8.04	1
06944	Antimony	7440-36-0	0.595 J	0.521	1
06935	Arsenic	7440-38-2	6.84	0.344	1
06946	Barium	7440-39-3	89.7	0.0344	1
06947	Beryllium	7440-41-7	0.951	0.0699	1
06949	Cadmium	7440-43-9	0.247 J	0.0344	1
01650	Calcium	7440-70-2	3,530	4.19	1
06951	Chromium	7440-47-3	20.5	0.0918	1
06952	Cobalt	7440-48-4	6.47	0.0939	1
06953	Copper	7440-50-8	56.7	0.188	1
01654	Iron	7439-89-6	19,100	3.96	1
06955	Lead	7439-92-1	17.0	0.490	1
01657	Magnesium	7439-95-4	3,670	1.80	1
06958	Manganese	7439-96-5	552	0.0866	1
06961	Nickel	7440-02-0	13.4	0.115	1
01662	Potassium	7440-09-7	2,700	14.1	1
06936	Selenium	7782-49-2	N.D.	0.751	1
06966	Silver	7440-22-4	0.310 J	0.146	1
01667	Sodium	7440-23-5	344	17.4	1
06925	Thallium	7440-28-0	N.D.	0.386	1
06971	Vanadium	7440-62-2	27.6	0.115	1
06972	Zinc	7440-66-6	78.5	0.209	1

Sample Description: CM-TSC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834469
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/19/2012 09:10 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

MTSC1 SDG#: TAP01-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Metals		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	20.5	0.54	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0445 J	0.0107	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.19	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.54	1
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	6.9	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	TCL 4.3 SVOC 8270C Soil	SW-846 8270C	1	12298SLE026	10/25/2012 10:30	Brian K Graham	1
10809	BNA Soil Microwave	SW-846 3546	1	12298SLE026	10/24/2012 18:00	Sally L Appleyard	1
10401	Herbicides 8151A Soil	SW-846 8151A	1	122990021A	10/26/2012 11:17	John W Perkins	1
10738	TCL Pesticides 8081A Soil	SW-846 8081A	1	123010012A	11/03/2012 05:15	Jamie L Brillhart	1
10738	TCL Pesticides 8081A Soil	SW-846 8081A	1	123010012A	11/07/2012 01:14	Jamie L Brillhart	20
10736	PCBs 8082 Soil	SW-846 8082	1	122980012A	10/25/2012 11:51	Monica M Souders	1
10497	PCB Microwave Soil	SW-846 3546	1	122980012A	10/24/2012 15:35	JoElla L Rice	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	2	123010012A	10/28/2012 05:00	Sherry L Morrow	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	122990021A	10/25/2012 20:50	Karen L Beyer	1
01643	Aluminum	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06944	Antimony	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1

Sample Description: CM-TSC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834469
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/19/2012 09:10 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

MTSC1 SDG#: TAP01-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06935	Arsenic	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06946	Barium	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
01650	Calcium	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06951	Chromium	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06953	Copper	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
01654	Iron	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06955	Lead	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06958	Manganese	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06961	Nickel	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
01662	Potassium	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06936	Selenium	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06966	Silver	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
01667	Sodium	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06925	Thallium	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
06972	Zinc	SW-846 6010B	1	122985708003	10/25/2012 20:26	Katlin N Cataldi	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123052829001	10/31/2012 04:20	Deborah A Krady	1
00159	Mercury	SW-846 7471A	1	122985711001	10/26/2012 06:10	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	122985708003	10/25/2012 09:23	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	122985711001	10/25/2012 12:00	Denise K Conners	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12299103201A	10/25/2012 16:19	Venia B McFadden	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12299102201A	10/25/2012 16:06	Venia B McFadden	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12299103201A	10/25/2012 08:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12299102201A	10/25/2012 08:40	Nancy J Shoop	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12302042501A	10/28/2012 22:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12302042501A	10/28/2012 22:30	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: TCN-ST1 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834470
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 11:45 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street
Brooklyn NY 11222

CNST1 SDG#: TAP01-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1.01
10237	Benzene	71-43-2	N.D.	0.0005	1.01
10237	Bromodichloromethane	75-27-4	N.D.	0.001	1.01
10237	Bromoform	75-25-2	N.D.	0.001	1.01
10237	Bromomethane	74-83-9	N.D.	0.002	1.01
10237	2-Butanone	78-93-3	N.D.	0.004	1.01
10237	Carbon Disulfide	75-15-0	N.D.	0.001	1.01
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.01
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.01
10237	Chloroethane	75-00-3	N.D.	0.002	1.01
10237	Chloroform	67-66-3	N.D.	0.001	1.01
10237	Chloromethane	74-87-3	N.D.	0.002	1.01
10237	Cyclohexane	110-82-7	N.D.	0.001	1.01
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	1.01
10237	Dibromochloromethane	124-48-1	N.D.	0.001	1.01
10237	1,2-Dibromoethane	106-93-4	N.D.	0.001	1.01
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.01
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.01
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.01
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.002	1.01
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.01
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.01
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.01
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.01
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.01
10237	1,2-Dichloropropane	78-87-5	N.D.	0.001	1.01
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	1.01
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	1.01
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.01
10237	Freon 113	76-13-1	N.D.	0.002	1.01
10237	2-Hexanone	591-78-6	N.D.	0.003	1.01
10237	Isopropylbenzene	98-82-8	N.D.	0.001	1.01
10237	Methyl Acetate	79-20-9	0.002 J	0.002	1.01
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.01
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.003	1.01
10237	Methylcyclohexane	108-87-2	N.D.	0.001	1.01
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.01
10237	Styrene	100-42-5	N.D.	0.001	1.01
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	1.01
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.01
10237	Toluene	108-88-3	N.D.	0.001	1.01
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	1.01
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.01
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	1.01
10237	Trichloroethene	79-01-6	N.D.	0.001	1.01
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.01
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.01
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.01

Wet Chemistry

SM20 2540 G

%

%

Sample Description: TCN-ST1 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834470
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 11:45 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

CNST1 SDG#: TAP01-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
	Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	5.5	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles 4.3 8260B Soil	SW-846 8260B	1	B122991AA	10/25/2012 06:10	Stephanie A Selis	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:22	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201229829174	10/24/2012 13:22	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:02	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: TCN-ST2 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834471
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 11:50 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street
Brooklyn NY 11222

CNST2 SDG#: TAP01-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.98
10237	Benzene	71-43-2	N.D.	0.0005	0.98
10237	Bromodichloromethane	75-27-4	N.D.	0.001	0.98
10237	Bromoform	75-25-2	N.D.	0.001	0.98
10237	Bromomethane	74-83-9	N.D.	0.002	0.98
10237	2-Butanone	78-93-3	N.D.	0.004	0.98
10237	Carbon Disulfide	75-15-0	N.D.	0.001	0.98
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.98
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.98
10237	Chloroethane	75-00-3	N.D.	0.002	0.98
10237	Chloroform	67-66-3	N.D.	0.001	0.98
10237	Chloromethane	74-87-3	N.D.	0.002	0.98
10237	Cyclohexane	110-82-7	N.D.	0.001	0.98
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	0.98
10237	Dibromochloromethane	124-48-1	N.D.	0.001	0.98
10237	1,2-Dibromoethane	106-93-4	N.D.	0.001	0.98
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.98
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.98
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.98
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.002	0.98
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.98
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.98
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.98
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.98
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.98
10237	1,2-Dichloropropane	78-87-5	N.D.	0.001	0.98
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	0.98
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	0.98
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.98
10237	Freon 113	76-13-1	N.D.	0.002	0.98
10237	2-Hexanone	591-78-6	N.D.	0.003	0.98
10237	Isopropylbenzene	98-82-8	N.D.	0.001	0.98
10237	Methyl Acetate	79-20-9	0.002 J	0.002	0.98
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.98
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.003	0.98
10237	Methylcyclohexane	108-87-2	N.D.	0.001	0.98
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.98
10237	Styrene	100-42-5	N.D.	0.001	0.98
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	0.98
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.98
10237	Toluene	108-88-3	0.001 J	0.001	0.98
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	0.98
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.98
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	0.98
10237	Trichloroethene	79-01-6	N.D.	0.001	0.98
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.98
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.98
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.98

Wet Chemistry

SM20 2540 G

%

%

Sample Description: TCN-ST2 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834471
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 11:50 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

CNST2 SDG#: TAP01-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Wet Chemistry					
00111	Moisture	SM20 2540 G	%	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles 4.3 8260B Soil	SW-846 8260B	1	B122991AA	10/25/2012 06:33	Stephanie A Selis	0.98
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:23	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201229829174	10/24/2012 13:23	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:04	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: TCN-STC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834472
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 11:55 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

NSTC1 SDG#: TAP01-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	4	1
10727	Acenaphthylene	208-96-8	N.D.	4	1
10727	Acetophenone	98-86-2	N.D.	18	1
10727	Anthracene	120-12-7	N.D.	4	1
10727	Atrazine	1912-24-9	N.D.	35	1
10727	Benzaldehyde	100-52-7	N.D.	71	1
10727	Benzo(a)anthracene	56-55-3	N.D.	4	1
10727	Benzo(a)pyrene	50-32-8	N.D.	4	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	4	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	4	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	4	1
10727	1,1'-Biphenyl	92-52-4	N.D.	18	1
10727	4-Bromophenyl-phenylether	101-55-3	N.D.	18	1
10727	Butylbenzylphthalate	85-68-7	N.D.	71	1
10727	Di-n-butylphthalate	84-74-2	N.D.	71	1
10727	Caprolactam	105-60-2	N.D.	35	1
10727	Carbazole	86-74-8	N.D.	18	1
10727	4-Chloro-3-methylphenol	59-50-7	N.D.	18	1
10727	4-Chloroaniline	106-47-8	N.D.	18	1
10727	bis(2-Chloroethoxy)methane	111-91-1	N.D.	18	1
10727	bis(2-Chloroethyl)ether	111-44-4	N.D.	18	1
10727	2-Chloronaphthalene	91-58-7	N.D.	7	1
10727	2-Chlorophenol	95-57-8	N.D.	18	1
10727	4-Chlorophenyl-phenylether	7005-72-3	N.D.	18	1
10727	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	18	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.				
10727	Chrysene	218-01-9	N.D.	4	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	4	1
10727	Dibenzofuran	132-64-9	N.D.	18	1
10727	3,3'-Dichlorobenzidine	91-94-1	N.D.	110	1
10727	2,4-Dichlorophenol	120-83-2	N.D.	18	1
10727	Diethylphthalate	84-66-2	N.D.	71	1
10727	2,4-Dimethylphenol	105-67-9	N.D.	18	1
10727	Dimethylphthalate	131-11-3	N.D.	71	1
10727	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	180	1
10727	2,4-Dinitrophenol	51-28-5	N.D.	320	1
10727	2,4-Dinitrotoluene	121-14-2	N.D.	71	1
10727	2,6-Dinitrotoluene	606-20-2	N.D.	18	1
10727	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	71	1
10727	Fluoranthene	206-44-0	N.D.	4	1
10727	Fluorene	86-73-7	N.D.	4	1
10727	Hexachlorobenzene	118-74-1	N.D.	4	1
10727	Hexachlorobutadiene	87-68-3	N.D.	18	1
10727	Hexachlorocyclopentadiene	77-47-4	N.D.	180	1
10727	Hexachloroethane	67-72-1	N.D.	35	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	4	1
10727	Isophorone	78-59-1	N.D.	18	1

Sample Description: TCN-STC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834472
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 11:55 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

NSTC1 SDG#: TAP01-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C ug/kg					
10727	2-Methylnaphthalene	91-57-6	N.D.	4	1
10727	2-Methylphenol	95-48-7	N.D.	18	1
10727	4-Methylphenol	106-44-5	N.D.	18	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.				
10727	Naphthalene	91-20-3	N.D.	4	1
10727	2-Nitroaniline	88-74-4	N.D.	18	1
10727	3-Nitroaniline	99-09-2	N.D.	71	1
10727	4-Nitroaniline	100-01-6	N.D.	71	1
10727	Nitrobenzene	98-95-3	N.D.	18	1
10727	2-Nitrophenol	88-75-5	N.D.	18	1
10727	4-Nitrophenol	100-02-7	N.D.	180	1
10727	N-Nitroso-di-n-propylamine	621-64-7	N.D.	18	1
10727	N-Nitrosodiphenylamine	86-30-6	N.D.	18	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
10727	Di-n-octylphthalate	117-84-0	N.D.	71	1
10727	Pentachlorophenol	87-86-5	N.D.	35	1
10727	Phenanthrene	85-01-8	4 J	4	1
10727	Phenol	108-95-2	N.D.	18	1
10727	Pyrene	129-00-0	6 J	4	1
10727	2,4,5-Trichlorophenol	95-95-4	N.D.	18	1
10727	2,4,6-Trichlorophenol	88-06-2	N.D.	18	1
Herbicides SW-846 8151A ug/kg					
10401	2,4-D	94-75-7	N.D.	13	1
10401	Dalapon	75-99-0	N.D.	47	1
10401	2,4-DB	94-82-6	N.D.	6.6	1
10401	Dicamba	1918-00-9	N.D.	4.2	1
10401	Dinoseb	88-85-7	N.D.	8.5	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.				
10401	2,4-DP (Dichloroprop)	120-36-5	N.D.	9.6	1
10401	MCPA	94-74-6	N.D.	810	1
10401	MCPP (Mecoprop)	93-65-2	N.D.	800	1
10401	Pentachlorophenol	87-86-5	N.D.	0.35	1
10401	2,4,5-T	93-76-5	N.D.	0.87	1
10401	2,4,5-TP	93-72-1	N.D.	0.80	1
Pesticides/PCBs SW-846 8081A ug/kg					
10738	Aldrin	309-00-2	N.D.	0.18	1
10738	Alpha BHC	319-84-6	N.D.	0.18	1
10738	Beta BHC	319-85-7	N.D.	1.0	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.18	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.18	1
10738	Gamma Chlordane	5103-74-2	N.D.	0.18	1
10738	p,p-DDD	72-54-8	N.D.	0.35	1

Sample Description: TCN-STC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834472
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 11:55 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street
Brooklyn NY 11222

NSTC1 SDG#: TAP01-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs					
	SW-846 8081A		ug/kg	ug/kg	
10738	p,p-DDE	72-55-9	N.D.	0.35	1
10738	p,p-DDT	50-29-3	N.D.	0.35	1
10738	Delta BHC	319-86-8	N.D.	0.48	1
10738	Dieldrin	60-57-1	N.D.	0.35	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.35	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.35	1
10738	Endrin	72-20-8	N.D.	0.35	1
10738	Endrin Aldehyde	7421-93-4	N.D.	0.35	1
10738	Endrin Ketone	53494-70-5	N.D.	0.64	1
10738	Heptachlor	76-44-8	N.D.	0.18	1
10738	Heptachlor Epoxide	1024-57-3	N.D.	0.18	1
10738	Methoxychlor	72-43-5	N.D.	1.8	1
10738	Toxaphene	8001-35-2	N.D.	13	1
Pesticides/PCBs					
	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	3.8	1
10736	PCB-1221	11104-28-2	N.D.	4.9	1
10736	PCB-1232	11141-16-5	N.D.	8.5	1
10736	PCB-1242	53469-21-9	N.D.	3.5	1
10736	PCB-1248	12672-29-6	N.D.	3.5	1
10736	PCB-1254	11097-69-1	N.D.	3.5	1
10736	PCB-1260	11096-82-5	N.D.	5.2	1
Metals					
	SW-846 6010B		mg/kg	mg/kg	
01643	Aluminum	7429-90-5	23,500	8.13	1
06944	Antimony	7440-36-0	0.787 J	0.527	1
06935	Arsenic	7440-38-2	2.21	0.348	1
06946	Barium	7440-39-3	20.1	0.0348	1
06947	Beryllium	7440-41-7	1.06	0.0706	1
06949	Cadmium	7440-43-9	0.368 J	0.0348	1
01650	Calcium	7440-70-2	16,800	4.24	1
06951	Chromium	7440-47-3	5.71	0.0928	1
06952	Cobalt	7440-48-4	17.1	0.0949	1
06953	Copper	7440-50-8	138	0.190	1
01654	Iron	7439-89-6	28,600	8.01	2
06955	Lead	7439-92-1	3.71	0.496	1
01657	Magnesium	7439-95-4	7,020	1.82	1
06958	Manganese	7439-96-5	225	0.0875	1
06961	Nickel	7440-02-0	14.9	0.116	1
01662	Potassium	7440-09-7	855	14.2	1
06936	Selenium	7782-49-2	N.D.	0.759	1
06966	Silver	7440-22-4	0.250 J	0.148	1
01667	Sodium	7440-23-5	3,850	17.6	1
06925	Thallium	7440-28-0	N.D.	0.390	1
06971	Vanadium	7440-62-2	108	0.116	1
06972	Zinc	7440-66-6	46.5	0.211	1

Sample Description: TCN-STC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834472
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 11:55 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

NSTC1 SDG#: TAP01-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Metals					
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	5.7	0.53	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0108	1
Wet Chemistry					
		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.18	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.53	1
Wet Chemistry					
		SM20 2540 G	%	%	
00111	Moisture	n.a.	6.1	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	TCL 4.3 SVOC 8270C Soil	SW-846 8270C	1	12298SLE026	10/25/2012 11:45	Brian K Graham	1
10809	BNA Soil Microwave	SW-846 3546	1	12298SLE026	10/24/2012 18:00	Sally L Appleyard	1
10401	Herbicides 8151A Soil	SW-846 8151A	1	122990021A	10/26/2012 11:44	John W Perkins	1
10738	TCL Pesticides 8081A Soil	SW-846 8081A	1	123010012A	11/03/2012 05:57	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	122980012A	10/25/2012 12:02	Monica M Souders	1
10497	PCB Microwave Soil	SW-846 3546	1	122980012A	10/24/2012 15:35	JoElla L Rice	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	2	123010012A	10/28/2012 05:00	Sherry L Morrow	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	122990021A	10/25/2012 20:50	Karen L Beyer	1
01643	Aluminum	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06944	Antimony	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06946	Barium	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1

Sample Description: TCN-STC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834472
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 11:55 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street
Brooklyn NY 11222

NSTC1 SDG#: TAP01-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06947	Beryllium	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
01650	Calcium	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06951	Chromium	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06953	Copper	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
01654	Iron	SW-846 6010B	1	122985708003	10/26/2012 06:11	Joanne M Gates	2
06955	Lead	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06958	Manganese	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06961	Nickel	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
01662	Potassium	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06936	Selenium	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06966	Silver	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
01667	Sodium	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06925	Thallium	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
06972	Zinc	SW-846 6010B	1	122985708003	10/25/2012 20:38	Katlin N Cataldi	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123052829001	10/31/2012 04:20	Deborah A Krady	1
00159	Mercury	SW-846 7471A	1	122985711001	10/26/2012 06:12	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	122985708003	10/25/2012 09:23	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	122985711001	10/25/2012 12:00	Denise K Connors	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12299103201A	10/25/2012 16:22	Venia B McFadden	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12299102201A	10/25/2012 16:07	Venia B McFadden	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12299103201A	10/25/2012 08:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12299102201A	10/25/2012 08:40	Nancy J Shoop	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12302042501A	10/28/2012 22:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12302042501A	10/28/2012 22:30	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: NYSS-ST1 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834473
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:15 by TB

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 10/24/2012 09:20

38 Varick Street

Reported: 11/13/2012 13:35

Brooklyn NY 11222

SSST1 SDG#: TAP01-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	0.037	0.008	1.02
10237	Benzene	71-43-2	N.D.	0.0006	1.02
10237	Bromodichloromethane	75-27-4	N.D.	0.001	1.02
10237	Bromoform	75-25-2	N.D.	0.001	1.02
10237	Bromomethane	74-83-9	N.D.	0.002	1.02
10237	2-Butanone	78-93-3	N.D.	0.004	1.02
10237	Carbon Disulfide	75-15-0	N.D.	0.001	1.02
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.02
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.02
10237	Chloroethane	75-00-3	N.D.	0.002	1.02
10237	Chloroform	67-66-3	N.D.	0.001	1.02
10237	Chloromethane	74-87-3	N.D.	0.002	1.02
10237	Cyclohexane	110-82-7	N.D.	0.001	1.02
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	1.02
10237	Dibromochloromethane	124-48-1	N.D.	0.001	1.02
10237	1,2-Dibromoethane	106-93-4	N.D.	0.001	1.02
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.02
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.02
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.02
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.002	1.02
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.02
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.02
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.02
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.02
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.02
10237	1,2-Dichloropropane	78-87-5	N.D.	0.001	1.02
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	1.02
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.02
10237	Freon 113	76-13-1	N.D.	0.002	1.02
10237	2-Hexanone	591-78-6	N.D.	0.003	1.02
10237	Isopropylbenzene	98-82-8	N.D.	0.001	1.02
10237	Methyl Acetate	79-20-9	0.013	0.002	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	1.02
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.003	1.02
10237	Methylcyclohexane	108-87-2	N.D.	0.001	1.02
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.02
10237	Styrene	100-42-5	N.D.	0.001	1.02
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	1.02
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.02
10237	Toluene	108-88-3	0.001 J	0.001	1.02
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	1.02
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.02
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	1.02
10237	Trichloroethene	79-01-6	N.D.	0.001	1.02
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.02
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.02

Wet Chemistry

SM20 2540 G

%

%

Sample Description: NYSS-ST1 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834473
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:15 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

SSST1 SDG#: TAP01-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	SM20 2540 G		%	%	
00111	Moisture	n.a.	8.1	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles 4.3 8260B Soil	SW-846 8260B	1	B122991AA	10/25/2012 06:56	Stephanie A Selis	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:22	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201229829174	10/24/2012 13:22	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:05	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: NYSS-ST2 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834474
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:20 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

SSST2 SDG#: TAP01-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	0.039	0.008	1.04
10237	Benzene	71-43-2	N.D.	0.0006	1.04
10237	Bromodichloromethane	75-27-4	N.D.	0.001	1.04
10237	Bromoform	75-25-2	N.D.	0.001	1.04
10237	Bromomethane	74-83-9	N.D.	0.002	1.04
10237	2-Butanone	78-93-3	N.D.	0.005	1.04
10237	Carbon Disulfide	75-15-0	N.D.	0.001	1.04
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.04
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.04
10237	Chloroethane	75-00-3	N.D.	0.002	1.04
10237	Chloroform	67-66-3	N.D.	0.001	1.04
10237	Chloromethane	74-87-3	N.D.	0.002	1.04
10237	Cyclohexane	110-82-7	N.D.	0.001	1.04
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	1.04
10237	Dibromochloromethane	124-48-1	N.D.	0.001	1.04
10237	1,2-Dibromoethane	106-93-4	N.D.	0.001	1.04
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.04
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.04
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.04
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.002	1.04
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.04
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.04
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.04
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.04
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.04
10237	1,2-Dichloropropane	78-87-5	N.D.	0.001	1.04
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	1.04
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	1.04
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.04
10237	Freon 113	76-13-1	N.D.	0.002	1.04
10237	2-Hexanone	591-78-6	N.D.	0.003	1.04
10237	Isopropylbenzene	98-82-8	N.D.	0.001	1.04
10237	Methyl Acetate	79-20-9	0.015	0.002	1.04
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	1.04
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.003	1.04
10237	Methylcyclohexane	108-87-2	N.D.	0.001	1.04
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.04
10237	Styrene	100-42-5	N.D.	0.001	1.04
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	1.04
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.04
10237	Toluene	108-88-3	0.003 J	0.001	1.04
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	1.04
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.04
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	1.04
10237	Trichloroethene	79-01-6	N.D.	0.001	1.04
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.04
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.04
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.04

Wet Chemistry

SM20 2540 G

%

%

Sample Description: NYSS-ST2 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834474
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:20 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

SSST2 SDG#: TAP01-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
	Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	9.6	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles 4.3 8260B Soil	SW-846 8260B	1	B122991AA	10/25/2012 07:19	Stephanie A Selis	1.04
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:23	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201229829174	10/24/2012 13:22	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:07	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: NYSS-STC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834475
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:30 by TB

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 10/24/2012 09:20

38 Varick Street

Reported: 11/13/2012 13:35

Brooklyn NY 11222

SSTC1 SDG#: TAP01-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	4	1
10727	Acenaphthylene	208-96-8	N.D.	4	1
10727	Acetophenone	98-86-2	N.D.	19	1
10727	Anthracene	120-12-7	4 J	4	1
10727	Atrazine	1912-24-9	N.D.	39	1
10727	Benzaldehyde	100-52-7	N.D.	77	1
10727	Benzo(a)anthracene	56-55-3	N.D.	4	1
10727	Benzo(a)pyrene	50-32-8	N.D.	4	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	4	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	4	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	4	1
10727	1,1'-Biphenyl	92-52-4	N.D.	19	1
10727	4-Bromophenyl-phenylether	101-55-3	N.D.	19	1
10727	Butylbenzylphthalate	85-68-7	N.D.	77	1
10727	Di-n-butylphthalate	84-74-2	N.D.	77	1
10727	Caprolactam	105-60-2	N.D.	39	1
10727	Carbazole	86-74-8	N.D.	19	1
10727	4-Chloro-3-methylphenol	59-50-7	N.D.	19	1
10727	4-Chloroaniline	106-47-8	N.D.	19	1
10727	bis(2-Chloroethoxy)methane	111-91-1	N.D.	19	1
10727	bis(2-Chloroethyl)ether	111-44-4	N.D.	19	1
10727	2-Chloronaphthalene	91-58-7	N.D.	8	1
10727	2-Chlorophenol	95-57-8	N.D.	19	1
10727	4-Chlorophenyl-phenylether	7005-72-3	N.D.	19	1
10727	2,2'-oxybis(1-chloropropane)	108-60-1	N.D.	19	1
Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
10727	Chrysene	218-01-9	N.D.	4	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	4	1
10727	Dibenzofuran	132-64-9	N.D.	19	1
10727	3,3'-Dichlorobenzidine	91-94-1	N.D.	120	1
10727	2,4-Dichlorophenol	120-83-2	N.D.	19	1
10727	Diethylphthalate	84-66-2	N.D.	77	1
10727	2,4-Dimethylphenol	105-67-9	N.D.	19	1
10727	Dimethylphthalate	131-11-3	N.D.	77	1
10727	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	190	1
10727	2,4-Dinitrophenol	51-28-5	N.D.	350	1
10727	2,4-Dinitrotoluene	121-14-2	N.D.	77	1
10727	2,6-Dinitrotoluene	606-20-2	N.D.	19	1
10727	bis(2-Ethylhexyl)phthalate	117-81-7	160 J	77	1
10727	Fluoranthene	206-44-0	5 J	4	1
10727	Fluorene	86-73-7	N.D.	4	1
10727	Hexachlorobenzene	118-74-1	N.D.	4	1
10727	Hexachlorobutadiene	87-68-3	N.D.	19	1
10727	Hexachlorocyclopentadiene	77-47-4	N.D.	190	1
10727	Hexachloroethane	67-72-1	N.D.	39	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	4	1
10727	Isophorone	78-59-1	N.D.	19	1

Sample Description: NYSS-STC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834475
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:30 by TB

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 10/24/2012 09:20

38 Varick Street

Reported: 11/13/2012 13:35

Brooklyn NY 11222

SSTC1 SDG#: TAP01-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	2-Methylnaphthalene	91-57-6	N.D.	4	1
10727	2-Methylphenol	95-48-7	N.D.	19	1
10727	4-Methylphenol	106-44-5	N.D.	19	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	4	1
10727	2-Nitroaniline	88-74-4	N.D.	19	1
10727	3-Nitroaniline	99-09-2	N.D.	77	1
10727	4-Nitroaniline	100-01-6	N.D.	77	1
10727	Nitrobenzene	98-95-3	N.D.	19	1
10727	2-Nitrophenol	88-75-5	N.D.	19	1
10727	4-Nitrophenol	100-02-7	N.D.	190	1
10727	N-Nitroso-di-n-propylamine	621-64-7	N.D.	19	1
10727	N-Nitrosodiphenylamine	86-30-6	N.D.	19	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
10727	Di-n-octylphthalate	117-84-0	N.D.	77	1
10727	Pentachlorophenol	87-86-5	N.D.	39	1
10727	Phenanthrene	85-01-8	8 J	4	1
10727	Phenol	108-95-2	N.D.	19	1
10727	Pyrene	129-00-0	13 J	4	1
10727	2,4,5-Trichlorophenol	95-95-4	N.D.	19	1
10727	2,4,6-Trichlorophenol	88-06-2	N.D.	19	1
Herbicides	SW-846 8151A		ug/kg	ug/kg	
10401	2,4-D	94-75-7	N.D.	14	1
10401	Dalapon	75-99-0	N.D.	50	1
10401	2,4-DB	94-82-6	N.D.	7.1	1
10401	Dicamba	1918-00-9	N.D.	4.6	1
10401	Dinoseb	88-85-7	N.D.	9.1	1
The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.					
10401	2,4-DP (Dichloroprop)	120-36-5	N.D.	10	1
10401	MCPA	94-74-6	N.D.	870	1
10401	MCPP (Mecoprop)	93-65-2	N.D.	860	1
10401	Pentachlorophenol	87-86-5	N.D.	0.38	1
10401	2,4,5-T	93-76-5	N.D.	0.94	1
10401	2,4,5-TP	93-72-1	N.D.	0.86	1
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	
10738	Aldrin	309-00-2	N.D.	0.19	1
10738	Alpha BHC	319-84-6	N.D.	0.19	1
10738	Beta BHC	319-85-7	N.D.	1.1	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.19	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.19	1
10738	Gamma Chlordane	5103-74-2	N.D.	0.19	1
10738	p,p-DDD	72-54-8	0.57 J	0.38	1

Sample Description: NYSS-STC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834475
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:30 by TB

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 10/24/2012 09:20

38 Varick Street

Reported: 11/13/2012 13:35

Brooklyn NY 11222

SSTC1 SDG#: TAP01-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs					
	SW-846 8081A		ug/kg	ug/kg	
10738	p,p-DDE	72-55-9	N.D.	0.38	1
10738	p,p-DDT	50-29-3	N.D.	0.38	1
10738	Delta BHC	319-86-8	N.D.	0.51	1
10738	Dieldrin	60-57-1	N.D.	0.38	1
10738	Endosulfan I	959-98-8	N.D.	0.25	1
10738	Endosulfan II	33213-65-9	N.D.	0.38	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.38	1
10738	Endrin	72-20-8	N.D.	0.38	1
10738	Endrin Aldehyde	7421-93-4	N.D.	0.38	1
10738	Endrin Ketone	53494-70-5	N.D.	0.68	1
10738	Heptachlor	76-44-8	N.D.	0.19	1
10738	Heptachlor Epoxide	1024-57-3	N.D.	0.19	1
10738	Methoxychlor	72-43-5	N.D.	1.9	1
10738	Toxaphene	8001-35-2	N.D.	14	1
Pesticides/PCBs					
	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	4.2	1
10736	PCB-1221	11104-28-2	N.D.	5.3	1
10736	PCB-1232	11141-16-5	N.D.	9.2	1
10736	PCB-1242	53469-21-9	N.D.	3.8	1
10736	PCB-1248	12672-29-6	N.D.	3.8	1
10736	PCB-1254	11097-69-1	N.D.	3.8	1
10736	PCB-1260	11096-82-5	N.D.	5.7	1
Metals					
	SW-846 6010B		mg/kg	mg/kg	
01643	Aluminum	7429-90-5	17,300	8.91	1
06944	Antimony	7440-36-0	1.51 J	0.578	1
06935	Arsenic	7440-38-2	1.81 J	0.382	1
06946	Barium	7440-39-3	191	0.0382	1
06947	Beryllium	7440-41-7	0.806	0.0775	1
06949	Cadmium	7440-43-9	0.821	0.0382	1
01650	Calcium	7440-70-2	3,640	4.65	1
06951	Chromium	7440-47-3	33.1	0.102	1
06952	Cobalt	7440-48-4	17.3	0.104	1
06953	Copper	7440-50-8	41.9	0.208	1
01654	Iron	7439-89-6	29,800	8.79	2
06955	Lead	7439-92-1	5.59	0.543	1
01657	Magnesium	7439-95-4	8,060	2.00	1
06958	Manganese	7439-96-5	181	0.0960	1
06961	Nickel	7440-02-0	30.8	0.127	1
01662	Potassium	7440-09-7	10,300	31.2	2
06936	Selenium	7782-49-2	N.D.	0.832	1
06966	Silver	7440-22-4	N.D.	0.162	1
01667	Sodium	7440-23-5	318	19.3	1
06925	Thallium	7440-28-0	2.11 J	0.855	2
Reporting limits were raised due to interference from the sample matrix.					
06971	Vanadium	7440-62-2	50.4	0.127	1
06972	Zinc	7440-66-6	394	0.231	1

Sample Description: NYSS-STC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834475
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:30 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

SSTC1 SDG#: TAP01-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Metals					
	SW-846 6010B modified		mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	33.1	0.58	1
	SW-846 7471A		mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0116	1
Wet Chemistry					
	SW-846 9012B		mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.20	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.20	1
	SW-846 7196A		mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.58	1
Wet Chemistry					
	SM20 2540 G		%	%	
00111	Moisture	n.a.	13.5	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	TCL 4.3 SVOC 8270C Soil	SW-846 8270C	1	12298SLE026	10/25/2012 12:10	Brian K Graham	1
10809	BNA Soil Microwave	SW-846 3546	1	12298SLE026	10/24/2012 18:00	Sally L Appleyard	1
10401	Herbicides 8151A Soil	SW-846 8151A	1	122990021A	10/26/2012 12:12	John W Perkins	1
10738	TCL Pesticides 8081A Soil	SW-846 8081A	1	123010012A	11/03/2012 06:11	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	122980012A	10/25/2012 12:14	Monica M Souders	1
10497	PCB Microwave Soil	SW-846 3546	1	122980012A	10/24/2012 15:35	JoElla L Rice	1
10496	PPL Pest. Microwave	SW-846 3546	2	123010012A	10/28/2012 05:00	Sherry L Morrow	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	122990021A	10/25/2012 20:50	Karen L Beyer	1
01643	Aluminum	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06944	Antimony	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06946	Barium	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1

Sample Description: NYSS-STC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834475
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:30 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

SSTC1 SDG#: TAP01-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06947	Beryllium	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
01650	Calcium	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06951	Chromium	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06953	Copper	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
01654	Iron	SW-846 6010B	1	122985708003	10/26/2012 06:15	Joanne M Gates	2
06955	Lead	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06958	Manganese	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06961	Nickel	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
01662	Potassium	SW-846 6010B	1	122985708003	10/26/2012 06:15	Joanne M Gates	2
06936	Selenium	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06966	Silver	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
01667	Sodium	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06925	Thallium	SW-846 6010B	1	122985708003	10/26/2012 06:15	Joanne M Gates	2
06971	Vanadium	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
06972	Zinc	SW-846 6010B	1	122985708003	10/25/2012 20:42	Katlin N Cataldi	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123052829001	10/31/2012 04:20	Deborah A Krady	1
00159	Mercury	SW-846 7471A	1	122985711001	10/26/2012 06:14	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	122985708003	10/25/2012 09:23	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	122985711001	10/25/2012 12:00	Denise K Conners	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12299103201A	10/25/2012 16:24	Venia B McFadden	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12299102201A	10/25/2012 16:09	Venia B McFadden	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12299103201A	10/25/2012 08:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12299102201A	10/25/2012 08:40	Nancy J Shoop	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12302042501A	10/28/2012 22:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12302042501A	10/28/2012 22:30	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: NYSS-SA1 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834476
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:35 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

SSSA1 SDG#: TAP01-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.95
10237	Benzene	71-43-2	N.D.	0.0005	0.95
10237	Bromodichloromethane	75-27-4	N.D.	0.001	0.95
10237	Bromoform	75-25-2	N.D.	0.001	0.95
10237	Bromomethane	74-83-9	N.D.	0.002	0.95
10237	2-Butanone	78-93-3	N.D.	0.004	0.95
10237	Carbon Disulfide	75-15-0	N.D.	0.001	0.95
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.95
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.95
10237	Chloroethane	75-00-3	N.D.	0.002	0.95
10237	Chloroform	67-66-3	N.D.	0.001	0.95
10237	Chloromethane	74-87-3	N.D.	0.002	0.95
10237	Cyclohexane	110-82-7	N.D.	0.001	0.95
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	0.95
10237	Dibromochloromethane	124-48-1	N.D.	0.001	0.95
10237	1,2-Dibromoethane	106-93-4	N.D.	0.001	0.95
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.95
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.95
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.95
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.002	0.95
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.95
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.95
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.95
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.95
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.95
10237	1,2-Dichloropropane	78-87-5	N.D.	0.001	0.95
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	0.95
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	0.95
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.95
10237	Freon 113	76-13-1	N.D.	0.002	0.95
10237	2-Hexanone	591-78-6	N.D.	0.003	0.95
10237	Isopropylbenzene	98-82-8	N.D.	0.001	0.95
10237	Methyl Acetate	79-20-9	N.D.	0.002	0.95
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.95
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.003	0.95
10237	Methylcyclohexane	108-87-2	N.D.	0.001	0.95
10237	Methylene Chloride	75-09-2	0.003 J	0.002	0.95
10237	Styrene	100-42-5	N.D.	0.001	0.95
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	0.95
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.95
10237	Toluene	108-88-3	N.D.	0.001	0.95
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	0.95
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.95
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	0.95
10237	Trichloroethene	79-01-6	N.D.	0.001	0.95
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.95
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.95
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.95

Wet Chemistry

SM20 2540 G

%

%

Sample Description: NYSS-SA1 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834476
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:35 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

SSSA1 SDG#: TAP01-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	SM20 2540 G		%	%	
00111	Moisture	n.a.	4.3	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles 4.3 8260B Soil	SW-846 8260B	1	B122991AA	10/25/2012 07:43	Stephanie A Selis	0.95
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:22	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201229829174	10/24/2012 13:22	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:12	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: NYSS-SA2 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834477
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:40 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

SSSA2 SDG#: TAP01-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.99
10237	Benzene	71-43-2	N.D.	0.0005	0.99
10237	Bromodichloromethane	75-27-4	N.D.	0.001	0.99
10237	Bromoform	75-25-2	N.D.	0.001	0.99
10237	Bromomethane	74-83-9	N.D.	0.002	0.99
10237	2-Butanone	78-93-3	N.D.	0.004	0.99
10237	Carbon Disulfide	75-15-0	N.D.	0.001	0.99
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.99
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.99
10237	Chloroethane	75-00-3	N.D.	0.002	0.99
10237	Chloroform	67-66-3	N.D.	0.001	0.99
10237	Chloromethane	74-87-3	N.D.	0.002	0.99
10237	Cyclohexane	110-82-7	N.D.	0.001	0.99
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	0.99
10237	Dibromochloromethane	124-48-1	N.D.	0.001	0.99
10237	1,2-Dibromoethane	106-93-4	N.D.	0.001	0.99
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.99
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.99
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.99
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.002	0.99
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.99
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.99
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.99
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.99
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.99
10237	1,2-Dichloropropane	78-87-5	N.D.	0.001	0.99
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	0.99
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.99
10237	Freon 113	76-13-1	N.D.	0.002	0.99
10237	2-Hexanone	591-78-6	N.D.	0.003	0.99
10237	Isopropylbenzene	98-82-8	N.D.	0.001	0.99
10237	Methyl Acetate	79-20-9	0.002 J	0.002	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.99
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.003	0.99
10237	Methylcyclohexane	108-87-2	N.D.	0.001	0.99
10237	Methylene Chloride	75-09-2	0.003 J	0.002	0.99
10237	Styrene	100-42-5	N.D.	0.001	0.99
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	0.99
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.99
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	0.99
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.99
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	0.99
10237	Trichloroethene	79-01-6	N.D.	0.001	0.99
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.99
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.99

Wet Chemistry

SM20 2540 G

%

%

Sample Description: NYSS-SA2 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834477
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:40 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

SSSA2 SDG#: TAP01-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Wet Chemistry					
00111	Moisture	SM20 2540 G	%	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles 4.3 8260B Soil	SW-846 8260B	1	B122991AA	10/25/2012 08:06	Stephanie A Selis	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:23	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201229829174	10/24/2012 13:22	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:14	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: NYSS-SAC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834478
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:45 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

SSAC1 SDG#: TAP01-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	3	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Acetophenone	98-86-2	N.D.	17	1
10727	Anthracene	120-12-7	8 J	3	1
10727	Atrazine	1912-24-9	N.D.	35	1
10727	Benzaldehyde	100-52-7	N.D.	70	1
10727	Benzo(a)anthracene	56-55-3	11 J	3	1
10727	Benzo(a)pyrene	50-32-8	10 J	3	1
10727	Benzo(b)fluoranthene	205-99-2	11 J	3	1
10727	Benzo(g,h,i)perylene	191-24-2	8 J	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	1,1'-Biphenyl	92-52-4	N.D.	17	1
10727	4-Bromophenyl-phenylether	101-55-3	N.D.	17	1
10727	Butylbenzylphthalate	85-68-7	N.D.	70	1
10727	Di-n-butylphthalate	84-74-2	N.D.	70	1
10727	Caprolactam	105-60-2	N.D.	35	1
10727	Carbazole	86-74-8	N.D.	17	1
10727	4-Chloro-3-methylphenol	59-50-7	N.D.	17	1
10727	4-Chloroaniline	106-47-8	N.D.	17	1
10727	bis(2-Chloroethoxy)methane	111-91-1	N.D.	17	1
10727	bis(2-Chloroethyl)ether	111-44-4	N.D.	17	1
10727	2-Chloronaphthalene	91-58-7	N.D.	7	1
10727	2-Chlorophenol	95-57-8	N.D.	17	1
10727	4-Chlorophenyl-phenylether	7005-72-3	N.D.	17	1
10727	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	17	1
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.				
10727	Chrysene	218-01-9	12 J	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	3,3'-Dichlorobenzidine	91-94-1	N.D.	100	1
10727	2,4-Dichlorophenol	120-83-2	N.D.	17	1
10727	Diethylphthalate	84-66-2	N.D.	70	1
10727	2,4-Dimethylphenol	105-67-9	N.D.	17	1
10727	Dimethylphthalate	131-11-3	N.D.	70	1
10727	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	170	1
10727	2,4-Dinitrophenol	51-28-5	N.D.	310	1
10727	2,4-Dinitrotoluene	121-14-2	N.D.	70	1
10727	2,6-Dinitrotoluene	606-20-2	N.D.	17	1
10727	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	70	1
10727	Fluoranthene	206-44-0	22	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Hexachlorobenzene	118-74-1	N.D.	3	1
10727	Hexachlorobutadiene	87-68-3	N.D.	17	1
10727	Hexachlorocyclopentadiene	77-47-4	N.D.	170	1
10727	Hexachloroethane	67-72-1	N.D.	35	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	5 J	3	1
10727	Isophorone	78-59-1	N.D.	17	1

Sample Description: NYSS-SAC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834478
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:45 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

SSAC1 SDG#: TAP01-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C ug/kg					
10727	2-Methylnaphthalene	91-57-6	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.				
10727	Naphthalene	91-20-3	N.D.	3	1
10727	2-Nitroaniline	88-74-4	N.D.	17	1
10727	3-Nitroaniline	99-09-2	N.D.	70	1
10727	4-Nitroaniline	100-01-6	N.D.	70	1
10727	Nitrobenzene	98-95-3	N.D.	17	1
10727	2-Nitrophenol	88-75-5	N.D.	17	1
10727	4-Nitrophenol	100-02-7	N.D.	170	1
10727	N-Nitroso-di-n-propylamine	621-64-7	N.D.	17	1
10727	N-Nitrosodiphenylamine	86-30-6	N.D.	17	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
10727	Di-n-octylphthalate	117-84-0	N.D.	70	1
10727	Pentachlorophenol	87-86-5	N.D.	35	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	23	3	1
10727	2,4,5-Trichlorophenol	95-95-4	N.D.	17	1
10727	2,4,6-Trichlorophenol	88-06-2	N.D.	17	1
Herbicides SW-846 8151A ug/kg					
10401	2,4-D	94-75-7	N.D.	13	1
10401	Dalapon	75-99-0	N.D.	46	1
10401	2,4-DB	94-82-6	N.D.	6.5	1
10401	Dicamba	1918-00-9	N.D.	4.2	1
10401	Dinoseb	88-85-7	N.D.	8.4	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.				
10401	2,4-DP (Dichloroprop)	120-36-5	N.D.	9.4	1
10401	MCPA	94-74-6	N.D.	800	1
10401	MCPP (Mecoprop)	93-65-2	N.D.	790	1
10401	Pentachlorophenol	87-86-5	N.D.	0.35	1
10401	2,4,5-T	93-76-5	N.D.	0.86	1
10401	2,4,5-TP	93-72-1	N.D.	0.79	1
Pesticides/PCBs SW-846 8081A ug/kg					
10738	Aldrin	309-00-2	N.D.	0.18	1
10738	Alpha BHC	319-84-6	N.D.	0.18	1
10738	Beta BHC	319-85-7	N.D.	1.0	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.18	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.18	1
10738	Gamma Chlordane	5103-74-2	N.D.	0.18	1
10738	p,p-DDD	72-54-8	N.D.	0.35	1

Sample Description: NYSS-SAC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834478
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:45 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

SSAC1 SDG#: TAP01-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs					
	SW-846 8081A		ug/kg	ug/kg	
10738	p,p-DDE	72-55-9	N.D.	0.35	1
10738	p,p-DDT	50-29-3	N.D.	0.35	1
10738	Delta BHC	319-86-8	N.D.	0.47	1
10738	Dieldrin	60-57-1	N.D.	0.35	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.35	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.35	1
10738	Endrin	72-20-8	N.D.	0.35	1
10738	Endrin Aldehyde	7421-93-4	N.D.	0.35	1
10738	Endrin Ketone	53494-70-5	N.D.	0.63	1
10738	Heptachlor	76-44-8	N.D.	0.18	1
10738	Heptachlor Epoxide	1024-57-3	N.D.	0.18	1
10738	Methoxychlor	72-43-5	N.D.	1.8	1
10738	Toxaphene	8001-35-2	N.D.	13	1
Pesticides/PCBs					
	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	3.8	1
10736	PCB-1221	11104-28-2	N.D.	4.8	1
10736	PCB-1232	11141-16-5	N.D.	8.4	1
10736	PCB-1242	53469-21-9	N.D.	3.5	1
10736	PCB-1248	12672-29-6	N.D.	3.5	1
10736	PCB-1254	11097-69-1	N.D.	3.5	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals					
	SW-846 6010B		mg/kg	mg/kg	
01643	Aluminum	7429-90-5	1,770	8.08	1
06944	Antimony	7440-36-0	N.D.	0.524	1
06935	Arsenic	7440-38-2	3.10	0.346	1
06946	Barium	7440-39-3	4.52	0.0346	1
06947	Beryllium	7440-41-7	0.223 J	0.0702	1
06949	Cadmium	7440-43-9	0.0377 J	0.0346	1
01650	Calcium	7440-70-2	2,500	4.21	1
06951	Chromium	7440-47-3	5.35	0.0922	1
06952	Cobalt	7440-48-4	1.69	0.0943	1
06953	Copper	7440-50-8	1.83	0.189	1
01654	Iron	7439-89-6	6,880	3.98	1
06955	Lead	7439-92-1	2.34	0.493	1
01657	Magnesium	7439-95-4	1,010	1.81	1
06958	Manganese	7439-96-5	55.3	0.0870	1
06961	Nickel	7440-02-0	3.51	0.115	1
01662	Potassium	7440-09-7	768	14.2	1
06936	Selenium	7782-49-2	N.D.	0.755	1
06966	Silver	7440-22-4	N.D.	0.147	1
01667	Sodium	7440-23-5	433	17.5	1
06925	Thallium	7440-28-0	N.D.	0.388	1
06971	Vanadium	7440-62-2	7.60	0.115	1
06972	Zinc	7440-66-6	10.4	0.210	1

Sample Description: NYSS-SAC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834478
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:45 by TB

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 10/24/2012 09:20

38 Varick Street

Reported: 11/13/2012 13:35

Brooklyn NY 11222

SSAC1 SDG#: TAP01-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Metals		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	4.0	0.52	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0107	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.19	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	1.3 J	0.52	1
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	4.6	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	TCL 4.3 SVOC 8270C Soil	SW-846 8270C	1	12298SLE026	10/25/2012 12:35	Brian K Graham	1
10809	BNA Soil Microwave	SW-846 3546	1	12298SLE026	10/24/2012 18:00	Sally L Appleyard	1
10401	Herbicides 8151A Soil	SW-846 8151A	1	122990021A	10/26/2012 12:39	John W Perkins	1
10738	TCL Pesticides 8081A Soil	SW-846 8081A	1	123010012A	11/03/2012 06:25	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	122980012A	10/25/2012 12:25	Monica M Souders	1
10497	PCB Microwave Soil	SW-846 3546	1	122980012A	10/24/2012 15:35	JoElla L Rice	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	2	123010012A	10/28/2012 05:00	Sherry L Morrow	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	122990021A	10/25/2012 20:50	Karen L Beyer	1
01643	Aluminum	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06944	Antimony	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06946	Barium	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1

Sample Description: NYSS-SAC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834478
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/23/2012 08:45 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street
Brooklyn NY 11222

SSAC1 SDG#: TAP01-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06947	Beryllium	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
01650	Calcium	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06951	Chromium	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06953	Copper	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
01654	Iron	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06955	Lead	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06958	Manganese	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06961	Nickel	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
01662	Potassium	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06936	Selenium	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06966	Silver	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
01667	Sodium	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06925	Thallium	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
06972	Zinc	SW-846 6010B	1	122985708003	10/25/2012 20:46	Katlin N Cataldi	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123052829001	10/31/2012 04:20	Deborah A Krady	1
00159	Mercury	SW-846 7471A	1	122985711001	10/26/2012 06:16	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	122985708003	10/25/2012 09:23	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	122985711001	10/25/2012 12:00	Denise K Conners	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12299103201A	10/25/2012 16:25	Venia B McFadden	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12299102201A	10/25/2012 16:10	Venia B McFadden	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12299103201A	10/25/2012 08:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12299102201A	10/25/2012 08:40	Nancy J Shoop	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12302042501A	10/28/2012 22:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12302042501A	10/28/2012 22:30	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: POC-TS1 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834479
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 10:00 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

OCTS1 SDG#: TAP01-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.009	1.05
10237	Benzene	71-43-2	0.0009 J	0.0007	1.05
10237	Bromodichloromethane	75-27-4	N.D.	0.001	1.05
10237	Bromoform	75-25-2	N.D.	0.001	1.05
10237	Bromomethane	74-83-9	N.D.	0.003	1.05
10237	2-Butanone	78-93-3	N.D.	0.005	1.05
10237	Carbon Disulfide	75-15-0	N.D.	0.001	1.05
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.05
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.05
10237	Chloroethane	75-00-3	N.D.	0.003	1.05
10237	Chloroform	67-66-3	N.D.	0.001	1.05
10237	Chloromethane	74-87-3	N.D.	0.003	1.05
10237	Cyclohexane	110-82-7	N.D.	0.001	1.05
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.003	1.05
10237	Dibromochloromethane	124-48-1	N.D.	0.001	1.05
10237	1,2-Dibromoethane	106-93-4	N.D.	0.001	1.05
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.05
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.05
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.05
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.003	1.05
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.05
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.05
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.05
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.05
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.05
10237	1,2-Dichloropropane	78-87-5	N.D.	0.001	1.05
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	1.05
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	1.05
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.05
10237	Freon 113	76-13-1	N.D.	0.003	1.05
10237	2-Hexanone	591-78-6	N.D.	0.004	1.05
10237	Isopropylbenzene	98-82-8	N.D.	0.001	1.05
10237	Methyl Acetate	79-20-9	N.D.	0.003	1.05
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0007	1.05
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.004	1.05
10237	Methylcyclohexane	108-87-2	N.D.	0.001	1.05
10237	Methylene Chloride	75-09-2	N.D.	0.003	1.05
10237	Styrene	100-42-5	N.D.	0.001	1.05
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	1.05
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.05
10237	Toluene	108-88-3	0.004 J	0.001	1.05
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	1.05
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.05
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	1.05
10237	Trichloroethene	79-01-6	N.D.	0.001	1.05
10237	Trichlorofluoromethane	75-69-4	N.D.	0.003	1.05
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.05
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.05

Wet Chemistry

SM20 2540 G

%

%

Sample Description: POC-TS1 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834479
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 10:00 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

OCTS1 SDG#: TAP01-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	22.6	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles 4.3 8260B Soil	SW-846 8260B	1	B122991AA	10/25/2012 08:29	Stephanie A Selis	1.05
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:23	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201229829174	10/24/2012 13:23	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:21	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: POC-TS2 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834480
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 10:05 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

OCTS2 SDG#: TAP01-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.009	0.95
10237	Benzene	71-43-2	0.0009 J	0.0006	0.95
10237	Bromodichloromethane	75-27-4	N.D.	0.001	0.95
10237	Bromoform	75-25-2	N.D.	0.001	0.95
10237	Bromomethane	74-83-9	N.D.	0.002	0.95
10237	2-Butanone	78-93-3	N.D.	0.005	0.95
10237	Carbon Disulfide	75-15-0	N.D.	0.001	0.95
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.95
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.95
10237	Chloroethane	75-00-3	N.D.	0.002	0.95
10237	Chloroform	67-66-3	N.D.	0.001	0.95
10237	Chloromethane	74-87-3	N.D.	0.002	0.95
10237	Cyclohexane	110-82-7	N.D.	0.001	0.95
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	0.95
10237	Dibromochloromethane	124-48-1	N.D.	0.001	0.95
10237	1,2-Dibromoethane	106-93-4	N.D.	0.001	0.95
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.95
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.95
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.95
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.002	0.95
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.95
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.95
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.95
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.95
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.95
10237	1,2-Dichloropropane	78-87-5	N.D.	0.001	0.95
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	0.95
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	0.95
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.95
10237	Freon 113	76-13-1	N.D.	0.002	0.95
10237	2-Hexanone	591-78-6	N.D.	0.004	0.95
10237	Isopropylbenzene	98-82-8	N.D.	0.001	0.95
10237	Methyl Acetate	79-20-9	N.D.	0.002	0.95
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	0.95
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.004	0.95
10237	Methylcyclohexane	108-87-2	N.D.	0.001	0.95
10237	Methylene Chloride	75-09-2	0.003 J	0.002	0.95
10237	Styrene	100-42-5	N.D.	0.001	0.95
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	0.95
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.95
10237	Toluene	108-88-3	0.004 J	0.001	0.95
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	0.95
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.95
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	0.95
10237	Trichloroethene	79-01-6	N.D.	0.001	0.95
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.95
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.95
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.95

Wet Chemistry

SM20 2540 G

%

%

Sample Description: POC-TS2 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834480
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 10:05 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

OCTS2 SDG#: TAP01-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Wet Chemistry					
00111	Moisture	SM20 2540 G	%	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	TCL Volatiles 4.3 8260B Soil	SW-846 8260B	1	B122991AA	10/25/2012 12:50	Stephanie A Selis	0.95
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:23	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201229829174	10/24/2012 13:23	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201229829174	10/24/2012 13:19	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Sample Description: POC-TSC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834481
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 10:10 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

CTSC1 SDG#: TAP01-15*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	4	1
10727	Acenaphthylene	208-96-8	7 J	4	1
10727	Acetophenone	98-86-2	27 J	21	1
10727	Anthracene	120-12-7	11 J	4	1
10727	Atrazine	1912-24-9	N.D.	43	1
10727	Benzaldehyde	100-52-7	160 J	86	1
10727	Benzo(a)anthracene	56-55-3	31	4	1
10727	Benzo(a)pyrene	50-32-8	39	4	1
10727	Benzo(b)fluoranthene	205-99-2	56	4	1
10727	Benzo(g,h,i)perylene	191-24-2	29	4	1
10727	Benzo(k)fluoranthene	207-08-9	24	4	1
10727	1,1'-Biphenyl	92-52-4	N.D.	21	1
10727	4-Bromophenyl-phenylether	101-55-3	N.D.	21	1
10727	Butylbenzylphthalate	85-68-7	N.D.	86	1
10727	Di-n-butylphthalate	84-74-2	N.D.	86	1
10727	Caprolactam	105-60-2	N.D.	43	1
10727	Carbazole	86-74-8	N.D.	21	1
10727	4-Chloro-3-methylphenol	59-50-7	N.D.	21	1
10727	4-Chloroaniline	106-47-8	N.D.	21	1
10727	bis(2-Chloroethoxy)methane	111-91-1	N.D.	21	1
10727	bis(2-Chloroethyl)ether	111-44-4	N.D.	21	1
10727	2-Chloronaphthalene	91-58-7	N.D.	9	1
10727	2-Chlorophenol	95-57-8	N.D.	21	1
10727	4-Chlorophenyl-phenylether	7005-72-3	N.D.	21	1
10727	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	21	1
Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.					
10727	Chrysene	218-01-9	45	4	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	4	1
10727	Dibenzofuran	132-64-9	N.D.	21	1
10727	3,3'-Dichlorobenzidine	91-94-1	N.D.	130	1
10727	2,4-Dichlorophenol	120-83-2	N.D.	21	1
10727	Diethylphthalate	84-66-2	N.D.	86	1
10727	2,4-Dimethylphenol	105-67-9	N.D.	21	1
10727	Dimethylphthalate	131-11-3	N.D.	86	1
10727	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	210	1
10727	2,4-Dinitrophenol	51-28-5	N.D.	390	1
10727	2,4-Dinitrotoluene	121-14-2	N.D.	86	1
10727	2,6-Dinitrotoluene	606-20-2	N.D.	21	1
10727	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	86	1
10727	Fluoranthene	206-44-0	52	4	1
10727	Fluorene	86-73-7	N.D.	4	1
10727	Hexachlorobenzene	118-74-1	N.D.	4	1
10727	Hexachlorobutadiene	87-68-3	N.D.	21	1
10727	Hexachlorocyclopentadiene	77-47-4	N.D.	210	1
10727	Hexachloroethane	67-72-1	N.D.	43	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	27	4	1
10727	Isophorone	78-59-1	N.D.	21	1

Sample Description: POC-TSC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834481
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 10:10 by TB

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 10/24/2012 09:20

38 Varick Street

Reported: 11/13/2012 13:35

Brooklyn NY 11222

CTSC1 SDG#: TAP01-15*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	2-Methylnaphthalene	91-57-6	29	4	1
10727	2-Methylphenol	95-48-7	N.D.	21	1
10727	4-Methylphenol	106-44-5	N.D.	21	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.				
10727	Naphthalene	91-20-3	24	4	1
10727	2-Nitroaniline	88-74-4	N.D.	21	1
10727	3-Nitroaniline	99-09-2	N.D.	86	1
10727	4-Nitroaniline	100-01-6	N.D.	86	1
10727	Nitrobenzene	98-95-3	N.D.	21	1
10727	2-Nitrophenol	88-75-5	N.D.	21	1
10727	4-Nitrophenol	100-02-7	N.D.	210	1
10727	N-Nitroso-di-n-propylamine	621-64-7	N.D.	21	1
10727	N-Nitrosodiphenylamine	86-30-6	N.D.	21	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
10727	Di-n-octylphthalate	117-84-0	N.D.	86	1
10727	Pentachlorophenol	87-86-5	N.D.	43	1
10727	Phenanthrene	85-01-8	36	4	1
10727	Phenol	108-95-2	48	21	1
10727	Pyrene	129-00-0	59	4	1
10727	2,4,5-Trichlorophenol	95-95-4	N.D.	21	1
10727	2,4,6-Trichlorophenol	88-06-2	N.D.	21	1
Herbicides SW-846 8151A					
10401	2,4-D	94-75-7	N.D.	15	1
10401	Dalapon	75-99-0	N.D.	56	1
10401	2,4-DB	94-82-6	N.D.	7.9	1
10401	Dicamba	1918-00-9	N.D.	5.1	1
10401	Dinoseb	88-85-7	N.D.	10	1
	The QC window for dinoseb is advisory due to the erratic performance of the analyte using this method.				
10401	2,4-DP (Dichloroprop)	120-36-5	N.D.	11	1
10401	MCPA	94-74-6	N.D.	970	1
10401	MCPP (Mecoprop)	93-65-2	N.D.	950	1
10401	Pentachlorophenol	87-86-5	0.70 J	0.42	1
10401	2,4,5-T	93-76-5	N.D.	1.0	1
10401	2,4,5-TP	93-72-1	N.D.	0.95	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.22	1
10738	Alpha BHC	319-84-6	N.D.	0.22	1
10738	Beta BHC	319-85-7	N.D.	1.2	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.22	1
10738	Alpha Chlordane	5103-71-9	N.D.	2.3	1
10738	Gamma Chlordane	5103-74-2	N.D.	0.22	1
10738	p,p-DDD	72-54-8	1.1 J	0.42	1

Sample Description: POC-TSC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834481
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 10:10 by TB

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 10/24/2012 09:20

38 Varick Street

Reported: 11/13/2012 13:35

Brooklyn NY 11222

CTSC1 SDG#: TAP01-15*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	
10738	p,p-DDE	72-55-9	3.9	0.42	1
10738	p,p-DDT	50-29-3	2.9	0.42	1
10738	Delta BHC	319-86-8	N.D.	0.58	1
10738	Dieldrin	60-57-1	N.D.	2.8	1
10738	Endosulfan I	959-98-8	N.D.	0.31	1
10738	Endosulfan II	33213-65-9	N.D.	0.42	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.42	1
10738	Endrin	72-20-8	N.D.	0.42	1
10738	Endrin Aldehyde	7421-93-4	N.D.	0.42	1
10738	Endrin Ketone	53494-70-5	N.D.	0.77	1
10738	Heptachlor	76-44-8	N.D.	0.22	1
10738	Heptachlor Epoxide	1024-57-3	N.D.	0.22	1
10738	Methoxychlor	72-43-5	N.D.	2.2	1
10738	Toxaphene	8001-35-2	N.D.	15	1

Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	4.6	1
10736	PCB-1221	11104-28-2	N.D.	5.9	1
10736	PCB-1232	11141-16-5	N.D.	10	1
10736	PCB-1242	53469-21-9	N.D.	4.2	1
10736	PCB-1248	12672-29-6	N.D.	4.2	1
10736	PCB-1254	11097-69-1	N.D.	4.2	1
10736	PCB-1260	11096-82-5	N.D.	6.3	1

Metals		SW-846 6010B	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	20,900	9.81	1
06944	Antimony	7440-36-0	0.808	0.636	1
06935	Arsenic	7440-38-2	7.87	0.420	1
06946	Barium	7440-39-3	119	0.0420	1
06947	Beryllium	7440-41-7	1.34	0.0853	1
06949	Cadmium	7440-43-9	0.585	0.0420	1
01650	Calcium	7440-70-2	7,730	5.12	1
06951	Chromium	7440-47-3	24.8	0.112	1
06952	Cobalt	7440-48-4	13.3	0.115	1
06953	Copper	7440-50-8	17.9	0.229	1
01654	Iron	7439-89-6	31,600	4.84	1
06955	Lead	7439-92-1	27.0	0.598	1
01657	Magnesium	7439-95-4	4,750	2.20	1
06958	Manganese	7439-96-5	959	0.106	1
06961	Nickel	7440-02-0	17.6	0.140	1
01662	Potassium	7440-09-7	3,130	17.2	1
06936	Selenium	7782-49-2	N.D.	0.916	1
06966	Silver	7440-22-4	N.D.	0.178	1
01667	Sodium	7440-23-5	113	21.3	1
06925	Thallium	7440-28-0	N.D.	0.471	1
06971	Vanadium	7440-62-2	40.4	0.140	1
06972	Zinc	7440-66-6	80.8	0.255	1

Sample Description: POC-TSC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834481
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 10:10 by TB

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 10/24/2012 09:20

Reported: 11/13/2012 13:35

CTSC1 SDG#: TAP01-15*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Metals		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	24.8	3.2	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0617 J	0.0130	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.22	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.23	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	3.2	5
Reporting limits were raised due to interference from the sample matrix.					
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	22.2	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	TCL 4.3 SVOC 8270C Soil	SW-846 8270C	1	12298SLE026	10/25/2012 13:00	Brian K Graham	1
10809	BNA Soil Microwave	SW-846 3546	1	12298SLE026	10/24/2012 18:00	Sally L Appleyard	1
10401	Herbicides 8151A Soil	SW-846 8151A	1	122990021A	10/26/2012 13:07	John W Perkins	1
10738	TCL Pesticides 8081A Soil	SW-846 8081A	1	123010012A	11/03/2012 06:54	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	122980012A	10/25/2012 12:37	Monica M Souders	1
10497	PCB Microwave Soil	SW-846 3546	1	122980012A	10/24/2012 15:35	JoElla L Rice	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	2	123010012A	10/28/2012 05:00	Sherry L Morrow	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	122990021A	10/25/2012 20:50	Karen L Beyer	1
01643	Aluminum	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06944	Antimony	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06935	Arsenic	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1

Sample Description: POC-TSC1 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6834481
LLI Group # 1344367
Account # 10629

Project Name: Tappan Terminal

Collected: 10/22/2012 10:10 by TB

ExxonMobil Refining & Supply

Submitted: 10/24/2012 09:20

Global Remed.-Major Projects

Reported: 11/13/2012 13:35

38 Varick Street

Brooklyn NY 11222

CTSC1 SDG#: TAP01-15*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06946	Barium	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06947	Beryllium	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06949	Cadmium	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
01650	Calcium	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06951	Chromium	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06952	Cobalt	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06953	Copper	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
01654	Iron	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06955	Lead	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
01657	Magnesium	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06958	Manganese	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06961	Nickel	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
01662	Potassium	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06936	Selenium	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06966	Silver	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
01667	Sodium	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06925	Thallium	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06971	Vanadium	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
06972	Zinc	SW-846 6010B	1	122985708003	10/25/2012 20:50	Katlin N Cataldi	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123052829001	10/31/2012 04:20	Deborah A Krady	1
00159	Mercury	SW-846 7471A	1	122985711001	10/26/2012 06:18	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	122985708003	10/25/2012 09:23	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	122985711001	10/25/2012 12:00	Denise K Conners	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12299103201A	10/25/2012 16:26	Venia B McFadden	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12299102201A	10/25/2012 16:13	Venia B McFadden	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12299103201A	10/25/2012 08:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12299102201A	10/25/2012 08:40	Nancy J Shoop	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12302042501A	10/28/2012 22:30	Daniel S Smith	5
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12302042501A	10/28/2012 22:30	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12298820003B	10/24/2012 19:38	Scott W Freisher	1

Volatiles by GC/MS Data

Case Narrative/Conformance Summary

Case Narrative/Conformance Summary**CLIENT: ExxonMobil Refining & Supply**
SDG: TAP01**GC/MS Volatiles**

Fraction: Volatiles by GC/MS

Sample #	Client ID	Matrix		DF	Comments
		Liquid	Solid		
6834467	CM-TS1		X	1	
6834468	CM-TS2		X	0.97	
6834470	TCN-ST1		X	1.01	
6834471	TCN-ST2		X	0.98	
6834473	NYSS-ST1		X	1.02	
6834474	NYSS-ST2		X	1.04	
6834476	NYSS-SA1		X	0.95	
6834477	NYSS-SA2		X	0.99	
6834479	POC-TS1		X	1.05	
6834480	POC-TS2		X	0.95	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:**MS/MSD**

Matrix QC may not be included if site-specific QC were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, laboratory spike data (LCS) are provided.

SAMPLE ANALYSIS:

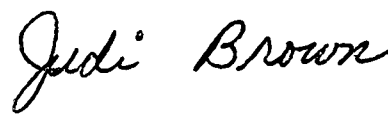
Case Narrative/Conformance Summary**CLIENT: ExxonMobil Refining & Supply**
SDG: TAP01**GC/MS Volatiles**

Fraction: Volatiles by GC/MS

No problems were encountered with the analysis of the samples.

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Narrative Reviewed and Approved 11/9/12 by
(Date)
Judi Brown
Specialist

GC/MS VOLATILES CALCULATIONS:

1. Relative response factor (RRF)

$$RRF = \frac{A_x}{A_{is}} \times \frac{C_{is}}{C_x}$$

Where :

A_x = Area of the characteristic ion for the compound to be measured.

A_{is} = Area of the characteristic ion for the specific internal standard to be measured.

C_{is} = Concentration of the internal standard.

C_x = Concentration of the compound to be measured.

2. % Relative Standard Deviation (%RSD)

$$\%RSD = \frac{\text{Standard deviation}}{\text{mean}} \times 100$$

3. % Difference (%D)

$$\%D = \frac{RRF_c - RRF_i}{RRF_i} \times 100$$

Where:

RRF_c = Relative response factor from continuing calibration standard.

RRF_i = Mean relative response factor from the initial calibration.

4. Concentration

$$\text{Concentration (ug/l)} = \frac{(A_x) (I_s) (D_f)}{(A_{is}) (RRF)}$$

Where:

A_x, A_{is}, RRF are as given in 1. above.

I_s = Concentration of internal standard added in parts per billion (ug/l)

D_f = Dilution factor

5. % Recovery (%Rec)

$$\%Rec = \frac{SSR - SR}{SA} \times 100$$

Where:

SSR = Spiked sample result

SR = Sample result

SA = Spike added

6. Relative Percent Difference (RPD)

$$RPD = \frac{|MSR - MSDR|}{(1/2) (MSR + MSDR)} \times 100$$

Where:

MSR = Matrix spike recovery

MSDR = Matrix spike duplicate recovery

Sample Data

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. _____

CMTS1

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6834467

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09953.i/12oct25a.b/bc25s01.d

Level: (low/med) LOW

Date Received: 10/24/12

Moisture: not dec. 7

Date Analyzed: 10/25/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-71-8-----	Dichlorodifluoromethane	0.005	U
74-87-3-----	Chloromethane	0.005	U
75-01-4-----	Vinyl Chloride	0.005	U
74-83-9-----	Bromomethane	0.005	U
75-00-3-----	Chloroethane	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.022	U
76-13-1-----	Freon 113	0.011	U
75-15-0-----	Carbon Disulfide	0.005	U
79-20-9-----	Methyl Acetate	0.005	U
75-09-2-----	Methylene Chloride	0.002	J
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.011	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
110-82-7-----	Cyclohexane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.0008	J
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
108-87-2-----	Methylcyclohexane	0.005	U
78-87-5-----	1,2-Dichloropropane	0.005	U
75-27-4-----	Bromodichloromethane	0.005	U
10061-01-5-----	cis-1,3-Dichloropropene	0.005	U
108-10-1-----	4-Methyl-2-pentanone	0.011	U
108-88-3-----	Toluene	0.003	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CMTS1

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6834467

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12oct25a.b/bc25s01.d

Level: (low/med) LOW Date Received: 10/24/12

Moisture: not dec. 7 Date Analyzed: 10/25/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

10061-02-6-----	trans-1,3-Dichloropropene	0.005	U
79-00-5-----	1,1,2-Trichloroethane	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
591-78-6-----	2-Hexanone	0.011	U
124-48-1-----	Dibromochloromethane	0.005	U
106-93-4-----	1,2-Dibromoethane	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
100-42-5-----	Styrene	0.005	U
75-25-2-----	Bromoform	0.005	U
98-82-8-----	Isopropylbenzene	0.005	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
95-50-1-----	1,2-Dichlorobenzene	0.005	U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.005	U
120-82-1-----	1,2,4-Trichlorobenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CMTS2

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6834468

Sample wt/vol: 5.17 (g/mL) g Lab File ID: HP09953.i/12oct25a.b/bc25s02.d

Level: (low/med) LOW Date Received: 10/24/12

Moisture: not dec. 6 Date Analyzed: 10/25/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:			
CAS NO.	COMPOUND	(mg/L or mg/Kg) mg/Kg	Q
75-71-8	Dichlorodifluoromethane	0.005	U
74-87-3	Chloromethane	0.005	U
75-01-4	Vinyl Chloride	0.005	U
74-83-9	Bromomethane	0.005	U
75-00-3	Chloroethane	0.005	U
75-69-4	Trichlorofluoromethane	0.005	U
75-35-4	1,1-Dichloroethene	0.005	U
67-64-1	Acetone	0.021	U
76-13-1	Freon 113	0.010	U
75-15-0	Carbon Disulfide	0.005	U
79-20-9	Methyl Acetate	0.005	U
75-09-2	Methylene Chloride	0.006	
1634-04-4	Methyl Tertiary Butyl Ether	0.005	U
156-60-5	trans-1,2-Dichloroethene	0.005	U
75-34-3	1,1-Dichloroethane	0.005	U
78-93-3	2-Butanone	0.010	U
156-59-2	cis-1,2-Dichloroethene	0.005	U
67-66-3	Chloroform	0.005	U
71-55-6	1,1,1-Trichloroethane	0.005	U
110-82-7	Cyclohexane	0.005	U
56-23-5	Carbon Tetrachloride	0.005	U
71-43-2	Benzene	0.001	J
107-06-2	1,2-Dichloroethane	0.005	U
79-01-6	Trichloroethene	0.005	U
108-87-2	Methylcyclohexane	0.005	U
78-87-5	1,2-Dichloropropane	0.005	U
75-27-4	Bromodichloromethane	0.005	U
10061-01-5	cis-1,3-Dichloropropene	0.005	U
108-10-1	4-Methyl-2-pentanone	0.010	U
108-88-3	Toluene	0.005	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CMTS2

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6834468

Sample wt/vol: 5.17 (g/mL) g Lab File ID: HP09953.i/12oct25a.b/bc25s02.d

Level: (low/med) LOW Date Received: 10/24/12

Moisture: not dec. 6 Date Analyzed: 10/25/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

10061-02-6	trans-1,3-Dichloropropene	0.005	U
79-00-5	1,1,2-Trichloroethane	0.005	U
127-18-4	Tetrachloroethene	0.005	U
591-78-6	2-Hexanone	0.010	U
124-48-1	Dibromochloromethane	0.005	U
106-93-4	1,2-Dibromoethane	0.005	U
108-90-7	Chlorobenzene	0.005	U
100-41-4	Ethylbenzene	0.005	U
1330-20-7	Xylene (Total)	0.005	U
100-42-5	Styrene	0.005	U
75-25-2	Bromoform	0.005	U
98-82-8	Isopropylbenzene	0.005	U
79-34-5	1,1,2,2-Tetrachloroethane	0.005	U
541-73-1	1,3-Dichlorobenzene	0.005	U
106-46-7	1,4-Dichlorobenzene	0.005	U
95-50-1	1,2-Dichlorobenzene	0.005	U
96-12-8	1,2-Dibromo-3-chloropropane	0.005	U
120-82-1	1,2,4-Trichlorobenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST1

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6834470

Sample wt/vol: 4.96 (g/mL) g Lab File ID: HP09953.i/12oct25a.b/bc25s03.d

Level: (low/med) LOW Date Received: 10/24/12

Moisture: not dec. 6 Date Analyzed: 10/25/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(mg/L or mg/Kg) mg/Kg	Q
75-71-8	Dichlorodifluoromethane	0.005	U
74-87-3	Chloromethane	0.005	U
75-01-4	Vinyl Chloride	0.005	U
74-83-9	Bromomethane	0.005	U
75-00-3	Chloroethane	0.005	U
75-69-4	Trichlorofluoromethane	0.005	U
75-35-4	1,1-Dichloroethene	0.005	U
67-64-1	Acetone	0.021	U
76-13-1	Freon 113	0.011	U
75-15-0	Carbon Disulfide	0.005	U
79-20-9	Methyl Acetate	0.002	J
75-09-2	Methylene Chloride	0.005	U
1634-04-4	Methyl Tertiary Butyl Ether	0.005	U
156-60-5	trans-1,2-Dichloroethene	0.005	U
75-34-3	1,1-Dichloroethane	0.005	U
78-93-3	2-Butanone	0.011	U
156-59-2	cis-1,2-Dichloroethene	0.005	U
67-66-3	Chloroform	0.005	U
71-55-6	1,1,1-Trichloroethane	0.005	U
110-82-7	Cyclohexane	0.005	U
56-23-5	Carbon Tetrachloride	0.005	U
71-43-2	Benzene	0.005	U
107-06-2	1,2-Dichloroethane	0.005	U
79-01-6	Trichloroethene	0.005	U
108-87-2	Methylcyclohexane	0.005	U
78-87-5	1,2-Dichloropropane	0.005	U
75-27-4	Bromodichloromethane	0.005	U
10061-01-5	cis-1,3-Dichloropropene	0.005	U
108-10-1	4-Methyl-2-pentanone	0.011	U
108-88-3	Toluene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST1

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6834470

Sample wt/vol: 4.96 (g/mL) g

Lab File ID: HP09953.i/12oct25a.b/bc25s03.d

Level: (low/med) LOW

Date Received: 10/24/12

Moisture: not dec. 6

Date Analyzed: 10/25/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(mg/L or mg/Kg) mg/Kg

Q

10061-02-6-----	trans-1,3-Dichloropropene	0.005	U
79-00-5-----	1,1,2-Trichloroethane	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
591-78-6-----	2-Hexanone	0.011	U
124-48-1-----	Dibromochloromethane	0.005	U
106-93-4-----	1,2-Dibromoethane	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
100-42-5-----	Styrene	0.005	U
75-25-2-----	Bromoform	0.005	U
98-82-8-----	Isopropylbenzene	0.005	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
95-50-1-----	1,2-Dichlorobenzene	0.005	U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.005	U
120-82-1-----	1,2,4-Trichlorobenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST2

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6834471

Sample wt/vol: 5.12 (g/mL) g Lab File ID: HP09953.i/12oct25a.b/bc25s04.d

Level: (low/med) LOW Date Received: 10/24/12

Moisture: not dec. 6 Date Analyzed: 10/25/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(mg/L or mg/Kg) mg/Kg	Q
75-71-8	Dichlorodifluoromethane	0.005	U
74-87-3	Chloromethane	0.005	U
75-01-4	Vinyl Chloride	0.005	U
74-83-9	Bromomethane	0.005	U
75-00-3	Chloroethane	0.005	U
75-69-4	Trichlorofluoromethane	0.005	U
75-35-4	1,1-Dichloroethene	0.005	U
67-64-1	Acetone	0.021	U
76-13-1	Freon 113	0.010	U
75-15-0	Carbon Disulfide	0.005	U
79-20-9	Methyl Acetate	0.002	J
75-09-2	Methylene Chloride	0.005	U
1634-04-4	Methyl Tertiary Butyl Ether	0.005	U
156-60-5	trans-1,2-Dichloroethene	0.005	U
75-34-3	1,1-Dichloroethane	0.005	U
78-93-3	2-Butanone	0.010	U
156-59-2	cis-1,2-Dichloroethene	0.005	U
67-66-3	Chloroform	0.005	U
71-55-6	1,1,1-Trichloroethane	0.005	U
110-82-7	Cyclohexane	0.005	U
56-23-5	Carbon Tetrachloride	0.005	U
71-43-2	Benzene	0.005	U
107-06-2	1,2-Dichloroethane	0.005	U
79-01-6	Trichloroethene	0.005	U
108-87-2	Methylcyclohexane	0.005	U
78-87-5	1,2-Dichloropropane	0.005	U
75-27-4	Bromodichloromethane	0.005	U
10061-01-5	cis-1,3-Dichloropropene	0.005	U
108-10-1	4-Methyl-2-pentanone	0.010	U
108-88-3	Toluene	0.001	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST2

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6834471

Sample wt/vol: 5.12 (g/mL) g Lab File ID: HP09953.i/12oct25a.b/bc25s04.d

Level: (low/med) LOW Date Received: 10/24/12

Moisture: not dec. 6 Date Analyzed: 10/25/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

10061-02-6-----	trans-1,3-Dichloropropene	0.005	U
79-00-5-----	1,1,2-Trichloroethane	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
591-78-6-----	2-Hexanone	0.010	U
124-48-1-----	Dibromochloromethane	0.005	U
106-93-4-----	1,2-Dibromoethane	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
100-42-5-----	Styrene	0.005	U
75-25-2-----	Bromoform	0.005	U
98-82-8-----	Isopropylbenzene	0.005	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
95-50-1-----	1,2-Dichlorobenzene	0.005	U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.005	U
120-82-1-----	1,2,4-Trichlorobenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSST1

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6834473

Sample wt/vol: 4.90 (g/mL) g Lab File ID: HP09953.i/12oct25a.b/bc25s05.d

Level: (low/med) LOW Date Received: 10/24/12

Moisture: not dec. 8 Date Analyzed: 10/25/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-71-8-----	Dichlorodifluoromethane	0.006	U
74-87-3-----	Chloromethane	0.006	U
75-01-4-----	Vinyl Chloride	0.006	U
74-83-9-----	Bromomethane	0.006	U
75-00-3-----	Chloroethane	0.006	U
75-69-4-----	Trichlorofluoromethane	0.006	U
75-35-4-----	1,1-Dichloroethene	0.006	U
67-64-1-----	Acetone	0.037	
76-13-1-----	Freon 113	0.011	U
75-15-0-----	Carbon Disulfide	0.006	U
79-20-9-----	Methyl Acetate	0.013	
75-09-2-----	Methylene Chloride	0.006	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.006	U
156-60-5-----	trans-1,2-Dichloroethene	0.006	U
75-34-3-----	1,1-Dichloroethane	0.006	U
78-93-3-----	2-Butanone	0.011	U
156-59-2-----	cis-1,2-Dichloroethene	0.006	U
67-66-3-----	Chloroform	0.006	U
71-55-6-----	1,1,1-Trichloroethane	0.006	U
110-82-7-----	Cyclohexane	0.006	U
56-23-5-----	Carbon Tetrachloride	0.006	U
71-43-2-----	Benzene	0.006	U
107-06-2-----	1,2-Dichloroethane	0.006	U
79-01-6-----	Trichloroethene	0.006	U
108-87-2-----	Methylcyclohexane	0.006	U
78-87-5-----	1,2-Dichloropropane	0.006	U
75-27-4-----	Bromodichloromethane	0.006	U
10061-01-5-----	cis-1,3-Dichloropropene	0.006	U
108-10-1-----	4-Methyl-2-pentanone	0.011	U
108-88-3-----	Toluene	0.001	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSST1

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6834473

Sample wt/vol: 4.90 (g/mL) g Lab File ID: HP09953.i/12oct25a.b/bc25s05.d

Level: (low/med) LOW Date Received: 10/24/12

Moisture: not dec. 8 Date Analyzed: 10/25/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

10061-02-6-----	trans-1,3-Dichloropropene	0.006	U
79-00-5-----	1,1,2-Trichloroethane	0.006	U
127-18-4-----	Tetrachloroethene	0.006	U
591-78-6-----	2-Hexanone	0.011	U
124-48-1-----	Dibromochloromethane	0.006	U
106-93-4-----	1,2-Dibromoethane	0.006	U
108-90-7-----	Chlorobenzene	0.006	U
100-41-4-----	Ethylbenzene	0.006	U
1330-20-7-----	Xylene (Total)	0.006	U
100-42-5-----	Styrene	0.006	U
75-25-2-----	Bromoform	0.006	U
98-82-8-----	Isopropylbenzene	0.006	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.006	U
541-73-1-----	1,3-Dichlorobenzene	0.006	U
106-46-7-----	1,4-Dichlorobenzene	0.006	U
95-50-1-----	1,2-Dichlorobenzene	0.006	U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.006	U
120-82-1-----	1,2,4-Trichlorobenzene	0.006	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSST2

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6834474

Sample wt/vol: 4.83 (g/mL) g Lab File ID: HP09953.i/12oct25a.b/bc25s06.d

Level: (low/med) LOW Date Received: 10/24/12

Moisture: not dec. 10 Date Analyzed: 10/25/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(mg/L or mg/Kg) mg/Kg	Q
75-71-8	Dichlorodifluoromethane	0.006	U
74-87-3	Chloromethane	0.006	U
75-01-4	Vinyl Chloride	0.006	U
74-83-9	Bromomethane	0.006	U
75-00-3	Chloroethane	0.006	U
75-69-4	Trichlorofluoromethane	0.006	U
75-35-4	1,1-Dichloroethene	0.006	U
67-64-1	Acetone	0.039	
76-13-1	Freon 113	0.012	U
75-15-0	Carbon Disulfide	0.006	U
79-20-9	Methyl Acetate	0.015	
75-09-2	Methylene Chloride	0.006	U
1634-04-4	Methyl Tertiary Butyl Ether	0.006	U
156-60-5	trans-1,2-Dichloroethene	0.006	U
75-34-3	1,1-Dichloroethane	0.006	U
78-93-3	2-Butanone	0.012	U
156-59-2	cis-1,2-Dichloroethene	0.006	U
67-66-3	Chloroform	0.006	U
71-55-6	1,1,1-Trichloroethane	0.006	U
110-82-7	Cyclohexane	0.006	U
56-23-5	Carbon Tetrachloride	0.006	U
71-43-2	Benzene	0.006	U
107-06-2	1,2-Dichloroethane	0.006	U
79-01-6	Trichloroethene	0.006	U
108-87-2	Methylcyclohexane	0.006	U
78-87-5	1,2-Dichloropropane	0.006	U
75-27-4	Bromodichloromethane	0.006	U
10061-01-5	cis-1,3-Dichloropropene	0.006	U
108-10-1	4-Methyl-2-pentanone	0.012	U
108-88-3	Toluene	0.003	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSST2

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6834474

Sample wt/vol: 4.83 (g/mL) g Lab File ID: HP09953.i/12oct25a.b/bc25s06.d

Level: (low/med) LOW Date Received: 10/24/12

Moisture: not dec. 10 Date Analyzed: 10/25/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

10061-02-6-----	trans-1,3-Dichloropropene	0.006	U
79-00-5-----	1,1,2-Trichloroethane	0.006	U
127-18-4-----	Tetrachloroethene	0.006	U
591-78-6-----	2-Hexanone	0.012	U
124-48-1-----	Dibromochloromethane	0.006	U
106-93-4-----	1,2-Dibromoethane	0.006	U
108-90-7-----	Chlorobenzene	0.006	U
100-41-4-----	Ethylbenzene	0.006	U
1330-20-7-----	Xylene (Total)	0.006	U
100-42-5-----	Styrene	0.006	U
75-25-2-----	Bromoform	0.006	U
98-82-8-----	Isopropylbenzene	0.006	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.006	U
541-73-1-----	1,3-Dichlorobenzene	0.006	U
106-46-7-----	1,4-Dichlorobenzene	0.006	U
95-50-1-----	1,2-Dichlorobenzene	0.006	U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.006	U
120-82-1-----	1,2,4-Trichlorobenzene	0.006	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSSA1

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6834476

Sample wt/vol: 5.25 (g/mL) g Lab File ID: HP09953.i/12oct25a.b/bc25s07.d

Level: (low/med) LOW Date Received: 10/24/12

Moisture: not dec. 4 Date Analyzed: 10/25/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-71-8-----	Dichlorodifluoromethane	0.005	U
74-87-3-----	Chloromethane	0.005	U
75-01-4-----	Vinyl Chloride	0.005	U
74-83-9-----	Bromomethane	0.005	U
75-00-3-----	Chloroethane	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.020	U
76-13-1-----	Freon 113	0.010	U
75-15-0-----	Carbon Disulfide	0.005	U
79-20-9-----	Methyl Acetate	0.005	U
75-09-2-----	Methylene Chloride	0.003	J
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
110-82-7-----	Cyclohexane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
108-87-2-----	Methylcyclohexane	0.005	U
78-87-5-----	1,2-Dichloropropane	0.005	U
75-27-4-----	Bromodichloromethane	0.005	U
10061-01-5-----	cis-1,3-Dichloropropene	0.005	U
108-10-1-----	4-Methyl-2-pentanone	0.010	U
108-88-3-----	Toluene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSSA1

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6834476

Sample wt/vol: 5.25 (g/mL) g Lab File ID: HP09953.i/12oct25a.b/bc25s07.d

Level: (low/med) LOW Date Received: 10/24/12

Moisture: not dec. 4 Date Analyzed: 10/25/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

10061-02-6-----	trans-1,3-Dichloropropene	0.005	U
79-00-5-----	1,1,2-Trichloroethane	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
591-78-6-----	2-Hexanone	0.010	U
124-48-1-----	Dibromochloromethane	0.005	U
106-93-4-----	1,2-Dibromoethane	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
100-42-5-----	Styrene	0.005	U
75-25-2-----	Bromoform	0.005	U
98-82-8-----	Isopropylbenzene	0.005	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
95-50-1-----	1,2-Dichlorobenzene	0.005	U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.005	U
120-82-1-----	1,2,4-Trichlorobenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSSA2

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6834477

Sample wt/vol: 5.05 (g/mL) g Lab File ID: HP09953.i/12oct25a.b/bc25s08.d

Level: (low/med) LOW Date Received: 10/24/12

Moisture: not dec. 4 Date Analyzed: 10/25/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-71-8-----	Dichlorodifluoromethane	0.005	U
74-87-3-----	Chloromethane	0.005	U
75-01-4-----	Vinyl Chloride	0.005	U
74-83-9-----	Bromomethane	0.005	U
75-00-3-----	Chloroethane	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.021	U
76-13-1-----	Freon 113	0.010	U
75-15-0-----	Carbon Disulfide	0.005	U
79-20-9-----	Methyl Acetate	0.002	J
75-09-2-----	Methylene Chloride	0.003	J
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
110-82-7-----	Cyclohexane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
108-87-2-----	Methylcyclohexane	0.005	U
78-87-5-----	1,2-Dichloropropane	0.005	U
75-27-4-----	Bromodichloromethane	0.005	U
10061-01-5-----	cis-1,3-Dichloropropene	0.005	U
108-10-1-----	4-Methyl-2-pentanone	0.010	U
108-88-3-----	Toluene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSSA2

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6834477

Sample wt/vol: 5.05 (g/mL) g Lab File ID: HP09953.i/12oct25a.b/bc25s08.d

Level: (low/med) LOW Date Received: 10/24/12

Moisture: not dec. 4 Date Analyzed: 10/25/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

10061-02-6-----	trans-1,3-Dichloropropene	0.005	U
79-00-5-----	1,1,2-Trichloroethane	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
591-78-6-----	2-Hexanone	0.010	U
124-48-1-----	Dibromochloromethane	0.005	U
106-93-4-----	1,2-Dibromoethane	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
100-42-5-----	Styrene	0.005	U
75-25-2-----	Bromoform	0.005	U
98-82-8-----	Isopropylbenzene	0.005	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
95-50-1-----	1,2-Dichlorobenzene	0.005	U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.005	U
120-82-1-----	1,2,4-Trichlorobenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS1

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6834479

Sample wt/vol: 4.77 (g/mL) g Lab File ID: HP09953.i/12oct25a.b/bc25s09.d

Level: (low/med) LOW Date Received: 10/24/12

Moisture: not dec. 23 Date Analyzed: 10/25/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-71-8-----	Dichlorodifluoromethane	0.007	U
74-87-3-----	Chloromethane	0.007	U
75-01-4-----	Vinyl Chloride	0.007	U
74-83-9-----	Bromomethane	0.007	U
75-00-3-----	Chloroethane	0.007	U
75-69-4-----	Trichlorofluoromethane	0.007	U
75-35-4-----	1,1-Dichloroethene	0.007	U
67-64-1-----	Acetone	0.027	U
76-13-1-----	Freon 113	0.014	U
75-15-0-----	Carbon Disulfide	0.007	U
79-20-9-----	Methyl Acetate	0.007	U
75-09-2-----	Methylene Chloride	0.007	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.007	U
156-60-5-----	trans-1,2-Dichloroethene	0.007	U
75-34-3-----	1,1-Dichloroethane	0.007	U
78-93-3-----	2-Butanone	0.014	U
156-59-2-----	cis-1,2-Dichloroethene	0.007	U
67-66-3-----	Chloroform	0.007	U
71-55-6-----	1,1,1-Trichloroethane	0.007	U
110-82-7-----	Cyclohexane	0.007	U
56-23-5-----	Carbon Tetrachloride	0.007	U
71-43-2-----	Benzene	0.0009	J
107-06-2-----	1,2-Dichloroethane	0.007	U
79-01-6-----	Trichloroethene	0.007	U
108-87-2-----	Methylcyclohexane	0.007	U
78-87-5-----	1,2-Dichloropropane	0.007	U
75-27-4-----	Bromodichloromethane	0.007	U
10061-01-5-----	cis-1,3-Dichloropropene	0.007	U
108-10-1-----	4-Methyl-2-pentanone	0.014	U
108-88-3-----	Toluene	0.004	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS1

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6834479

Sample wt/vol: 4.77 (g/mL) g Lab File ID: HP09953.i/12oct25a.b/bc25s09.d

Level: (low/med) LOW Date Received: 10/24/12

Moisture: not dec. 23 Date Analyzed: 10/25/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

10061-02-6	trans-1,3-Dichloropropene	0.007	U
79-00-5	1,1,2-Trichloroethane	0.007	U
127-18-4	Tetrachloroethene	0.007	U
591-78-6	2-Hexanone	0.014	U
124-48-1	Dibromochloromethane	0.007	U
106-93-4	1,2-Dibromoethane	0.007	U
108-90-7	Chlorobenzene	0.007	U
100-41-4	Ethylbenzene	0.007	U
1330-20-7	Xylene (Total)	0.007	U
100-42-5	Styrene	0.007	U
75-25-2	Bromoform	0.007	U
98-82-8	Isopropylbenzene	0.007	U
79-34-5	1,1,2,2-Tetrachloroethane	0.007	U
541-73-1	1,3-Dichlorobenzene	0.007	U
106-46-7	1,4-Dichlorobenzene	0.007	U
95-50-1	1,2-Dichlorobenzene	0.007	U
96-12-8	1,2-Dibromo-3-chloropropane	0.007	U
120-82-1	1,2,4-Trichlorobenzene	0.007	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS2

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6834480

Sample wt/vol: 5.29 (g/mL) g

Lab File ID: HP09953.i/12oct25a.b/bc25s16.d

Level: (low/med) LOW

Date Received: 10/24/12

Moisture: not dec. 22

Date Analyzed: 10/25/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-71-8-----	Dichlorodifluoromethane	0.006	U
74-87-3-----	Chloromethane	0.006	U
75-01-4-----	Vinyl Chloride	0.006	U
74-83-9-----	Bromomethane	0.006	U
75-00-3-----	Chloroethane	0.006	U
75-69-4-----	Trichlorofluoromethane	0.006	U
75-35-4-----	1,1-Dichloroethene	0.006	U
67-64-1-----	Acetone	0.024	U
76-13-1-----	Freon 113	0.012	U
75-15-0-----	Carbon Disulfide	0.006	U
79-20-9-----	Methyl Acetate	0.006	U
75-09-2-----	Methylene Chloride	0.003	J
1634-04-4-----	Methyl Tertiary Butyl Ether	0.006	U
156-60-5-----	trans-1,2-Dichloroethene	0.006	U
75-34-3-----	1,1-Dichloroethane	0.006	U
78-93-3-----	2-Butanone	0.012	U
156-59-2-----	cis-1,2-Dichloroethene	0.006	U
67-66-3-----	Chloroform	0.006	U
71-55-6-----	1,1,1-Trichloroethane	0.006	U
110-82-7-----	Cyclohexane	0.006	U
56-23-5-----	Carbon Tetrachloride	0.006	U
71-43-2-----	Benzene	0.0009	J
107-06-2-----	1,2-Dichloroethane	0.006	U
79-01-6-----	Trichloroethene	0.006	U
108-87-2-----	Methylcyclohexane	0.006	U
78-87-5-----	1,2-Dichloropropane	0.006	U
75-27-4-----	Bromodichloromethane	0.006	U
10061-01-5-----	cis-1,3-Dichloropropene	0.006	U
108-10-1-----	4-Methyl-2-pentanone	0.012	U
108-88-3-----	Toluene	0.004	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS2

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6834480

Sample wt/vol: 5.29 (g/mL) g

Lab File ID: HP09953.i/12oct25a.b/bc25s16.d

Level: (low/med) LOW

Date Received: 10/24/12

Moisture: not dec. 22

Date Analyzed: 10/25/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

10061-02-6-----	trans-1,3-Dichloropropene	0.006	U
79-00-5-----	1,1,2-Trichloroethane	0.006	U
127-18-4-----	Tetrachloroethene	0.006	U
591-78-6-----	2-Hexanone	0.012	U
124-48-1-----	Dibromochloromethane	0.006	U
106-93-4-----	1,2-Dibromoethane	0.006	U
108-90-7-----	Chlorobenzene	0.006	U
100-41-4-----	Ethylbenzene	0.006	U
1330-20-7-----	Xylene (Total)	0.006	U
100-42-5-----	Styrene	0.006	U
75-25-2-----	Bromoform	0.006	U
98-82-8-----	Isopropylbenzene	0.006	U
79-34-5-----	1,1,2,2-Tetrachloroethane	0.006	U
541-73-1-----	1,3-Dichlorobenzene	0.006	U
106-46-7-----	1,4-Dichlorobenzene	0.006	U
95-50-1-----	1,2-Dichlorobenzene	0.006	U
96-12-8-----	1,2-Dibromo-3-chloropropane	0.006	U
120-82-1-----	1,2,4-Trichlorobenzene	0.006	U

Fraction: Volatiles by GC/MS

B122991AA / VBLKB61					
Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Dichlorodifluoromethane	10/25/12	N.D.	mg/kg	0.002	0.005
Chloromethane	10/25/12	N.D.	mg/kg	0.002	0.005
Vinyl Chloride	10/25/12	N.D.	mg/kg	0.001	0.005
Bromomethane	10/25/12	N.D.	mg/kg	0.002	0.005
Chloroethane	10/25/12	N.D.	mg/kg	0.002	0.005
Trichlorofluoromethane	10/25/12	N.D.	mg/kg	0.002	0.005
1,1-Dichloroethene	10/25/12	N.D.	mg/kg	0.001	0.005
Acetone	10/25/12	N.D.	mg/kg	0.007	0.020
Carbon Disulfide	10/25/12	N.D.	mg/kg	0.001	0.005
Freon 113	10/25/12	N.D.	mg/kg	0.002	0.010
Methyl Acetate	10/25/12	N.D.	mg/kg	0.002	0.005
Benzene	10/25/12	N.D.	mg/kg	0.0005	0.005
Bromodichloromethane	10/25/12	N.D.	mg/kg	0.001	0.005
2-Butanone	10/25/12	N.D.	mg/kg	0.004	0.010
Carbon Tetrachloride	10/25/12	N.D.	mg/kg	0.001	0.005
Chloroform	10/25/12	N.D.	mg/kg	0.001	0.005
Cyclohexane	10/25/12	N.D.	mg/kg	0.001	0.005
1,1-Dichloroethane	10/25/12	N.D.	mg/kg	0.001	0.005
1,2-Dichloroethane	10/25/12	N.D.	mg/kg	0.001	0.005
cis-1,2-Dichloroethene	10/25/12	N.D.	mg/kg	0.001	0.005
trans-1,2-Dichloroethene	10/25/12	N.D.	mg/kg	0.001	0.005
1,2-Dichloropropane	10/25/12	N.D.	mg/kg	0.001	0.005
cis-1,3-Dichloropropene	10/25/12	N.D.	mg/kg	0.001	0.005
Methyl Tertiary Butyl Ether	10/25/12	N.D.	mg/kg	0.0005	0.005
4-Methyl-2-pentanone	10/25/12	N.D.	mg/kg	0.003	0.010
Methylcyclohexane	10/25/12	N.D.	mg/kg	0.001	0.005
Methylene Chloride	10/25/12	N.D.	mg/kg	0.002	0.005
Toluene	10/25/12	N.D.	mg/kg	0.001	0.005
1,1,1-Trichloroethane	10/25/12	N.D.	mg/kg	0.001	0.005
Trichloroethene	10/25/12	N.D.	mg/kg	0.001	0.005
Bromoform	10/25/12	N.D.	mg/kg	0.001	0.005
Chlorobenzene	10/25/12	N.D.	mg/kg	0.001	0.005
Dibromochloromethane	10/25/12	N.D.	mg/kg	0.001	0.005
1,2-Dibromoethane	10/25/12	N.D.	mg/kg	0.001	0.005
trans-1,3-Dichloropropene	10/25/12	N.D.	mg/kg	0.001	0.005
Ethylbenzene	10/25/12	N.D.	mg/kg	0.001	0.005
2-Hexanone	10/25/12	N.D.	mg/kg	0.003	0.010
Isopropylbenzene	10/25/12	N.D.	mg/kg	0.001	0.005
Styrene	10/25/12	N.D.	mg/kg	0.001	0.005
1,1,2,2-Tetrachloroethane	10/25/12	N.D.	mg/kg	0.001	0.005
Tetrachloroethene	10/25/12	N.D.	mg/kg	0.001	0.005
1,1,2-Trichloroethane	10/25/12	N.D.	mg/kg	0.001	0.005
Xylene (Total)	10/25/12	N.D.	mg/kg	0.001	0.005
1,2-Dibromo-3-chloropropane	10/25/12	N.D.	mg/kg	0.002	0.005
1,2-Dichlorobenzene	10/25/12	N.D.	mg/kg	0.001	0.005

Fraction: Volatiles by GC/MS

B122991AA / VBLKB61					
Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
1,3-Dichlorobenzene	10/25/12	N.D.	mg/kg	0.001	0.005
1,4-Dichlorobenzene	10/25/12	N.D.	mg/kg	0.001	0.005
1,2,4-Trichlorobenzene	10/25/12	N.D.	mg/kg	0.001	0.005

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB61

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCSB61

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09953.i/12oct25a.b/bc25101.d

Level: (low/med) LOW

Date Received:

Moisture: not dec. _____

Date Analyzed: 10/25/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-71-8-----	Dichlorodifluoromethane	0.017	
74-87-3-----	Chloromethane	0.018	
75-01-4-----	Vinyl Chloride	0.017	
74-83-9-----	Bromomethane	0.019	
75-00-3-----	Chloroethane	0.018	
75-69-4-----	Trichlorofluoromethane	0.020	
64-17-5-----	Ethanol	0.850	
107-02-8-----	Acrolein	0.160	
75-35-4-----	1,1-Dichloroethene	0.020	
67-64-1-----	Acetone	0.100	
76-13-1-----	Freon 113	0.018	
67-63-0-----	2-Propanol	0.150	
74-88-4-----	Methyl Iodide	0.020	
75-15-0-----	Carbon Disulfide	0.018	
79-20-9-----	Methyl Acetate	0.017	
107-05-1-----	Allyl Chloride	0.019	
75-09-2-----	Methylene Chloride	0.020	
75-65-0-----	t-Butyl alcohol	0.190	
107-13-1-----	Acrylonitrile	0.091	
1634-04-4-----	Methyl Tertiary Butyl Ether	0.020	
156-60-5-----	trans-1,2-Dichloroethene	0.020	
110-54-3-----	n-Hexane	0.017	
75-34-3-----	1,1-Dichloroethane	0.020	
108-20-3-----	di-Isopropyl ether	0.019	
126-99-8-----	2-Chloro-1,3-butadiene	0.020	
637-92-3-----	Ethyl t-butyl ether	0.019	
78-93-3-----	2-Butanone	0.130	
156-59-2-----	cis-1,2-Dichloroethene	0.020	
540-59-0-----	1,2-Dichloroethene (Total)	0.040	
594-20-7-----	2,2-Dichloropropane	0.021	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB61

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LCSB61

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12oct25a.b/bc25101.d

Level: (low/med) LOW Date Received: _____

Moisture: not dec. _____ Date Analyzed: 10/25/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

107-12-0-----	Propionitrile	0.150	
126-98-7-----	Methacrylonitrile	0.150	
74-97-5-----	Bromochloromethane	0.021	
109-99-9-----	Tetrahydrofuran	0.098	
67-66-3-----	Chloroform	0.020	
71-55-6-----	1,1,1-Trichloroethane	0.022	
110-82-7-----	Cyclohexane	0.017	
563-58-6-----	1,1-Dichloropropene	0.019	
56-23-5-----	Carbon Tetrachloride	0.020	
78-83-1-----	Isobutyl Alcohol	0.460	
71-43-2-----	Benzene	0.019	
107-06-2-----	1,2-Dichloroethane	0.021	
994-05-8-----	t-Amyl methyl ether	0.020	
142-82-5-----	n-Heptane	0.017	
71-36-3-----	n-Butanol	0.850	
79-01-6-----	Trichloroethene	0.020	
108-87-2-----	Methylcyclohexane	0.018	
78-87-5-----	1,2-Dichloropropane	0.019	
80-62-6-----	Methyl Methacrylate	0.018	
123-91-1-----	1,4-Dioxane	0.410	
74-95-3-----	Dibromomethane	0.020	
75-27-4-----	Bromodichloromethane	0.019	
79-46-9-----	2-Nitropropane	0.018	
110-75-8-----	2-Chloroethyl Vinyl Ether	0.074	
10061-01-5-----	cis-1,3-Dichloropropene	0.021	
108-10-1-----	4-Methyl-2-pentanone	0.090	
108-88-3-----	Toluene	0.019	
10061-02-6-----	trans-1,3-Dichloropropene	0.019	
97-63-2-----	Ethyl Methacrylate	0.018	
79-00-5-----	1,1,2-Trichloroethane	0.020	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB61

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCSB61

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09953.i/12oct25a.b/bc25101.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 10/25/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(mg/L or mg/Kg) mg/Kg

Q

127-18-4-----	Tetrachloroethene	0.021	
142-28-9-----	1,3-Dichloropropane	0.019	
591-78-6-----	2-Hexanone	0.079	
124-48-1-----	Dibromochloromethane	0.020	
106-93-4-----	1,2-Dibromoethane	0.020	
108-90-7-----	Chlorobenzene	0.020	
630-20-6-----	1,1,1,2-Tetrachloroethane	0.020	
100-41-4-----	Ethylbenzene	0.019	
179601-23-1-----	m+p-Xylene	0.040	
95-47-6-----	o-Xylene	0.019	
1330-20-7-----	Xylene (Total)	0.059	
100-42-5-----	Styrene	0.019	
75-25-2-----	Bromoform	0.019	
98-82-8-----	Isopropylbenzene	0.020	
108-94-1-----	Cyclohexanone	0.510	
79-34-5-----	1,1,2,2-Tetrachloroethane	0.020	
108-86-1-----	Bromobenzene	0.021	
110-57-6-----	trans-1,4-Dichloro-2-butene	0.110	
96-18-4-----	1,2,3-Trichloropropane	0.021	
103-65-1-----	n-Propylbenzene	0.017	
95-49-8-----	2-Chlorotoluene	0.020	
108-67-8-----	1,3,5-Trimethylbenzene	0.021	
106-43-4-----	4-Chlorotoluene	0.020	
98-06-6-----	tert-Butylbenzene	0.020	
76-01-7-----	Pentachloroethane	0.020	
95-63-6-----	1,2,4-Trimethylbenzene	0.020	
135-98-8-----	sec-Butylbenzene	0.021	
541-73-1-----	1,3-Dichlorobenzene	0.021	
99-87-6-----	p-Isopropyltoluene	0.021	
106-46-7-----	1,4-Dichlorobenzene	0.020	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB61

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LCSB61

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12oct25a.b/bc25101.d

Level: (low/med) LOW Date Received: _____

Moisture: not dec. _____ Date Analyzed: 10/25/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

526-73-8-----	1,2,3-Trimethylbenzene	0.021	
100-44-7-----	Benzyl Chloride	0.018	
141-93-5-----	1,3-Diethylbenzene	0.020	
105-05-5-----	1,4-Diethylbenzene	0.020	
104-51-8-----	n-Butylbenzene	0.020	
95-50-1-----	1,2-Dichlorobenzene	0.020	
135-01-3-----	1,2-Diethylbenzene	0.021	
96-12-8-----	1,2-Dibromo-3-chloropropane	0.019	
108-70-3-----	1,3,5-Trichlorobenzene	0.021	
120-82-1-----	1,2,4-Trichlorobenzene	0.022	
87-68-3-----	Hexachlorobutadiene	0.022	
91-20-3-----	Naphthalene	0.020	
87-61-6-----	1,2,3-Trichlorobenzene	0.022	
91-57-6-----	2-Methylnaphthalene	0.019	
25340-17-4-----	Diethylbenzene (total)	0.061	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDB61

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCDB61

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09953.i/12oct25a.b/bc25102.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 10/25/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(mg/L or mg/Kg) mg/Kg

Q

75-71-8-----	Dichlorodifluoromethane	0.016	
74-87-3-----	Chloromethane	0.017	
75-01-4-----	Vinyl Chloride	0.017	
74-83-9-----	Bromomethane	0.018	
75-00-3-----	Chloroethane	0.017	
75-69-4-----	Trichlorofluoromethane	0.019	
64-17-5-----	Ethanol	0.840	
107-02-8-----	Acrolein	0.160	
75-35-4-----	1,1-Dichloroethene	0.020	
67-64-1-----	Acetone	0.100	
76-13-1-----	Freon 113	0.018	
67-63-0-----	2-Propanol	0.150	
74-88-4-----	Methyl Iodide	0.019	
75-15-0-----	Carbon Disulfide	0.018	
79-20-9-----	Methyl Acetate	0.018	
107-05-1-----	Allyl Chloride	0.018	
75-09-2-----	Methylene Chloride	0.020	
75-65-0-----	t-Butyl alcohol	0.190	
107-13-1-----	Acrylonitrile	0.090	
1634-04-4-----	Methyl Tertiary Butyl Ether	0.020	
156-60-5-----	trans-1,2-Dichloroethene	0.019	
110-54-3-----	n-Hexane	0.017	
75-34-3-----	1,1-Dichloroethane	0.020	
108-20-3-----	di-Isopropyl ether	0.019	
126-99-8-----	2-Chloro-1,3-butadiene	0.020	
637-92-3-----	Ethyl t-butyl ether	0.019	
78-93-3-----	2-Butanone	0.130	
156-59-2-----	cis-1,2-Dichloroethene	0.020	
540-59-0-----	1,2-Dichloroethene (Total)	0.039	
594-20-7-----	2,2-Dichloropropane	0.021	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDB61

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LCDB61

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12oct25a.b/bc25102.d

Level: (low/med) LOW Date Received: _____

Moisture: not dec. _____ Date Analyzed: 10/25/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

107-12-0-----	Propionitrile	0.150	
126-98-7-----	Methacrylonitrile	0.150	
74-97-5-----	Bromochloromethane	0.020	
109-99-9-----	Tetrahydrofuran	0.099	
67-66-3-----	Chloroform	0.019	
71-55-6-----	1,1,1-Trichloroethane	0.022	
110-82-7-----	Cyclohexane	0.017	
563-58-6-----	1,1-Dichloropropene	0.019	
56-23-5-----	Carbon Tetrachloride	0.020	
78-83-1-----	Isobutyl Alcohol	0.450	
71-43-2-----	Benzene	0.019	
107-06-2-----	1,2-Dichloroethane	0.021	
994-05-8-----	t-Amyl methyl ether	0.020	
142-82-5-----	n-Heptane	0.017	
71-36-3-----	n-Butanol	0.830	
79-01-6-----	Trichloroethene	0.019	
108-87-2-----	Methylcyclohexane	0.018	
78-87-5-----	1,2-Dichloropropane	0.019	
80-62-6-----	Methyl Methacrylate	0.018	
123-91-1-----	1,4-Dioxane	0.420	
74-95-3-----	Dibromomethane	0.020	
75-27-4-----	Bromodichloromethane	0.020	
79-46-9-----	2-Nitropropane	0.018	
110-75-8-----	2-Chloroethyl Vinyl Ether	0.076	
10061-01-5-----	cis-1,3-Dichloropropene	0.021	
108-10-1-----	4-Methyl-2-pentanone	0.089	
108-88-3-----	Toluene	0.019	
10061-02-6-----	trans-1,3-Dichloropropene	0.019	
97-63-2-----	Ethyl Methacrylate	0.018	
79-00-5-----	1,1,2-Trichloroethane	0.020	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDB61

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCDB61

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09953.i/12oct25a.b/bc25102.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 10/25/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(mg/L or mg/Kg) mg/Kg

Q

127-18-4-----	Tetrachloroethene	0.021	
142-28-9-----	1,3-Dichloropropane	0.019	
591-78-6-----	2-Hexanone	0.081	
124-48-1-----	Dibromochloromethane	0.020	
106-93-4-----	1,2-Dibromoethane	0.020	
108-90-7-----	Chlorobenzene	0.020	
630-20-6-----	1,1,1,2-Tetrachloroethane	0.020	
100-41-4-----	Ethylbenzene	0.019	
179601-23-1-----	m+p-Xylene	0.039	
95-47-6-----	o-Xylene	0.019	
1330-20-7-----	Xylene (Total)	0.058	
100-42-5-----	Styrene	0.019	
75-25-2-----	Bromoform	0.019	
98-82-8-----	Isopropylbenzene	0.020	
108-94-1-----	Cyclohexanone	0.480	
79-34-5-----	1,1,2,2-Tetrachloroethane	0.020	
108-86-1-----	Bromobenzene	0.021	
110-57-6-----	trans-1,4-Dichloro-2-butene	0.110	
96-18-4-----	1,2,3-Trichloropropane	0.021	
103-65-1-----	n-Propylbenzene	0.017	
95-49-8-----	2-Chlorotoluene	0.020	
108-67-8-----	1,3,5-Trimethylbenzene	0.020	
106-43-4-----	4-Chlorotoluene	0.020	
98-06-6-----	tert-Butylbenzene	0.020	
76-01-7-----	Pentachloroethane	0.020	
95-63-6-----	1,2,4-Trimethylbenzene	0.020	
135-98-8-----	sec-Butylbenzene	0.020	
541-73-1-----	1,3-Dichlorobenzene	0.020	
99-87-6-----	p-Isopropyltoluene	0.020	
106-46-7-----	1,4-Dichlorobenzene	0.020	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDB61

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCDB61

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09953.i/12oct25a.b/bc25102.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 10/25/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(mg/L or mg/Kg) mg/Kg

Q

526-73-8-----	1,2,3-Trimethylbenzene	0.020	
100-44-7-----	Benzyl Chloride	0.019	
141-93-5-----	1,3-Diethylbenzene	0.020	
105-05-5-----	1,4-Diethylbenzene	0.020	
104-51-8-----	n-Butylbenzene	0.021	
95-50-1-----	1,2-Dichlorobenzene	0.020	
135-01-3-----	1,2-Diethylbenzene	0.020	
96-12-8-----	1,2-Dibromo-3-chloropropane	0.019	
108-70-3-----	1,3,5-Trichlorobenzene	0.021	
120-82-1-----	1,2,4-Trichlorobenzene	0.021	
87-68-3-----	Hexachlorobutadiene	0.021	
91-20-3-----	Naphthalene	0.020	
87-61-6-----	1,2,3-Trichlorobenzene	0.022	
91-57-6-----	2-Methylnaphthalene	0.019	
25340-17-4-----	Diethylbenzene (total)	0.060	

Semivolatiles by GC/MS Data

Case Narrative/Conformance Summary

Case Narrative/Conformance Summary**CLIENT: ExxonMobil Refining & Supply**
SDG: TAP01**GC/MS Semivolatiles**

Fraction: Semivolatiles by GC/MS

Sample #	Client ID	Matrix			Comments
		Liquid	Solid	DF	
6834469	CM-TSC1		X	1	
6834472	TCN-STC1		X	1	
6834475	NYSS-STC1		X	1	
6834478	NYSS-SAC1		X	1	
6834481	POC-TSC1		X	1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:**MS/MSD**

Please note that US EPA Methods for organic compounds do not require action by the laboratory based on out-of-specification MS/MSD results.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Case Narrative/Conformance Summary

**CLIENT: ExxonMobil Refining & Supply
SDG: TAP01**

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Narrative Reviewed and Approved 11/12/12 by
(Date)


**Lydia C. Steinke
Specialist**

Sample Data

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MTSC1

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6834469

Sample wt/vol: 30.0 (g/mL) G Lab File ID: ej1011.d

Level: (low/med) LOW Date Received: 10/24/12

% Moisture: not dec: 7 dec: Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/25/12

Injection Volume: 1 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
100-52-7-----	Benzaldehyde	180	U	
108-95-2-----	Phenol	28	J	
111-44-4-----	bis(2-Chloroethyl)ether	35	U	
95-57-8-----	2-Chlorophenol	35	U	
95-48-7-----	2-Methylphenol	35	U	
108-60-1-----	2,2'-oxybis(1-Chloropropane)	35	U	
98-86-2-----	Acetophenone	35	U	
621-64-7-----	N-Nitroso-di-n-propylamine	35	U	
106-44-5-----	4-Methylphenol	48		
67-72-1-----	Hexachloroethane	180	U	
98-95-3-----	Nitrobenzene	35	U	
78-59-1-----	Isophorone	35	U	
88-75-5-----	2-Nitrophenol	35	U	
105-67-9-----	2,4-Dimethylphenol	35	U	
111-91-1-----	bis(2-Chloroethoxy)methane	35	U	
120-83-2-----	2,4-Dichlorophenol	35	U	
91-20-3-----	Naphthalene	14	J	
106-47-8-----	4-Chloroaniline	35	U	
87-68-3-----	Hexachlorobutadiene	35	U	
105-60-2-----	Caprolactam	180	U	
59-50-7-----	4-Chloro-3-methylphenol	35	U	
91-57-6-----	2-Methylnaphthalene	11	J	
77-47-4-----	Hexachlorocyclopentadiene	540	U	
88-06-2-----	2,4,6-Trichlorophenol	35	U	
95-95-4-----	2,4,5-Trichlorophenol	35	U	
92-52-4-----	1,1'-Biphenyl	35	U	
91-58-7-----	2-Chloronaphthalene	35	U	
88-74-4-----	2-Nitroaniline	35	U	
131-11-3-----	Dimethylphthalate	180	U	
606-20-2-----	2,6-Dinitrotoluene	35	U	

FORM I SV-1

TAP01 0097

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MTSC1

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6834469

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: ej1011.d

Level: (low/med) LOW

Date Received: 10/24/12

% Moisture: not dec: 7 dec:

Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/25/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: Mic

		CONCENTRATION UNITS:		
CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
208-96-8-----	Acenaphthylene		11	J
99-09-2-----	3-Nitroaniline		180	U
83-32-9-----	Acenaphthene		14	J
51-28-5-----	2,4-Dinitrophenol		1100	U
100-02-7-----	4-Nitrophenol		540	U
132-64-9-----	Dibenzofuran		35	U
121-14-2-----	2,4-Dinitrotoluene		180	U
84-66-2-----	Diethylphthalate		180	U
86-73-7-----	Fluorene		18	J
7005-72-3-----	4-Chlorophenyl-phenylether		35	U
100-01-6-----	4-Nitroaniline		180	U
534-52-1-----	4,6-Dinitro-2-methylphenol		540	U
86-30-6-----	N-Nitrosodiphenylamine		35	U
101-55-3-----	4-Bromophenyl-phenylether		35	U
118-74-1-----	Hexachlorobenzene		18	U
1912-24-9-----	Atrazine		180	U
87-86-5-----	Pentachlorophenol		180	U
85-01-8-----	Phenanthrene		75	
120-12-7-----	Anthracene		27	
86-74-8-----	Carbazole		35	U
84-74-2-----	Di-n-butylphthalate		180	U
206-44-0-----	Fluoranthene		180	
129-00-0-----	Pyrene		170	
85-68-7-----	Butylbenzylphthalate		180	U
91-94-1-----	3,3'-Dichlorobenzidine		350	U
56-55-3-----	Benzo(a)anthracene		34	
218-01-9-----	Chrysene		52	
117-81-7-----	bis(2-Ethylhexyl)phthalate		310	
117-84-0-----	Di-n-octylphthalate		180	U
205-99-2-----	Benzo(b)fluoranthene		59	

FORM I SV-2

TAP01 0000

1C cont
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MTSC1

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6834469

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: ej1011.d

Level: (low/med) LOW

Date Received: 10/24/12

% Moisture: not dec: 7 dec:

Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/25/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Extraction: Mic

CAS NO.	COMPOUND	CONCENTRATION UNITS:		
		(ug/L or ug/Kg)	LOQ	UG/KG
207-08-9-----	Benzo(k)fluoranthene	18	J	
50-32-8-----	Benzo(a)pyrene	23		
193-39-5-----	Indeno(1,2,3-cd)pyrene	14	J	
53-70-3-----	Dibenz(a,h)anthracene	18	U	
191-24-2-----	Benzo(g,h,i)perylene	17	J	

FORM I SV-3

TAP01 0033

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSTC1

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6834472

Sample wt/vol: 30.0 (g/mL) G Lab File ID: ej1014.d

Level: (low/med) LOW Date Received: 10/24/12

% Moisture: not dec: 6 dec: Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/25/12

Injection Volume: 1 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
100-52-7-----	Benzaldehyde		180	U
108-95-2-----	Phenol		35	U
111-44-4-----	bis(2-Chloroethyl)ether		35	U
95-57-8-----	2-Chlorophenol		35	U
95-48-7-----	2-Methylphenol		35	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)		35	U
98-86-2-----	Acetophenone		35	U
621-64-7-----	N-Nitroso-di-n-propylamine		35	U
106-44-5-----	4-Methylphenol		35	U
67-72-1-----	Hexachloroethane		180	U
98-95-3-----	Nitrobenzene		35	U
78-59-1-----	Isophorone		35	U
88-75-5-----	2-Nitrophenol		35	U
105-67-9-----	2,4-Dimethylphenol		35	U
111-91-1-----	bis(2-Chloroethoxy)methane		35	U
120-83-2-----	2,4-Dichlorophenol		35	U
91-20-3-----	Naphthalene		18	U
106-47-8-----	4-Chloroaniline		35	U
87-68-3-----	Hexachlorobutadiene		35	U
105-60-2-----	Caprolactam		180	U
59-50-7-----	4-Chloro-3-methylphenol		35	U
91-57-6-----	2-Methylnaphthalene		18	U
77-47-4-----	Hexachlorocyclopentadiene		530	U
88-06-2-----	2,4,6-Trichlorophenol		35	U
95-95-4-----	2,4,5-Trichlorophenol		35	U
92-52-4-----	1,1'-Biphenyl		35	U
91-58-7-----	2-Chloronaphthalene		35	U
88-74-4-----	2-Nitroaniline		35	U
131-11-3-----	Dimethylphthalate		180	U
606-20-2-----	2,6-Dinitrotoluene		35	U

FORM I SV-1

TAP01 0100

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSTC1

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6834472

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: ej1014.d

Level: (low/med) LOW

Date Received: 10/24/12

% Moisture: not dec: 6 dec:

Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/25/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
208-96-8-----	Acenaphthylene	18	U	
99-09-2-----	3-Nitroaniline	180	U	
83-32-9-----	Acenaphthene	18	U	
51-28-5-----	2,4-Dinitrophenol	1100	U	
100-02-7-----	4-Nitrophenol	530	U	
132-64-9-----	Dibenzofuran	35	U	
121-14-2-----	2,4-Dinitrotoluene	180	U	
84-66-2-----	Diethylphthalate	180	U	
86-73-7-----	Fluorene	18	U	
7005-72-3-----	4-Chlorophenyl-phenylether	35	U	
100-01-6-----	4-Nitroaniline	180	U	
534-52-1-----	4,6-Dinitro-2-methylphenol	530	U	
86-30-6-----	N-Nitrosodiphenylamine	35	U	
101-55-3-----	4-Bromophenyl-phenylether	35	U	
118-74-1-----	Hexachlorobenzene	18	U	
1912-24-9-----	Atrazine	180	U	
87-86-5-----	Pentachlorophenol	180	U	
85-01-8-----	Phenanthrene	4	J	
120-12-7-----	Anthracene	18	U	
86-74-8-----	Carbazole	35	U	
84-74-2-----	Di-n-butylphthalate	180	U	
206-44-0-----	Fluoranthene	18	U	
129-00-0-----	Pyrene	6	J	
85-68-7-----	Butylbenzylphthalate	180	U	
91-94-1-----	3,3'-Dichlorobenzidine	350	U	
56-55-3-----	Benzo(a)anthracene	18	U	
218-01-9-----	Chrysene	18	U	
117-81-7-----	bis(2-Ethylhexyl)phthalate	180	U	
117-84-0-----	Di-n-octylphthalate	180	U	
205-99-2-----	Benzo(b)fluoranthene	18	U	

FORM I SV-2

TAP01 0101

1C cont
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSTC1

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6834472

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: ej1014.d

Level: (low/med) LOW

Date Received: 10/24/12

% Moisture: not dec: 6 dec:

Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/25/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

Extraction: Mic

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) LOQ UG/KG Q

207-08-9-----	Benzo(k)fluoranthene	18	U
50-32-8-----	Benzo(a)pyrene	18	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	18	U
53-70-3-----	Dibenz(a,h)anthracene	18	U
191-24-2-----	Benzo(g,h,i)perylene	18	U

FORM I SV-3

TAP01 0102

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSTC1

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6834475

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: ej1015.d

Level: (low/med) LOW

Date Received: 10/24/12

% Moisture: not dec: 14 dec:

Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/25/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
100-52-7-----	Benzaldehyde	200	U	
108-95-2-----	Phenol	38	U	
111-44-4-----	bis(2-Chloroethyl)ether	38	U	
95-57-8-----	2-Chlorophenol	38	U	
95-48-7-----	2-Methylphenol	38	U	
108-60-1-----	2,2'-oxybis(1-Chloropropane)	38	U	
98-86-2-----	Acetophenone	38	U	
621-64-7-----	N-Nitroso-di-n-propylamine	38	U	
106-44-5-----	4-Methylphenol	38	U	
67-72-1-----	Hexachloroethane	200	U	
98-95-3-----	Nitrobenzene	38	U	
78-59-1-----	Isophorone	38	U	
88-75-5-----	2-Nitrophenol	38	U	
105-67-9-----	2,4-Dimethylphenol	38	U	
111-91-1-----	bis(2-Chloroethoxy)methane	38	U	
120-83-2-----	2,4-Dichlorophenol	38	U	
91-20-3-----	Naphthalene	20	U	
106-47-8-----	4-Chloroaniline	38	U	
87-68-3-----	Hexachlorobutadiene	38	U	
105-60-2-----	Caprolactam	200	U	
59-50-7-----	4-Chloro-3-methylphenol	38	U	
91-57-6-----	2-Methylnaphthalene	20	U	
77-47-4-----	Hexachlorocyclopentadiene	580	U	
88-06-2-----	2,4,6-Trichlorophenol	38	U	
95-95-4-----	2,4,5-Trichlorophenol	38	U	
92-52-4-----	1,1'-Biphenyl	38	U	
91-58-7-----	2-Chloronaphthalene	38	U	
88-74-4-----	2-Nitroaniline	38	U	
131-11-3-----	Dimethylphthalate	200	U	
606-20-2-----	2,6-Dinitrotoluene	38	U	

FORM I SV-1

TAP01 0103

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSTC1

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6834475

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: ej1015.d

Level: (low/med) LOW

Date Received: 10/24/12

% Moisture: not dec: 14 dec:

Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/25/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
208-96-8-----	Acenaphthylene	20	U	
99-09-2-----	3-Nitroaniline	200	U	
83-32-9-----	Acenaphthene	20	U	
51-28-5-----	2,4-Dinitrophenol	1200	U	
100-02-7-----	4-Nitrophenol	580	U	
132-64-9-----	Dibenzofuran	38	U	
121-14-2-----	2,4-Dinitrotoluene	200	U	
84-66-2-----	Diethylphthalate	200	U	
86-73-7-----	Fluorene	20	U	
7005-72-3-----	4-Chlorophenyl-phenylether	38	U	
100-01-6-----	4-Nitroaniline	200	U	
534-52-1-----	4,6-Dinitro-2-methylphenol	580	U	
86-30-6-----	N-Nitrosodiphenylamine	38	U	
101-55-3-----	4-Bromophenyl-phenylether	38	U	
118-74-1-----	Hexachlorobenzene	20	U	
1912-24-9-----	Atrazine	200	U	
87-86-5-----	Pentachlorophenol	200	U	
85-01-8-----	Phenanthrene	8	J	
120-12-7-----	Anthracene	4	J	
86-74-8-----	Carbazole	38	U	
84-74-2-----	Di-n-butylphthalate	200	U	
206-44-0-----	Fluoranthene	5	J	
129-00-0-----	Pyrene	13	J	
85-68-7-----	Butylbenzylphthalate	200	U	
91-94-1-----	3,3'-Dichlorobenzidine	380	U	
56-55-3-----	Benzo(a)anthracene	20	U	
218-01-9-----	Chrysene	20	U	
117-81-7-----	bis(2-Ethylhexyl)phthalate	160	J	
117-84-0-----	Di-n-octylphthalate	200	U	
205-99-2-----	Benzo(b)fluoranthene	20	U	

FORM I SV-2

TAP01 0104

1C cont
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. .

SSTC1

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6834475

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: ej1015.d

Level: (low/med) LOW

Date Received: 10/24/12

% Moisture: not dec: 14 dec:

Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/25/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
207-08-9-----	Benzo(k)fluoranthene	20	U	
50-32-8-----	Benzo(a)pyrene	20	U	
193-39-5-----	Indeno(1,2,3-cd)pyrene	20	U	
53-70-3-----	Dibenz(a,h)anthracene	20	U	
191-24-2-----	Benzo(g,h,i)perylene	20	U	

FORM I SV-3

TAP01 0105

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSAC1

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6834478

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: ej1016.d

Level: (low/med) LOW

Date Received: 10/24/12

% Moisture: not dec: 5 dec:

Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/25/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
100-52-7-----	Benzaldehyde		180	U
108-95-2-----	Phenol		35	U
111-44-4-----	bis(2-Chloroethyl)ether		35	U
95-57-8-----	2-Chlorophenol		35	U
95-48-7-----	2-Methylphenol		35	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)		35	U
98-86-2-----	Acetophenone		35	U
621-64-7-----	N-Nitroso-di-n-propylamine		35	U
106-44-5-----	4-Methylphenol		35	U
67-72-1-----	Hexachloroethane		180	U
98-95-3-----	Nitrobenzene		35	U
78-59-1-----	Isophorone		35	U
88-75-5-----	2-Nitrophenol		35	U
105-67-9-----	2,4-Dimethylphenol		35	U
111-91-1-----	bis(2-Chloroethoxy)methane		35	U
120-83-2-----	2,4-Dichlorophenol		35	U
91-20-3-----	Naphthalene		18	U
106-47-8-----	4-Chloroaniline		35	U
87-68-3-----	Hexachlorobutadiene		35	U
105-60-2-----	Caprolactam		180	U
59-50-7-----	4-Chloro-3-methylphenol		35	U
91-57-6-----	2-Methylnaphthalene		18	U
77-47-4-----	Hexachlorocyclopentadiene		530	U
88-06-2-----	2,4,6-Trichlorophenol		35	U
95-95-4-----	2,4,5-Trichlorophenol		35	U
92-52-4-----	1,1'-Biphenyl		35	U
91-58-7-----	2-Chloronaphthalene		35	U
88-74-4-----	2-Nitroaniline		35	U
131-11-3-----	Dimethylphthalate		180	U
606-20-2-----	2,6-Dinitrotoluene		35	U

FORM I SV-1

TAP01 0106

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSAC1

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6834478

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: ej1016.d

Level: (low/med) LOW

Date Received: 10/24/12

% Moisture: not dec: 5 dec:

Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/25/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
208-96-8-----	Acenaphthylene	18	U	
99-09-2-----	3-Nitroaniline	180	U	
83-32-9-----	Acenaphthene	18	U	
51-28-5-----	2,4-Dinitrophenol	1100	U	
100-02-7-----	4-Nitrophenol	530	U	
132-64-9-----	Dibenzofuran	35	U	
121-14-2-----	2,4-Dinitrotoluene	180	U	
84-66-2-----	Diethylphthalate	180	U	
86-73-7-----	Fluorene	18	U	
7005-72-3-----	4-Chlorophenyl-phenylether	35	U	
100-01-6-----	4-Nitroaniline	180	U	
534-52-1-----	4,6-Dinitro-2-methylphenol	530	U	
86-30-6-----	N-Nitrosodiphenylamine	35	U	
101-55-3-----	4-Bromophenyl-phenylether	35	U	
118-74-1-----	Hexachlorobenzene	18	U	
1912-24-9-----	Atrazine	180	U	
87-86-5-----	Pentachlorophenol	180	U	
85-01-8-----	Phenanthrene	16	J	
120-12-7-----	Anthracene	8	J	
86-74-8-----	Carbazole	35	U	
84-74-2-----	Di-n-butylphthalate	180	U	
206-44-0-----	Fluoranthene	22		
129-00-0-----	Pyrene	23		
85-68-7-----	Butylbenzylphthalate	180	U	
91-94-1-----	3,3'-Dichlorobenzidine	350	U	
56-55-3-----	Benzo(a)anthracene	11	J	
218-01-9-----	Chrysene	12	J	
117-81-7-----	bis(2-Ethylhexyl)phthalate	180	U	
117-84-0-----	Di-n-octylphthalate	180	U	
205-99-2-----	Benzo(b)fluoranthene	11	J	

FORM I SV-2

TAP01 0107

1C cont
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SSAC1

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6834478

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: ej1016.d

Level: (low/med) LOW

Date Received: 10/24/12

% Moisture: not dec: 5 dec:

Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/25/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Extraction: Mic

CAS NO.	COMPOUND	CONCENTRATION UNITS:		
		(ug/L or ug/Kg)	LOQ	UG/KG
207-08-9-----	Benzo(k)fluoranthene	18	U	
50-32-8-----	Benzo(a)pyrene	10	J	
193-39-5-----	Indeno(1,2,3-cd)pyrene	6	J	
53-70-3-----	Dibenz(a,h)anthracene	18	U	
191-24-2-----	Benzo(g,h,i)perylene	8	J	

FORM I SV-3

TAP01 0100

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CTSC1

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6834481

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: ej1017.d

Level: (low/med) LOW

Date Received: 10/24/12

% Moisture: not dec: 22 dec:

Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/25/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
100-52-7-----	Benzaldehyde	160	J	
108-95-2-----	Phenol	48		
111-44-4-----	bis(2-Chloroethyl)ether	42	U	
95-57-8-----	2-Chlorophenol	42	U	
95-48-7-----	2-Methylphenol	42	U	
108-60-1-----	2,2'-oxybis(1-Chloropropane)	42	U	
98-86-2-----	Acetophenone	27	J	
621-64-7-----	N-Nitroso-di-n-propylamine	42	U	
106-44-5-----	4-Methylphenol	42	U	
67-72-1-----	Hexachloroethane	220	U	
98-95-3-----	Nitrobenzene	42	U	
78-59-1-----	Isophorone	42	U	
88-75-5-----	2-Nitrophenol	42	U	
105-67-9-----	2,4-Dimethylphenol	42	U	
111-91-1-----	bis(2-Chloroethoxy)methane	42	U	
120-83-2-----	2,4-Dichlorophenol	42	U	
91-20-3-----	Naphthalene	24		
106-47-8-----	4-Chloroaniline	42	U	
87-68-3-----	Hexachlorobutadiene	42	U	
105-60-2-----	Caprolactam	220	U	
59-50-7-----	4-Chloro-3-methylphenol	42	U	
91-57-6-----	2-Methylnaphthalene	29		
77-47-4-----	Hexachlorocyclopentadiene	640	U	
88-06-2-----	2,4,6-Trichlorophenol	42	U	
95-95-4-----	2,4,5-Trichlorophenol	42	U	
92-52-4-----	1,1'-Biphenyl	42	U	
91-58-7-----	2-Chloronaphthalene	42	U	
88-74-4-----	2-Nitroaniline	42	U	
131-11-3-----	Dimethylphthalate	220	U	
606-20-2-----	2,6-Dinitrotoluene	42	U	

FORM I SV-1

TAP01 0100

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CTSC1

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6834481

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: ej1017.d

Level: (low/med) LOW

Date Received: 10/24/12

% Moisture: not dec: 22 dec:

Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/25/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
208-96-8-----	Acenaphthylene	7	7	J
99-09-2-----	3-Nitroaniline	220	220	U
83-32-9-----	Acenaphthene	22	22	U
51-28-5-----	2,4-Dinitrophenol	1300	1300	U
100-02-7-----	4-Nitrophenol	640	640	U
132-64-9-----	Dibenzofuran	42	42	U
121-14-2-----	2,4-Dinitrotoluene	220	220	U
84-66-2-----	Diethylphthalate	220	220	U
86-73-7-----	Fluorene	22	22	U
7005-72-3-----	4-Chlorophenyl-phenylether	42	42	U
100-01-6-----	4-Nitroaniline	220	220	U
534-52-1-----	4,6-Dinitro-2-methylphenol	640	640	U
86-30-6-----	N-Nitrosodiphenylamine	42	42	U
101-55-3-----	4-Bromophenyl-phenylether	42	42	U
118-74-1-----	Hexachlorobenzene	22	22	U
1912-24-9-----	Atrazine	220	220	U
87-86-5-----	Pentachlorophenol	220	220	U
85-01-8-----	Phenanthrene	36	36	
120-12-7-----	Anthracene	11	11	J
86-74-8-----	Carbazole	42	42	U
84-74-2-----	Di-n-butylphthalate	220	220	U
206-44-0-----	Fluoranthene	52	52	
129-00-0-----	Pyrene	59	59	
85-68-7-----	Butylbenzylphthalate	220	220	U
91-94-1-----	3,3'-Dichlorobenzidine	420	420	U
56-55-3-----	Benzo(a)anthracene	31	31	
218-01-9-----	Chrysene	45	45	
117-81-7-----	bis(2-Ethylhexyl)phthalate	220	220	U
117-84-0-----	Di-n-octylphthalate	220	220	U
205-99-2-----	Benzo(b)fluoranthene	56	56	

FORM I SV-2

TAP01 0110

1C cont
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CTSC1

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6834481

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: ej1017.d

Level: (low/med) LOW

Date Received: 10/24/12

% Moisture: not dec: 22 dec:

Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/25/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) LOQ UG/KG

Q

207-08-9-----	Benzo(k)fluoranthene	24	
50-32-8-----	Benzo(a)pyrene	39	
193-39-5-----	Indeno(1,2,3-cd)pyrene	27	
53-70-3-----	Dibenz(a,h)anthracene	22	U
191-24-2-----	Benzo(g,h,i)perylene	29	

FORM I SV-3

TAPG1 0111

Fraction: Semivolatiles by GC/MS

12298SLE026 / SBLKLE298 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Benzaldehyde	10/25/12	N.D.	ug/kg	67	170
Phenol	10/25/12	N.D.	ug/kg	17	33
bis(2-Chloroethyl)ether	10/25/12	N.D.	ug/kg	17	33
2-Chlorophenol	10/25/12	N.D.	ug/kg	17	33
2-Methylphenol	10/25/12	N.D.	ug/kg	17	33
4-Methylphenol	10/25/12	N.D.	ug/kg	17	33
N-Nitroso-di-n-propylamine	10/25/12	N.D.	ug/kg	17	33
Acetophenone	10/25/12	N.D.	ug/kg	17	33
Hexachloroethane	10/25/12	N.D.	ug/kg	33	170
Nitrobenzene	10/25/12	N.D.	ug/kg	17	33
Isophorone	10/25/12	N.D.	ug/kg	17	33
2-Nitrophenol	10/25/12	N.D.	ug/kg	17	33
2,4-Dimethylphenol	10/25/12	N.D.	ug/kg	17	33
2,2'-oxybis(1-Chloropropane)	10/25/12	N.D.	ug/kg	17	33
bis(2-Chloroethoxy)methane	10/25/12	N.D.	ug/kg	17	33
2,4-Dichlorophenol	10/25/12	N.D.	ug/kg	17	33
Naphthalene	10/25/12	N.D.	ug/kg	3	17
4-Chloroaniline	10/25/12	N.D.	ug/kg	17	33
Hexachlorobutadiene	10/25/12	N.D.	ug/kg	17	33
Caprolactam	10/25/12	N.D.	ug/kg	33	170
4-Chloro-3-methylphenol	10/25/12	N.D.	ug/kg	17	33
2-Methylnaphthalene	10/25/12	N.D.	ug/kg	3	17
Hexachlorocyclopentadiene	10/25/12	N.D.	ug/kg	170	500
2,4,6-Trichlorophenol	10/25/12	N.D.	ug/kg	17	33
2,4,5-Trichlorophenol	10/25/12	N.D.	ug/kg	17	33
1,1'-Biphenyl	10/25/12	N.D.	ug/kg	17	33
2-Chloronaphthalene	10/25/12	N.D.	ug/kg	7	33
2-Nitroaniline	10/25/12	N.D.	ug/kg	17	33
Dimethylphthalate	10/25/12	N.D.	ug/kg	67	170
2,6-Dinitrotoluene	10/25/12	N.D.	ug/kg	17	33
Acenaphthylene	10/25/12	N.D.	ug/kg	3	17
3-Nitroaniline	10/25/12	N.D.	ug/kg	67	170
Acenaphthene	10/25/12	N.D.	ug/kg	3	17
2,4-Dinitrophenol	10/25/12	N.D.	ug/kg	300	1000
4-Nitrophenol	10/25/12	N.D.	ug/kg	170	500
2,4-Dinitrotoluene	10/25/12	N.D.	ug/kg	67	170
Dibenzofuran	10/25/12	N.D.	ug/kg	17	33
Diethylphthalate	10/25/12	N.D.	ug/kg	67	170
Fluorene	10/25/12	N.D.	ug/kg	3	17
4-Chlorophenyl-phenylether	10/25/12	N.D.	ug/kg	17	33
4-Nitroaniline	10/25/12	N.D.	ug/kg	67	170
4,6-Dinitro-2-methylphenol	10/25/12	N.D.	ug/kg	170	500
N-Nitrosodiphenylamine	10/25/12	N.D.	ug/kg	17	33
4-Bromophenyl-phenylether	10/25/12	N.D.	ug/kg	17	33
Hexachlorobenzene	10/25/12	N.D.	ug/kg	3	17

Fraction: Semivolatiles by GC/MS

12298SLE026 / SBLKLE298					
Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Atrazine	10/25/12	N.D.	ug/kg	33	170
Pentachlorophenol	10/25/12	N.D.	ug/kg	33	170
Phenanthrene	10/25/12	N.D.	ug/kg	3	17
Anthracene	10/25/12	N.D.	ug/kg	3	17
Carbazole	10/25/12	N.D.	ug/kg	17	33
Di-n-butylphthalate	10/25/12	N.D.	ug/kg	67	170
Fluoranthene	10/25/12	N.D.	ug/kg	3	17
Pyrene	10/25/12	N.D.	ug/kg	3	17
Butylbenzylphthalate	10/25/12	N.D.	ug/kg	67	170
bis(2-Ethylhexyl)phthalate	10/25/12	N.D.	ug/kg	67	170
3,3'-Dichlorobenzidine	10/25/12	N.D.	ug/kg	100	330
Benzo(a)anthracene	10/25/12	N.D.	ug/kg	3	17
Chrysene	10/25/12	N.D.	ug/kg	3	17
Di-n-octylphthalate	10/25/12	N.D.	ug/kg	67	170
Benzo(b)fluoranthene	10/25/12	N.D.	ug/kg	3	17
Benzo(k)fluoranthene	10/25/12	N.D.	ug/kg	3	17
Benzo(a)pyrene	10/25/12	N.D.	ug/kg	3	17
Indeno(1,2,3-cd)pyrene	10/25/12	N.D.	ug/kg	3	17
Dibenz(a,h)anthracene	10/25/12	N.D.	ug/kg	3	17
Benzo(g,h,i)perylene	10/25/12	N.D.	ug/kg	3	17

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MTSC1MS

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6834469

Sample wt/vol: 30.0 (g/mL) G Lab File ID: ej1012.d

Level: (low/med) LOW Date Received: 10/24/12

% Moisture: not dec: 7 dec: Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/25/12

Injection Volume: 1 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
100-52-7-----	Benzaldehyde		1000	
108-95-2-----	Phenol		1400	
111-44-4-----	bis(2-Chloroethyl)ether		1400	
95-57-8-----	2-Chlorophenol		1500	
95-48-7-----	2-Methylphenol		1500	
108-60-1-----	2,2'-oxybis(1-Chloropropane)		1500	
98-86-2-----	Acetophenone		1600	
621-64-7-----	N-Nitroso-di-n-propylamine		1500	
106-44-5-----	4-Methylphenol		1600	
67-72-1-----	Hexachloroethane		990	
98-95-3-----	Nitrobenzene		1500	
78-59-1-----	Isophorone		1400	
88-75-5-----	2-Nitrophenol		1900	
105-67-9-----	2,4-Dimethylphenol		1600	
111-91-1-----	bis(2-Chloroethoxy)methane		1600	
120-83-2-----	2,4-Dichlorophenol		1700	
91-20-3-----	Naphthalene		1500	
106-47-8-----	4-Chloroaniline		1300	
87-68-3-----	Hexachlorobutadiene		1500	
105-60-2-----	Caprolactam		1500	
59-50-7-----	4-Chloro-3-methylphenol		1500	
91-57-6-----	2-Methylnaphthalene		1600	
77-47-4-----	Hexachlorocyclopentadiene		540	U
88-06-2-----	2,4,6-Trichlorophenol		1700	
95-95-4-----	2,4,5-Trichlorophenol		1600	
92-52-4-----	1,1'-Biphenyl		1600	
91-58-7-----	2-Chloronaphthalene		1400	
88-74-4-----	2-Nitroaniline		1900	
131-11-3-----	Dimethylphthalate		1500	
606-20-2-----	2,6-Dinitrotoluene		1600	

FORM I SV-1

TAP01 0114

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MTSC1MS

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6834469

Sample wt/vol: 30.0 (g/mL) G Lab File ID: ej1012.d

Level: (low/med) LOW Date Received: 10/24/12

% Moisture: not dec: 7 dec: Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/25/12

Injection Volume: 1 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
208-96-8-----	Acenaphthylene		1700	
99-09-2-----	3-Nitroaniline		1600	
83-32-9-----	Acenaphthene		1400	
51-28-5-----	2,4-Dinitrophenol		1400	
100-02-7-----	4-Nitrophenol		1500	
132-64-9-----	Dibenzofuran		1500	
121-14-2-----	2,4-Dinitrotoluene		1600	
84-66-2-----	Diethylphthalate		1500	
86-73-7-----	Fluorene		1500	
7005-72-3-----	4-Chlorophenyl-phenylether		1500	
100-01-6-----	4-Nitroaniline		1400	
534-52-1-----	4,6-Dinitro-2-methylphenol		900	
86-30-6-----	N-Nitrosodiphenylamine		1800	
101-55-3-----	4-Bromophenyl-phenylether		1600	
118-74-1-----	Hexachlorobenzene		1400	
1912-24-9-----	Atrazine		1500	
87-86-5-----	Pentachlorophenol		1400	
85-01-8-----	Phenanthrene		1500	
120-12-7-----	Anthracene		1400	
86-74-8-----	Carbazole		1400	
84-74-2-----	Di-n-butylphthalate		1700	
206-44-0-----	Fluoranthene		1500	
129-00-0-----	Pyrene		1500	
85-68-7-----	Butylbenzylphthalate		1600	
91-94-1-----	3,3'-Dichlorobenzidine		740	
56-55-3-----	Benzo(a)anthracene		1100	
218-01-9-----	Chrysene		1000	
117-81-7-----	bis(2-Ethylhexyl)phthalate		2000	
117-84-0-----	Di-n-octylphthalate		1800	
205-99-2-----	Benzo(b)fluoranthene		1000	

FORM I SV-2

TAPG1 0115

1C cont
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MTSC1MS

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6834469

Sample wt/vol: 30.0 (g/mL) G Lab File ID: ej1012.d

Level: (low/med) LOW Date Received: 10/24/12

% Moisture: not dec: 7 dec: Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/25/12

Injection Volume: 1 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Extraction: Mic

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) LOQ UG/KG Q

207-08-9-----	Benzo(k)fluoranthene	930	
50-32-8-----	Benzo(a)pyrene	890	
193-39-5-----	Indeno(1,2,3-cd)pyrene	770	
53-70-3-----	Dibenz(a,h)anthracene	800	
191-24-2-----	Benzo(g,h,i)perylene	870	

FORM I SV-3

TAP01 0110

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MTSC1MSD

Lab Name: Lancaster Laboratories Contract: _____
Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 6834469
Sample wt/vol: 30.0 (g/mL) G Lab File ID: ej1013.d
Level: (low/med) LOW Date Received: 10/24/12
% Moisture: not dec: 7 dec: Date Extracted: 10/24/12
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/25/12
Injection Volume: 1 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
100-52-7-----	Benzaldehyde		920	
108-95-2-----	Phenol		1300	
111-44-4-----	bis(2-Chloroethyl)ether		1400	
95-57-8-----	2-Chlorophenol		1500	
95-48-7-----	2-Methylphenol		1500	
108-60-1-----	2,2'-oxybis(1-Chloropropane)		1500	
98-86-2-----	Acetophenone		1400	
621-64-7-----	N-Nitroso-di-n-propylamine		1300	
106-44-5-----	4-Methylphenol		1500	
67-72-1-----	Hexachloroethane		820	
98-95-3-----	Nitrobenzene		1400	
78-59-1-----	Isophorone		1400	
88-75-5-----	2-Nitrophenol		1800	
105-67-9-----	2,4-Dimethylphenol		1500	
111-91-1-----	bis(2-Chloroethoxy)methane		1400	
120-83-2-----	2,4-Dichlorophenol		1600	
91-20-3-----	Naphthalene		1500	
106-47-8-----	4-Chloroaniline		1300	
87-68-3-----	Hexachlorobutadiene		1500	
105-60-2-----	Caprolactam		1400	
59-50-7-----	4-Chloro-3-methylphenol		1500	
91-57-6-----	2-Methylnaphthalene		1600	
77-47-4-----	Hexachlorocyclopentadiene		540	U
88-06-2-----	2,4,6-Trichlorophenol		1700	
95-95-4-----	2,4,5-Trichlorophenol		1600	
92-52-4-----	1,1'-Biphenyl		1600	
91-58-7-----	2-Chloronaphthalene		1400	
88-74-4-----	2-Nitroaniline		1900	
131-11-3-----	Dimethylphthalate		1500	
606-20-2-----	2,6-Dinitrotoluene		1600	

FORM I SV-1

TAPG1 0117

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MTSC1MSD

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6834469

Sample wt/vol: 30.0 (g/mL) G Lab File ID: ej1013.d

Level: (low/med) LOW Date Received: 10/24/12

% Moisture: not dec: 7 dec: Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/25/12

Injection Volume: 1 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Extraction: Mic

		CONCENTRATION UNITS:		
CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
208-96-8-----	Acenaphthylene		1700	
99-09-2-----	3-Nitroaniline		1600	
83-32-9-----	Acenaphthene		1500	
51-28-5-----	2,4-Dinitrophenol		960	J
100-02-7-----	4-Nitrophenol		1500	
132-64-9-----	Dibenzofuran		1500	
121-14-2-----	2,4-Dinitrotoluene		1600	
84-66-2-----	Diethylphthalate		1500	
86-73-7-----	Fluorene		1400	
7005-72-3-----	4-Chlorophenyl-phenylether		1400	
100-01-6-----	4-Nitroaniline		1400	
534-52-1-----	4,6-Dinitro-2-methylphenol		680	
86-30-6-----	N-Nitrosodiphenylamine		1700	
101-55-3-----	4-Bromophenyl-phenylether		1600	
118-74-1-----	Hexachlorobenzene		1400	
1912-24-9-----	Atrazine		1600	
87-86-5-----	Pentachlorophenol		1400	
85-01-8-----	Phenanthrene		1900	
120-12-7-----	Anthracene		1500	
86-74-8-----	Carbazole		1500	
84-74-2-----	Di-n-butylphthalate		1600	
206-44-0-----	Fluoranthene		1800	
129-00-0-----	Pyrene		1900	
85-68-7-----	Butylbenzylphthalate		1600	
91-94-1-----	3,3'-Dichlorobenzidine		1000	
56-55-3-----	Benzo(a)anthracene		1200	
218-01-9-----	Chrysene		1200	
117-81-7-----	bis(2-Ethylhexyl)phthalate		1900	
117-84-0-----	Di-n-octylphthalate		1800	
205-99-2-----	Benzo(b)fluoranthene		1400	

FORM I SV-2

1C cont
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MTSC1MSD

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6834469

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: ej1013.d

Level: (low/med) LOW

Date Received: 10/24/12

% Moisture: not dec: 7 dec:

Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/25/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
207-08-9-----	Benzo(k)fluoranthene		1100	
50-32-8-----	Benzo(a)pyrene		1200	
193-39-5-----	Indeno(1,2,3-cd)pyrene		880	
53-70-3-----	Dibenz(a,h)anthracene		820	
191-24-2-----	Benzo(g,h,i)perylene		980	

FORM I SV-3

TAPG1 0119

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

298LELCS5

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 298LELCS

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: ej1010.d

Level: (low/med) LOW

Date Received: _____

% Moisture: not dec: dec: _____

Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/25/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
100-52-7-----	Benzaldehyde		600	
108-95-2-----	Phenol		1400	
111-44-4-----	bis(2-Chloroethyl)ether		1400	
95-57-8-----	2-Chlorophenol		1400	
95-48-7-----	2-Methylphenol		1500	
108-60-1-----	2,2'-oxybis(1-Chloropropane)		1400	
98-86-2-----	Acetophenone		1500	
621-64-7-----	N-Nitroso-di-n-propylamine		1400	
106-44-5-----	4-Methylphenol		1500	
67-72-1-----	Hexachloroethane		1300	
98-95-3-----	Nitrobenzene		1400	
78-59-1-----	Isophorone		1400	
88-75-5-----	2-Nitrophenol		1900	
105-67-9-----	2,4-Dimethylphenol		1600	
111-91-1-----	bis(2-Chloroethoxy)methane		1500	
120-83-2-----	2,4-Dichlorophenol		1700	
91-20-3-----	Naphthalene		1400	
106-47-8-----	4-Chloroaniline		570	
87-68-3-----	Hexachlorobutadiene		1400	
105-60-2-----	Caprolactam		1600	
59-50-7-----	4-Chloro-3-methylphenol		1700	
91-57-6-----	2-Methylnaphthalene		1600	
77-47-4-----	Hexachlorocyclopentadiene		3100	
88-06-2-----	2,4,6-Trichlorophenol		1700	
95-95-4-----	2,4,5-Trichlorophenol		1600	
92-52-4-----	1,1'-Biphenyl		1500	
91-58-7-----	2-Chloronaphthalene		1400	
88-74-4-----	2-Nitroaniline		1900	
131-11-3-----	Dimethylphthalate		1600	
606-20-2-----	2,6-Dinitrotoluene		1600	

FORM I SV-1

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

298LELCS5

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 298LELCS

Sample wt/vol: 30.0 (g/mL) G Lab File ID: ej1010.d

Level: (low/med) LOW Date Received: _____

% Moisture: not dec: dec: Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/25/12

Injection Volume: 1 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Extraction: Mic

		CONCENTRATION UNITS:		
CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
208-96-8-----	Acenaphthylene		1700	
99-09-2-----	3-Nitroaniline		1600	
83-32-9-----	Acenaphthene		1500	
51-28-5-----	2,4-Dinitrophenol		4300	E
100-02-7-----	4-Nitrophenol		1800	
132-64-9-----	Dibenzofuran		1500	
121-14-2-----	2,4-Dinitrotoluene		1800	
84-66-2-----	Diethylphthalate		1600	
86-73-7-----	Fluorene		1600	
7005-72-3-----	4-Chlorophenyl-phenylether		1500	
100-01-6-----	4-Nitroaniline		1300	
534-52-1-----	4,6-Dinitro-2-methylphenol		1800	
86-30-6-----	N-Nitrosodiphenylamine		1600	
101-55-3-----	4-Bromophenyl-phenylether		1400	
118-74-1-----	Hexachlorobenzene		1500	
1912-24-9-----	Atrazine		1700	E
87-86-5-----	Pentachlorophenol		1600	
85-01-8-----	Phenanthrene		1500	
120-12-7-----	Anthracene		1600	
86-74-8-----	Carbazole		1600	
84-74-2-----	Di-n-butylphthalate		1600	
206-44-0-----	Fluoranthene		1600	
129-00-0-----	Pyrene		1500	
85-68-7-----	Butylbenzylphthalate		1600	
91-94-1-----	3,3'-Dichlorobenzidine		700	
56-55-3-----	Benzo(a)anthracene		1400	
218-01-9-----	Chrysene		1400	
117-81-7-----	bis(2-Ethylhexyl)phthalate		1600	
117-84-0-----	Di-n-octylphthalate		1900	
205-99-2-----	Benzo(b)fluoranthene		1700	

FORM I SV-2

TAPG1 0121

1C cont
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

298LELCS5

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 298LELCS

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: ej1010.d

Level: (low/med) LOW

Date Received: _____

% Moisture: not dec: dec: _____

Date Extracted: 10/24/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 10/25/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Extraction: Mic

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) LOQ UG/KG Q

207-08-9-----	Benzo(k)fluoranthene	1500	
50-32-8-----	Benzo(a)pyrene	1600	
193-39-5-----	Indeno(1,2,3-cd)pyrene	1500	
53-70-3-----	Dibenz(a,h)anthracene	1500	
191-24-2-----	Benzo(g,h,i)perylene	1500	

FORM I SV-3

TAP01 0122

Herbicides Data

Case Narrative/Conformance Summary

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP01

Pesticide Residue Analysis

Fraction: Herbicides

Sample #	Client ID	Matrix		DF	Comments
		Liquid	Solid		
6834469	CM-TSC1		X	1	
6834472	TCN-STC1		X	1	
6834475	NYSS-STC1		X	1	
6834478	NYSS-SAC1		X	1	
6834481	POC-TSC1		X	1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

Sample numbers: 6834469, 6834472, 6834475, 6834478, 6834481: Analysis: 10401
For dual column analyses in which the calibration (initial and/or continuing) response is outside the acceptance criteria on one column and within criteria on the second column affected analytes are reported from the compliant column. The sample raw data identifies the column used to report each analyte.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

MS/MSD

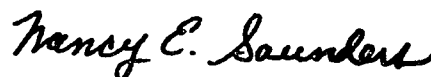
Please note that US EPA Methods for organic compounds do not require action by the laboratory based on out-of-specification MS/MSD results.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Case Narrative/Conformance Summary**CLIENT: ExxonMobil Refining & Supply****SDG: TAP01****Pesticide Residue Analysis****Fraction: Herbicides****Abbreviation Key**

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Narrative Reviewed and Approved 11/1/12 by
(Date)Nancy E. Saunders
Specialist

Sample Data

ORGANICS ANALYSIS DATA SHEET

MTSC1

Lab Name: Lancaster Laboratories Contract:Batchnumber: 122990021A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Matrix: (soil/water) SOILLab Sample ID: 6834469Sample wt/vol: 30 (g/ml) gLab File ID: 9H15283.007.RAW% Moisture: 6.9

Decanted: (Y/N)

Date Received: 10/24/2012Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 10/25/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 10/26/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
75-99-0	Dalapon	47	U
1918-00-9	Dicamba	4.3	U
93-65-2	Mcpp	810	U
94-74-6	Mcpa	820	U
120-36-5	2,4-DP	9.7	U
94-75-7	2,4-D	13	U
87-86-5	PCP	7.1	
93-72-1	2,4,5-TP	0.81	U
93-76-5	2,4,5-T	0.88	U
94-82-6	2,4-DB	6.7	U
88-85-7	Dinoseb	8.6	U

ORGANICS ANALYSIS DATA SHEET

NSTC1

Lab Name: Lancaster Laboratories Contract:Batchnumber: 122990021A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Matrix: (soil/water) SOILLab Sample ID: 6834472Sample wt/vol: 30.1 (g/ml) gLab File ID: 9H15283.008.RAW% Moisture: 6.1

Decanted: (Y/N)

Date Received: 10/24/2012Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 10/25/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 10/26/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
75-99-0	Dalapon	47	U
1918-00-9	Dicamba	4.2	U
93-65-2	Mcpp	800	U
94-74-6	Mcpa	810	U
120-36-5	2,4-DP	9.6	U
94-75-7	2,4-D	13	U
87-86-5	PCP	0.35	U
93-72-1	2,4,5-TP	0.80	U
93-76-5	2,4,5-T	0.87	U
94-82-6	2,4-DB	6.6	U
88-85-7	Dinoseb	8.5	U

ORGANICS ANALYSIS DATA SHEET

SSTC1

Lab Name: Lancaster Laboratories Contract: Batchnumber: 122990021A
 Lab Code: Case No.: SAS No.: SDG No.: TAP01

Matrix: (soil/water) SOILLab Sample ID: 6834475Sample wt/vol: 30.4 (g/ml) gLab File ID: 9H15283.009.RAW% Moisture: 13.5 Decanted: (Y/N)Date Received: 10/24/2012Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 10/25/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 10/26/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
75-99-0	Dalapon	50	U
1918-00-9	Dicamba	4.6	U
93-65-2	Mcpp	860	U
94-74-6	Mcpa	870	U
120-36-5	2,4-DP	10	U
94-75-7	2,4-D	14	U
87-86-5	PCP	0.38	U
93-72-1	2,4,5-TP	0.86	U
93-76-5	2,4,5-T	0.94	U
94-82-6	2,4-DB	7.1	U
88-85-7	Dinoseb	9.1	U

ORGANICS ANALYSIS DATA SHEET

SSAC1

Lab Name: Lancaster Laboratories Contract: Batchnumber: 122990021ALab Code: Case No.: SAS No.: SDG No.: TAP01Matrix: (soil/water) SOILLab Sample ID: 6834478Sample wt/vol: 30 (g/ml) gLab File ID: 9H15283.010.RAW% Moisture: 4.6 Decanted: (Y/N)Date Received: 10/24/2012Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 10/25/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 10/26/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
75-99-0	Dalapon	46	U
1918-00-9	Dicamba	4.2	U
93-65-2	Mcpp	790	U
94-74-6	Mcpa	800	U
120-36-5	2,4-DP	9.4	U
94-75-7	2,4-D	13	U
87-86-5	PCP	0.35	U
93-72-1	2,4,5-TP	0.79	U
93-76-5	2,4,5-T	0.86	U
94-82-6	2,4-DB	6.5	U
88-85-7	Dinoseb	8.4	U

ORGANICS ANALYSIS DATA SHEET

CTSC1

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 122990021A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Matrix: (soil/water) SOILLab Sample ID: 6834481Sample wt/vol: 30.3 (g/ml) gLab File ID: 9H15283.011.RAW% Moisture: 22.2

Decanted: (Y/N)

Date Received: 10/24/2012Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 10/25/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 10/26/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N

pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
75-99-0	Dalapon	56	U
1918-00-9	Dicamba	5.1	U
93-65-2	Mcpp	950	U
94-74-6	Mcpa	970	U
120-36-5	2,4-DP	11	U
94-75-7	2,4-D	15	U
87-86-5	PCP	0.70	J
93-72-1	2,4,5-TP	0.95	U
93-76-5	2,4,5-T	1.0	U
94-82-6	2,4-DB	7.9	U
88-85-7	Dinoseb	10	U

ORGANICS ANALYSIS DATA SHEET

PBLK21299

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 122990021A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water) SOILLab Sample ID: BLANKASample wt/vol: 30 (g/ml) gLab File ID: 9H15283.005.RAW

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 10/25/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 10/26/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
75-99-0	Dalapon		44U
1918-00-9	Dicamba		4.0U
93-65-2	Mcpp		750U
94-74-6	Mcpa		760U
120-36-5	2,4-DP		9.0U
94-75-7	2,4-D		12U
87-86-5	PCP		0.33U
93-72-1	2,4,5-TP		0.75U
93-76-5	2,4,5-T		0.82U
94-82-6	2,4-DB		6.2U
88-85-7	Dinoseb		8.0U
1918-02-1	Picloram		50U
70-30-4	Hexachlorophene		8.0U

ORGANICS ANALYSIS DATA SHEET

SSAC1MS

Lab Name: Lancaster Laboratories Contract:Batchnumber: 122990021A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Matrix: (soil/water) SOILLab Sample ID: 6834478Sample wt/vol: 30 (g/ml) gLab File ID: 9H15283.014.RAW% Moisture: 4.6

Decanted: (Y/N)

Date Received: 10/24/2012Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 10/25/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 10/26/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
75-99-0	Dalapon		76J
1918-00-9	Dicamba		5.9J
93-65-2	Mcpp		5600
94-74-6	Mcpa		6100
120-36-5	2,4-DP		76
94-75-7	2,4-D		62
87-86-5	PCP		19
93-72-1	2,4,5-TP		6.2
93-76-5	2,4,5-T		5.7
94-82-6	2,4-DB		66
88-85-7	Dinoseb		28
1918-02-1	Picloram		120

ORGANICS ANALYSIS DATA SHEET

SSAC1MSD

Lab Name: Lancaster Laboratories Contract:Batchnumber: 122990021A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Matrix: (soil/water) SOILLab Sample ID: 6834478Sample wt/vol: 30.1 (g/ml) gLab File ID: 9H15283.015.RAW% Moisture: 4.6

Decanted: (Y/N)

Date Received: 10/24/2012Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 10/25/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 10/26/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N

pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
75-99-0	Dalapon	93	J
1918-00-9	Dicamba	7.4	J
93-65-2	Mcpp	7100	
94-74-6	Mcpa	8300	
120-36-5	2,4-DP	98	
94-75-7	2,4-D	79	
87-86-5	PCP	25	
93-72-1	2,4,5-TP	8.1	
93-76-5	2,4,5-T	7.2	
94-82-6	2,4-DB	86	
88-85-7	Dinoseb	41	
1918-02-1	Picloram	120	

ORGANICS ANALYSIS DATA SHEET

LCS21299

Lab Name: Lancaster Laboratories Contract:Batchnumber: 122990021A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water) SOILLab Sample ID: LCSASample wt/vol: 30 (g/ml) gLab File ID: 9H15283.006.RAW

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 10/25/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 10/26/2012Injection Volume: 2 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) N pH:Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
75-99-0	Dalapon	97	
1918-00-9	Dicamba	7.0	J
93-65-2	Mcpp	6500	
94-74-6	Mcpa	7400	
120-36-5	2,4-DP	92	
94-75-7	2,4-D	75	
87-86-5	PCP	22	
93-72-1	2,4,5-TP	7.5	
93-76-5	2,4,5-T	6.7	
94-82-6	2,4-DB	80	
88-85-7	Dinoseb	23	J
1918-02-1	Picloram	50	U

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

MTSC1

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 122990021A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Lab Sample ID: 6834469Date(s) Analyzed: 10/26/2012 10/26/2012Instrument ID (1): H8456AInstrument ID (2): H8456BGC Column (1): ZB-XLBID: 0.32 (mm)GC Column (2): ZB-35ID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
PCP	1	10.38	10.33	10.45	7.4	4.1
	2	10.17	10.11	10.23	7.1	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

CTSC1

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 122990021A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Lab Sample ID: 6834481Date(s) Analyzed: 10/26/2012 10/26/2012Instrument ID (1): H8456AInstrument ID (2): H8456BGC Column (1): ZB-XLBID: 0.32 (mm)GC Column (2): ZB-35ID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
PCP	1	10.39	10.33	10.45	0.63	10.5
	2	10.17	10.11	10.23	0.70	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

SSAC1MS

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 122990021A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Lab Sample ID: 6834478Date(s) Analyzed: 10/26/2012 10/26/2012Instrument ID (1): H8456AInstrument ID (2): H8456BGC Column (1): ZB-XLBID: 0.32 (mm)GC Column (2): ZB-35ID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Dalapon	1	2.67	2.63	2.71	89	15.8
	2	2.73	2.69	2.77	76	
Dicamba	1	8.43	8.39	8.47	6.3	6.6
	2	8.61	8.57	8.67	5.9	
Mcpp	1	8.71	8.65	8.77	5500	1.8
	2	8.68	8.64	8.74	5600	
Mcpa	1	8.97	8.91	9.03	6100	0.0
	2	9.02	8.96	9.08	6100	
2,4-DP	1	9.34	9.29	9.39	79	3.9
	2	9.35	9.29	9.41	76	
2,4-D	1	9.64	9.58	9.70	72	14.9
	2	9.75	9.70	9.82	62	
PCP	1	10.38	10.33	10.45	19	0.0
	2	10.17	10.11	10.23	19	
2,4,5-TP	1	10.59	10.54	10.66	6.8	9.2
	2	10.52	10.46	10.58	6.2	
2,4,5-T	1	10.95	10.89	11.01	6.9	19.0
	2	10.97	10.92	11.04	5.7	
2,4-DB	1	11.49	11.43	11.55	78	16.7
	2	11.43	11.38	11.50	66	
Dinoseb	1	11.61	11.55	11.67	35	22.2
	2	11.27	11.21	11.33	28	
Picloram	1	12.24	12.24	12.30	91	27.5
	2	12.86	12.85	12.91	120	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

SSAC1MSD

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 122990021A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Lab Sample ID: 6834478Date(s) Analyzed: 10/26/2012 10/26/2012Instrument ID (1): H8456AInstrument ID (2): H8456BGC Column (1): ZB-XLBID: 0.32 (mm)GC Column (2): ZB-35ID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Dalapon	1	2.66	2.63	2.71	110	16.7
	2	2.73	2.69	2.77	93	
Dicamba	1	8.43	8.39	8.47	8.1	9.0
	2	8.62	8.57	8.67	7.4	
Mcpp	1	8.71	8.65	8.77	7800	9.4
	2	8.68	8.64	8.74	7100	
Mcpa	1	8.97	8.91	9.03	8300	0.0
	2	9.02	8.96	9.08	8300	
2,4-DP	1	9.33	9.29	9.39	100	2.0
	2	9.35	9.29	9.41	98	
2,4-D	1	9.64	9.58	9.70	91	14.1
	2	9.75	9.70	9.82	79	
PCP	1	10.38	10.33	10.45	26	3.9
	2	10.17	10.11	10.23	25	
2,4,5-TP	1	10.59	10.54	10.66	8.8	8.3
	2	10.52	10.46	10.58	8.1	
2,4,5-T	1	10.95	10.89	11.01	8.7	18.9
	2	10.97	10.92	11.04	7.2	
2,4-DB	1	11.49	11.43	11.55	100	15.1
	2	11.43	11.38	11.50	86	
Dinoseb	1	11.61	11.55	11.67	48	15.7
	2	11.27	11.21	11.33	41	
Picloram	1	12.24	12.24	12.30	91	27.5
	2	12.86	12.85	12.91	120	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

LCS21299

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 122990021A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Lab Sample ID: LCSADate(s) Analyzed: 10/26/2012 10/26/2012Instrument ID (1): H8456AInstrument ID (2): H8456BGC Column (1): ZB-XLBID: 0.32 (mm)GC Column (2): ZB-35ID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Dalapon	1	2.66	2.63	2.71	110	12.6
	2	2.72	2.69	2.77	97	
Dicamba	1	8.43	8.39	8.47	7.5	6.9
	2	8.61	8.57	8.67	7.0	
Mcpp	1	8.70	8.65	8.77	7400	12.9
	2	8.68	8.64	8.74	6500	
Mcpa	1	8.96	8.91	9.03	7300	1.4
	2	9.02	8.96	9.08	7400	
2,4-DP	1	9.33	9.29	9.39	94	2.2
	2	9.35	9.29	9.41	92	
2,4-D	1	9.63	9.58	9.70	84	11.3
	2	9.75	9.70	9.82	75	
PCP	1	10.38	10.33	10.45	23	4.4
	2	10.16	10.11	10.23	22	
2,4,5-TP	1	10.59	10.54	10.66	8.5	12.5
	2	10.52	10.46	10.58	7.5	
2,4,5-T	1	10.94	10.89	11.01	8.1	18.9
	2	10.97	10.92	11.04	6.7	
2,4-DB	1	11.49	11.43	11.55	92	14.0
	2	11.43	11.38	11.50	80	
Dinoseb	1	11.60	11.55	11.67	27	16.0
	2	11.27	11.21	11.33	23	

Pesticides Data

Case Narrative/Conformance Summary

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP01

Pesticide Residue Analysis

Fraction: Pesticides

Sample #	Client ID	Matrix		DF	Comments
		Liquid	Solid		
6834469	CM-TSC1		X	1; 20	
6834472	TCN-STC1		X	1	
6834475	NYSS-STC1		X	1	
6834478	NYSS-SAC1		X	1	
6834481	POC-TSC1		X	1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

Sample number: 6834469, 6834472, 6834475, 6834478, 6834481: Analysis: 10738
For dual column analyses in which the calibration (initial and/or continuing) response is outside the acceptance criteria on one column and within criteria on the second column affected analytes are reported from the compliant column. The sample raw data identifies the column used to report each analyte.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

MS/MSD

Please note that US EPA Methods for organic compounds do not require action by the laboratory based on out-of-specification MS/MSD results.

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP01

Pesticide Residue Analysis

Fraction: Pesticides

SAMPLE ANALYSIS:

Sample number: 6834469, 6834481: Analysis: 10738

Reporting limits were raised due to interference from the sample matrix.

No problems were encountered with the analysis of the samples.

Additional Comments

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E = out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Narrative Reviewed and Approved 11/8/12 by
(Date)

Nancy E. Saunders
Nancy E. Saunders
Specialist

Sample Data

ORGANICS ANALYSIS DATA SHEET

MTSC1

Lab Name: Lancaster Laboratories Contract:Batchnumber: 123010012A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Matrix: (soil/water) SOILLab Sample ID: 6834469Sample wt/vol: 30 (g/ml) gLab File ID: 1P10311.0073.RAW% Moisture: 6.9

Decanted: (Y/N)

Date Received: 10/24/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 10/28/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/7/2012Injection Volume: 1 (uL)Dilution Factor: 20

GPC Cleanup: (Y/N) Y pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.

COMPOUND

(UG/L or UG/KG) ug/kg

Q

5103-74-2

gamma-Chlordane

100U

ORGANICS ANALYSIS DATA SHEET

NSTC1

Lab Name: Lancaster Laboratories Contract:Batchnumber: 123010012A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Matrix: (soil/water) SOILLab Sample ID: 6834472Sample wt/vol: 30 (g/ml) gLab File ID: 1P10307.0045.RAW% Moisture: 6.1 Decanted: (Y/N)Date Received: 10/24/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 10/28/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/3/2012Injection Volume: 1 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) Y pH:Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
319-84-6	alpha-BHC	0.18U	
58-89-9	gamma-BHC (Lindane)	0.18U	
319-85-7	beta-BHC	1.0U	
319-86-8	delta-BHC	0.48U	
76-44-8	Heptachlor	0.18U	
309-00-2	Aldrin	0.18U	
1024-57-3	Heptachlor epoxide	0.18U	
5103-74-2	gamma-Chlordane	0.18U	
5103-71-9	alpha-Chlordane	0.18U	
72-55-9	4,4'-DDE	0.35U	
959-98-8	Endosulfan I	0.23U	
60-57-1	Dieldrin	0.35U	
72-20-8	Endrin	0.35U	
72-54-8	4,4'-DDD	0.35U	
33213-65-9	Endosulfan II	0.35U	
50-29-3	4,4'-DDT	0.35U	
7421-93-4	Endrin aldehyde	0.35U	
72-43-5	Methoxychlor	1.8U	
1031-07-8	Endosulfan sulfate	0.35U	
53494-70-5	Endrin ketone	0.64U	
8001-35-2	Toxaphene	13U	

ORGANICS ANALYSIS DATA SHEET

SSTC1

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123010012A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Matrix: (soil/water) SOILLab Sample ID: 6834475Sample wt/vol: 30.4 (g/ml) gLab File ID: 1P10307.0046.RAW% Moisture: 13.5

Decanted: (Y/N)

Date Received: 10/24/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 10/28/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/3/2012Injection Volume: 1 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) Y pH:Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
319-84-6	alpha-BHC	0.19	U
58-89-9	gamma-BHC (Lindane)	0.19	U
319-85-7	beta-BHC	1.1	U
319-86-8	delta-BHC	0.51	U
76-44-8	Heptachlor	0.19	U
309-00-2	Aldrin	0.19	U
1024-57-3	Heptachlor epoxide	0.19	U
5103-74-2	gamma-Chlordane	0.19	U
5103-71-9	alpha-Chlordane	0.19	U
72-55-9	4,4'-DDE	0.38	U
959-98-8	Endosulfan I	0.25	U
60-57-1	Dieldrin	0.38	U
72-20-8	Endrin	0.38	U
72-54-8	4,4'-DDD	0.57	J
33213-65-9	Endosulfan II	0.38	U
50-29-3	4,4'-DDT	0.38	U
7421-93-4	Endrin aldehyde	0.38	U
72-43-5	Methoxychlor	1.9	U
1031-07-8	Endosulfan sulfate	0.38	U
53494-70-5	Endrin ketone	0.68	U
8001-35-2	Toxaphene	14	U

ORGANICS ANALYSIS DATA SHEET

SSAC1

Lab Name: Lancaster Laboratories Contract:Batchnumber: 123010012A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Matrix: (soil/water) SOILLab Sample ID: 6834478Sample wt/vol: 30 (g/ml) gLab File ID: 1P10307.0047.RAW% Moisture: 4.6 Decanted: (Y/N)Date Received: 10/24/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 10/28/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/3/2012Injection Volume: 1 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) Y pH:Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
319-84-6	alpha-BHC	0.18U	
58-89-9	gamma-BHC (Lindane)	0.18U	
319-85-7	beta-BHC	1.0U	
319-86-8	delta-BHC	0.47U	
76-44-8	Heptachlor	0.18U	
309-00-2	Aldrin	0.18U	
1024-57-3	Heptachlor epoxide	0.18U	
5103-74-2	gamma-Chlordane	0.18U	
5103-71-9	alpha-Chlordane	0.18U	
72-55-9	4,4'-DDE	0.35U	
959-98-8	Endosulfan I	0.23U	
60-57-1	Dieldrin	0.35U	
72-20-8	Endrin	0.35U	
72-54-8	4,4'-DDD	0.35U	
33213-65-9	Endosulfan II	0.35U	
50-29-3	4,4'-DDT	0.35U	
7421-93-4	Endrin aldehyde	0.35U	
72-43-5	Methoxychlor	1.8U	
1031-07-8	Endosulfan sulfate	0.35U	
53494-70-5	Endrin ketone	0.63U	
8001-35-2	Toxaphene	13U	

ORGANICS ANALYSIS DATA SHEET

CTSC1

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123010012A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Matrix: (soil/water) SOILLab Sample ID: 6834481Sample wt/vol: 30 (g/ml) gLab File ID: 1P10307.0049.RAW% Moisture: 22.2

Decanted: (Y/N)

Date Received: 10/24/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 10/28/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/3/2012Injection Volume: 1 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) Y pH:Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
319-84-6	alpha-BHC	0.22	U
58-89-9	gamma-BHC (Lindane)	0.22	U
319-85-7	beta-BHC	1.2	U
319-86-8	delta-BHC	0.58	U
76-44-8	Heptachlor	0.22	U
309-00-2	Aldrin	0.22	U
1024-57-3	Heptachlor epoxide	0.22	U
5103-74-2	gamma-Chlordane	0.22	U
5103-71-9	alpha-Chlordane	2.3	U
72-55-9	4,4'-DDE	3.9	
959-98-8	Endosulfan I	0.31	U
60-57-1	Dieldrin	2.8	U
72-20-8	Endrin	0.42	U
72-54-8	4,4'-DDD	1.1	U
33213-65-9	Endosulfan II	0.42	U
50-29-3	4,4'-DDT	2.9	
7421-93-4	Endrin aldehyde	0.42	U
72-43-5	Methoxychlor	2.2	U
1031-07-8	Endosulfan sulfate	0.42	U
53494-70-5	Endrin ketone	0.77	U
8001-35-2	Toxaphene	15	U

ORGANICS ANALYSIS DATA SHEET

CTSC1MS

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123010012A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Matrix: (soil/water) SOILLab Sample ID: 6834481Sample wt/vol: 30 (g/ml) gLab File ID: 1P10307.0050.RAW% Moisture: 22.2

Decanted: (Y/N)

Date Received: 10/24/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 10/28/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/3/2012Injection Volume: 1 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) Y pH:Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
319-84-6	alpha-BHC	3.6	
58-89-9	gamma-BHC (Lindane)	3.6	
319-85-7	beta-BHC	3.8	
319-86-8	delta-BHC	3.7	
76-44-8	Heptachlor	4.3	
309-00-2	Aldrin	3.5	
1024-57-3	Heptachlor epoxide	3.5	
5103-74-2	gamma-Chlordane	4.1	
5103-71-9	alpha-Chlordane	3.6	
72-55-9	4,4'-DDE	10	
959-98-8	Endosulfan I	3.5	
60-57-1	Dieldrin	7.4	
72-20-8	Endrin	7.4	
72-54-8	4,4'-DDD	7.8	
33213-65-9	Endosulfan II	7.0	
50-29-3	4,4'-DDT	9.2	
7421-93-4	Endrin aldehyde	6.2	
72-43-5	Methoxychlor	43	
1031-07-8	Endosulfan sulfate	6.8	
53494-70-5	Endrin ketone	6.3	

ORGANICS ANALYSIS DATA SHEET

CTSC1MSD

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123010012A
 Lab Code: Case No.: SAS No.: SDG No.: TAP01

Matrix: (soil/water) SOILLab Sample ID: 6834481Sample wt/vol: 30 (g/ml) gLab File ID: 1P10307.0051.RAW% Moisture: 22.2 Decanted: (Y/N)Date Received: 10/24/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 10/28/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/3/2012Injection Volume: 1 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) Y pH:Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
319-84-6	alpha-BHC	3.4	
58-89-9	gamma-BHC (Lindane)	3.6	
319-85-7	beta-BHC	3.5	
319-86-8	delta-BHC	3.7	
76-44-8	Heptachlor	4.1	
309-00-2	Aldrin	3.5	
1024-57-3	Heptachlor epoxide	3.5	
5103-74-2	gamma-Chlordane	3.8	
5103-71-9	alpha-Chlordane	3.6	
72-55-9	4,4'-DDE	11	
959-98-8	Endosulfan I	3.4	
60-57-1	Dieldrin	7.2	
72-20-8	Endrin	7.1	
72-54-8	4,4'-DDD	7.5	
33213-65-9	Endosulfan II	6.9	
50-29-3	4,4'-DDT	9.0	
7421-93-4	Endrin aldehyde	6.0	
72-43-5	Methoxychlor	42	
1031-07-8	Endosulfan sulfate	6.6	
53494-70-5	Endrin ketone	6.0	

ORGANICS ANALYSIS DATA SHEET

PBLK12301

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123010012A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water) SOILLab Sample ID: BLANKASample wt/vol: 30 (g/ml) gLab File ID: 1P10307.0040.RAW

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 10/28/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/3/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) Y pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
118-74-1	Hcb	0.21	U
319-84-6	alpha-BHC	0.17	U
58-89-9	gamma-BHC (Lindane)	0.17	U
319-85-7	beta-BHC	0.96	U
319-86-8	delta-BHC	0.45	U
76-44-8	Heptachlor	0.17	U
309-00-2	Aldrin	0.17	U
297-78-9	Telodrin	0.40	U
3424-82-6	o,p-DDE	0.33	U
1024-57-3	Heptachlor epoxide	0.17	U
5103-74-2	gamma-Chlordane	0.17	U
5103-71-9	alpha-Chlordane	0.17	U
72-55-9	4,4'-DDE	0.33	U
959-98-8	Endosulfan I	0.22	U
53-19-0	o,p-DDD	0.33	U
60-57-1	Dieldrin	0.33	U
789-02-6	o,p-DDT	0.33	U
72-20-8	Endrin	0.33	U
72-54-8	4,4'-DDD	0.33	U
143-50-0	Kepone	2.3	U
33213-65-9	Endosulfan II	0.33	U
50-29-3	4,4'-DDT	0.33	U
7421-93-4	Endrin aldehyde	0.33	U
72-43-5	Methoxychlor	1.7	U
2385-85-5	Mirex	0.35	U
1031-07-8	Endosulfan sulfate	0.33	U
53494-70-5	Endrin ketone	0.60	U
57-74-9	Chlordane (Technical)	4.0	U
8001-35-2	Toxaphene	12	U

ORGANICS ANALYSIS DATA SHEET

LCS12301

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123010012A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water) SOILLab Sample ID: LCSASample wt/vol: 30 (g/ml) gLab File ID: 1P10307.0041.RAW

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 10/28/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/3/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) Y pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
319-84-6	alpha-BHC	3.4	
58-89-9	gamma-BHC (Lindane)	3.4	
319-85-7	beta-BHC	3.3	
319-86-8	delta-BHC	3.4	
76-44-8	Heptachlor	3.2	
309-00-2	Aldrin	3.2	
1024-57-3	Heptachlor epoxide	3.3	
5103-74-2	gamma-Chlordane	3.4	
5103-71-9	alpha-Chlordane	3.3	
72-55-9	4,4'-DDE	6.5	
959-98-8	Endosulfan I	3.3	
60-57-1	Dieldrin	6.9	
72-20-8	Endrin	6.6	
72-54-8	4,4'-DDD	6.7	
33213-65-9	Endosulfan II	6.8	
50-29-3	4,4'-DDT	7.1	
7421-93-4	Endrin aldehyde	6.0	
72-43-5	Methoxychlor	36	
1031-07-8	Endosulfan sulfate	6.8	
53494-70-5	Endrin ketone	6.6	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

SSTC1

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123010012A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Lab Sample ID: 6834475Date(s) Analyzed: 11/3/2012 11/3/2012Instrument ID (1): H9191AInstrument ID (2): H9191BGC Column (1): RTX-CLPID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
4,4'-DDD	1	5.28	5.24	5.28	0.57	15.1
	2	5.35	5.31	5.35	0.49	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

CTSC1

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123010012A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Lab Sample ID: 6834481Date(s) Analyzed: 11/3/2012 11/3/2012Instrument ID (1): H9191AInstrument ID (2): H9191BGC Column (1): RTX-CLPID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
4,4'-DDE	1	4.82	4.80	4.84	3.9	29.4
	2	4.91	4.89	4.93	2.9	
4,4'-DDD	1	5.26	5.24	5.28	1.1	30.4
	2	5.35	5.31	5.35	0.81	
4,4'-DDT	1	5.48	5.46	5.50	2.6	10.9
	2	5.57	5.55	5.59	2.9	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

LCS12301

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123010012A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Lab Sample ID: LCSADate(s) Analyzed: 11/3/201211/3/2012Instrument ID (1): H9191AInstrument ID (2): H9191BGC Column (1): RTX-CLPID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
alpha-BHC	1	3.12	3.09	3.13	3.3	3.0
	2	3.09	3.07	3.11	3.4	
gamma-BHC (Lindane)	1	3.37	3.35	3.39	3.4	0.0
	2	3.38	3.36	3.40	3.4	
beta-BHC	1	3.44	3.41	3.45	3.3	0.0
	2	3.44	3.42	3.46	3.3	
delta-BHC	1	3.59	3.57	3.61	3.3	3.0
	2	3.69	3.67	3.71	3.4	
Heptachlor	1	3.78	3.76	3.80	3.2	0.0
	2	3.74	3.72	3.76	3.2	
Aldrin	1	4.05	4.03	4.06	3.2	0.0
	2	4.03	4.01	4.05	3.2	
Heptachlor epoxide	1	4.57	4.54	4.58	3.3	0.0
	2	4.52	4.50	4.53	3.3	
gamma-Chlordane	1	4.67	4.64	4.68	3.2	6.1
	2	4.67	4.63	4.66	3.4	
alpha-Chlordane	1	4.77	4.75	4.79	3.3	0.0
	2	4.79	4.76	4.80	3.3	
4,4'-DDE	1	4.83	4.80	4.84	6.5	0.0
	2	4.91	4.89	4.93	6.5	
Endosulfan I	1	4.89	4.86	4.90	3.2	3.1
	2	4.83	4.81	4.85	3.3	
Dieldrin	1	5.07	5.05	5.09	6.9	2.9
	2	5.04	5.02	5.06	6.7	
Endrin	1	5.25	5.22	5.26	6.6	1.5
	2	5.27	5.25	5.29	6.5	
4,4'-DDD	1	5.28	5.24	5.28	6.7	0.0
	2	5.35	5.31	5.35	6.7	
Endosulfan II	1	5.41	5.39	5.43	6.8	1.5
	2	5.43	5.41	5.44	6.7	
4,4'-DDT	1	5.49	5.46	5.50	7.1	0.0
	2	5.57	5.55	5.59	7.1	
Endrin aldehyde	1	5.71	5.69	5.73	5.9	1.7
	2	5.67	5.65	5.69	6.0	
Methoxychlor	1	5.82	5.80	5.84	36	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

LCS12301

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123010012A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Lab Sample ID: LCSADate(s) Analyzed: 11/3/2012 11/3/2012Instrument ID (1): H9191AInstrument ID (2): H9191BGC Column (1): RTX-CLPID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Methoxychlor	2	6.04	6.02	6.06	36	0.0
Endosulfan sulfate	1	6.01	5.99	6.03	6.7	1.5
	2	5.86	5.84	5.88	6.8	
Endrin ketone	1	6.21	6.18	6.22	6.6	1.5
	2	6.23	6.20	6.24	6.5	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

CTSC1MS

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123010012A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Lab Sample ID: 6834481Date(s) Analyzed: 11/3/201211/3/2012Instrument ID (1): H9191AInstrument ID (2): H9191BGC Column (1): RTX-CLPID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
alpha-BHC	1	3.11	3.09	3.13	3.3	8.7
	2	3.09	3.07	3.11	3.6	
gamma-BHC (Lindane)	1	3.37	3.35	3.39	3.6	0.0
	2	3.37	3.36	3.40	3.6	
beta-BHC	1	3.43	3.41	3.45	3.8	14.1
	2	3.44	3.42	3.46	3.3	
delta-BHC	1	3.59	3.57	3.61	3.7	0.0
	2	3.69	3.67	3.71	3.7	
Heptachlor	1	3.78	3.76	3.80	4.3	9.8
	2	3.74	3.72	3.76	3.9	
Aldrin	1	4.05	4.03	4.06	3.3	5.9
	2	4.03	4.01	4.05	3.5	
Heptachlor epoxide	1		4.54	4.58	3.4	2.9
	2		4.51	4.53	3.5	
gamma-Chlordane	1	4.66	4.64	4.68	3.4	18.7
	2	4.67	4.63	4.66	4.1	
alpha-Chlordane	1	4.77	4.75	4.79	3.6	0.0
	2	4.78	4.76	4.80	3.6	
4,4'-DDE	1	4.82	4.80	4.84	10	10.5
	2	4.91	4.89	4.93	9.0	
Endosulfan I	1	4.88	4.86	4.90	3.4	2.9
	2	4.83	4.81	4.85	3.5	
Dieldrin	1	5.07	5.05	5.09	7.3	1.4
	2	5.04	5.02	5.06	7.4	
Endrin	1	5.24	5.22	5.26	6.9	7.0
	2	5.27	5.25	5.29	7.4	
4,4'-DDD	1	5.28	5.24	5.28	6.8	13.7
	2	5.35	5.31	5.35	7.8	
Endosulfan II	1	5.41	5.39	5.43	7.0	7.4
	2	5.42	5.41	5.44	6.5	
4,4'-DDT	1	5.48	5.46	5.50	9.0	2.2
	2	5.57	5.55	5.59	9.2	
Endrin aldehyde	1	5.71	5.69	5.73	6.1	1.6
	2	5.66	5.65	5.69	6.2	
Methoxychlor	1	5.82	5.80	5.84	41	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

CTSC1MS

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123010012A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Lab Sample ID: 6834481Date(s) Analyzed: 11/3/2012 11/3/2012Instrument ID (1): H9191AInstrument ID (2): H9191BGC Column (1): RTX-CLPID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Methoxychlor	2	6.04	6.02	6.06	43	4.8
Endosulfan sulfate	1	6.01	5.99	6.03	6.8	1.5
	2	5.86	5.84	5.88	6.7	
Endrin ketone	1	6.20	6.18	6.22	6.3	19.1
	2	6.22	6.20	6.24	5.2	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

CTSC1MSD

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123010012A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Lab Sample ID: 6834481Date(s) Analyzed: 11/3/2012 11/3/2012Instrument ID (1): H9191AInstrument ID (2): H9191BGC Column (1): RTX-CLPID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
alpha-BHC	1	3.11	3.09	3.13	3.3	3.0
	2	3.09	3.07	3.11	3.4	
gamma-BHC (Lindane)	1	3.37	3.35	3.39	3.5	2.8
	2	3.38	3.36	3.40	3.6	
beta-BHC	1	3.44	3.41	3.45	3.5	5.9
	2	3.44	3.42	3.46	3.3	
delta-BHC	1	3.59	3.57	3.61	3.6	2.7
	2	3.69	3.67	3.71	3.7	
Heptachlor	1	3.78	3.76	3.80	4.1	10.3
	2	3.74	3.72	3.76	3.7	
Aldrin	1	4.05	4.03	4.06	3.2	9.0
	2	4.03	4.01	4.05	3.5	
Heptachlor epoxide	1		4.54	4.58	3.3	5.9
	2	4.52	4.50	4.53	3.5	
gamma-Chlordane	1	4.67	4.64	4.68	3.2	17.1
	2	4.67	4.63	4.66	3.8	
alpha-Chlordane	1	4.77	4.75	4.79	3.4	5.7
	2	4.78	4.76	4.80	3.6	
4,4'-DDE	1	4.83	4.80	4.84	11	23.4
	2	4.91	4.89	4.93	8.7	
Endosulfan I	1	4.88	4.86	4.90	3.1	9.2
	2	4.83	4.81	4.85	3.4	
Dieldrin	1	5.07	5.05	5.09	6.8	5.7
	2	5.04	5.02	5.06	7.2	
Endrin	1	5.24	5.22	5.26	6.6	7.3
	2	5.27	5.25	5.29	7.1	
4,4'-DDD	1	5.28	5.24	5.28	6.5	14.3
	2	5.35	5.31	5.35	7.5	
Endosulfan II	1	5.41	5.39	5.43	6.9	7.5
	2	5.43	5.41	5.44	6.4	
4,4'-DDT	1	5.49	5.46	5.50	8.7	3.4
	2	5.57	5.55	5.59	9.0	
Endrin aldehyde	1	5.71	5.69	5.73	5.5	8.7
	2	5.67	5.65	5.69	6.0	
Methoxychlor	1	5.82	5.80	5.84	41	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

CTSC1MSD

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123010012A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Lab Sample ID: 6834481Date(s) Analyzed: 11/3/2012 11/3/2012Instrument ID (1): H9191AInstrument ID (2): H9191BGC Column (1): RTX-CLPID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Methoxychlor	2	6.04	6.02	6.06	42	2.4
Endosulfan sulfate	1	6.01	5.99	6.03	6.5	1.5
	2	5.86	5.84	5.88	6.6	
Endrin ketone	1	6.20	6.18	6.22	6.0	16.2
	2	6.22	6.20	6.24	5.1	

Polychlorinated Biphenyls (PCBs) Data

Case Narrative/Conformance Summary

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP01

Pesticide Residue Analysis

Fraction: Polychlorinated Biphenyls (PCBs)

Sample #	Client ID	Matrix		DF	Comments
		Liquid	Solid		
6834469	CM-TSC1		X	1	
6834472	TCN-STC1		X	1	
6834475	NYSS-STC1		X	1	
6834478	NYSS-SAC1		X	1	
6834481	POC-TSC1		X	1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

Sample numbers: 6834469, 6834472, 6834475, 6834478, 6834481: Analysis: 10736
For dual column analyses in which the calibration (initial and/or continuing) response is outside the acceptance criteria on one column and within criteria on the second column affected analytes are reported from the compliant column. The sample raw data identifies the column used to report each analyte.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

MS/MSD

Matrix QC may not be included if site-specific QC were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, laboratory spike data (LCS) are provided.

SAMPLE ANALYSIS:

Sample number: 6834469: Analysis: 10736
Reporting limits were raised due to interference from the sample matrix.

No problems were encountered with the analysis of the samples.

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply

SDG: TAP01

Pesticide Residue Analysis

Fraction: Polychlorinated Biphenyls (PCBs)

Additional Comments

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E = out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Narrative Reviewed and Approved 11/1/12 by
(Date)

Nancy E. Saunders

Nancy E. Saunders
Specialist

Sample Data

TAP01 0168

ORGANICS ANALYSIS DATA SHEET

MTSC1

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 122980012A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Matrix: (soil/water) SOILLab Sample ID: 6834469Sample wt/vol: 30 (g/ml) gLab File ID: 8P20292.0019.RAW% Moisture: 6.9

Decanted: (Y/N)

Date Received: 10/24/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 10/24/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 10/25/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	8.6	U
11104-28-2	Aroclor-1221	4.9	U
11141-16-5	Aroclor-1232	8.6	U
53469-21-9	Aroclor-1242	7.5	U
12672-29-6	Aroclor-1248	8.6	U
11097-69-1	Aroclor-1254	6.4	U
11096-82-5	Aroclor-1260	5.6	U

ORGANICS ANALYSIS DATA SHEET

NSTC1

Lab Name: Lancaster Laboratories Contract: Batchnumber: 122980012A
 Lab Code: Case No.: SAS No.: SDG No.: TAP01

Matrix: (soil/water) SOILLab Sample ID: 6834472Sample wt/vol: 30 (g/ml) gLab File ID: 8P20292.0020.RAW% Moisture: 6.1 Decanted: (Y/N)Date Received: 10/24/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 10/24/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 10/25/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	3.8	U
11104-28-2	Aroclor-1221	4.9	U
11141-16-5	Aroclor-1232	8.5	U
53469-21-9	Aroclor-1242	3.5	U
12672-29-6	Aroclor-1248	3.5	U
11097-69-1	Aroclor-1254	3.5	U
11096-82-5	Aroclor-1260	5.2	U

ORGANICS ANALYSIS DATA SHEET

SSTC1

Lab Name: Lancaster Laboratories Contract: Batchnumber: 122980012A
 Lab Code: Case No.: SAS No.: SDG No.: TAP01

Matrix: (soil/water) SOILLab Sample ID: 6834475Sample wt/vol: 30 (g/ml) gLab File ID: 8P20292.0021.RAW% Moisture: 13.5 Decanted: (Y/N)Date Received: 10/24/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 10/24/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 10/25/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	4.2	U
11104-28-2	Aroclor-1221	5.3	U
11141-16-5	Aroclor-1232	9.2	U
53469-21-9	Aroclor-1242	3.8	U
12672-29-6	Aroclor-1248	3.8	U
11097-69-1	Aroclor-1254	3.8	U
11096-82-5	Aroclor-1260	5.7	U

ORGANICS ANALYSIS DATA SHEET

SSAC1

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 122980012A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP01Matrix: (soil/water) SOILLab Sample ID: 6834478Sample wt/vol: 30 (g/ml) gLab File ID: 8P20292.0022.RAW% Moisture: 4.6

Decanted: (Y/N)

Date Received: 10/24/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 10/24/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 10/25/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	3.8	U
11104-28-2	Aroclor-1221	4.8	U
11141-16-5	Aroclor-1232	8.4	U
53469-21-9	Aroclor-1242	3.5	U
12672-29-6	Aroclor-1248	3.5	U
11097-69-1	Aroclor-1254	3.5	U
11096-82-5	Aroclor-1260	5.1	U

ORGANICS ANALYSIS DATA SHEET

CTSC1

Lab Name: Lancaster Laboratories Contract: Batchnumber: 122980012A
 Lab Code: Case No.: SAS No.: SDG No.: TAP01

Matrix: (soil/water) SOILLab Sample ID: 6834481Sample wt/vol: 30 (g/ml) gLab File ID: 8P20292.0023.RAW% Moisture: 22.2 Decanted: (Y/N)Date Received: 10/24/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 10/24/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 10/25/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	4.6U	
11104-28-2	Aroclor-1221	5.9U	
11141-16-5	Aroclor-1232	10U	
53469-21-9	Aroclor-1242	4.2U	
12672-29-6	Aroclor-1248	4.2U	
11097-69-1	Aroclor-1254	4.2U	
11096-82-5	Aroclor-1260	6.3U	

ORGANICS ANALYSIS DATA SHEET

PBLK12298

Lab Name: Lancaster Laboratories Contract:Batchnumber: 122980012A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water) SOILLab Sample ID: BLANKASample wt/vol: 30 (g/ml) gLab File ID: 7P20292.0007.RAW

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 10/24/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 10/25/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	3.6	U
11104-28-2	Aroclor-1221	4.6	U
11141-16-5	Aroclor-1232	8.0	U
53469-21-9	Aroclor-1242	3.3	U
12672-29-6	Aroclor-1248	3.3	U
11097-69-1	Aroclor-1254	3.3	U
11096-82-5	Aroclor-1260	4.9	U
37324-23-5	Aroclor-1262	3.3	U
11100-14-4	Aroclor-1268	3.3	U
1336-36-3	Total PCBs	3.3	U

ORGANICS ANALYSIS DATA SHEET

LCS12298

Lab Name: Lancaster Laboratories Contract: Batchnumber: 122980012A

Lab Code: Case No.: SAS No.: SDG No.:

Matrix: (soil/water) SOILLab Sample ID: LCSASample wt/vol: 30 (g/ml) gLab File ID: 7P20292.0008.RAW

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 10/24/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 10/25/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	170	
11096-82-5	Aroclor-1260	170	
1336-36-3	Total PCBs	340	P

IDENTIFICATION SUMMARY FOR MULTICOMPONENT ANALYTES

LCS12298

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 122980012A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Lab Sample ID: LCSADate(s) Analyzed: 10/25/201210/25/2012Instrument ID (1): 17342AInstrument ID (2): 17342BGC Column (1): ZBmultiR1ID: 30 (mm)GC Column (2): ZBmultiR2ID: 30 (mm)

ANALYTE	PEAK	RT	RT WINDOW		CONCENTRATION	MEAN CONCENTRATION	%D			
			FROM	TO						
Aroclor-1016 COLUMN 1	1	3.41	3.39	3.43	170	170				
	2	3.63	3.61	3.65	180					
	3	3.75	3.73	3.77	160					
	4	3.93	3.92	3.96	170					
	5	4.05	4.03	4.07	160					
	6	4.12	4.10	4.14	160					
	Aroclor-1016 COLUMN 2	1	3.16	3.14	3.18			180	190	11.1
		2	3.37	3.35	3.39			120		
		3	3.50	3.48	3.52			190		
		4	3.66	3.64	3.68			230		
		5	3.69	3.68	3.72			200		
6		3.77	3.76	3.80	200					
Aroclor-1260 COLUMN 1	1	5.08	5.06	5.10	160	170				
	2	5.38	5.36	5.40	170					
	3	5.49	5.48	5.52	170					
	4	5.60	5.58	5.62	170					
	5	5.72	5.71	5.74	170					
	6	5.96	5.94	5.98	190					
	Aroclor-1260 COLUMN 2	1	4.68	4.66	4.70			210	220	25.6
		2	4.83	4.81	4.85			230		
		3	5.08	5.06	5.10			210		
		4	5.31	5.29	5.33			210		
		5	5.50	5.48	5.52			250		
6		5.76	5.75	5.79	220					

Metals in Solid Data

Case Narrative/Conformance Summary

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP01

ICP Metals

Fraction: Metals in Solid

Sample #	Client ID	Matrix		Comments
		Liquid	Solid	
6834469	CM-TSC1		X	
6834472	TCN-STC1		X	
6834475	NYSS-STC1		X	
6834478	NYSS-SAC1		X	
6834481	POC-TSC1		X	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

MS/MSD

Method defined actions are taken for any failed matrix QC.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

The final concentration (mg/Kg) is obtained using the following calculation:

Instrument reading (mg/l) x dilution factor x $\frac{\text{final volume}}{\text{initial weight}}$ ÷ $\frac{\% \text{ solids}}{100}$

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP01

ICP Metals

Fraction: Metals in Solid

(Sample number(s): 6834475: Analysis: 06925)

Reporting limits were raised due to interference from the sample matrix.

Abbreviation Key

BKG - Background	AF - Cold Vapor Atomic Fluorescence
DUP - Duplicate	U - Below MDL
MS - Matrix Spike	B - Below LOQ
MSD - Matrix Spike Dup	N - Matrix Spike out of specifications
B - Blank	* - Duplicate out of specifications
Q - Laboratory Control Sample	E - Matrix Effects exist as proven by Serial Dilution or Spiked Dilution
Y - Laboratory Control Sample Duplicate	A - Post Digestion Spike
P - ICP Atomic Emission Spectrometer	L - Serial Dilution
MS - ICP Mass Spectrometry	R - Internal Standard Relative Intensity OOS
CV - Cold Vapor	NR - Not Required

Narrative Reviewed and Approved 11.8.12 by
(Date)


Betty L. Umble
Specialist

Sample Data



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Laboratories

QUALITY ASSURANCE SUMMARY

FORM 1

INORGANIC ANALYSIS DATA SHEET

SDG No.: TAP01

Matrix: SOIL

Level (low/med): LOW

Lab Sample ID: 6834469

% Solids: 93.1

Concentration Units: MG/KG

Date Received: 10/24/2012

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	16800			P
7440-36-0	Antimony	0.60	B		P
7440-38-2	Arsenic	6.8			P
7440-39-3	Barium	89.7			P
7440-41-7	Beryllium	0.95			P
7440-43-9	Cadmium	0.25	B		P
7440-70-2	Calcium	3530			P
7440-47-3	Chromium	20.5			P
7440-48-4	Cobalt	6.5			P
7440-50-8	Copper	56.7			P
7439-89-6	Iron	19100			P
7439-92-1	Lead	17.0			P
7439-95-4	Magnesium	3670			P
7439-96-5	Manganese	552			P
7439-97-6	Mercury	0.044	B		CV
7440-02-0	Nickel	13.4			P
7440-09-7	Potassium	2700			P
7782-49-2	Selenium	0.75	U		P
7440-22-4	Silver	0.31	B		P
7440-23-5	Sodium	344			P
7440-28-0	Thallium	0.39	U		P
7440-62-2	Vanadium	27.6			P
7440-66-6	Zinc	78.5			P

Comments:

METHODS:

P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence
NR = Not Required

CONCENTRATION QUALIFIERS:

U = Below MDL,
B = Below LOQ



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QUALITY ASSURANCE SUMMARY

FORM 1

INORGANIC ANALYSIS DATA SHEET

SDG No.: TAP01

Matrix: SOIL

Level (low/med): LOW

Lab Sample ID: 6834472

% Solids: 93.9

Concentration Units: MG/KG

Date Received: 10/24/2012

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23500			P
7440-36-0	Antimony	0.79	B		P
7440-38-2	Arsenic	2.2			P
7440-39-3	Barium	20.1			P
7440-41-7	Beryllium	1.1			P
7440-43-9	Cadmium	0.37	B		P
7440-70-2	Calcium	16800			P
7440-47-3	Chromium	5.7			P
7440-48-4	Cobalt	17.1			P
7440-50-8	Copper	138			P
7439-89-6	Iron	28600			P
7439-92-1	Lead	3.7			P
7439-95-4	Magnesium	7020			P
7439-96-5	Manganese	225			P
7439-97-6	Mercury	0.011	U		CV
7440-02-0	Nickel	14.9			P
7440-09-7	Potassium	855			P
7782-49-2	Selenium	0.76	U		P
7440-22-4	Silver	0.25	B		P
7440-23-5	Sodium	3850			P
7440-28-0	Thallium	0.39	U		P
7440-62-2	Vanadium	108			P
7440-66-6	Zinc	46.5			P

Comments:

METHODS:

P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence
NR = Not Required

CONCENTRATION QUALIFIERS:

U = Below MDL,
B = Below LOQ



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QUALITY ASSURANCE SUMMARY

FORM 1

INORGANIC ANALYSIS DATA SHEET

SDG No.: TAP01

Matrix: SOIL

Level (low/med): LOW

Lab Sample ID: 6834475

% Solids: 86.5

Concentration Units: MG/KG

Date Received: 10/24/2012

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	17300			P
7440-36-0	Antimony	1.5	B		P
7440-38-2	Arsenic	1.8	B		P
7440-39-3	Barium	191			P
7440-41-7	Beryllium	0.81			P
7440-43-9	Cadmium	0.82			P
7440-70-2	Calcium	3640			P
7440-47-3	Chromium	33.1			P
7440-48-4	Cobalt	17.3			P
7440-50-8	Copper	41.9			P
7439-89-6	Iron	29800			P
7439-92-1	Lead	5.6			P
7439-95-4	Magnesium	8060			P
7439-96-5	Manganese	181			P
7439-97-6	Mercury	0.012	U		CV
7440-02-0	Nickel	30.8			P
7440-09-7	Potassium	10300			P
7782-49-2	Selenium	0.83	U		P
7440-22-4	Silver	0.16	U		P
7440-23-5	Sodium	318			P
7440-28-0	Thallium	2.1	B		P
7440-62-2	Vanadium	50.4			P
7440-66-6	Zinc	394			P

Comments:

METHODS:

P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence
NR = Not Required

CONCENTRATION QUALIFIERS:

U = Below MDL,
B = Below LOQ



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QUALITY ASSURANCE SUMMARY

FORM 1

INORGANIC ANALYSIS DATA SHEET

SDG No.: TAP01

Matrix: SOIL

Level (low/med): LOW

Lab Sample ID: 6834478

% Solids: 95.4

Concentration Units: MG/KG

Date Received: 10/24/2012

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1770			P
7440-36-0	Antimony	0.52	U		P
7440-38-2	Arsenic	3.1			P
7440-39-3	Barium	4.5			P
7440-41-7	Beryllium	0.22	B		P
7440-43-9	Cadmium	0.038	B		P
7440-70-2	Calcium	2500			P
7440-47-3	Chromium	5.3			P
7440-48-4	Cobalt	1.7			P
7440-50-8	Copper	1.8			P
7439-89-6	Iron	6880			P
7439-92-1	Lead	2.3			P
7439-95-4	Magnesium	1010			P
7439-96-5	Manganese	55.3			P
7439-97-6	Mercury	0.011	U		CV
7440-02-0	Nickel	3.5			P
7440-09-7	Potassium	768			P
7782-49-2	Selenium	0.75	U		P
7440-22-4	Silver	0.15	U		P
7440-23-5	Sodium	433			P
7440-28-0	Thallium	0.39	U		P
7440-62-2	Vanadium	7.6			P
7440-66-6	Zinc	10.4			P

Comments:

METHODS:

P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence
NR = Not Required

CONCENTRATION QUALIFIERS:

U = Below MDL,
B = Below LOQ



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QUALITY ASSURANCE SUMMARY

FORM 1

INORGANIC ANALYSIS DATA SHEET

SDG No.: TAP01

Matrix: SOIL

Level (low/med): LOW

Lab Sample ID: 6834481

% Solids: 77.8

Concentration Units: MG/KG

Date Received: 10/24/2012

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	20900			P
7440-36-0	Antimony	0.81	B		P
7440-38-2	Arsenic	7.9			P
7440-39-3	Barium	119			P
7440-41-7	Beryllium	1.3			P
7440-43-9	Cadmium	0.59	B		P
7440-70-2	Calcium	7730			P
7440-47-3	Chromium	24.8			P
7440-48-4	Cobalt	13.3			P
7440-50-8	Copper	17.9			P
7439-89-6	Iron	31600			P
7439-92-1	Lead	27.0			P
7439-95-4	Magnesium	4750			P
7439-96-5	Manganese	959			P
7439-97-6	Mercury	0.062	B		CV
7440-02-0	Nickel	17.6			P
7440-09-7	Potassium	3130			P
7782-49-2	Selenium	0.92	U		P
7440-22-4	Silver	0.18	U		P
7440-23-5	Sodium	113	B		P
7440-28-0	Thallium	0.47	U		P
7440-62-2	Vanadium	40.4			P
7440-66-6	Zinc	80.8			P

Comments:

METHODS:

P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence
NR = Not Required

CONCENTRATION QUALIFIERS:

U = Below MDL,
B = Below LOQ

QUALITY CONTROL REFERENCE LIST

SDG No.: TAP01

Matrix: SOIL

<u>Analyte</u>	<u>Batch ID</u>	<u>Lab Sample ID</u>
Antimony	P26608C	
Arsenic		
Barium		
Beryllium		
Cadmium		
Chromium		
Cobalt		
Copper		
Lead		
Molybdenum		
Nickel		
Selenium		
Silver		
Thallium		
Vanadium		
Zinc		

LEGEND:

BKG = Background	B = Blank
DUP = Duplicate	Q = Laboratory Control Sample
MS = Matrix Spike	Y = Laboratory Control Sample Duplicate
MSD = Matrix Spike Duplicate	

SDG No.: TAP01

Matrix: SOIL

<u>Analyte</u>	<u>Batch ID</u>	<u>Lab Sample ID</u>
Aluminum	P29808C	*33808BKG
Antimony		*33808MS
Arsenic		*33808MSD
Barium		*33808DUP
Beryllium		6834469
Cadmium		6834472
Calcium		6834475
Chromium		6834478
Cobalt		6834481
Copper		P29808CB
Iron		P29808CQ
Lead		
Magnesium		
Manganese		
Nickel		
Potassium		
Selenium		
Silver		
Sodium		
Thallium		
Vanadium		
Zinc		

LEGEND:

BKG = Background

DUP = Duplicate

MS = Matrix Spike

MSD = Matrix Spike Duplicate

B = Blank

Q = Laboratory Control Sample

Y = Laboratory Control Sample Duplicate



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QUALITY CONTROL REFERENCE LIST

SDG No.: TAP01

Matrix: SOIL

Analyte
Mercury

Batch ID
P26611B

Lab Sample ID

LEGEND:

BKG = Background

DUP = Duplicate

MS = Matrix Spike

MSD = Matrix Spike Duplicate

B = Blank

Q = Laboratory Control Sample

Y = Laboratory Control Sample Duplicate

TAP01 0109

Instrumental Wet Chemistry Data

Case Narrative/Conformance Summary

Instrumental Water Quality

Sample #	Matrix		Comments
	Liquid	Solid	
6834469		X	
6834472		X	
6834475		X	
6834478		X	
6834481		X	

ANALYSIS:

There were no dilutions performed for analyses associated with samples in this SDG.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Method defined actions are taken for any failed matrix QC.

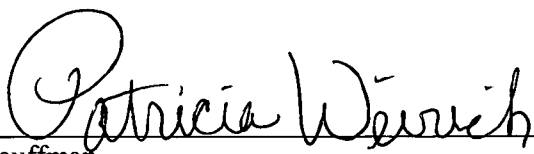
DATA INTERPRETATION:

No further interpretation is necessary for the data submitted.

Abbreviation Key

U = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
R = Matrix Spike (MS)	MDL = Method Detection Limit
M = Matrix Spike Duplicate (MSD)	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	NA = Not Applicable
HS = High Spike	ME = Method
LS = Low Spike	CO = Colorimetric
SS = Soluble Spike	G = Gravimetric
IS = Insoluble Spike	IR = Infrared Spectrophotometry
ISD = Insoluble Spike Duplicate	MTR = Meter
PDS = Post Digestion Spike	OD = Oven Dried
* = Out of Specification	TI = Titration
V = Visual	TOC = Total Organic Carbon
AK = Alpkem	IC = Ion Chromatography
TC = Total Carbon	RA = Rapid Analyzer

Narrative Reviewed and Approved by:


Dana Kauffman

Manager of Data Deliverables

Date 11-7-12

**CLIENT: ExxonMobil Refining & Supply
SDG: TAP01**

Instrumental Water Quality

Sample #	Matrix		Comments
	Liquid	Solid	
6834469		X	
6834472		X	
6834475		X	
6834478		X	
6834481		X	

ANALYSIS:

There were no dilutions performed for analyses associated with samples in this SDG.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Method defined actions are taken for any failed matrix QC.

DATA INTERPRETATION:

Due to the limitations of the data package software, form I's are not available for the Instrumental Analysis data. Please refer to the analysis reports for this information.

Amenable Cyanide = total cyanide result – amenable cyanide result

Total Cyanide (soil) = result X dilution factor X 50 ml / weight of sample (g)

Abbreviation Key

U = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
R = Matrix Spike (MS)	MDL = Method Detection Limit
M = Matrix Spike Duplicate (MSD)	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	NA = Not Applicable
HS = High Spike	ME = Method
LS = Low Spike	CO = Colorimetric
SS = Soluble Spike	G = Gravimetric
IS = Insoluble Spike	IR = Infrared Spectrophotometry
ISD = Insoluble Spike Duplicate	MTR = Meter
PDS = Post Digestion Spike	OD = Oven Dried
* = Out of Specification	TI = Titration
V = Visual	TOC = Total Organic Carbon
AK = Alpkem	IC = Ion Chromatography
TC = Total Carbon	RA = Rapid Analyzer



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CLIENT: ExxonMobil Refining & Supply
SDG: TAP01

Narrative Reviewed and Approved by:

A handwritten signature in black ink that reads "Patricia Weirich". The signature is fluid and cursive.

Patricia Weirich
Senior Administrator

Date 11-9-12

Dana Kauffman
Manager of Data Deliverables

Wet Chemistry Data

Case Narrative/Conformance Summary

Miscellaneous Wet Chemistry

Sample #	Matrix		Comments
	Liquid	Solid	
6834469		X	
6834472		X	
6834475		X	
6834478		X	
6834481		X	

ANALYSIS:

Dilutions are listed in the table below:

Samples	Hexavalent Chromium (SOLIDS)
6834481	DF5
6834478	IS/ DF25, PDS/ DF4
LCS-IS	DF25

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Method defined actions are taken for any failed matrix QC.

DATA INTERPRETATION:

Due to the limitations of the data package software, there are no form 1's available for the Wet Chemistry data. Please refer to the analysis reports for this information.

0425

Hexavalent Chromium calculation is:

$$\text{mg/kgCr}^{+6} = (\text{CV/W}) \times \text{DF}$$

Where:

- C = mg/l Cr⁺⁶ in digestate
- V = Volume of digestate in milliliters
- W = Sample weight digested in grams
- DF = Dilution factor

Abbreviation Key

U = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
R = Matrix Spike (MS)	MDL = Method Detection Limit
M = Matrix Spike Duplicate (MSD)	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	NA = Not Applicable
HS = High Spike	ME = Method
LS = Low Spike	CO = Colorimetric
SS = Soluble Spike	G = Gravimetric



Lancaster
Laboratories

CLIENT: ExxonMobil Refining & Supply
SDG: TAP01

IS = Insoluble Spike	IR = Infrared Spectrophotometry
ISD = Insoluble Spike Duplicate	MTR = Meter
PDS = Post Digestion Spike	OD = Oven Dried
* = Out of Specification	TI = Titration
V = Visual	TOC = Total Organic Carbon
AK = Alpkem	IC = Ion Chromatography
TC = Total Carbon	RA = Rapid Analyzer

Patricia Weirich
Senior Administrator

Narrative Reviewed and Approved by:

Patricia Weirich
Senior Administrator

Date 11-9-12

Dana Kauffman
Manager of Data Deliverables

Moisture Data

MOISTURE

SAMPLE NUMBERS:

<u>Sample #</u>	<u>Sample Code</u>
6834467	CMTS1
6834468	CMTS2
6834469	MTSC1
6834470	CNST1
6834471	CNST2
6834472	NSTC1
6834473	SSST1
6834474	SSST2
6834475	SSTC1
6834476	SSSA1
6834477	SSSA2
6834478	SSAC1
6834479	OCTS1
6834480	OCTS2
6834481	CTSC1

COMMENTS:

The moisture value calculation is:

$$\% \text{ moisture} = \frac{A - B}{C} \times 100$$

Where: A = weight of sample and container before drying
B = weight of sample and container after drying
C = weight of sample before drying

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>LCS</u> <u>%REC</u>	<u>LCSD</u> <u>%REC</u>	<u>LCS/LCSD</u> <u>Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 12298820003B					
Moisture	100		99-101		

Sample Matrix Quality Control

<u>Analysis Name</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 12298820003B				
Moisture	12.2	11.8	3	13

* - Outside of specification

(1) - The result for one or both determinations was less than five times the LOQ.

MOISTURE

Moisture Data Report

Batch #: 12298820003

<u>Sample ID</u>	<u>Batch ID</u>	<u>Analysis#</u>	<u>Tare Wt</u>	<u>Sample Wt</u>	<u>Dry Wt</u>	<u>%Moisture</u>	<u>Analysis Date (Emp#)</u>	<u>Verified Date (Emp#)</u>
LCS 89.5% Std.			1.1131	5.0383	1.6515	89.31	10/24/12 (1201/SWF10/25/12 (0236/CW)	
6834467	B	00111	1.0690	6.9907	7.6010	6.56	10/24/12 (1201/SWF10/25/12 (0236/CW)	
6834468	B	00111	1.0715	8.3750	8.9577	5.84	10/24/12 (1201/SWF10/25/12 (0236/CW)	
6834469	B	00111	1.1029	8.3215	8.8531	6.87	10/24/12 (1201/SWF10/25/12 (0236/CW)	
6834470	B	00111	1.1260	8.5489	9.2042	5.51	10/24/12 (1201/SWF10/25/12 (0236/CW)	
6834471	B	00111	1.1141	9.6791	10.1953	6.18	10/24/12 (1201/SWF10/25/12 (0236/CW)	
6834472	B	00111	1.0911	9.4715	9.9847	6.10	10/24/12 (1201/SWF10/25/12 (0236/CW)	
6834473	B	00111	1.0762	8.6300	9.0031	8.15	10/24/12 (1201/SWF10/25/12 (0236/CW)	
6834474	B	00111	1.1258	8.2700	8.6049	9.56	10/24/12 (1201/SWF10/25/12 (0236/CW)	
6834475	B	00111	1.0886	8.0898	8.0859	13.50	10/24/12 (1201/SWF10/25/12 (0236/CW)	
6834476	B	00111	1.1031	8.5216	9.2557	4.33	10/24/12 (1201/SWF10/25/12 (0236/CW)	
6834477	B	00111	1.0815	7.2200	7.9894	4.32	10/24/12 (1201/SWF10/25/12 (0236/CW)	
6834478	B	00111	1.0866	8.6023	9.2914	4.62	10/24/12 (1201/SWF10/25/12 (0236/CW)	
6834479	B	00111	1.1082	6.2957	5.9813	22.60	10/24/12 (1201/SWF10/25/12 (0236/CW)	
6834480	B	00111	1.1015	6.4881	6.1359	22.41	10/24/12 (1201/SWF10/25/12 (0236/CW)	
6834481	B	00111	1.1057	6.7100	6.3228	22.25	10/24/12 (1201/SWF10/25/12 (0236/CW)	
P831494BKG	B	00111	1.1188	6.6964	6.9968	12.22	10/24/12 (1201/SWF10/25/12 (0236/CW)	
P831494DUP	B	00111	1.0963	6.0607	6.4391	11.85	10/24/12 (1201/SWF10/25/12 (0236/CW)	

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

November 15, 2012

Project: Tappan Terminal

Submittal Date: 11/06/2012

Group Number: 1346822

SDG: TAP02

PO Number: 4410017954

Release Number: TRIFILETTI

State of Sample Origin: NY

Client Sample Description

TCN-ST3 Grab Soil
TCN-ST4 Grab Soil
TCN-STC2 Composite Soil
TCN-ST5 Grab Soil
TCN-ST6 Grab Soil
TCN-ST7 Grab Soil
TCN-ST8 Grab Soil
TCN-STC3 Composite Soil
TCN-STC4 Composite Soil

Lancaster Labs (LLI)

6848626
6848627
6848628
6848629
6848630
6848631
6848632
6848633
6848634

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC
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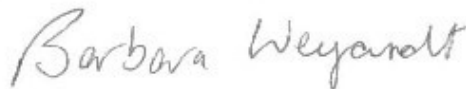
Roux Associates

Data Package Group
Exxon Mobil: Woodard & Curran

Attn: Tracy Bispham

Attn: Anne Proctor

Respectfully Submitted,



Barbara A. Weyandt
Specialist

(717) 556-7264

Project Name: Tappan Terminal
LLI Group #: 1346822

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:**SW-846 8260B, GC/MS Volatiles**

Batch #: B123121AA (Sample number(s): 6848626-6848627, 6848629-6848632 UNSPK: 6848626 BKG: P848149)

The recovery(ies) for the following analyte(s) in the MS was outside the acceptance window: Tetrachloroethene

The duplicate RPD for the following analyte(s) exceeded the acceptance window: Trichloroethene

SW-846 8270C, GC/MS Semivolatiles

Batch #: 12311SLD026 (Sample number(s): 6848628, 6848633-6848634 UNSPK: P847975)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Pyrene, Phenanthrene, Fluoranthene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene

The relative percent difference(s) for the following analyte(s) in the MS/MSD were outside acceptance windows: Benzo(b)fluoranthene

SW-846 8081A, Pesticides/PCBs

Batch #: 123110015A (Sample number(s): 6848628, 6848633-6848634 UNSPK: P845272)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Alpha Chlordane, Alpha BHC, Beta BHC, Gamma BHC - Lindane, Delta BHC, Heptachlor, Aldrin, p,p-DDE, p,p-DDD, Dieldrin, Endrin, Endosulfan I, Endosulfan Sulfate, p,p-DDT, Endosulfan II

The relative percent difference(s) for the following analyte(s) in the MS/MSD were outside acceptance windows: p,p-DDE

The recovery(ies) for one or more surrogates were outside of the QC window for sample(s) MS, MSD

SW-846 8082, Pesticides/PCBs

Sample #s: 6848628, 6848633, 6848634

The % difference for the calibration verification standard is outside the +/- 15% criteria for the analyte(s) listed below. Since the average of the % difference values meets the criteria, the results are reported.
This applies to the following analyte(s): decachlorobiphenyl surrogate

SW-846 6010B, Metals

Batch #: 123115708001 (Sample number(s): 6848628, 6848633-6848634 UNSPK: 6848633 BKG: 6848633)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was outside the acceptance window: Copper, Manganese

The duplicate RPD for the following analyte(s) exceeded the acceptance window: Selenium, Beryllium, Silver, Zinc

Sample Description: TCN-ST3 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848626
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 10:00 by AH

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

CNST3 SDG#: TAP02-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	1.02
10237	Benzene	71-43-2	N.D.	0.0005	1.02
10237	2-Butanone	78-93-3	N.D.	0.004	1.02
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.02
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.02
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.02
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.02
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.02
10237	Chloroform	67-66-3	N.D.	0.001	1.02
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.02
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.02
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.02
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.02
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.02
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.02
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.02
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.02
10237	1,4-Dioxane	123-91-1	N.D.	0.076	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.02
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.02
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.02
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.02
10237	Toluene	108-88-3	N.D.	0.001	1.02
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.02
10237	Trichloroethene	79-01-6	N.D.	0.001	1.02
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.02
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.02
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.02
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.02

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	6.0	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST3 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848626
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 10:00 by AH

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

CNST3 SDG#: TAP02-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123121AA	11/07/2012 12:34	Angela D Sneeringer	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12311820001B	11/06/2012 21:44	Scott W Freisher	1

Sample Description: TCN-ST4 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848627
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 10:05 by AH

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

CNST4 SDG#: TAP02-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	1.03
10237	Benzene	71-43-2	N.D.	0.0005	1.03
10237	2-Butanone	78-93-3	N.D.	0.004	1.03
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.03
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.03
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.03
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.03
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.03
10237	Chloroform	67-66-3	N.D.	0.001	1.03
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.03
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.03
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.03
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.03
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.03
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.03
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.03
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.03
10237	1,4-Dioxane	123-91-1	N.D.	0.076	1.03
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.03
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.03
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.03
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.03
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.03
10237	Toluene	108-88-3	N.D.	0.001	1.03
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.03
10237	Trichloroethene	79-01-6	N.D.	0.001	1.03
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.03
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.03
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.03
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.03
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.03

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	4.8	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST4 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848627
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 10:05 by AH

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

CNST4 SDG#: TAP02-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123121AA	11/07/2012 12:57	Angela D Sneeringer	1.03
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:11	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12311820001B	11/06/2012 21:44	Scott W Freisher	1

Sample Description: TCN-STC2 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848628
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 10:15 by AH

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

NSTC2 SDG#: TAP02-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	Acenaphthene	83-32-9	N.D.	3 ug/kg	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	4 J	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	9 J	3	1
10727	Pentachlorophenol	87-86-5	N.D.	35	1
10727	Phenanthrene	85-01-8	6 J	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides SW-846 8151A					
10401	2,4,5-TP	93-72-1	N.D.	0.78 ug/kg	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.18 ug/kg	1
10738	Alpha BHC	319-84-6	N.D.	0.18	1
10738	Beta BHC	319-85-7	N.D.	1.0	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.18	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.18	1
10738	p,p-DDD	72-54-8	N.D.	0.35	1
10738	p,p-DDE	72-55-9	N.D.	0.35	1
10738	p,p-DDT	50-29-3	N.D.	0.37	1
10738	Delta BHC	319-86-8	N.D.	0.48	1
10738	Dieldrin	60-57-1	N.D.	0.35	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.35	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.35	1
10738	Endrin	72-20-8	N.D.	0.35	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.18	1
Pesticides/PCBs SW-846 8082					
10736	PCB-1016	12674-11-2	N.D.	3.8 ug/kg	1
10736	PCB-1221	11104-28-2	N.D.	4.9	1

Sample Description: TCN-STC2 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848628
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 10:15 by AH

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

NSTC2 SDG#: TAP02-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs					
	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.5	1
10736	PCB-1242	53469-21-9	N.D.	3.5	1
10736	PCB-1248	12672-29-6	N.D.	3.5	1
10736	PCB-1254	11097-69-1	N.D.	3.5	1
10736	PCB-1260	11096-82-5	N.D.	5.2	1
The % difference for the calibration verification standard is outside the +/- 15% criteria for the analyte(s) listed below. Since the average of the % difference values meets the criteria, the results are reported.					
This applies to the following analyte(s): decachlorobiphenyl surrogate					
Metals					
	SW-846 6010B		mg/kg	mg/kg	
06935	Arsenic	7440-38-2	3.57	0.350	1
06946	Barium	7440-39-3	12.9	0.0350	1
06947	Beryllium	7440-41-7	N.D.	0.0710	1
06949	Cadmium	7440-43-9	N.D.	0.0350	1
06951	Chromium	7440-47-3	6.54	0.0932	1
06953	Copper	7440-50-8	129	0.191	1
06955	Lead	7439-92-1	2.74	0.498	1
06958	Manganese	7439-96-5	194	0.0879	1
06961	Nickel	7440-02-0	16.0	0.117	1
06936	Selenium	7782-49-2	2.66	0.763	1
06966	Silver	7440-22-4	0.378 J	0.148	1
06972	Zinc	7440-66-6	51.8	0.212	1
	SW-846 6010B modified		mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	6.5	0.53	1
	SW-846 7471A		mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0109	1
Wet Chemistry					
	SW-846 9012B		mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.18	1
	SW-846 7196A		mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.53	1
Wet Chemistry					
	SM20 2540 G		%	%	
00111	Moisture	n.a.	5.6	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: TCN-STC2 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848628
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 10:15 by AH

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

NSTC2 SDG#: TAP02-03

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12311SLD026	11/08/2012 11:24	Mark A Clark	1
10809	BNA Soil Microwave	SW-846 3546	1	12311SLD026	11/07/2012 05:30	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123110018A	11/07/2012 22:57	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123110015A	11/13/2012 15:30	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123110016A	11/07/2012 11:34	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123110016A	11/06/2012 18:00	Sally L Appleyard	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123110015A	11/06/2012 18:10	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123110018A	11/06/2012 22:30	Karen L Beyer	1
06935	Arsenic	SW-846 6010B	1	123115708001	11/08/2012 16:07	Eric L Eby	1
06946	Barium	SW-846 6010B	1	123115708001	11/08/2012 16:07	Eric L Eby	1
06947	Beryllium	SW-846 6010B	1	123115708001	11/08/2012 16:07	Eric L Eby	1
06949	Cadmium	SW-846 6010B	1	123115708001	11/08/2012 16:07	Eric L Eby	1
06951	Chromium	SW-846 6010B	1	123115708001	11/08/2012 16:07	Eric L Eby	1
06953	Copper	SW-846 6010B	1	123115708001	11/08/2012 16:07	Eric L Eby	1
06955	Lead	SW-846 6010B	1	123115708001	11/10/2012 11:36	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123115708001	11/08/2012 16:07	Eric L Eby	1
06961	Nickel	SW-846 6010B	1	123115708001	11/08/2012 16:07	Eric L Eby	1
06936	Selenium	SW-846 6010B	1	123115708001	11/10/2012 11:36	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123115708001	11/08/2012 16:07	Eric L Eby	1
06972	Zinc	SW-846 6010B	1	123115708001	11/08/2012 16:07	Eric L Eby	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123172829001	11/12/2012 11:42	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 12:32	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123115708001	11/07/2012 08:55	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12312103201A	11/08/2012 09:00	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12312102201A	11/08/2012 08:52	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12312103201A	11/07/2012 09:10	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12312102201A	11/07/2012 09:10	Nancy J Shoop	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12312042501A	11/07/2012 23:15	Daniel S Smith	1

Sample Description: TCN-STC2 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848628
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 10:15 by AH

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

NSTC2 SDG#: TAP02-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12312042501A	11/07/2012 19:25	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12311820001B	11/06/2012 21:44	Scott W Freisher	1

Sample Description: TCN-ST5 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848629
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:00 by AH

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

CNST5 SDG#: TAP02-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.99
10237	Benzene	71-43-2	N.D.	0.0005	0.99
10237	2-Butanone	78-93-3	N.D.	0.004	0.99
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.99
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.99
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.99
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.99
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.99
10237	Chloroform	67-66-3	N.D.	0.001	0.99
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.99
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.99
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.99
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.99
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.99
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.99
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.99
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.99
10237	1,4-Dioxane	123-91-1	N.D.	0.074	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.99
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.99
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.99
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.99
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.99
10237	Trichloroethene	79-01-6	N.D.	0.001	0.99
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.99
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.99
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.99
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.99

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	7.1	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST5 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848629
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:00 by AH

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

CNST5 SDG#: TAP02-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123121AA	11/07/2012 13:19	Angela D Sneeringer	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:19	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12311820001B	11/06/2012 21:44	Scott W Freisher	1

Sample Description: TCN-ST6 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848630
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:10 by AH

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

CNST6 SDG#: TAP02-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	1.04
10237	Benzene	71-43-2	N.D.	0.0005	1.04
10237	2-Butanone	78-93-3	N.D.	0.004	1.04
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.04
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.04
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.04
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.04
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.04
10237	Chloroform	67-66-3	N.D.	0.001	1.04
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.04
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.04
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.04
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.04
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.04
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.04
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.04
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.04
10237	1,4-Dioxane	123-91-1	N.D.	0.075	1.04
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.04
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.04
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.04
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.04
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.04
10237	Toluene	108-88-3	N.D.	0.001	1.04
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.04
10237	Trichloroethene	79-01-6	N.D.	0.001	1.04
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.04
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.04
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.04
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.04
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.04

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.8	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST6 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848630
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:10 by AH

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

CNST6 SDG#: TAP02-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123121AA	11/07/2012 13:42	Angela D Sneeringer	1.04
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:17	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12311820001B	11/06/2012 21:44	Scott W Freisher	1

Sample Description: TCN-ST7 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848631
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:20 by AH

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

CNST7 SDG#: TAP02-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1
10237	Benzene	71-43-2	N.D.	0.0005	1
10237	2-Butanone	78-93-3	N.D.	0.004	1
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1
10237	Chlorobenzene	108-90-7	N.D.	0.001	1
10237	Chloroform	67-66-3	N.D.	0.001	1
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1
10237	1,4-Dioxane	123-91-1	N.D.	0.074	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1
10237	Methylene Chloride	75-09-2	N.D.	0.002	1
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1
10237	Toluene	108-88-3	N.D.	0.001	1
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1
10237	Trichloroethene	79-01-6	N.D.	0.001	1
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	5.0	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST7 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848631
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:20 by AH

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

CNST7 SDG#: TAP02-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123121AA	11/07/2012 14:05	Angela D Sneeringer	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:16	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12311820001B	11/06/2012 21:44	Scott W Freisher	1

Sample Description: TCN-ST8 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848632
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:30 by AH

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

CNST8 SDG#: TAP02-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	1
10237	Benzene	71-43-2	N.D.	0.0005	1
10237	2-Butanone	78-93-3	N.D.	0.004	1
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1
10237	Chlorobenzene	108-90-7	N.D.	0.001	1
10237	Chloroform	67-66-3	N.D.	0.001	1
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1
10237	1,4-Dioxane	123-91-1	N.D.	0.076	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1
10237	Methylene Chloride	75-09-2	N.D.	0.002	1
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1
10237	Toluene	108-88-3	N.D.	0.001	1
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1
10237	Trichloroethene	79-01-6	N.D.	0.001	1
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	7.8	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST8 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848632
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:30 by AH

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

CNST8 SDG#: TAP02-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123121AA	11/07/2012 14:28	Angela D Sneeringer	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:14	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12311820001B	11/06/2012 21:44	Scott W Freisher	1

Sample Description: TCN-STC3 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848633
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:40 by AH

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

NSTC3 SDG#: TAP02-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	Acenaphthene	83-32-9	N.D.	3 ug/kg	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	35	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	4 J	3	1
Herbicides SW-846 8151A					
10401	2,4,5-TP	93-72-1	N.D.	0.79 ug/kg	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.18 ug/kg	1
10738	Alpha BHC	319-84-6	N.D.	0.18	1
10738	Beta BHC	319-85-7	N.D.	1.0	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.18	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.18	1
10738	p,p-DDD	72-54-8	N.D.	0.35	1
10738	p,p-DDE	72-55-9	N.D.	0.35	1
10738	p,p-DDT	50-29-3	N.D.	0.37	1
10738	Delta BHC	319-86-8	N.D.	0.48	1
10738	Dieldrin	60-57-1	N.D.	0.35	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.35	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.35	1
10738	Endrin	72-20-8	N.D.	0.35	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.18	1
Pesticides/PCBs SW-846 8082					
10736	PCB-1016	12674-11-2	N.D.	3.8 ug/kg	1
10736	PCB-1221	11104-28-2	N.D.	4.9	1

Sample Description: TCN-STC3 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848633
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:40 by AH

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

NSTC3 SDG#: TAP02-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs					
	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.5	1
10736	PCB-1242	53469-21-9	N.D.	3.5	1
10736	PCB-1248	12672-29-6	N.D.	3.5	1
10736	PCB-1254	11097-69-1	N.D.	3.5	1
10736	PCB-1260	11096-82-5	N.D.	5.2	1
The % difference for the calibration verification standard is outside the +/- 15% criteria for the analyte(s) listed below. Since the average of the % difference values meets the criteria, the results are reported.					
This applies to the following analyte(s): decachlorobiphenyl surrogate					
Metals					
	SW-846 6010B		mg/kg	mg/kg	
06935	Arsenic	7440-38-2	2.34	0.342	1
06946	Barium	7440-39-3	15.7	0.0342	1
06947	Beryllium	7440-41-7	0.0943 J	0.0694	1
06949	Cadmium	7440-43-9	N.D.	0.0342	1
06951	Chromium	7440-47-3	7.09	0.0912	1
06953	Copper	7440-50-8	121	0.187	1
06955	Lead	7439-92-1	2.72	0.487	1
06958	Manganese	7439-96-5	176	0.0860	1
06961	Nickel	7440-02-0	15.3	0.114	1
06936	Selenium	7782-49-2	1.68 J	0.746	1
06966	Silver	7440-22-4	0.211 J	0.145	1
06972	Zinc	7440-66-6	39.4	0.207	1
	SW-846 6010B modified		mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	7.1	0.53	1
	SW-846 7471A		mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0106	1
Wet Chemistry					
	SW-846 9012B		mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.18	1
	SW-846 7196A		mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.53	1
Wet Chemistry					
	SM20 2540 G		%	%	
00111	Moisture	n.a.	5.4	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: TCN-STC3 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848633
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:40 by AH

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

NSTC3 SDG#: TAP02-08

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12311SLD026	11/08/2012 11:51	Mark A Clark	1
10809	BNA Soil Microwave	SW-846 3546	1	12311SLD026	11/07/2012 05:30	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123110018A	11/07/2012 23:25	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123110015A	11/13/2012 15:44	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123110016A	11/07/2012 12:08	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123110016A	11/06/2012 18:00	Sally L Appleyard	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123110015A	11/06/2012 18:10	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123110018A	11/06/2012 22:30	Karen L Beyer	1
06935	Arsenic	SW-846 6010B	1	123115708001	11/08/2012 15:43	Eric L Eby	1
06946	Barium	SW-846 6010B	1	123115708001	11/08/2012 15:43	Eric L Eby	1
06947	Beryllium	SW-846 6010B	1	123115708001	11/08/2012 15:43	Eric L Eby	1
06949	Cadmium	SW-846 6010B	1	123115708001	11/08/2012 15:43	Eric L Eby	1
06951	Chromium	SW-846 6010B	1	123115708001	11/08/2012 15:43	Eric L Eby	1
06953	Copper	SW-846 6010B	1	123115708001	11/08/2012 15:43	Eric L Eby	1
06955	Lead	SW-846 6010B	1	123115708001	11/10/2012 10:58	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123115708001	11/08/2012 15:43	Eric L Eby	1
06961	Nickel	SW-846 6010B	1	123115708001	11/08/2012 15:43	Eric L Eby	1
06936	Selenium	SW-846 6010B	1	123115708001	11/10/2012 10:58	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123115708001	11/08/2012 15:43	Eric L Eby	1
06972	Zinc	SW-846 6010B	1	123115708001	11/08/2012 15:43	Eric L Eby	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123172829001	11/12/2012 11:42	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 12:42	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123115708001	11/07/2012 08:55	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12312103201A	11/08/2012 09:06	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12312102201A	11/08/2012 08:53	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12312103201A	11/07/2012 09:10	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12312102201A	11/07/2012 09:10	Nancy J Shoop	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12312042501A	11/07/2012 23:15	Daniel S Smith	1

Sample Description: TCN-STC3 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848633
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:40 by AH

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

NSTC3 SDG#: TAP02-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12312042501A	11/07/2012 19:25	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12311820001B	11/06/2012 21:44	Scott W Freisher	1

Sample Description: TCN-STC4 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848634
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:50 by AH

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

NSTC4 SDG#: TAP02-09*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	Acenaphthene	83-32-9	N.D.	3 ug/kg	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	18	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	18	1
10727	4-Methylphenol	106-44-5	N.D.	18	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	35	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	18	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides SW-846 8151A					
10401	2,4,5-TP	93-72-1	N.D.	0.80 ug/kg	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.18 ug/kg	1
10738	Alpha BHC	319-84-6	N.D.	0.18	1
10738	Beta BHC	319-85-7	N.D.	1.0	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.18	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.18	1
10738	p,p-DDD	72-54-8	N.D.	0.35	1
10738	p,p-DDE	72-55-9	N.D.	0.35	1
10738	p,p-DDT	50-29-3	N.D.	0.37	1
10738	Delta BHC	319-86-8	N.D.	0.48	1
10738	Dieldrin	60-57-1	N.D.	0.35	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.35	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.35	1
10738	Endrin	72-20-8	N.D.	0.35	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.18	1
Pesticides/PCBs SW-846 8082					
10736	PCB-1016	12674-11-2	N.D.	3.8 ug/kg	1
10736	PCB-1221	11104-28-2	N.D.	4.9	1

Sample Description: TCN-STC4 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848634
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:50 by AH

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

NSTC4 SDG#: TAP02-09*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.5	1
10736	PCB-1242	53469-21-9	N.D.	3.5	1
10736	PCB-1248	12672-29-6	N.D.	3.5	1
10736	PCB-1254	11097-69-1	N.D.	3.5	1
10736	PCB-1260	11096-82-5	N.D.	5.2	1
The % difference for the calibration verification standard is outside the +/- 15% criteria for the analyte(s) listed below. Since the average of the % difference values meets the criteria, the results are reported.					
This applies to the following analyte(s): decachlorobiphenyl surrogate					
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	2.37	0.345	1
06946	Barium	7440-39-3	13.0	0.0345	1
06947	Beryllium	7440-41-7	N.D.	0.0701	1
06949	Cadmium	7440-43-9	N.D.	0.0345	1
06951	Chromium	7440-47-3	4.25	0.0921	1
06953	Copper	7440-50-8	133	0.188	1
06955	Lead	7439-92-1	2.65	0.492	1
06958	Manganese	7439-96-5	170	0.0868	1
06961	Nickel	7440-02-0	13.6	0.115	1
06936	Selenium	7782-49-2	2.26	0.753	1
06966	Silver	7440-22-4	0.332 J	0.146	1
06972	Zinc	7440-66-6	41.1	0.209	1
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	4.3	0.53	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0103	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.18	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.53	1
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	6.3	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: TCN-STC4 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848634
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:50 by AH

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

NSTC4 SDG#: TAP02-09*

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12311SLD026	11/08/2012 12:18	Mark A Clark	1
10809	BNA Soil Microwave	SW-846 3546	1	12311SLD026	11/07/2012 05:30	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123110018A	11/08/2012 00:47	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123110015A	11/13/2012 15:58	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123110016A	11/07/2012 12:20	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123110016A	11/06/2012 18:00	Sally L Appleyard	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123110015A	11/06/2012 18:10	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123110018A	11/06/2012 22:30	Karen L Beyer	1
06935	Arsenic	SW-846 6010B	1	123115708001	11/08/2012 16:11	Eric L Eby	1
06946	Barium	SW-846 6010B	1	123115708001	11/08/2012 16:11	Eric L Eby	1
06947	Beryllium	SW-846 6010B	1	123115708001	11/08/2012 16:11	Eric L Eby	1
06949	Cadmium	SW-846 6010B	1	123115708001	11/08/2012 16:11	Eric L Eby	1
06951	Chromium	SW-846 6010B	1	123115708001	11/08/2012 16:11	Eric L Eby	1
06953	Copper	SW-846 6010B	1	123115708001	11/08/2012 16:11	Eric L Eby	1
06955	Lead	SW-846 6010B	1	123115708001	11/10/2012 11:40	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123115708001	11/08/2012 16:11	Eric L Eby	1
06961	Nickel	SW-846 6010B	1	123115708001	11/08/2012 16:11	Eric L Eby	1
06936	Selenium	SW-846 6010B	1	123115708001	11/10/2012 11:40	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123115708001	11/08/2012 16:11	Eric L Eby	1
06972	Zinc	SW-846 6010B	1	123115708001	11/08/2012 16:11	Eric L Eby	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123172829001	11/12/2012 11:42	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 12:44	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123115708001	11/07/2012 08:55	Denise K Conners	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12312103201A	11/08/2012 09:07	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12312102201A	11/08/2012 08:54	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12312103201A	11/07/2012 09:10	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12312102201A	11/07/2012 09:10	Nancy J Shoop	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12312042501A	11/07/2012 23:15	Daniel S Smith	1

Sample Description: TCN-STC4 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848634
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:50 by AH

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/15/2012 13:50

NSTC4 SDG#: TAP02-09*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12312042501A	11/07/2012 19:25	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12311820001B	11/06/2012 21:44	Scott W Freisher	1

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/15/12 at 01:50 PM

Group Number: 1346822

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: B123121AA	Sample number(s): 6848626-6848627, 6848629-6848632							
Acetone	N.D.	0.007	mg/kg	100	104	32-209	5	30
Benzene	N.D.	0.0005	mg/kg	103	102	80-120	0	30
2-Butanone	N.D.	0.004	mg/kg	103	115	37-155	11	30
n-Butylbenzene	N.D.	0.001	mg/kg	99	92	72-120	7	30
sec-Butylbenzene	N.D.	0.001	mg/kg	102	96	75-120	6	30
tert-Butylbenzene	N.D.	0.001	mg/kg	97	95	75-120	2	30
Carbon Tetrachloride	N.D.	0.001	mg/kg	103	102	69-122	1	30
Chlorobenzene	N.D.	0.001	mg/kg	99	99	80-120	0	30
Chloroform	N.D.	0.001	mg/kg	105	103	80-120	1	30
1,2-Dichlorobenzene	N.D.	0.001	mg/kg	97	98	79-120	1	30
1,3-Dichlorobenzene	N.D.	0.001	mg/kg	98	97	78-120	2	30
1,4-Dichlorobenzene	N.D.	0.001	mg/kg	97	99	79-120	1	30
1,1-Dichloroethane	N.D.	0.001	mg/kg	106	107	80-120	1	30
1,2-Dichloroethane	N.D.	0.001	mg/kg	111	114	70-137	3	30
1,1-Dichloroethene	N.D.	0.001	mg/kg	107	107	73-129	1	30
cis-1,2-Dichloroethene	N.D.	0.001	mg/kg	104	106	80-120	2	30
trans-1,2-Dichloroethene	N.D.	0.001	mg/kg	108	108	79-120	1	30
1,4-Dioxane	N.D.	0.070	mg/kg	77	71	48-129	8	30
Ethylbenzene	N.D.	0.001	mg/kg	100	104	80-120	3	30
Methyl Tertiary Butyl Ether	N.D.	0.0005	mg/kg	111	118	74-121	6	30
Methylene Chloride	0.003 J	0.002	mg/kg	116	116	76-124	0	30
n-Propylbenzene	N.D.	0.001	mg/kg	86	84	77-120	2	30
Tetrachloroethene	N.D.	0.001	mg/kg	104	103	78-126	1	30
Toluene	N.D.	0.001	mg/kg	100	100	80-120	0	30
1,1,1-Trichloroethane	N.D.	0.001	mg/kg	111	111	71-125	0	30
Trichloroethene	N.D.	0.001	mg/kg	103	104	80-120	2	30
Trichlorofluoromethane	N.D.	0.002	mg/kg	104	103	58-133	1	30
1,2,4-Trimethylbenzene	N.D.	0.001	mg/kg	101	100	79-120	1	30
1,3,5-Trimethylbenzene	N.D.	0.001	mg/kg	103	100	78-120	2	30
Vinyl Chloride	N.D.	0.001	mg/kg	95	94	53-120	0	30
Xylene (Total)	N.D.	0.001	mg/kg	99	98	80-120	1	30
Batch number: 12311SLD026	Sample number(s): 6848628, 6848633-6848634							
Acenaphthene	N.D.	3.	ug/kg	88		83-111		
Acenaphthylene	N.D.	3.	ug/kg	96		83-127		
Anthracene	N.D.	3.	ug/kg	90		83-111		
Benzo(a)anthracene	N.D.	3.	ug/kg	88		73-123		
Benzo(a)pyrene	N.D.	3.	ug/kg	93		80-123		
Benzo(b)fluoranthene	N.D.	3.	ug/kg	93		76-124		
Benzo(g,h,i)perylene	N.D.	3.	ug/kg	91		77-122		
Benzo(k)fluoranthene	N.D.	3.	ug/kg	93		71-135		
Chrysene	N.D.	3.	ug/kg	86		73-119		
Dibenz(a,h)anthracene	N.D.	3.	ug/kg	93		67-129		

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/15/12 at 01:50 PM

Group Number: 1346822

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Dibenzofuran	N.D.	17.	ug/kg	91		78-116		
Fluoranthene	N.D.	3.	ug/kg	90		80-113		
Fluorene	N.D.	3.	ug/kg	88		81-117		
Indeno(1,2,3-cd)pyrene	N.D.	3.	ug/kg	93		64-128		
2-Methylphenol	N.D.	17.	ug/kg	90		75-126		
4-Methylphenol	N.D.	17.	ug/kg	95		74-116		
Naphthalene	N.D.	3.	ug/kg	85		77-115		
Pentachlorophenol	N.D.	33.	ug/kg	99		60-134		
Phenanthrene	N.D.	3.	ug/kg	87		77-119		
Phenol	N.D.	17.	ug/kg	92		69-126		
Pyrene	N.D.	3.	ug/kg	90		80-121		
Batch number: 123110018A	Sample number(s): 6848628, 6848633-6848634							
2,4,5-TP	N.D.	0.75	ug/kg	99		60-111		
Batch number: 123110015A	Sample number(s): 6848628, 6848633-6848634							
Aldrin	N.D.	0.17	ug/kg	86		62-134		
Alpha BHC	N.D.	0.17	ug/kg	92		67-131		
Beta BHC	N.D.	0.96	ug/kg	90		59-161		
Gamma BHC - Lindane	N.D.	0.17	ug/kg	92		66-132		
Alpha Chlordane	N.D.	0.17	ug/kg	96		64-140		
p,p-DDD	N.D.	0.33	ug/kg	95		73-131		
p,p-DDE	N.D.	0.33	ug/kg	93		72-132		
p,p-DDT	N.D.	0.35	ug/kg	97		65-131		
Delta BHC	N.D.	0.45	ug/kg	90		44-145		
Dieldrin	N.D.	0.33	ug/kg	99		71-134		
Endosulfan I	N.D.	0.22	ug/kg	92		57-127		
Endosulfan II	N.D.	0.33	ug/kg	94		63-127		
Endosulfan Sulfate	N.D.	0.33	ug/kg	98		80-137		
Endrin	N.D.	0.33	ug/kg	93		66-136		
HCB	N.D.	0.21	ug/kg					
Heptachlor	N.D.	0.17	ug/kg	96		68-132		
Batch number: 123110016A	Sample number(s): 6848628, 6848633-6848634							
PCB-1016	N.D.	3.6	ug/kg	106		64-121		
PCB-1221	N.D.	4.6	ug/kg					
PCB-1232	N.D.	8.0	ug/kg					
PCB-1242	N.D.	3.3	ug/kg					
PCB-1248	N.D.	3.3	ug/kg					
PCB-1254	N.D.	3.3	ug/kg					
PCB-1260	N.D.	4.9	ug/kg	106		72-123		
Batch number: 123115708001	Sample number(s): 6848628, 6848633-6848634							
Arsenic	N.D.	0.320	mg/kg	95		80-120		
Barium	N.D.	0.0320	mg/kg	89		80-120		
Beryllium	N.D.	0.0650	mg/kg	88		80-120		
Cadmium	N.D.	0.0320	mg/kg	97		80-120		
Chromium	N.D.	0.0854	mg/kg	99		80-120		
Copper	N.D.	0.175	mg/kg	92		80-120		
Lead	N.D.	0.456	mg/kg	101		80-120		
Manganese	N.D.	0.0806	mg/kg	91		80-120		
Nickel	N.D.	0.107	mg/kg	96		80-120		
Selenium	N.D.	0.699	mg/kg	101		80-120		
Silver	N.D.	0.136	mg/kg	88		80-120		
Zinc	N.D.	0.194	mg/kg	92		80-120		

*- Outside of specification

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Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/15/12 at 01:50 PM

Group Number: 1346822

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 123135711001	Sample number(s): 6848628, 6848633-6848634							
Mercury	N.D.	0.0099	mg/kg	101		80-120		
Batch number: 12312102201A	Sample number(s): 6848628, 6848633-6848634							
Total Cyanide (solid)	N.D.	0.18	mg/kg	96		90-110		
Batch number: 12312103201A	Sample number(s): 6848628, 6848633-6848634							
Amenable Cyanide (solid)	N.D.	0.18	mg/kg	0		-20-20		
Batch number: 12312042501A	Sample number(s): 6848628, 6848633-6848634							
Hexavalent Chromium (SOLIDS)	N.D.	0.50	mg/kg	87		80-120		
Batch number: 12311820001B	Sample number(s): 6848626-6848634							
Moisture				99		99-101		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: B123121AA	Sample number(s): 6848626-6848627, 6848629-6848632 UNSPK: 6848626 BKG: P848149								
Acetone	106		31-195			N.D.	N.D.	0 (1)	30
Benzene	111		55-143			N.D.	N.D.	0 (1)	30
2-Butanone	112		37-163			N.D.	N.D.	0 (1)	30
n-Butylbenzene	112		30-146			N.D.	N.D.	0 (1)	30
sec-Butylbenzene	111		33-157			N.D.	N.D.	0 (1)	30
tert-Butylbenzene	102		41-152			N.D.	N.D.	0 (1)	30
Carbon Tetrachloride	120		45-153			N.D.	N.D.	0 (1)	30
Chlorobenzene	105		49-135			N.D.	N.D.	0 (1)	30
Chloroform	111		61-142			N.D.	N.D.	0 (1)	30
1,2-Dichlorobenzene	103		36-133			N.D.	N.D.	0 (1)	30
1,3-Dichlorobenzene	105		34-134			N.D.	N.D.	0 (1)	30
1,4-Dichlorobenzene	102		35-136			N.D.	N.D.	0 (1)	30
1,1-Dichloroethane	116		63-142			N.D.	N.D.	0 (1)	30
1,2-Dichloroethane	122		68-131			N.D.	N.D.	0 (1)	30
1,1-Dichloroethene	123		61-149			N.D.	N.D.	0 (1)	30
cis-1,2-Dichloroethene	113		60-136			N.D.	N.D.	0 (1)	30
trans-1,2-Dichloroethene	120		59-142			N.D.	N.D.	0 (1)	30
1,4-Dioxane	91		39-180						
Ethylbenzene	107		44-141			N.D.	N.D.	0 (1)	30
Methyl Tertiary Butyl Ether	116		55-129			N.D.	N.D.	0 (1)	30
Methylene Chloride	118		61-141			N.D.	N.D.	0 (1)	30
n-Propylbenzene	92		39-157			N.D.	N.D.	0 (1)	30
Tetrachloroethene	180*		42-149			N.D.	N.D.	0 (1)	30
Toluene	108		50-146			N.D.	N.D.	0 (1)	30
1,1,1-Trichloroethane	130		64-142			N.D.	N.D.	0 (1)	30
Trichloroethene	121		53-144			0.008	0.012	34* (1)	30
Trichlorofluoromethane	123		47-163						
1,2,4-Trimethylbenzene	109		37-149			N.D.	N.D.	0 (1)	30
1,3,5-Trimethylbenzene	113		38-150			N.D.	N.D.	0 (1)	30
Vinyl Chloride	101		50-154			N.D.	N.D.	0 (1)	30

*- Outside of specification

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- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/15/12 at 01:50 PM

Group Number: 1346822

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Xylene (Total)	105		44-136						
Batch number: 12311SLD026	Sample number(s): 6848628, 6848633-6848634 UNSPK: P847975								
Acenaphthene	84	89	33-140	5	30				
Acenaphthylene	94	107	47-137	13	30				
Anthracene	90	100	40-147	8	30				
Benzo(a)anthracene	130	177*	32-150	27	30				
Benzo(a)pyrene	80	102	30-150	25	30				
Benzo(b)fluoranthene	106	220*	29-150	55*	30				
Benzo(g,h,i)perylene	74	98	31-152	25	30				
Benzo(k)fluoranthene	106	142	35-148	26	30				
Chrysene	227*	300*	33-142	15	30				
Dibenz(a,h)anthracene	84	98	37-151	16	30				
Dibenzofuran	86	95	38-148	9	30				
Fluoranthene	445 (2)	411 (2)	30-151	2	30				
Fluorene	86	89	36-140	4	30				
Indeno(1,2,3-cd)pyrene	80	108	31-154	28	30				
2-Methylphenol	85	91	32-146	7	30				
4-Methylphenol	81	86	36-149	6	30				
Naphthalene	84	92	35-141	9	30				
Pentachlorophenol	96	94	23-145	1	30				
Phenanthrene	374 (2)	304 (2)	34-147	7	30				
Phenol	79	83	39-151	4	30				
Pyrene	287 (2)	307 (2)	29-148	3	30				
Batch number: 123110018A	Sample number(s): 6848628, 6848633-6848634 UNSPK: P844759								
2,4,5-TP	116	91	10-142	23	35				
Batch number: 123110015A	Sample number(s): 6848628, 6848633-6848634 UNSPK: P845272								
Aldrin	0*	0*	18-138	0	50				
Alpha BHC	1121 (2)	175 (2)	9-143	28	50				
Beta BHC	1346 (2)	258 (2)	14-168	28	50				
Gamma BHC - Lindane	117 (2)	402 (2)	14-143	17	50				
Alpha Chlordane	0*	0*	15-153	0	50				
p,p-DDD	0*	0*	17-163	0	50				
p,p-DDE	603 (2)	-490 (2)	22-169	72*	50				
p,p-DDT	6644 (2)	58 (2)	4-159	33	50				
Delta BHC	0*	0*	30-144	0	50				
Dieldrin	784*	590*	17-163	28	50				
Endosulfan I	0*	0*	8-137	0	50				
Endosulfan II	206*	100	17-146	26	50				
Endosulfan Sulfate	0*	0*	6-190	0	50				
Endrin	1026 (2)	226 (2)	25-166	29	50				
Heptachlor	156*	13*	25-148	34	50				
Batch number: 123110016A	Sample number(s): 6848628, 6848633-6848634 UNSPK: 6848628								
PCB-1016	88	86	29-146	2	50				

*- Outside of specification

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Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/15/12 at 01:50 PM

Group Number: 1346822

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
PCB-1260	72	72	39-149	0	50				
Batch number: 123115708001	Sample number(s): 6848628, 6848633-6848634 UNSPK: 6848633 BKG: 6848633								
Arsenic	101	93	75-125	7	20	2.22	2.71	20 (1)	20
Barium	96	95	75-125	1	20	14.8	15.5	5	20
Beryllium	90	88	83-111	2	20	0.0892 J	0.0723 J	21* (1)	20
Cadmium	92	93	75-125	0	20	N.D.	N.D.	0 (1)	20
Chromium	112	111	75-125	1	20	6.70	7.35	9 (1)	20
Copper	205 (2)	200 (2)	75-125	1	20	114	133	15	20
Lead	92	89	75-125	3	20	2.57	2.70	5 (1)	20
Manganese	223*	182*	75-125	8	20	166	177	6	20
Nickel	102	99	75-125	2	20	14.4	15.9	10	20
Selenium	93	93	75-125	0	20	1.59 J	2.60	48* (1)	20
Silver	98	95	75-125	3	20	0.200 J	0.324 J	47* (1)	20
Zinc	116	107	75-125	5	20	37.3	45.8	21*	20
Batch number: 123135711001	Sample number(s): 6848628, 6848633-6848634 UNSPK: 6848628 BKG: 6848628								
Mercury	106	102	80-120	3	20	N.D.	N.D.	0 (1)	20
Batch number: 12312102201A	Sample number(s): 6848628, 6848633-6848634 UNSPK: 6848634 BKG: 6848634								
Total Cyanide (solid)	106		68-134			N.D.	N.D.	0 (1)	20
Batch number: 12312103201A	Sample number(s): 6848628, 6848633-6848634 UNSPK: 6848628 BKG: 6848628								
Amenable Cyanide (solid)	0		-20-20			N.D.	N.D.	0 (1)	20
Batch number: 12312042501A	Sample number(s): 6848628, 6848633-6848634 UNSPK: 6848634 BKG: 6848634								
Hexavalent Chromium (SOLIDS)	87		75-125			N.D.	N.D.	0 (1)	20
Batch number: 12311820001B	Sample number(s): 6848626-6848634 BKG: P847014								
Moisture						10.8	11.0	1	13

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 Benzene and Toluene

Batch number: B123121AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6848626	102	101	97	91
6848627	103	102	97	91
6848629	105	101	98	89
6848630	103	102	97	91
6848631	106	107	97	92
6848632	106	103	97	90
Blank	104	103	97	91
DUP	111	106	96	92
LCS	102	102	102	101

*- Outside of specification

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Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/15/12 at 01:50 PM

Group Number: 1346822

Surrogate Quality Control

LCS	102	104	100	101
MS	102	100	102	99

Limits: 50-141 54-135 52-141 50-131

Analysis Name: TCL 8270 (microwave)

Batch number: 12311SLD026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6848628	81	86	74	83	87	97
6848633	90	93	79	89	89	99
6848634	83	87	66	82	85	90
Blank	85	91	97	91	93	105
LCS	91	95	91	90	92	101
MS	84	88	75	87	93	117
MSD	87	94	80	91	98	120

Limits: 42-130 48-136 28-139 45-123 47-126 46-143

Analysis Name: TCL Pesticides 8081A Soil

Batch number: 123110015A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6848628	78	107
6848633	80	103
6848634	77	100
Blank	87	112
LCS	82	102
MS	88	1117*
MSD	57	879*

Limits: 33-140 45-150

Analysis Name: PCBs in Soil (microwave)

Batch number: 123110016A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6848628	102	88
6848633	103	86
6848634	107	88
Blank	109	101
LCS	109	99
MS	98	85
MSD	99	89

Limits: 33-143 24-164

Analysis Name: Herbicide soils 8151A Master

Batch number: 123110018A

	2,4-Dichlorophenylacetic acid
6848628	77
6848633	95
6848634	102
Blank	89

*- Outside of specification

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Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/15/12 at 01:50 PM

Group Number: 1346822

Surrogate Quality Control

LCS	95
MS	111
MSD	89

Limits: 36-156

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
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**Lancaster
Laboratories**

Acct. # 10629

For Lancaster Lab
Group # 1346822

Sample # 6848626-34

PO# : 4410017954

For Lancaster Laboratories use only
up # 1346822 Sample # 683
Instructions on reverse side correspond with circled numbers

[illegible]

1346822

Constituent	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial or Industrial Use	If Ecological Resources are Present
Semi-volatile Organic Compounds					
Acenaphthene	20	98	98	98	20
Acenaphthylene	100	100	100	107	NS
Anthracene	100	100	100	500	NS
Benzo(a)anthracene	1	1	1	1	NS
Benzo(a)pyrene	1	1	1	1	2.6
Benzo(b)fluoranthene	1	1	1	1.7	NS
Benzo(g,h,i)perylene	100	100	100	500	NS
Benzo(k)fluoranthene	0.8	1	1.7	1.7	NS
Chrysene	1	1	1	1	NS
Dibenz(a,h)anthracene	0.33 ³	0.33 ³	0.33 ³	0.56	NS
Fluoranthene	100	100	100	500	NS
Fluorene	30	100	100	386	30
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.5	5.6	NS
m-Cresol(s)	0.33 ³	0.33 ³	0.33 ³	0.33 ³	NS
Naphthalene	12	12	12	12	NS
o-Cresol(s)	0.33 ³	0.33 ³	0.33 ³	0.33 ³	NS
p-Cresol(s)	0.33	0.33	0.33	0.33	NS
Pentachlorophenol	0.8 ³	0.8 ³	0.8 ³	0.8 ³	0.8 ³
Phenanthrene	100	100	100	500	NS
Phenol	0.33 ³	0.33 ³	0.33 ³	0.33 ³	30
Pyrene	100	100	100	500	NS
Volatile Organic Compounds					
1,1,1-Trichloroethane	0.68	0.68	0.68	0.68	NS
1,1-Dichloroethane	0.27	0.27	0.27	0.27	NS
1,1-Dichloroethene	0.33	0.33	0.33	0.33	NS
1,2-Dichlorobenzene	1.1	1.1	1.1	1.1	NS
1,2-Dichloroethane	0.02	0.02	0.02	0.02	10
1,2-Dichloroethene(cis)	0.25	0.25	0.25	0.25	NS
1,2-Dichloroethene(trans)	0.19	0.19	0.19	0.19	NS
1,3-Dichlorobenzene	2.4	2.4	2.4	2.4	NS
1,4-Dichlorobenzene	1.8	1.8	1.8	1.8	20
1,4-Dioxane	0.1 ³	0.1 ³	0.1 ³	0.1 ³	0.1
Acetone	0.05	0.05	0.05	0.05	2.2
Benzene	0.06	0.06	0.06	0.06	70
Butylbenzene	12	12	12	12	NS
Carbon tetrachloride	0.76	0.76	0.76	0.76	NS
Chlorobenzene	1.1	1.1	1.1	1.1	40
Chloroform	0.37	0.37	0.37	0.37	12
Ethylbenzene	1	1	1	1	NS
Hexachlorobenzene	0.33 ³	0.33 ³	1.2	3.2	NS
Methyl ethyl ketone	0.12	0.12	0.12	0.12	100
Methyl tert-butyl ether	0.93	0.93	0.93	0.93	NS
Methylene chloride	0.05	0.05	0.05	0.05	12

1346822

Volatile Organic Compounds (continued)					
Propylbenzene-n	3.9	3.9	3.9	3.9	NS
Sec-Butylbenzene	11	11	11	11	NS
Tert-Butylbenzene	5.9	5.9	5.9	5.9	NS
Tetrachloroethene	1.3	1.3	1.3	1.3	2
Toluene	0.7	0.7	0.7	0.7	36
Trichloroethene	0.47	0.47	0.47	0.47	2
Trimethylbenzene-1,2,4	3.6	3.6	3.6	3.6	NS
Trimethylbenzene-1,3,5	8.4	8.4	8.4	8.4	NS
Vinyl chloride	0.02	0.02	0.02	0.02	NS
Xylene (mixed)	0.26	1.6	1.6	1.6	0.26

All concentrations are in parts per million (ppm)

NS = Not Specified

Footnotes:

¹ The SCO for Hexavalent or Trivalent Chromium is considered to be met if the analysis for the total species of this contaminant is below the specific SCO for Hexavalent Chromium.

² The SCO is the sum of endosulfan I, endosulfan II and endosulfan sulfate.

³ For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Track 1 SCO value.

⁴ This SCO is derived from data on mixed isomers of BHC.

Environmental Sample Administration
Receipt Documentation Log

1346822

Client/Project: XOMShipping Container Sealed: (YES) NODate of Receipt: 11/6/12Custody Seal Present * : (YES) NOTime of Receipt: 0930* Custody seal was intact unless otherwise noted in the
discrepancy sectionSource Code: 50-1Package: (Chilled) Not Chilled

Temperature of Shipping Containers

Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	9422	1.4	TB	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: D. Neslund / 208 Date/Time: 11/6/12 / 0950

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

NYSDEC ASP Category A Data Package

Prepared for:

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Project: Tappan Terminal
Soil Samples
Collected on 11/02/12

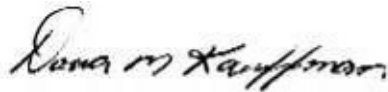
SDG# TAP02

GROUP	SAMPLE NUMBERS
1346822	6848626-6848634

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-08A-TX

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client.

Authorized by:



Date: 11/21/2012

Dana M. Kauffman
Manager

Any questions or concerns you might have regarding this data package should be directed to your client representative, Barbara Weyandt at Ext. 1576.

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**Sample Reference List for SDG Number TAP02
with a Data Package Type of NYSDEC A
10629 - ExxonMobil Refining & Supply
Project: Tappan Terminal**

Lab Sample Number	Lab Sample Code	<u>Client Sample Description</u>
6848626	CNST3	TCN-ST3 Grab Soil S2010L4632
6848627	CNST4	TCN-ST4 Grab Soil S2010L4632
6848628	NSTC2	TCN-STC2 Composite Soil S2010L4632
6848629	CNST5	TCN-ST5 Grab Soil S2010L4632
6848630	CNST6	TCN-ST6 Grab Soil S2010L4632
6848631	CNST7	TCN-ST7 Grab Soil S2010L4632
6848632	CNST8	TCN-ST8 Grab Soil S2010L4632
6848633	NSTC3	TCN-STC3 Composite Soil S2010L4632
6848634	NSTC4	TCN-STC4 Composite Soil S2010L4632

1346822

Constituent	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial or Industrial Use	If Ecological Resources are Present
Semi-volatile Organic Compounds					
Acenaphthene	20	98	98	98	20
Acenaphthylene	100	100	100	107	NS
Anthracene	100	100	100	500	NS
Benzo(a)anthracene	1	1	1	1	NS
Benzo(a)pyrene	1	1	1	1	2.6
Benzo(b)fluoranthene	1	1	1	1.7	NS
Benzo(g,h,i)perylene	100	100	100	500	NS
Benzo(k)fluoranthene	0.8	1	1.7	1.7	NS
Chrysene	1	1	1	1	NS
Dibenz(a,h)anthracene	0.33 ³	0.33 ³	0.33 ³	0.56	NS
Fluoranthene	100	100	100	500	NS
Fluorene	30	100	100	386	30
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.5	5.6	NS
m-Cresol(s)	0.33 ³	0.33 ³	0.33 ³	0.33 ³	NS
Naphthalene	12	12	12	12	NS
o-Cresol(s)	0.33 ³	0.33 ³	0.33 ³	0.33 ³	NS
p-Cresol(s)	0.33	0.33	0.33	0.33	NS
Pentachlorophenol	0.8 ³	0.8 ³	0.8 ³	0.8 ³	0.8 ³
Phenanthrene	100	100	100	500	NS
Phenol	0.33 ³	0.33 ³	0.33 ³	0.33 ³	30
Pyrene	100	100	100	500	NS
Volatile Organic Compounds					
1,1,1-Trichloroethane	0.68	0.68	0.68	0.68	NS
1,1-Dichloroethane	0.27	0.27	0.27	0.27	NS
1,1-Dichloroethene	0.33	0.33	0.33	0.33	NS
1,2-Dichlorobenzene	1.1	1.1	1.1	1.1	NS
1,2-Dichloroethane	0.02	0.02	0.02	0.02	10
1,2-Dichloroethene(cis)	0.25	0.25	0.25	0.25	NS
1,2-Dichloroethene(trans)	0.19	0.19	0.19	0.19	NS
1,3-Dichlorobenzene	2.4	2.4	2.4	2.4	NS
1,4-Dichlorobenzene	1.8	1.8	1.8	1.8	20
1,4-Dioxane	0.1 ³	0.1 ³	0.1 ³	0.1 ³	0.1
Acetone	0.05	0.05	0.05	0.05	2.2
Benzene	0.06	0.06	0.06	0.06	70
Butylbenzene	12	12	12	12	NS
Carbon tetrachloride	0.76	0.76	0.76	0.76	NS
Chlorobenzene	1.1	1.1	1.1	1.1	40
Chloroform	0.37	0.37	0.37	0.37	12
Ethylbenzene	1	1	1	1	NS
Hexachlorobenzene	0.33 ³	0.33 ³	1.2	3.2	NS
Methyl ethyl ketone	0.12	0.12	0.12	0.12	100
Methyl tert-butyl ether	0.93	0.93	0.93	0.93	NS
Methylene chloride	0.05	0.05	0.05	0.05	12

1346822

Volatile Organic Compounds (continued)					
Propylbenzene-n	3.9	3.9	3.9	3.9	NS
Sec-Butylbenzene	11	11	11	11	NS
Tert-Butylbenzene	5.9	5.9	5.9	5.9	NS
Tetrachloroethene	1.3	1.3	1.3	1.3	2
Toluene	0.7	0.7	0.7	0.7	36
Trichloroethene	0.47	0.47	0.47	0.47	2
Trimethylbenzene-1,2,4	3.6	3.6	3.6	3.6	NS
Trimethylbenzene-1,3,5	8.4	8.4	8.4	8.4	NS
Vinyl chloride	0.02	0.02	0.02	0.02	NS
Xylene (mixed)	0.26	1.6	1.6	1.6	0.26

All concentrations are in parts per million (ppm)

NS = Not Specified

Footnotes:

¹ The SCO for Hexavalent or Trivalent Chromium is considered to be met if the analysis for the total species of this contaminant is below the specific SCO for Hexavalent Chromium.

² The SCO is the sum of endosulfan I, endosulfan II and endosulfan sulfate.

³ For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Track 1 SCO value.

⁴ This SCO is derived from data on mixed isomers of BHC.

Environmental Sample Administration
Receipt Documentation Log

1346822

Client/Project: XOMShipping Container Sealed: (YES) NODate of Receipt: 11/6/12Custody Seal Present * : (YES) NOTime of Receipt: 0930* Custody seal was intact unless otherwise noted in the
discrepancy sectionSource Code: 50-1Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	9422	1.4	TB	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: D. Neslund / 208 Date/Time: 11/6/12 / 0950

Issued by Dept. 6042 Management

2174.06

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 · 717-656-2300 Fax: 717-656-2681 · www.lancasterlabs.com

10237 8260 Ext. Soil Master w/GRO

The soil sample is purged and the volatile compounds are collected on a sorbent trap that is subsequently desorbed onto the GC/MS system for chromatographic and mass spectral analysis.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8260B, December 1996

00159 Mercury

The solution resulting from the mercury digestion is analyzed by Cold Vapor AA.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 7471A, September 1994

02829 Trivalent Chromium soils

Calculation performed by subtracting hexavalent chromium from total chromium.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 6010B Modified, December 1996.

05711 SW SW846 Hg Digest

The sample is heated at 95 c with nitric acid, sulfuric acid, potassium persulfate, and potassium permanganate. Excess potassium permanganate is reduced with sodium chloride/hydroxylamine hydrochloride. Mercuric ions are reduced to mercury metal using stannous chloride.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 7471A Modified, September 1994.

06935 Arsenic
06946 Barium
06947 Beryllium
06949 Cadmium
06951 Chromium
06953 Copper
06955 Lead
06958 Manganese
06961 Nickel
06936 Selenium
06966 Silver
06972 Zinc

The solution resulting from the metals digestion is analyzed by Trace ICP.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 6010B, December 1996.

05708 SW SW846 ICP/ICP MS Digest

The sample is digested with nitric acid, hydrochloric acid and hydrogen peroxide.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 3050B, December 1996

10738 Pesticides in Soil (microwave)

The sample is solvent extracted and exchanged to hexane. Florisil cleanup is performed to reduce potential matrix interferences. The extract is analyzed using gas chromatography on two capillary columns (primary and confirmation) with electron capture detectors.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8081A, December 1996.

10401 Herbicide soils 8151A Master

The sample is acidified and solvent extracted. The extract is then hydrolyzed, solvent washed, and acidified for final extraction. The chlorophenoxy acids, phenols and related target compounds are converted to the methyl esters using diazomethane. Florisil cleanup is performed to reduce potential matrix interferences.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8151A, December 1996.

04181 Herbicide Soil Extraction

The sample is acidified and solvent extracted. The extract is then hydrolyzed, solvent washed, and acidified for final extraction. The chlorophenoxy acids, phenols and related target compounds are converted to the methyl esters using diazomethane. Florisil cleanup is performed to reduce potential matrix interferences.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Methods 3550B & 8151A, December 1996.

10736 PCBs in Soil (microwave)

The sample is solvent-extracted and exchanged to hexane. Sulfuric acid and Florisil cleanups are performed to reduce potential matrix interferences. The extract is analyzed using gas chromatography on two capillary columns (primary and confirmation) with electron capture detectors.

Reference: Test Methods for Evaluating Solid Waste, SW-846 Method 8082, December 1996.

10497 PCB Microwave Soil Extraction**10809 BNA Soil Microwave**

The sample aliquot is extracted using microwave extraction with 1:1 methylene chloride and acetone. The extract is concentrated prior to analysis.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 3546, Revision 0, February 2007.

10496 PPL Pest. Microwave Extraction

The sample aliquot is extracted using microwave extraction with 1:1 hexane and acetone. The extract is concentrated prior to analysis.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 3546, Revision 0, February 2007.

10727 TCL 8270 (microwave)

The sample extract is analyzed by capillary column Gas Chromatography/Mass Spectrometry.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8270C, December 1996

05895 Total Cyanide (solid)

During the distillation step, complex cyanides are converted to hydrogen cyanide which readily reacts with chloramine T. Simple cyanides are converted to cyanogen chloride by reaction with chloramine T. This reacts with pyridine and barbituric acid to give a red colored complex determined colorimetrically.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 9012B, August 2002.

05896 Cyanide Solid Distillation

The sample is acidified and distilled. Cyanide is released as hydrogen cyanide and is absorbed in a sodium hydroxide solution.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 9012B, August 2002.

05898 Amenable Cyanide (solid)**05897 Amenable Cyanide Solid Distill**

A portion of the sample is pretreated with chlorine to release the dissociable cyanide. Both treated and untreated portions of the sample are acidified and distilled. Cyanide is released as hydrogen cyanide and is absorbed in a sodium hydroxide solution. The amenable cyanide is calculated as the difference between the untreated and chlorine treated portions.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 9012B, August 2002.

00425 Hexavalent Chromium (SOLIDS)

The filtrate from method #7825 is analyzed colorimetrically using diphenylcarbazide to produce a red-violet color. The absorbance is read at 540 nm and compared to a standard curve.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 7196A, July 1992.

07825 Hexavalent Cr (Extraction)

The sample is digested using a 3% sodium carbonate - 2% sodium hydroxide solution and then filtered through a 0.45 micron filter.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 3060A, December 1996

00111 Moisture

A well-mixed sample is placed in a tared container and dried to a constant weight in an oven at 103-105C. The increase in weight is the total solids.

Reference: Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998, Method 2540 G

00374 GC/MS - Bulk Soil Prep

Samples are field collected in glass containers, and preserved within 48 hours. An aliquot of the soil sample is prepared in reagent water and is purged at 40oC with helium.

Reference: Test Methods for Evaluating Solid Waste, SW-846, Method 5035A Modified, July 2002.

06646 GC/MS HL Bulk Sample Prep

Samples are field collected in glass containers, and preserved within 48 hours. An aliquot of the methanolic extract of the sample is diluted in reagent water and purged at ambient temperature with helium.

Reference: Test Methods for Evaluating Solid Waste, SW-846, Method 5035A Modified, July 2002.

REVISED

ANALYTICAL RESULTS.

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

November 20, 2012

Project: Tappan Terminal

Submittal Date: 11/06/2012

Group Number: 1346822

SDG: TAP02

PO Number: 4410017954

Release Number: TRIFILETTI

State of Sample Origin: NY

Client Sample DescriptionTCN-ST3 Grab Soil
TCN-ST4 Grab Soil
TCN-STC2 Composite Soil
TCN-ST5 Grab Soil
TCN-ST6 Grab Soil
TCN-ST7 Grab Soil
TCN-ST8 Grab Soil
TCN-STC3 Composite Soil
TCN-STC4 Composite SoilLancaster Labs (LLI) #6848626
6848627
6848628
6848629
6848630
6848631
6848632
6848633
6848634

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC
COPY TO
1 COPY TO
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COPY TO

Roux Associates

Data Package Group

Exxon Mobil: Woodard & Curran

Attn: Tracy Bispham

Attn: Anne Proctor

REVISED

Respectfully Submitted,

Barbara Weyandt

Barbara A. Weyandt
Specialist

(717) 556-7264

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value - The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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Sample Description: TCN-ST3 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848626
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 10:00 by AH

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/06/2012 09:30

38 Varick Street

Reported: 11/20/2012 15:44

Brooklyn NY 11222

CNST3 SDG#: TAP02-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	1.02
10237	Benzene	71-43-2	N.D.	0.0005	1.02
10237	2-Butanone	78-93-3	N.D.	0.004	1.02
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.02
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.02
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.02
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.02
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.02
10237	Chloroform	67-66-3	N.D.	0.001	1.02
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.02
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.02
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.02
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.02
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.02
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.02
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.02
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.02
10237	1,4-Dioxane	123-91-1	N.D.	0.076	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.02
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.02
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.02
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.02
10237	Toluene	108-88-3	N.D.	0.001	1.02
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.02
10237	Trichloroethene	79-01-6	N.D.	0.001	1.02
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.02
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.02
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.02
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.02
Wet Chemistry	SM20 2540 G	%	%		
00111	Moisture	n.a.	6.0	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Page 2 of 2
REVISED

Sample Description: TCN-ST3 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848626
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 10:00 by AH

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/06/2012 09:30

38 Varick Street

Reported: 11/20/2012 15:44

Brooklyn NY 11222

CNST3 SDG#: TAP02-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123121AA	11/07/2012 12:34	Angela D Sneeringer	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12311820001B	11/06/2012 21:44	Scott W Freisher	1

Page 1 of 2
REVISEDSample Description: TCN-ST4 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NYLLI Sample # SW 6848627
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 10:05 by AH

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/06/2012 09:30

38 Varick Street

Reported: 11/20/2012 15:44

Brooklyn NY 11222

CNST4 SDG#: TAP02-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	1.03
10237	Benzene	71-43-2	N.D.	0.0005	1.03
10237	2-Butanone	78-93-3	N.D.	0.004	1.03
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.03
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.03
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.03
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.03
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.03
10237	Chloroform	67-66-3	N.D.	0.001	1.03
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.03
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.03
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.03
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.03
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.03
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.03
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.03
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.03
10237	1,4-Dioxane	123-91-1	N.D.	0.076	1.03
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.03
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.03
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.03
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.03
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.03
10237	Toluene	108-88-3	N.D.	0.001	1.03
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.03
10237	Trichloroethene	79-01-6	N.D.	0.001	1.03
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.03
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.03
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.03
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.03
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.03

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	4.8	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Page 2 of 2
REVISED

Sample Description: TCN-ST4 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848627
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 10:05 by AH

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/20/2012 15:44

CNST4 SDG#: TAP02-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123121AA	11/07/2012 12:57	Angela D Sneeringer	1.03
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:11	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12311820001B	11/06/2012 21:44	Scott W Freisher	1

Page 1 of 4
REVISEDSample Description: TCN-STC2 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NYLLI Sample # SW 6848628
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 10:15 by AH

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/06/2012 09:30

38 Varick Street

Reported: 11/20/2012 15:44

Brooklyn NY 11222

NSTC2 SDG#: TAP02-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	3	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	4 J	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	9 J	3	1
10727	Pentachlorophenol	87-86-5	N.D.	35	1
10727	Phenanthrene	85-01-8	6 J	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides	SW-846 8151A	ug/kg	ug/kg		
10401	2,4,5-TP	93-72-1	N.D.	0.78	1
Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg		
10738	Aldrin	309-00-2	N.D.	0.18	1
10738	Alpha BHC	319-84-6	N.D.	0.18	1
10738	Beta BHC	319-85-7	N.D.	1.0	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.18	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.18	1
10738	p,p-DDD	72-54-8	N.D.	0.35	1
10738	p,p-DDE	72-55-9	N.D.	0.35	1
10738	p,p-DDT	50-29-3	N.D.	0.37	1
10738	Delta BHC	319-86-8	N.D.	0.48	1
10738	Dieldrin	60-57-1	N.D.	0.35	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.35	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.35	1
10738	Endrin	72-20-8	N.D.	0.35	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.18	1
Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg		
10736	PCB-1016	12674-11-2	N.D.	3.8	1
10736	PCB-1221	11104-28-2	N.D.	4.9	1

Sample Description: TCN-STC2 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848628
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 10:15 by AH

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/06/2012 09:30

38 Varick Street

Reported: 11/20/2012 15:44

Brooklyn NY 11222

NSTC2 SDG#: TAP02-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.5	1
10736	PCB-1242	53469-21-9	N.D.	3.5	1
10736	PCB-1248	12672-29-6	N.D.	3.5	1
10736	PCB-1254	11097-69-1	N.D.	3.5	1
10736	PCB-1260	11096-82-5	N.D.	5.2	1

The % difference for the calibration verification standard is outside the +/- 15% criteria for the analyte(s) listed below. Since the average of the % difference values meets the criteria, the results are reported.

This applies to the following analyte(s): decachlorobiphenyl surrogate

Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	3.57	0.350	1
06946	Barium	7440-39-3	12.9	0.0350	1
06947	Beryllium	7440-41-7	N.D.	0.0710	1
06949	Cadmium	7440-43-9	N.D.	0.0350	1
06951	Chromium	7440-47-3	6.54	0.0932	1
06953	Copper	7440-50-8	129	0.191	1
06955	Lead	7439-92-1	2.74	0.498	1
06958	Manganese	7439-96-5	194	0.0879	1
06961	Nickel	7440-02-0	16.0	0.117	1
06936	Selenium	7782-49-2	2.66	0.763	1
06966	Silver	7440-22-4	0.378 J	0.148	1
06972	Zinc	7440-66-6	51.8	0.212	1

SW-846 6010B modified mg/kg

02829	Trivalent Chromium soils	16065-83-1	6.5	0.53	1
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SW-846 7471A		mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0109
				1

Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.18	1

SW-846 7196A			mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.53	1

Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	5.6	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: TCN-STC2 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848628
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 10:15 by AH

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/06/2012 09:30

38 Varick Street

Reported: 11/20/2012 15:44

Brooklyn NY 11222

NSTC2 SDG#: TAP02-03

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12311SLD026	11/08/2012 11:24	Mark A Clark	1
10809	BNA Soil Microwave	SW-846 3546	1	12311SLD026	11/07/2012 05:30	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123110018A	11/07/2012 22:57	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123110015A	11/13/2012 15:30	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123110016A	11/07/2012 11:34	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123110016A	11/06/2012 18:00	Sally L Appleyard	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123110015A	11/06/2012 18:10	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123110018A	11/06/2012 22:30	Karen L Beyer	1
06935	Arsenic	SW-846 6010B	1	123115708001	11/08/2012 16:07	Eric L Eby	1
06946	Barium	SW-846 6010B	1	123115708001	11/08/2012 16:07	Eric L Eby	1
06947	Beryllium	SW-846 6010B	1	123115708001	11/08/2012 16:07	Eric L Eby	1
06949	Cadmium	SW-846 6010B	1	123115708001	11/08/2012 16:07	Eric L Eby	1
06951	Chromium	SW-846 6010B	1	123115708001	11/08/2012 16:07	Eric L Eby	1
06953	Copper	SW-846 6010B	1	123115708001	11/08/2012 16:07	Eric L Eby	1
06955	Lead	SW-846 6010B	1	123115708001	11/10/2012 11:36	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123115708001	11/08/2012 16:07	Eric L Eby	1
06961	Nickel	SW-846 6010B	1	123115708001	11/08/2012 16:07	Eric L Eby	1
06936	Selenium	SW-846 6010B	1	123115708001	11/10/2012 11:36	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123115708001	11/08/2012 16:07	Eric L Eby	1
06972	Zinc	SW-846 6010B	1	123115708001	11/08/2012 16:07	Eric L Eby	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123172829001	11/12/2012 11:42	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 12:32	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123115708001	11/07/2012 08:55	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12312103201A	11/08/2012 09:00	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12312102201A	11/08/2012 08:52	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12312103201A	11/07/2012 09:10	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12312102201A	11/07/2012 09:10	Nancy J Shoop	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12312042501A	11/07/2012 23:15	Daniel S Smith	1

Sample Description: TCN-STC2 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848628
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 10:15 by AH

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/06/2012 09:30

38 Varick Street

Reported: 11/20/2012 15:44

Brooklyn NY 11222

NSTC2 SDG#: TAP02-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12312042501A	11/07/2012 19:25	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12311820001B	11/06/2012 21:44	Scott W Freisher	1

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Sample Description: TCN-ST5 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848629
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:00 by AH

ExxonMobil Refining & Supply

Global Remed.-Major Projects

38 Varick Street

Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/20/2012 15:44

CNST5 SDG#: TAP02-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.99
10237	Benzene	71-43-2	N.D.	0.0005	0.99
10237	2-Butanone	78-93-3	N.D.	0.004	0.99
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.99
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.99
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.99
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.99
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.99
10237	Chloroform	67-66-3	N.D.	0.001	0.99
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.99
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.99
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.99
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.99
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.99
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.99
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.99
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.99
10237	1,4-Dioxane	123-91-1	N.D.	0.074	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.99
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.99
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.99
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.99
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.99
10237	Trichloroethene	79-01-6	N.D.	0.001	0.99
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.99
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.99
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.99
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.99

Wet Chemistry SM20 2540 G % %
00111 Moisture n.a. 7.1 0.50 1
"Moisture" represents the loss in weight of the sample after oven drying at
103 - 105 degrees Celsius. The moisture result reported above is on an
as-received basis.

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality
Control Summary for overall QC performance data and associated samples.

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Sample Description: TCN-ST5 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848629
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:00 by AH

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Submitted: 11/06/2012 09:30

38 Varick Street

Reported: 11/20/2012 15:44

Brooklyn NY 11222

CNST5 SDG#: TAP02-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123121AA	11/07/2012 13:19	Angela D Sneeringer	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:19	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12311820001B	11/06/2012 21:44	Scott W Freisher	1

Sample Description: TCN-ST6 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848630
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:10 by AH

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/06/2012 09:30

38 Varick Street

Reported: 11/20/2012 15:44

Brooklyn NY 11222

CNST6 SDG#: TAP02-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	1.04
10237	Benzene	71-43-2	N.D.	0.0005	1.04
10237	2-Butanone	78-93-3	N.D.	0.004	1.04
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.04
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.04
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.04
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.04
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.04
10237	Chloroform	67-66-3	N.D.	0.001	1.04
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.04
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.04
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.04
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.04
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.04
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.04
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.04
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.04
10237	1,4-Dioxane	123-91-1	N.D.	0.075	1.04
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.04
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.04
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.04
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.04
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.04
10237	Toluene	108-88-3	N.D.	0.001	1.04
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.04
10237	Trichloroethene	79-01-6	N.D.	0.001	1.04
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.04
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.04
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.04
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.04
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.04
Wet Chemistry	SM20 2540 G	%	%		
00111	Moisture	n.a.	3.8	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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Sample Description: TCN-ST6 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848630
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:10 by AH

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Submitted: 11/06/2012 09:30

38 Varick Street

Reported: 11/20/2012 15:44

Brooklyn NY 11222

CNST6 SDG#: TAP02-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123121AA	11/07/2012 13:42	Angela D Sneeringer	1.04
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:17	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12311820001B	11/06/2012 21:44	Scott W Freisher	1

Page 1 of 2
REVISEDSample Description: TCN-ST7 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NYLLI Sample # SW 6848631
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:20 by AH

ExxonMobil Refining & Supply
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38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/20/2012 15:44

CNST7 SDG#: TAP02-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1
10237	Benzene	71-43-2	N.D.	0.0005	1
10237	2-Butanone	78-93-3	N.D.	0.004	1
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1
10237	Chlorobenzene	108-90-7	N.D.	0.001	1
10237	Chloroform	67-66-3	N.D.	0.001	1
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1
10237	1,4-Dioxane	123-91-1	N.D.	0.074	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1
10237	Methylene Chloride	75-09-2	N.D.	0.002	1
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1
10237	Toluene	108-88-3	N.D.	0.001	1
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1
10237	Trichloroethene	79-01-6	N.D.	0.001	1
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1
Wet Chemistry	SM20 2540 G	%	%		
00111	Moisture	n.a.	5.0	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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Sample Description: TCN-ST7 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848631
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:20 by AH

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38 Varick Street

Reported: 11/20/2012 15:44

Brooklyn NY 11222

CNST7 SDG#: TAP02-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123121AA	11/07/2012 14:05	Angela D Sneeringer	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:16	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12311820001B	11/06/2012 21:44	Scott W Freisher	1

Page 1 of 2
REVISEDSample Description: TCN-ST8 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NYLLI Sample # SW 6848632
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:30 by AH

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/06/2012 09:30

Reported: 11/20/2012 15:44

CNST8 SDG#: TAP02-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	1
10237	Benzene	71-43-2	N.D.	0.0005	1
10237	2-Butanone	78-93-3	N.D.	0.004	1
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1
10237	Chlorobenzene	108-90-7	N.D.	0.001	1
10237	Chloroform	67-66-3	N.D.	0.001	1
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1
10237	1,4-Dioxane	123-91-1	N.D.	0.076	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1
10237	Methylene Chloride	75-09-2	N.D.	0.002	1
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1
10237	Toluene	108-88-3	N.D.	0.001	1
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1
10237	Trichloroethene	79-01-6	N.D.	0.001	1
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	7.8	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

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Sample Description: TCN-ST8 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848632
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:30 by AH

ExxonMobil Refining & Supply

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Submitted: 11/06/2012 09:30

38 Varick Street

Reported: 11/20/2012 15:44

Brooklyn NY 11222

CNST8 SDG#: TAP02-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123121AA	11/07/2012 14:28	Angela D Sneeringer	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231129303	11/06/2012 12:20	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231129303	11/06/2012 12:14	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12311820001B	11/06/2012 21:44	Scott W Freisher	1

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REVISEDSample Description: TCN-STC3 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NYLLI Sample # SW 6848633
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:40 by AH

ExxonMobil Refining & Supply

Submitted: 11/06/2012 09:30

Global Remed.-Major Projects

Reported: 11/20/2012 15:44

38 Varick Street

Brooklyn NY 11222

NSTC3 SDG#: TAP02-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	3	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	35	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	4 J	3	1
Herbicides	SW-846 8151A	ug/kg	ug/kg		
10401	2,4,5-TP	93-72-1	N.D.	0.79	1
Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg		
10738	Aldrin	309-00-2	N.D.	0.18	1
10738	Alpha BHC	319-84-6	N.D.	0.18	1
10738	Beta BHC	319-85-7	N.D.	1.0	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.18	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.18	1
10738	p,p-DDD	72-54-8	N.D.	0.35	1
10738	p,p-DDE	72-55-9	N.D.	0.35	1
10738	p,p-DDT	50-29-3	N.D.	0.37	1
10738	Delta BHC	319-86-8	N.D.	0.48	1
10738	Dieldrin	60-57-1	N.D.	0.35	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.35	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.35	1
10738	Endrin	72-20-8	N.D.	0.35	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.18	1
Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg		
10736	PCB-1016	12674-11-2	N.D.	3.8	1
10736	PCB-1221	11104-28-2	N.D.	4.9	1

Sample Description: TCN-STC3 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848633
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:40 by AH

ExxonMobil Refining & Supply

Submitted: 11/06/2012 09:30

Global Remed.-Major Projects

Reported: 11/20/2012 15:44

38 Varick Street

Brooklyn NY 11222

NSTC3 SDG#: TAP02-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.5	1
10736	PCB-1242	53469-21-9	N.D.	3.5	1
10736	PCB-1248	12672-29-6	N.D.	3.5	1
10736	PCB-1254	11097-69-1	N.D.	3.5	1
10736	PCB-1260	11096-82-5	N.D.	5.2	1

The % difference for the calibration verification standard is outside the +/- 15% criteria for the analyte(s) listed below. Since the average of the % difference values meets the criteria, the results are reported.

This applies to the following analyte(s): decachlorobiphenyl surrogate

Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	2.34	0.342	1
06946	Barium	7440-39-3	15.7	0.0342	1
06947	Beryllium	7440-41-7	0.0943 J	0.0694	1
06949	Cadmium	7440-43-9	N.D.	0.0342	1
06951	Chromium	7440-47-3	7.09	0.0912	1
06953	Copper	7440-50-8	121	0.187	1
06955	Lead	7439-92-1	2.72	0.487	1
06958	Manganese	7439-96-5	176	0.0860	1
06961	Nickel	7440-02-0	15.3	0.114	1
06936	Selenium	7782-49-2	1.68 J	0.746	1
06966	Silver	7440-22-4	0.211 J	0.145	1
06972	Zinc	7440-66-6	39.4	0.207	1

SW-846 6010B modified mg/kg mg/kg

02829 Trivalent Chromium soils 16065-83-1 7.1 0.53 1

00159 Mercury SW-846 7471A 7439-97-6 N.D. 0.0106 1

Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.18	1

		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.53	1

Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	5.4	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

Sample Description: TCN-STC3 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848633
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:40 by AH

ExxonMobil Refining & Supply

Submitted: 11/06/2012 09:30

Global Remed.-Major Projects

Reported: 11/20/2012 15:44

38 Varick Street

Brooklyn NY 11222

NSTC3 SDG#: TAP02-08

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12311SLD026	11/08/2012 11:51	Mark A Clark	1
10809	BNA Soil Microwave	SW-846 3546	1	12311SLD026	11/07/2012 05:30	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123110018A	11/07/2012 23:25	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123110015A	11/13/2012 15:44	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123110016A	11/07/2012 12:08	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123110016A	11/06/2012 18:00	Sally L Appleyard	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123110015A	11/06/2012 18:10	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123110018A	11/06/2012 22:30	Karen L Beyer	1
06935	Arsenic	SW-846 6010B	1	123115708001	11/08/2012 15:43	Eric L Eby	1
06946	Barium	SW-846 6010B	1	123115708001	11/08/2012 15:43	Eric L Eby	1
06947	Beryllium	SW-846 6010B	1	123115708001	11/08/2012 15:43	Eric L Eby	1
06949	Cadmium	SW-846 6010B	1	123115708001	11/08/2012 15:43	Eric L Eby	1
06951	Chromium	SW-846 6010B	1	123115708001	11/08/2012 15:43	Eric L Eby	1
06953	Copper	SW-846 6010B	1	123115708001	11/08/2012 15:43	Eric L Eby	1
06955	Lead	SW-846 6010B	1	123115708001	11/10/2012 10:58	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123115708001	11/08/2012 15:43	Eric L Eby	1
06961	Nickel	SW-846 6010B	1	123115708001	11/08/2012 15:43	Eric L Eby	1
06936	Selenium	SW-846 6010B	1	123115708001	11/10/2012 10:58	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123115708001	11/08/2012 15:43	Eric L Eby	1
06972	Zinc	SW-846 6010B	1	123115708001	11/08/2012 15:43	Eric L Eby	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123172829001	11/12/2012 11:42	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 12:42	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123115708001	11/07/2012 08:55	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12312103201A	11/08/2012 09:06	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12312102201A	11/08/2012 08:53	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12312103201A	11/07/2012 09:10	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12312102201A	11/07/2012 09:10	Nancy J Shoop	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12312042501A	11/07/2012 23:15	Daniel S Smith	1

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REVISED

Sample Description: TCN-STC3 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848633
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:40 by AH

ExxonMobil Refining & Supply

Submitted: 11/06/2012 09:30

Global Remed.-Major Projects

Reported: 11/20/2012 15:44

38 Varick Street

Brooklyn NY 11222

NSTC3 SDG#: TAP02-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12312042501A	11/07/2012 19:25	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12311820001B	11/06/2012 21:44	Scott W Freisher	1

Page 1 of 4
REVISED

Sample Description: TCN-STC4 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848634
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:50 by AH

ExxonMobil Refining & Supply

Submitted: 11/06/2012 09:30

Global Remed.-Major Projects

Reported: 11/20/2012 15:44

38 Varick Street
Brooklyn NY 11222

NSTC4: SDG#: TAP02-09*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	3	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	18	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	18	1
10727	4-Methylphenol	106-44-5	N.D.	18	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	35	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	18	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides		SW-846 8151A	ug/kg	ug/kg	
10401	2,4,5-TP	93-72-1	N.D.	0.80	1
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	
10738	Aldrin	309-00-2	N.D.	0.18	1
10738	Alpha BHC	319-84-6	N.D.	0.18	1
10738	Beta BHC	319-85-7	N.D.	1.0	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.18	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.18	1
10738	p,p-DDD	72-54-8	N.D.	0.35	1
10738	p,p-DDE	72-55-9	N.D.	0.35	1
10738	p,p-DDT	50-29-3	N.D.	0.37	1
10738	Delta BHC	319-86-8	N.D.	0.48	1
10738	Dieldrin	60-57-1	N.D.	0.35	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.35	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.35	1
10738	Endrin	72-20-8	N.D.	0.35	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.18	1
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	3.8	1
10736	PCB-1221	11104-28-2	N.D.	4.9	1

Sample Description: TCN-STC4 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848634
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:50 by AH

ExxonMobil Refining & Supply

Submitted: 11/06/2012 09:30

Global Remed.-Major Projects

Reported: 11/20/2012 15:44

38 Varick Street

Brooklyn NY 11222

NSTC4 SDG#: TAP02-09*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.5	1
10736	PCB-1242	53469-21-9	N.D.	3.5	1
10736	PCB-1248	12672-29-6	N.D.	3.5	1
10736	PCB-1254	11097-69-1	N.D.	3.5	1
10736	PCB-1260	11096-82-5	N.D.	5.2	1

The % difference for the calibration verification standard is outside the +/- 15% criteria for the analyte(s) listed below. Since the average of the % difference values meets the criteria, the results are reported.

This applies to the following analyte(s): decachlorobiphenyl surrogate

Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	2.37	0.345	1
06946	Barium	7440-39-3	13.0	0.0345	1
06947	Beryllium	7440-41-7	N.D.	0.0701	1
06949	Cadmium	7440-43-9	N.D.	0.0345	1
06951	Chromium	7440-47-3	4.25	0.0921	1
06953	Copper	7440-50-8	133	0.188	1
06955	Lead	7439-92-1	2.65	0.492	1
06958	Manganese	7439-96-5	170	0.0868	1
06961	Nickel	7440-02-0	13.6	0.115	1
06936	Selenium	7782-49-2	2.26	0.753	1
06966	Silver	7440-22-4	0.332 J	0.146	1
06972	Zinc	7440-66-6	41.1	0.209	1

SW-846 6010B modified mg/kg mg/kg

02829 Trivalent Chromium soils 16065-83-1 4.3 0.53 1

SW-846 7471A mg/kg mg/kg

00159 Mercury 7439-97-6 N.D. 0.0103 1

Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.18	1

		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.53	1

Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	6.3	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

Sample Description: TCN-STC4 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848634
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:50 by AH

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/06/2012 09:30

38 Varick Street

Reported: 11/20/2012 15:44

Brooklyn NY 11222

NSTC4 SDG#: TAP02-09*

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12311SLD026	11/08/2012 12:18	Mark A Clark	1
10809	BNA Soil Microwave	SW-846 3546	1	12311SLD026	11/07/2012 05:30	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123110018A	11/08/2012 00:47	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123110015A	11/13/2012 15:58	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123110016A	11/07/2012 12:20	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123110016A	11/06/2012 18:00	Sally L Appleyard	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123110015A	11/06/2012 18:10	Sally L Appleyard	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123110018A	11/06/2012 22:30	Karen L Beyer	1
06935	Arsenic	SW-846 6010B	1	123115708001	11/08/2012 16:11	Eric L Eby	1
06946	Barium	SW-846 6010B	1	123115708001	11/08/2012 16:11	Eric L Eby	1
06947	Beryllium	SW-846 6010B	1	123115708001	11/08/2012 16:11	Eric L Eby	1
06949	Cadmium	SW-846 6010B	1	123115708001	11/08/2012 16:11	Eric L Eby	1
06951	Chromium	SW-846 6010B	1	123115708001	11/08/2012 16:11	Eric L Eby	1
06953	Copper	SW-846 6010B	1	123115708001	11/08/2012 16:11	Eric L Eby	1
06955	Lead	SW-846 6010B	1	123115708001	11/10/2012 11:40	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123115708001	11/08/2012 16:11	Eric L Eby	1
06961	Nickel	SW-846 6010B	1	123115708001	11/08/2012 16:11	Eric L Eby	1
06936	Selenium	SW-846 6010B	1	123115708001	11/10/2012 11:40	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123115708001	11/08/2012 16:11	Eric L Eby	1
06972	Zinc	SW-846 6010B	1	123115708001	11/08/2012 16:11	Eric L Eby	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123172829001	11/12/2012 11:42	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 12:44	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123115708001	11/07/2012 08:55	Denise K Connors	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12312103201A	11/08/2012 09:07	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12312102201A	11/08/2012 08:54	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12312103201A	11/07/2012 09:10	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12312102201A	11/07/2012 09:10	Nancy J Shoop	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12312042501A	11/07/2012 23:15	Daniel S Smith	1

Page 4 of 4
REVISED

Sample Description: TCN-STC4 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6848634
LLI Group # 1346822
Account # 10629

Project Name: Tappan Terminal

Collected: 11/02/2012 11:50 by AH

ExxonMobil Refining & Supply

Submitted: 11/06/2012 09:30

Global Remed.-Major Projects

Reported: 11/20/2012 15:44

38 Varick Street

Brooklyn NY 11222

NSTC4 SDG#: TAP02-09*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12312042501A	11/07/2012 19:25	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12311820001B	11/06/2012 21:44	Scott W Freisher	1

Volatiles by GC/MS Data

Case Narrative/Conformance Summary

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP02

GC/MS Volatiles

Fraction: Volatiles by GC/MS

Sample #	Client ID	Matrix		DF	Comments
		Liquid	Solid		
6848626	TCN-ST3		X	1.02; 1.05	
6848627	TCN-ST4		X	1.03	
6848629	TCN-ST5		X	0.99	
6848630	TCN-ST6		X	1.04	
6848631	TCN-ST7		X	1	
6848632	TCN-ST8		X	1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Method Blank

For noncompliant preparation/method blanks, corrective action is not required if the sample is ND or > 10 times the blank concentration, unless otherwise specified in the method or by the client.

MS/MSD

Please note that US EPA Methods for organic compounds do not require action by the laboratory based on out-of-specification MS/MSD results.

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP02

GC/MS Volatiles

Fraction: Volatiles by GC/MS

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Narrative Reviewed and Approved 11/19/12 by
(Date)


Kathy J. Fair
Specialist

Sample Data

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST3

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6848626

Sample wt/vol: 4.89 (g/mL) g Lab File ID: HP09953.i/12nov07a.b/bn07s05.d

Level: (low/med) LOW Date Received: 11/06/12

Moisture: not dec. 6 Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.022	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.011	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.270	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST3

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6848626

Sample wt/vol: 4.89 (g/mL) g Lab File ID: HP09953.i/12nov07a.b/bn07s05.d

Level: (low/med) LOW Date Received: 11/06/12

Moisture: not dec. 6 Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U
95-50-1-----	1,2-Dichlorobenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST4

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6848627

Sample wt/vol: 4.85 (g/mL) g Lab File ID: HP09953.i/12nov07a.b/bn07s06.d

Level: (low/med) LOW Date Received: 11/06/12

Moisture: not dec. 5 Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.022	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.011	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.270	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST4

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6848627

Sample wt/vol: 4.85 (g/mL) g Lab File ID: HP09953.i/12nov07a.b/bn07s06.d

Level: (low/med) LOW Date Received: 11/06/12

Moisture: not dec. 5 Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.005	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST5

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6848629

Sample wt/vol: 5.06 (g/mL) g Lab File ID: HP09953.i/12nov07a.b/bn07s07.d

Level: (low/med) LOW Date Received: 11/06/12

Moisture: not dec. 7 Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.021	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.011	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.270	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST5

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6848629

Sample wt/vol: 5.06 (g/mL) g

Lab File ID: HP09953.i/12nov07a.b/bn07s07.d

Level: (low/med) LOW

Date Received: 11/06/12

Moisture: not dec. 7

Date Analyzed: 11/07/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.005	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST6

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6848630

Sample wt/vol: 4.83 (g/mL) g

Lab File ID: HP09953.i/12nov07a.b/bn07s08.d

Level: (low/med) LOW

Date Received: 11/06/12

Moisture: not dec. 4

Date Analyzed: 11/07/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.022	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.011	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.270	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST6

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6848630

Sample wt/vol: 4.83 (g/mL) g Lab File ID: HP09953.i/12nov07a.b/bn07s08.d

Level: (low/med) LOW Date Received: 11/06/12

Moisture: not dec. 4 Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----	1,2-Dichlorobenzene	0.005	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST7

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6848631

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09953.i/12nov07a.b/bn07s09.d

Level: (low/med) LOW

Date Received: 11/06/12

Moisture: not dec. 5

Date Analyzed: 11/07/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(mg/L or mg/Kg) mg/Kg

Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.021	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.011	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.260	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST7

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6848631

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09953.i/12nov07a.b/bn07s09.d

Level: (low/med) LOW

Date Received: 11/06/12

Moisture: not dec. 5

Date Analyzed: 11/07/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.005	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST8

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6848632

Sample wt/vol: 5.01 (g/mL) g

Lab File ID: HP09953.i/12nov07a.b/bn07s10.d

Level: (low/med) LOW

Date Received: 11/06/12

Moisture: not dec. 8

Date Analyzed: 11/07/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(mg/L or mg/Kg) mg/Kg

Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.022	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.011	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.270	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST8

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6848632

Sample wt/vol: 5.01 (g/mL) g Lab File ID: HP09953.i/12nov07a.b/bn07s10.d

Level: (low/med) LOW Date Received: 11/06/12

Moisture: not dec. 8 Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----1,2-Dichlorobenzene	0.005	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST3MS

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6848626

Sample wt/vol: 4.75 (g/mL) g Lab File ID: HP09953.i/12nov07a.b/bn07s23.d

Level: (low/med) LOW Date Received: 11/06/12

Moisture: not dec. 6 Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-71-8-----	Dichlorodifluoromethane	0.022	
74-87-3-----	Chloromethane	0.023	
75-01-4-----	Vinyl Chloride	0.023	
74-83-9-----	Bromomethane	0.025	
75-00-3-----	Chloroethane	0.024	
75-69-4-----	Trichlorofluoromethane	0.027	
64-17-5-----	Ethanol	1.200	
107-02-8-----	Acrolein	0.170	
75-35-4-----	1,1-Dichloroethene	0.027	
67-64-1-----	Acetone	0.180	
76-13-1-----	Freon 113	0.028	
67-63-0-----	2-Propanol	0.190	
74-88-4-----	Methyl Iodide	0.025	
75-15-0-----	Carbon Disulfide	0.025	
79-20-9-----	Methyl Acetate	0.024	
107-05-1-----	Allyl Chloride	0.026	
75-09-2-----	Methylene Chloride	0.026	B
75-65-0-----	t-Butyl alcohol	0.250	
107-13-1-----	Acrylonitrile	0.110	
1634-04-4-----	Methyl Tertiary Butyl Ether	0.026	
156-60-5-----	trans-1,2-Dichloroethene	0.027	
110-54-3-----	n-Hexane	0.025	
75-34-3-----	1,1-Dichloroethane	0.026	
108-20-3-----	di-Isopropyl ether	0.024	
126-99-8-----	2-Chloro-1,3-butadiene	0.028	
637-92-3-----	Ethyl t-butyl ether	0.024	
78-93-3-----	2-Butanone	0.190	
156-59-2-----	cis-1,2-Dichloroethene	0.025	
540-59-0-----	1,2-Dichloroethene (Total)	0.052	
594-20-7-----	2,2-Dichloropropane	0.028	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST3MS

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6848626

Sample wt/vol: 4.75 (g/mL) g Lab File ID: HP09953.i/12nov07a.b/bn07s23.d

Level: (low/med) LOW Date Received: 11/06/12

Moisture: not dec. 6 Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

107-12-0-----	Propionitrile	0.170	
126-98-7-----	Methacrylonitrile	0.180	
74-97-5-----	Bromochloromethane	0.024	
109-99-9-----	Tetrahydrofuran	0.110	
67-66-3-----	Chloroform	0.025	
71-55-6-----	1,1,1-Trichloroethane	0.029	
110-82-7-----	Cyclohexane	0.025	
563-58-6-----	1,1-Dichloropropene	0.025	
56-23-5-----	Carbon Tetrachloride	0.027	
78-83-1-----	Isobutyl Alcohol	0.530	
71-43-2-----	Benzene	0.025	
107-06-2-----	1,2-Dichloroethane	0.027	
994-05-8-----	t-Amyl methyl ether	0.023	
142-82-5-----	n-Heptane	0.025	
71-36-3-----	n-Butanol	0.970	
79-01-6-----	Trichloroethene	0.027	
108-87-2-----	Methylcyclohexane	0.025	
78-87-5-----	1,2-Dichloropropane	0.024	
80-62-6-----	Methyl Methacrylate	0.021	
123-91-1-----	1,4-Dioxane	0.510	
74-95-3-----	Dibromomethane	0.024	
75-27-4-----	Bromodichloromethane	0.025	
79-46-9-----	2-Nitropropane	0.019	
110-75-8-----	2-Chloroethyl Vinyl Ether	0.080	
10061-01-5-----	cis-1,3-Dichloropropene	0.025	
108-10-1-----	4-Methyl-2-pentanone	0.110	
108-88-3-----	Toluene	0.024	
10061-02-6-----	trans-1,3-Dichloropropene	0.023	
97-63-2-----	Ethyl Methacrylate	0.020	
79-00-5-----	1,1,2-Trichloroethane	0.024	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST3MS

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6848626

Sample wt/vol: 4.75 (g/mL) g Lab File ID: HP09953.i/12nov07a.b/bn07s23.d

Level: (low/med) LOW Date Received: 11/06/12

Moisture: not dec. 6 Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

127-18-4-----	Tetrachloroethene	0.040	
142-28-9-----	1,3-Dichloropropane	0.023	
591-78-6-----	2-Hexanone	0.100	
124-48-1-----	Dibromochloromethane	0.023	
106-93-4-----	1,2-Dibromoethane	0.023	
108-90-7-----	Chlorobenzene	0.023	
630-20-6-----	1,1,1,2-Tetrachloroethane	0.024	
100-41-4-----	Ethylbenzene	0.024	
179601-23-1-----	m+p-Xylene	0.047	
95-47-6-----	o-Xylene	0.023	
1330-20-7-----	Xylene (Total)	0.070	
100-42-5-----	Styrene	0.023	
75-25-2-----	Bromoform	0.020	
98-82-8-----	Isopropylbenzene	0.024	
108-94-1-----	Cyclohexanone	0.770	
79-34-5-----	1,1,2,2-Tetrachloroethane	0.021	
108-86-1-----	Bromobenzene	0.024	
110-57-6-----	trans-1,4-Dichloro-2-butene	0.130	
96-18-4-----	1,2,3-Trichloropropane	0.025	
103-65-1-----	n-Propylbenzene	0.021	
95-49-8-----	2-Chlorotoluene	0.024	
108-67-8-----	1,3,5-Trimethylbenzene	0.025	
106-43-4-----	4-Chlorotoluene	0.024	
98-06-6-----	tert-Butylbenzene	0.023	
76-01-7-----	Pentachloroethane	0.008	
95-63-6-----	1,2,4-Trimethylbenzene	0.024	
135-98-8-----	sec-Butylbenzene	0.025	
541-73-1-----	1,3-Dichlorobenzene	0.023	
99-87-6-----	p-Isopropyltoluene	0.025	
106-46-7-----	1,4-Dichlorobenzene	0.023	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST3MS

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6848626

Sample wt/vol: 4.75 (g/mL) g

Lab File ID: HP09953.i/12nov07a.b/bn07s23.d

Level: (low/med) LOW

Date Received: 11/06/12

Moisture: not dec. 6

Date Analyzed: 11/07/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(mg/L or mg/Kg) mg/Kg

Q

526-73-8-----	1,2,3-Trimethylbenzene	0.024	
100-44-7-----	Benzyl Chloride	0.020	
141-93-5-----	1,3-Diethylbenzene	0.023	
105-05-5-----	1,4-Diethylbenzene	0.023	
104-51-8-----	n-Butylbenzene	0.025	
95-50-1-----	1,2-Dichlorobenzene	0.023	
135-01-3-----	1,2-Diethylbenzene	0.023	
96-12-8-----	1,2-Dibromo-3-chloropropane	0.021	
108-70-3-----	1,3,5-Trichlorobenzene	0.021	
120-82-1-----	1,2,4-Trichlorobenzene	0.021	
87-68-3-----	Hexachlorobutadiene	0.020	
91-20-3-----	Naphthalene	0.020	
87-61-6-----	1,2,3-Trichlorobenzene	0.021	
91-57-6-----	2-Methylnaphthalene	0.016	
25340-17-4-----	Diethylbenzene (total)	0.070	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB82

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LCSB82

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12nov07a.b/bn07s01.d

Level: (low/med) LOW Date Received: _____

Moisture: not dec. _____ Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-71-8-----	Dichlorodifluoromethane	0.018	
74-87-3-----	Chloromethane	0.020	
75-01-4-----	Vinyl Chloride	0.019	
74-83-9-----	Bromomethane	0.021	
75-00-3-----	Chloroethane	0.021	
75-69-4-----	Trichlorofluoromethane	0.021	
64-17-5-----	Ethanol	0.970	
107-02-8-----	Acrolein	0.160	
75-35-4-----	1,1-Dichloroethene	0.021	
67-64-1-----	Acetone	0.150	
76-13-1-----	Freon 113	0.020	
67-63-0-----	2-Propanol	0.140	
74-88-4-----	Methyl Iodide	0.021	
75-15-0-----	Carbon Disulfide	0.020	
79-20-9-----	Methyl Acetate	0.020	
107-05-1-----	Allyl Chloride	0.022	
75-09-2-----	Methylene Chloride	0.023	B
75-65-0-----	t-Butyl alcohol	0.200	
107-13-1-----	Acrylonitrile	0.097	
1634-04-4-----	Methyl Tertiary Butyl Ether	0.022	
156-60-5-----	trans-1,2-Dichloroethene	0.022	
110-54-3-----	n-Hexane	0.019	
75-34-3-----	1,1-Dichloroethane	0.021	
108-20-3-----	di-Isopropyl ether	0.020	
126-99-8-----	2-Chloro-1,3-butadiene	0.022	
637-92-3-----	Ethyl t-butyl ether	0.020	
78-93-3-----	2-Butanone	0.150	
156-59-2-----	cis-1,2-Dichloroethene	0.021	
540-59-0-----	1,2-Dichloroethene (Total)	0.043	
594-20-7-----	2,2-Dichloropropane	0.023	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB82

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LCSB82

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12nov07a.b/bn07s01.d

Level: (low/med) LOW Date Received: _____

Moisture: not dec. _____ Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

107-12-0	Propionitrile	0.140	
126-98-7	Methacrylonitrile	0.150	
74-97-5	Bromochloromethane	0.020	
109-99-9	Tetrahydrofuran	0.093	
67-66-3	Chloroform	0.021	
71-55-6	1,1,1-Trichloroethane	0.022	
110-82-7	Cyclohexane	0.019	
563-58-6	1,1-Dichloropropene	0.020	
56-23-5	Carbon Tetrachloride	0.021	
78-83-1	Isobutyl Alcohol	0.430	
71-43-2	Benzene	0.021	
107-06-2	1,2-Dichloroethane	0.022	
994-05-8	t-Amyl methyl ether	0.020	
142-82-5	n-Heptane	0.019	
71-36-3	n-Butanol	0.770	
79-01-6	Trichloroethene	0.021	
108-87-2	Methylcyclohexane	0.018	
78-87-5	1,2-Dichloropropane	0.020	
80-62-6	Methyl Methacrylate	0.018	
123-91-1	1,4-Dioxane	0.390	
74-95-3	Dibromomethane	0.020	
75-27-4	Bromodichloromethane	0.020	
79-46-9	2-Nitropropane	0.017	
110-75-8	2-Chloroethyl Vinyl Ether	0.068	
10061-01-5	cis-1,3-Dichloropropene	0.021	
108-10-1	4-Methyl-2-pentanone	0.089	
108-88-3	Toluene	0.020	
10061-02-6	trans-1,3-Dichloropropene	0.019	
97-63-2	Ethyl Methacrylate	0.018	
79-00-5	1,1,2-Trichloroethane	0.020	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB82

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LCSB82

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12nov07a.b/bn07s01.d

Level: (low/med) LOW Date Received: _____

Moisture: not dec. _____ Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

127-18-4-----	Tetrachloroethene	0.021	
142-28-9-----	1,3-Dichloropropane	0.020	
591-78-6-----	2-Hexanone	0.088	
124-48-1-----	Dibromochloromethane	0.019	
106-93-4-----	1,2-Dibromoethane	0.020	
108-90-7-----	Chlorobenzene	0.020	
630-20-6-----	1,1,1,2-Tetrachloroethane	0.020	
100-41-4-----	Ethylbenzene	0.020	
179601-23-1-----	m+p-Xylene	0.040	
95-47-6-----	o-Xylene	0.019	
1330-20-7-----	Xylene (Total)	0.059	
100-42-5-----	Styrene	0.019	
75-25-2-----	Bromoform	0.017	
98-82-8-----	Isopropylbenzene	0.020	
108-94-1-----	Cyclohexanone	0.630	
79-34-5-----	1,1,2,2-Tetrachloroethane	0.020	
108-86-1-----	Bromobenzene	0.020	
110-57-6-----	trans-1,4-Dichloro-2-butene	0.110	
96-18-4-----	1,2,3-Trichloropropane	0.020	
103-65-1-----	n-Propylbenzene	0.017	
95-49-8-----	2-Chlorotoluene	0.019	
108-67-8-----	1,3,5-Trimethylbenzene	0.021	
106-43-4-----	4-Chlorotoluene	0.020	
98-06-6-----	tert-Butylbenzene	0.019	
76-01-7-----	Pentachloroethane	0.019	
95-63-6-----	1,2,4-Trimethylbenzene	0.020	
135-98-8-----	sec-Butylbenzene	0.020	
541-73-1-----	1,3-Dichlorobenzene	0.020	
99-87-6-----	p-Isopropyltoluene	0.020	
106-46-7-----	1,4-Dichlorobenzene	0.019	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB82

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LCSB82

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12nov07a.b/bn07s01.d

Level: (low/med) LOW Date Received: _____

Moisture: not dec. _____ Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

526-73-8-----	1,2,3-Trimethylbenzene	0.021	
100-44-7-----	Benzyl Chloride	0.017	
141-93-5-----	1,3-Diethylbenzene	0.020	
105-05-5-----	1,4-Diethylbenzene	0.020	
104-51-8-----	n-Butylbenzene	0.020	
95-50-1-----	1,2-Dichlorobenzene	0.019	
135-01-3-----	1,2-Diethylbenzene	0.020	
96-12-8-----	1,2-Dibromo-3-chloropropane	0.019	
108-70-3-----	1,3,5-Trichlorobenzene	0.019	
120-82-1-----	1,2,4-Trichlorobenzene	0.019	
87-68-3-----	Hexachlorobutadiene	0.020	
91-20-3-----	Naphthalene	0.019	
87-61-6-----	1,2,3-Trichlorobenzene	0.020	
91-57-6-----	2-Methylnaphthalene	0.017	
25340-17-4-----	Diethylbenzene (total)	0.060	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDB82

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LCDB82

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12nov07a.b/bn07s02.d

Level: (low/med) LOW Date Received: _____

Moisture: not dec. _____ Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-71-8-----	Dichlorodifluoromethane	0.017	
74-87-3-----	Chloromethane	0.019	
75-01-4-----	Vinyl Chloride	0.019	
74-83-9-----	Bromomethane	0.021	
75-00-3-----	Chloroethane	0.021	
75-69-4-----	Trichlorofluoromethane	0.021	
64-17-5-----	Ethanol	0.920	
107-02-8-----	Acrolein	0.150	
75-35-4-----	1,1-Dichloroethene	0.021	
67-64-1-----	Acetone	0.160	
76-13-1-----	Freon 113	0.020	
67-63-0-----	2-Propanol	0.140	
74-88-4-----	Methyl Iodide	0.021	
75-15-0-----	Carbon Disulfide	0.020	
79-20-9-----	Methyl Acetate	0.022	
107-05-1-----	Allyl Chloride	0.021	
75-09-2-----	Methylene Chloride	0.023	B
75-65-0-----	t-Butyl alcohol	0.200	
107-13-1-----	Acrylonitrile	0.110	
1634-04-4-----	Methyl Tertiary Butyl Ether	0.024	
156-60-5-----	trans-1,2-Dichloroethene	0.022	
110-54-3-----	n-Hexane	0.018	
75-34-3-----	1,1-Dichloroethane	0.021	
108-20-3-----	di-Isopropyl ether	0.021	
126-99-8-----	2-Chloro-1,3-butadiene	0.022	
637-92-3-----	Ethyl t-butyl ether	0.021	
78-93-3-----	2-Butanone	0.170	
156-59-2-----	cis-1,2-Dichloroethene	0.021	
540-59-0-----	1,2-Dichloroethene (Total)	0.043	
594-20-7-----	2,2-Dichloropropane	0.023	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDB82

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LCDB82

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12nov07a.b/bn07s02.d

Level: (low/med) LOW Date Received: _____

Moisture: not dec. _____ Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

107-12-0-----	Propionitrile	0.140	
126-98-7-----	Methacrylonitrile	0.170	
74-97-5-----	Bromochloromethane	0.021	
109-99-9-----	Tetrahydrofuran	0.095	
67-66-3-----	Chloroform	0.021	
71-55-6-----	1,1,1-Trichloroethane	0.022	
110-82-7-----	Cyclohexane	0.019	
563-58-6-----	1,1-Dichloropropene	0.020	
56-23-5-----	Carbon Tetrachloride	0.020	
78-83-1-----	Isobutyl Alcohol	0.440	
71-43-2-----	Benzene	0.020	
107-06-2-----	1,2-Dichloroethane	0.023	
994-05-8-----	t-Amyl methyl ether	0.022	
142-82-5-----	n-Heptane	0.017	
71-36-3-----	n-Butanol	0.770	
79-01-6-----	Trichloroethene	0.021	
108-87-2-----	Methylcyclohexane	0.017	
78-87-5-----	1,2-Dichloropropane	0.021	
80-62-6-----	Methyl Methacrylate	0.020	
123-91-1-----	1,4-Dioxane	0.360	
74-95-3-----	Dibromomethane	0.021	
75-27-4-----	Bromodichloromethane	0.021	
79-46-9-----	2-Nitropropane	0.016	
110-75-8-----	2-Chloroethyl Vinyl Ether	0.076	
10061-01-5-----	cis-1,3-Dichloropropene	0.022	
108-10-1-----	4-Methyl-2-pentanone	0.110	
108-88-3-----	Toluene	0.020	
10061-02-6-----	trans-1,3-Dichloropropene	0.020	
97-63-2-----	Ethyl Methacrylate	0.020	
79-00-5-----	1,1,2-Trichloroethane	0.021	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDB82

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LCDB82

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12nov07a.b/bn07s02.d

Level: (low/med) LOW Date Received: _____

Moisture: not dec. _____ Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

127-18-4-----	Tetrachloroethene	0.021	
142-28-9-----	1,3-Dichloropropane	0.021	
591-78-6-----	2-Hexanone	0.099	
124-48-1-----	Dibromochloromethane	0.021	
106-93-4-----	1,2-Dibromoethane	0.021	
108-90-7-----	Chlorobenzene	0.020	
630-20-6-----	1,1,1,2-Tetrachloroethane	0.020	
100-41-4-----	Ethylbenzene	0.021	
179601-23-1-----	m+p-Xylene	0.040	
95-47-6-----	o-Xylene	0.019	
1330-20-7-----	Xylene (Total)	0.059	
100-42-5-----	Styrene	0.020	
75-25-2-----	Bromoform	0.019	
98-82-8-----	Isopropylbenzene	0.020	
108-94-1-----	Cyclohexanone	0.630	
79-34-5-----	1,1,2,2-Tetrachloroethane	0.021	
108-86-1-----	Bromobenzene	0.020	
110-57-6-----	trans-1,4-Dichloro-2-butene	0.120	
96-18-4-----	1,2,3-Trichloropropane	0.022	
103-65-1-----	n-Propylbenzene	0.017	
95-49-8-----	2-Chlorotoluene	0.020	
108-67-8-----	1,3,5-Trimethylbenzene	0.020	
106-43-4-----	4-Chlorotoluene	0.019	
98-06-6-----	tert-Butylbenzene	0.019	
76-01-7-----	Pentachloroethane	0.019	
95-63-6-----	1,2,4-Trimethylbenzene	0.020	
135-98-8-----	sec-Butylbenzene	0.019	
541-73-1-----	1,3-Dichlorobenzene	0.019	
99-87-6-----	p-Isopropyltoluene	0.019	
106-46-7-----	1,4-Dichlorobenzene	0.020	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDB82

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LCDB82

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12nov07a.b/bn07s02.d

Level: (low/med) LOW Date Received: _____

Moisture: not dec. _____ Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

526-73-8-----	1,2,3-Trimethylbenzene	0.020	
100-44-7-----	Benzyl Chloride	0.020	
141-93-5-----	1,3-Diethylbenzene	0.019	
105-05-5-----	1,4-Diethylbenzene	0.019	
104-51-8-----	n-Butylbenzene	0.018	
95-50-1-----	1,2-Dichlorobenzene	0.020	
135-01-3-----	1,2-Diethylbenzene	0.019	
96-12-8-----	1,2-Dibromo-3-chloropropane	0.021	
108-70-3-----	1,3,5-Trichlorobenzene	0.018	
120-82-1-----	1,2,4-Trichlorobenzene	0.019	
87-68-3-----	Hexachlorobutadiene	0.016	
91-20-3-----	Naphthalene	0.021	
87-61-6-----	1,2,3-Trichlorobenzene	0.020	
91-57-6-----	2-Methylnaphthalene	0.018	
25340-17-4-----	Diethylbenzene (total)	0.057	

Semivolatiles by GC/MS Data

Case Narrative/Conformance Summary

Case Narrative/Conformance Summary**CLIENT: ExxonMobil Refining & Supply**
SDG: TAP02**GC/MS Semivolatiles**

Fraction: Semivolatiles by GC/MS

Sample #	Client ID	Matrix		DF	Comments
		Liquid	Solid		
6848628	TCN-STC2		X	1	
6848633	TCN-STC3		X	1	
6848634	TCN-STC4		X	1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:**MS/MSD**

Matrix QC may not be included if site-specific QC were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, laboratory spike data (LCS) are provided.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP02

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E = out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Narrative Reviewed and Approved 11/21/12 by
(Date)


Lydia C. Steinke
Specialist

Sample Data

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSTC2

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6848628

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: ek0225.d

Level: (low/med) LOW

Date Received: 11/06/12

% Moisture: not dec: 6 dec:

Date Extracted: 11/07/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/08/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol	35	U	
95-48-7-----	2-Methylphenol	35	U	
106-44-5-----	4-Methylphenol	35	U	
91-20-3-----	Naphthalene	9	J	
208-96-8-----	Acenaphthylene	18	U	
83-32-9-----	Acenaphthene	18	U	
132-64-9-----	Dibenzofuran	35	U	
86-73-7-----	Fluorene	18	U	
87-86-5-----	Pentachlorophenol	180	U	
85-01-8-----	Phenanthrene	6	J	
120-12-7-----	Anthracene	4	J	
206-44-0-----	Fluoranthene	18	U	
129-00-0-----	Pyrene	18	U	
56-55-3-----	Benzo(a)anthracene	18	U	
218-01-9-----	Chrysene	18	U	
205-99-2-----	Benzo(b)fluoranthene	18	U	
207-08-9-----	Benzo(k)fluoranthene	18	U	
50-32-8-----	Benzo(a)pyrene	18	U	
193-39-5-----	Indeno(1,2,3-cd)pyrene	18	U	
53-70-3-----	Dibenz(a,h)anthracene	18	U	
191-24-2-----	Benzo(g,h,i)perylene	18	U	

FORM I SV-1

TAP02 0071

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSTC3

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6848633

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: ek0226.d

Level: (low/med) LOW

Date Received: 11/06/12

% Moisture: not dec: 5 dec:

Date Extracted: 11/07/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/08/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol	35	U	
95-48-7-----	2-Methylphenol	35	U	
106-44-5-----	4-Methylphenol	35	U	
91-20-3-----	Naphthalene	18	U	
208-96-8-----	Acenaphthylene	18	U	
83-32-9-----	Acenaphthene	18	U	
132-64-9-----	Dibenzofuran	35	U	
86-73-7-----	Fluorene	18	U	
87-86-5-----	Pentachlorophenol	180	U	
85-01-8-----	Phenanthrene	18	U	
120-12-7-----	Anthracene	18	U	
206-44-0-----	Fluoranthene	18	U	
129-00-0-----	Pyrene	4	J	
56-55-3-----	Benzo(a)anthracene	18	U	
218-01-9-----	Chrysene	18	U	
205-99-2-----	Benzo(b)fluoranthene	18	U	
207-08-9-----	Benzo(k)fluoranthene	18	U	
50-32-8-----	Benzo(a)pyrene	18	U	
193-39-5-----	Indeno(1,2,3-cd)pyrene	18	U	
53-70-3-----	Dibenz(a,h)anthracene	18	U	
191-24-2-----	Benzo(g,h,i)perylene	18	U	

FORM I SV-1

TAP02 0072

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSTC4

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6848634

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: ek0227.d

Level: (low/med) LOW

Date Received: 11/06/12

% Moisture: not dec: 6 dec:

Date Extracted: 11/07/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/08/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol	35	U	
95-48-7-----	2-Methylphenol	35	U	
106-44-5-----	4-Methylphenol	35	U	
91-20-3-----	Naphthalene	18	U	
208-96-8-----	Acenaphthylene	18	U	
83-32-9-----	Acenaphthene	18	U	
132-64-9-----	Dibenzofuran	35	U	
86-73-7-----	Fluorene	18	U	
87-86-5-----	Pentachlorophenol	180	U	
85-01-8-----	Phenanthrene	18	U	
120-12-7-----	Anthracene	18	U	
206-44-0-----	Fluoranthene	18	U	
129-00-0-----	Pyrene	18	U	
56-55-3-----	Benzo(a)anthracene	18	U	
218-01-9-----	Chrysene	18	U	
205-99-2-----	Benzo(b)fluoranthene	18	U	
207-08-9-----	Benzo(k)fluoranthene	18	U	
50-32-8-----	Benzo(a)pyrene	18	U	
193-39-5-----	Indeno(1,2,3-cd)pyrene	18	U	
53-70-3-----	Dibenz(a,h)anthracene	18	U	
191-24-2-----	Benzo(g,h,i)perylene	18	U	

FORM I SV-1

TAP02 0073

Fraction: Semivolatiles by GC/MS

12311SLD026 / SBLKLD311 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Phenol	11/08/12	N.D.	ug/kg	17	33
2-Methylphenol	11/08/12	N.D.	ug/kg	17	33
4-Methylphenol	11/08/12	N.D.	ug/kg	17	33
Naphthalene	11/08/12	N.D.	ug/kg	3	17
Acenaphthylene	11/08/12	N.D.	ug/kg	3	17
Acenaphthene	11/08/12	N.D.	ug/kg	3	17
Dibenzofuran	11/08/12	N.D.	ug/kg	17	33
Fluorene	11/08/12	N.D.	ug/kg	3	17
Pentachlorophenol	11/08/12	N.D.	ug/kg	33	170
Phenanthrene	11/08/12	N.D.	ug/kg	3	17
Anthracene	11/08/12	N.D.	ug/kg	3	17
Fluoranthene	11/08/12	N.D.	ug/kg	3	17
Pyrene	11/08/12	N.D.	ug/kg	3	17
Benzo(a)anthracene	11/08/12	N.D.	ug/kg	3	17
Chrysene	11/08/12	N.D.	ug/kg	3	17
Benzo(b)fluoranthene	11/08/12	N.D.	ug/kg	3	17
Benzo(k)fluoranthene	11/08/12	N.D.	ug/kg	3	17
Benzo(a)pyrene	11/08/12	N.D.	ug/kg	3	17
Indeno(1,2,3-cd)pyrene	11/08/12	N.D.	ug/kg	3	17
Dibenz(a,h)anthracene	11/08/12	N.D.	ug/kg	3	17
Benzo(g,h,i)perylene	11/08/12	N.D.	ug/kg	3	17

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1A301

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6847975

Sample wt/vol: 10.0 (g/mL) G

Lab File ID: ek0283.d

Level: (low/med) LOW

Date Received: 11/03/12

% Moisture: not dec: 0 dec:

Date Extracted: 11/07/12

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 11/09/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol		530	
111-44-4-----	bis(2-Chloroethyl)ether		500	U
95-57-8-----	2-Chlorophenol		500	U
541-73-1-----	1,3-Dichlorobenzene		500	U
106-46-7-----	1,4-Dichlorobenzene		500	U
95-50-1-----	1,2-Dichlorobenzene		500	U
95-48-7-----	2-Methylphenol		500	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)		500	U
621-64-7-----	N-Nitroso-di-n-propylamine		500	U
106-44-5-----	4-Methylphenol		290	J
67-72-1-----	Hexachloroethane		2500	U
98-95-3-----	Nitrobenzene		1200	
78-59-1-----	Isophorone		7500	
88-75-5-----	2-Nitrophenol		500	U
105-67-9-----	2,4-Dimethylphenol		500	U
111-91-1-----	bis(2-Chloroethoxy)methane		500	U
120-83-2-----	2,4-Dichlorophenol		500	U
120-82-1-----	1,2,4-Trichlorobenzene		500	U
91-20-3-----	Naphthalene		160	J
106-47-8-----	4-Chloroaniline		500	U
87-68-3-----	Hexachlorobutadiene		500	U
59-50-7-----	4-Chloro-3-methylphenol		500	U
91-57-6-----	2-Methylnaphthalene		110	J
77-47-4-----	Hexachlorocyclopentadiene		7500	U
88-06-2-----	2,4,6-Trichlorophenol		500	U
95-95-4-----	2,4,5-Trichlorophenol		500	U
91-58-7-----	2-Chloronaphthalene		500	U
88-74-4-----	2-Nitroaniline		500	U
131-11-3-----	Dimethylphthalate		2500	U
606-20-2-----	2,6-Dinitrotoluene		500	U

FORM I SV-1

TAP02 0075

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1A301

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6847975

Sample wt/vol: 10.0 (g/mL) G

Lab File ID: ek0283.d

Level: (low/med) LOW

Date Received: 11/03/12

% Moisture: not dec: 0 dec:

Date Extracted: 11/07/12

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 11/09/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
208-96-8-----	Acenaphthylene		260	U
99-09-2-----	3-Nitroaniline		2500	U
83-32-9-----	Acenaphthene		65	J
51-28-5-----	2,4-Dinitrophenol		4700	J
100-02-7-----	4-Nitrophenol		7500	U
132-64-9-----	Dibenzofuran		580	
121-14-2-----	2,4-Dinitrotoluene		2500	U
84-66-2-----	Diethylphthalate		2500	U
86-73-7-----	Fluorene		230	J
7005-72-3-----	4-Chlorophenyl-phenylether		500	U
100-01-6-----	4-Nitroaniline		35000	
534-52-1-----	4,6-Dinitro-2-methylphenol		7500	U
86-30-6-----	N-Nitrosodiphenylamine		380	J
101-55-3-----	4-Bromophenyl-phenylether		500	U
118-74-1-----	Hexachlorobenzene		260	U
87-86-5-----	Pentachlorophenol		2600	U
85-01-8-----	Phenanthrene		31000	
120-12-7-----	Anthracene		1800	
86-74-8-----	Carbazole		4000	
84-74-2-----	Di-n-butylphthalate		4100	
206-44-0-----	Fluoranthene		50000	
129-00-0-----	Pyrene		23000	
85-68-7-----	Butylbenzylphthalate		2500	U
91-94-1-----	3,3'-Dichlorobenzidine		5000	U
56-55-3-----	Benzo(a)anthracene		990	
218-01-9-----	Chrysene		11000	
117-81-7-----	bis(2-Ethylhexyl)phthalate		4500	
117-84-0-----	Di-n-octylphthalate		2500	U
205-99-2-----	Benzo(b)fluoranthene		2300	
207-08-9-----	Benzo(k)fluoranthene		660	

FORM I SV-2

TAP02 0076

1C cont
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1A301

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6847975

Sample wt/vol: 10.0 (g/mL) G

Lab File ID: ek0283.d

Level: (low/med) LOW

Date Received: 11/03/12

% Moisture: not dec: 0 dec:

Date Extracted: 11/07/12

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 11/09/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Extraction: Mic

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) LOQ UG/KG Q

50-32-8-----	Benzo(a)pyrene	260	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	230	J
53-70-3-----	Dibenz(a,h)anthracene	89	J
191-24-2-----	Benzo(g,h,i)perylene	360	

FORM I SV-3

TAP02 0077

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1A301MS

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6847975

Sample wt/vol: 10.0 (g/mL) G

Lab File ID: ek0284.d

Level: (low/med) LOW

Date Received: 11/03/12

% Moisture: not dec: 0 dec:

Date Extracted: 11/07/12

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 11/09/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol		4500	
111-44-4-----	bis(2-Chloroethyl)ether		4000	
95-57-8-----	2-Chlorophenol		4300	
541-73-1-----	1,3-Dichlorobenzene		4100	
106-46-7-----	1,4-Dichlorobenzene		4200	
95-50-1-----	1,2-Dichlorobenzene		4200	
95-48-7-----	2-Methylphenol		4300	
108-60-1-----	2,2'-oxybis(1-Chloropropane)		4300	
621-64-7-----	N-Nitroso-di-n-propylamine		5500	
106-44-5-----	4-Methylphenol		4300	
67-72-1-----	Hexachloroethane		3800	
98-95-3-----	Nitrobenzene		5100	
78-59-1-----	Isophorone		4600	
88-75-5-----	2-Nitrophenol		4000	
105-67-9-----	2,4-Dimethylphenol		4500	
111-91-1-----	bis(2-Chloroethoxy)methane		4200	
120-83-2-----	2,4-Dichlorophenol		4300	
120-82-1-----	1,2,4-Trichlorobenzene		4300	
91-20-3-----	Naphthalene		4300	
106-47-8-----	4-Chloroaniline		500	U
87-68-3-----	Hexachlorobutadiene		4400	
59-50-7-----	4-Chloro-3-methylphenol		3900	
91-57-6-----	2-Methylnaphthalene		4400	
77-47-4-----	Hexachlorocyclopentadiene		7500	U
88-06-2-----	2,4,6-Trichlorophenol		4400	
95-95-4-----	2,4,5-Trichlorophenol		3900	
91-58-7-----	2-Chloronaphthalene		4500	
88-74-4-----	2-Nitroaniline		4800	
131-11-3-----	Dimethylphthalate		4200	
606-20-2-----	2,6-Dinitrotoluene		5200	

FORM I SV-1

TAP02 0076

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1A301MS

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6847975

Sample wt/vol: 10.0 (g/mL) G Lab File ID: ek0284.d

Level: (low/med) LOW Date Received: 11/03/12

% Moisture: not dec: 0 dec: Date Extracted: 11/07/12

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 11/09/12

Injection Volume: 1 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
208-96-8-----	Acenaphthylene	4700		
99-09-2-----	3-Nitroaniline	2500		U
83-32-9-----	Acenaphthene	4300		
51-28-5-----	2,4-Dinitrophenol	5200		J
100-02-7-----	4-Nitrophenol	5200		J
132-64-9-----	Dibenzofuran	4900		
121-14-2-----	2,4-Dinitrotoluene	3600		
84-66-2-----	Diethylphthalate	4400		
86-73-7-----	Fluorene	4500		
7005-72-3-----	4-Chlorophenyl-phenylether	4200		
100-01-6-----	4-Nitroaniline	54000		
534-52-1-----	4,6-Dinitro-2-methylphenol	3500		J
86-30-6-----	N-Nitrosodiphenylamine	5300		
101-55-3-----	4-Bromophenyl-phenylether	4500		
118-74-1-----	Hexachlorobenzene	4100		
87-86-5-----	Pentachlorophenol	4800		
85-01-8-----	Phenanthrene	49000		
120-12-7-----	Anthracene	6200		
86-74-8-----	Carbazole	10000		
84-74-2-----	Di-n-butylphthalate	9900		
206-44-0-----	Fluoranthene	72000		E
129-00-0-----	Pyrene	37000		
85-68-7-----	Butylbenzylphthalate	51000		
91-94-1-----	3,3'-Dichlorobenzidine	5000		U
56-55-3-----	Benzo(a)anthracene	7500		
218-01-9-----	Chrysene	23000		
117-81-7-----	bis(2-Ethylhexyl)phthalate	14000		
117-84-0-----	Di-n-octylphthalate	4600		
205-99-2-----	Benzo(b)fluoranthene	7600		
207-08-9-----	Benzo(k)fluoranthene	6000		

FORM I SV-2

TAP02 0079

1C cont
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1A301MS

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6847975

Sample wt/vol: 10.0 (g/mL) G

Lab File ID: ek0284.d

Level: (low/med) LOW

Date Received: 11/03/12

% Moisture: not dec: 0 dec:

Date Extracted: 11/07/12

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 11/09/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

Extraction: Mic

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) LOQ UG/KG Q

50-32-8-----	Benzo(a)pyrene	4000	
193-39-5-----	Indeno(1,2,3-cd)pyrene	4200	
53-70-3-----	Dibenz(a,h)anthracene	4300	
191-24-2-----	Benzo(g,h,i)perylene	4100	

FORM I SV-3

TAP02 0000

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1A301MSD

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6847975

Sample wt/vol: 10.0 (g/mL) G Lab File ID: ek0285.d

Level: (low/med) LOW Date Received: 11/03/12

% Moisture: not dec: 0 dec: Date Extracted: 11/07/12

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 11/09/12

Injection Volume: 1 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol		4700	
111-44-4-----	bis(2-Chloroethyl)ether		4400	
95-57-8-----	2-Chlorophenol		4700	
541-73-1-----	1,3-Dichlorobenzene		4400	
106-46-7-----	1,4-Dichlorobenzene		4500	
95-50-1-----	1,2-Dichlorobenzene		4500	
95-48-7-----	2-Methylphenol		4600	
108-60-1-----	2,2'-oxybis(1-Chloropropane)		4700	
621-64-7-----	N-Nitroso-di-n-propylamine		5400	
106-44-5-----	4-Methylphenol		4600	
67-72-1-----	Hexachloroethane		3700	
98-95-3-----	Nitrobenzene		5200	
78-59-1-----	Isophorone		14000	
88-75-5-----	2-Nitrophenol		3900	
105-67-9-----	2,4-Dimethylphenol		4600	
111-91-1-----	bis(2-Chloroethoxy)methane		4500	
120-83-2-----	2,4-Dichlorophenol		4600	
120-82-1-----	1,2,4-Trichlorobenzene		4600	
91-20-3-----	Naphthalene		4700	
106-47-8-----	4-Chloroaniline		500	U
87-68-3-----	Hexachlorobutadiene		4700	
59-50-7-----	4-Chloro-3-methylphenol		4200	
91-57-6-----	2-Methylnaphthalene		4700	
77-47-4-----	Hexachlorocyclopentadiene		7500	U
88-06-2-----	2,4,6-Trichlorophenol		4600	
95-95-4-----	2,4,5-Trichlorophenol		4200	
91-58-7-----	2-Chloronaphthalene		4600	
88-74-4-----	2-Nitroaniline		5100	
131-11-3-----	Dimethylphthalate		4600	
606-20-2-----	2,6-Dinitrotoluene		5100	

FORM I SV-1

TAP02 0081

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1A301MSD

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6847975

Sample wt/vol: 10.0 (g/mL) G

Lab File ID: ek0285.d

Level: (low/med) LOW

Date Received: 11/03/12

% Moisture: not dec: 0 dec:

Date Extracted: 11/07/12

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 11/09/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
208-96-8-----	Acenaphthylene		5400	
99-09-2-----	3-Nitroaniline		2500	U
83-32-9-----	Acenaphthene		4500	
51-28-5-----	2,4-Dinitrophenol		5200	J
100-02-7-----	4-Nitrophenol		5600	J
132-64-9-----	Dibenzofuran		5300	
121-14-2-----	2,4-Dinitrotoluene		3900	
84-66-2-----	Diethylphthalate		4700	
86-73-7-----	Fluorene		4700	
7005-72-3-----	4-Chlorophenyl-phenylether		4600	
100-01-6-----	4-Nitroaniline		25000	
534-52-1-----	4,6-Dinitro-2-methylphenol		3500	J
86-30-6-----	N-Nitrosodiphenylamine		5300	
101-55-3-----	4-Bromophenyl-phenylether		4800	
118-74-1-----	Hexachlorobenzene		4500	
87-86-5-----	Pentachlorophenol		4700	
85-01-8-----	Phenanthrene		46000	
120-12-7-----	Anthracene		6800	
86-74-8-----	Carbazole		11000	
84-74-2-----	Di-n-butylphthalate		10000	
206-44-0-----	Fluoranthene		70000	E
129-00-0-----	Pyrene		38000	
85-68-7-----	Butylbenzylphthalate		36000	
91-94-1-----	3,3'-Dichlorobenzidine		5000	U
56-55-3-----	Benzo(a)anthracene		9900	
218-01-9-----	Chrysene		26000	
117-81-7-----	bis(2-Ethylhexyl)phthalate		12000	
117-84-0-----	Di-n-octylphthalate		5100	
205-99-2-----	Benzo(b)fluoranthene		13000	
207-08-9-----	Benzo(k)fluoranthene		7800	

FORM I SV-2

TAP02 0062

1C cont
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1A301MSD

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6847975

Sample wt/vol: 10.0 (g/mL) G

Lab File ID: ek0285.d

Level: (low/med) LOW

Date Received: 11/03/12

% Moisture: not dec: 0 dec:

Date Extracted: 11/07/12

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 11/09/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: Mic

CAS NO.	COMPOUND	CONCENTRATION UNITS:		
		(ug/L or ug/Kg)	LOQ	UG/KG
50-32-8-----	Benzo(a)pyrene			5100
193-39-5-----	Indeno(1,2,3-cd)pyrene			5600
53-70-3-----	Dibenz(a,h)anthracene			5000
191-24-2-----	Benzo(g,h,i)perylene			5300

FORM I SV-3

TAP02 0085

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

311LDLCS5

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 311LDLCS

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: ek0216.d

Level: (low/med) LOW

Date Received: _____

% Moisture: not dec:

dec: _____

Date Extracted: 11/07/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/08/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol		1500	
111-44-4-----	bis(2-Chloroethyl)ether		1400	
95-57-8-----	2-Chlorophenol		1500	
541-73-1-----	1,3-Dichlorobenzene		1400	
106-46-7-----	1,4-Dichlorobenzene		1500	
95-50-1-----	1,2-Dichlorobenzene		1400	
95-48-7-----	2-Methylphenol		1500	
108-60-1-----	2,2'-oxybis(1-Chloropropane)		1500	
621-64-7-----	N-Nitroso-di-n-propylamine		1400	
106-44-5-----	4-Methylphenol		1600	
67-72-1-----	Hexachloroethane		1400	
98-95-3-----	Nitrobenzene		1400	
78-59-1-----	Isophorone		1400	
88-75-5-----	2-Nitrophenol		1500	
105-67-9-----	2,4-Dimethylphenol		1600	
111-91-1-----	bis(2-Chloroethoxy)methane		1500	
120-83-2-----	2,4-Dichlorophenol		1600	
120-82-1-----	1,2,4-Trichlorobenzene		1500	
91-20-3-----	Naphthalene		1400	
106-47-8-----	4-Chloroaniline		1400	
87-68-3-----	Hexachlorobutadiene		1500	
59-50-7-----	4-Chloro-3-methylphenol		1500	
91-57-6-----	2-Methylnaphthalene		1500	
77-47-4-----	Hexachlorocyclopentadiene		3300	
88-06-2-----	2,4,6-Trichlorophenol		1500	
95-95-4-----	2,4,5-Trichlorophenol		1500	
91-58-7-----	2-Chloronaphthalene		1200	
88-74-4-----	2-Nitroaniline		1600	
131-11-3-----	Dimethylphthalate		1500	
606-20-2-----	2,6-Dinitrotoluene		1500	

FORM I SV-1

TAP02 0064

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

311LDLCS5

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 311LDLCS

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: ek0216.d

Level: (low/med) LOW

Date Received: _____

% Moisture: not dec: dec: _____

Date Extracted: 11/07/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/08/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: Mic

		CONCENTRATION UNITS:		
CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
208-96-8-----	Acenaphthylene		1600	
99-09-2-----	3-Nitroaniline		1600	
83-32-9-----	Acenaphthene		1500	
51-28-5-----	2,4-Dinitrophenol		3000	
100-02-7-----	4-Nitrophenol		1600	
132-64-9-----	Dibenzofuran		1500	
121-14-2-----	2,4-Dinitrotoluene		1600	
84-66-2-----	Diethylphthalate		1500	
86-73-7-----	Fluorene		1500	
7005-72-3-----	4-Chlorophenyl-phenylether		1500	
100-01-6-----	4-Nitroaniline		1400	
534-52-1-----	4,6-Dinitro-2-methylphenol		1500	
86-30-6-----	N-Nitrosodiphenylamine		1500	
101-55-3-----	4-Bromophenyl-phenylether		1500	
118-74-1-----	Hexachlorobenzene		1400	
87-86-5-----	Pentachlorophenol		1700	
85-01-8-----	Phenanthrene		1500	
120-12-7-----	Anthracene		1500	
86-74-8-----	Carbazole		1500	
84-74-2-----	Di-n-butylphthalate		1500	
206-44-0-----	Fluoranthene		1500	
129-00-0-----	Pyrene		1500	
85-68-7-----	Butylbenzylphthalate		1500	
91-94-1-----	3,3'-Dichlorobenzidine		1300	
56-55-3-----	Benzo(a)anthracene		1500	
218-01-9-----	Chrysene		1400	
117-81-7-----	bis(2-Ethylhexyl)phthalate		1500	
117-84-0-----	Di-n-octylphthalate		1500	
205-99-2-----	Benzo(b)fluoranthene		1600	
207-08-9-----	Benzo(k)fluoranthene		1600	

FORM I SV-2

TAP02 0085

1C cont
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

311LDLCS5

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: ~~LAN~~ CAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 311LDLCS

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: ek0216.d

Level: (low/med) LOW

Date Received: _____

% Moisture: not dec: dec: _____

Date Extracted: 11/07/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/08/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Extraction: Mic

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) LOQ UG/KG Q

50-32-8-----	Benzo(a)pyrene	1600	
193-39-5-----	Indeno(1,2,3-cd)pyrene	1500	
53-70-3-----	Dibenz(a,h)anthracene	1500	
191-24-2-----	Benzo(g,h,i)perylene	1500	

FORM I SV-3

TAP02 0065

Herbicides Data

Case Narrative/Conformance Summary

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP02

Pesticide Residue Analysis

Fraction: Herbicides

Sample #	Client ID	Matrix			Comments
		Liquid	Solid	DF	
6848628	TCN-STC2		X	1	
6848633	TCN-STC3		X	1	
6848634	TCN-STC4		X	1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

Sample number: 6848628, 6848633-6848634: Analysis: 10401
For dual column analyses in which the calibration (initial and/or continuing) response is outside the acceptance criteria on one column and within criteria on the second column affected analytes are reported from the compliant column. The sample raw data identifies the column used to report each analyte.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

MS/MSD

Matrix QC may not be included if site-specific QC were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, laboratory spike data (LCS) are provided.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP02

Pesticide Residue Analysis

Fraction: Herbicides

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Narrative Reviewed and Approved 11/13/12 by
(Date)

Nancy E. Saunders
Nancy E. Saunders
Specialist

Sample Data

ORGANICS ANALYSIS DATA SHEET

NSTC2

Lab Name: Lancaster Laboratories Contract:Batchnumber: 123110018A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP02Matrix: (soil/water) SOILLab Sample ID: 6848628Sample wt/vol: 30.4 (g/ml) gLab File ID: 3H15306.025.RAW% Moisture: 5.6

Decanted: (Y/N)

Date Received: 11/6/2012Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 11/6/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/7/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.

COMPOUND

(UG/L or UG/KG) ug/kg

Q

93-72-1

2,4,5-TP

0.78U

ORGANICS ANALYSIS DATA SHEET

NSTC3

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123110018A
Lab Code: Case No.: SAS No.: SDG No.: TAP02

Matrix: (soil/water) SOILLab Sample ID: 6848633Sample wt/vol: 30.1 (g/ml) gLab File ID: 3H15306.026.RAW% Moisture: 5.4 Decanted: (Y/N)Date Received: 11/6/2012Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 11/6/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/7/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
93-72-1	2,4,5-TP	0.79	U

ORGANICS ANALYSIS DATA SHEET

NSTC4

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123110018A
Lab Code: Case No.: SAS No.: SDG No.: TAP02

Matrix: (soil/water) SOILLab Sample ID: 6848634Sample wt/vol: 30 (g/ml) gLab File ID: 3H15306.029.RAW% Moisture: 6.3 Decanted: (Y/N)Date Received: 11/6/2012Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 11/6/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/8/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
93-72-1	2,4,5-TP	0.80	U

ORGANICS ANALYSIS DATA SHEET

PBLK18311

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123110018A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water) SOILLab Sample ID: BLANKASample wt/vol: 30 (g/ml) gLab File ID: 4H15306.029.RAW

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 11/6/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/8/2012Injection Volume: 2 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) N pH:Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
75-99-0	Dalapon	44	U
1918-00-9	Dicamba	4.0	U
93-65-2	Mcpp	750	U
94-74-6	Mcpa	760	U
120-36-5	2,4-DP	9.0	U
94-75-7	2,4-D	12	U
87-86-5	PCP	0.33	U
93-72-1	2,4,5-TP	0.75	U
93-76-5	2,4,5-T	0.82	U
94-82-6	2,4-DB	6.2	U
88-85-7	Dinoseb	8.0	U
1918-02-1	Picloram	50	U
70-30-4	Hexachlorophene	8.0	U

ORGANICS ANALYSIS DATA SHEET

LCS18311

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123110018A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water) SOILLab Sample ID: LCSASample wt/vol: 30 (g/ml) gLab File ID: 4H15306.030.RAW

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 11/6/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/8/2012Injection Volume: 2 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) N pH:Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
75-99-0	Dalapon	110	
1918-00-9	Dicamba	8.0J	
93-65-2	Mcpp	7400	
94-74-6	Mcpa	8500	
120-36-5	2,4-DP	90	
94-75-7	2,4-D	79	
87-86-5	PCP	26	
93-72-1	2,4,5-TP	8.3	
93-76-5	2,4,5-T	7.0	
94-82-6	2,4-DB	81	
88-85-7	Dinoseb	17J	
1918-02-1	Picloram	110	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

LCS18311

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123110018A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Lab Sample ID: LCSADate(s) Analyzed: 11/7/201211/8/2012Instrument ID (1): H8456AInstrument ID (2): H8456BGC Column (1): ZB-XLBID: 0.32 (mm)GC Column (2): ZB-35ID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Dalapon	1	2.66	2.61	2.69	110	0.0
	2	2.73	2.68	2.76	110	
Dicamba	1	8.43	8.37	8.45	7.6	5.1
	2	8.60	8.55	8.65	8.0	
Mcpp	1	8.70	8.67	8.79	11000	39.1
	2	8.67	8.65	8.75	7400	
Mcpa	1	8.96	8.93	9.05	8500	11.2
	2	9.01	8.98	9.10	7600	
2,4-DP	1	9.33	9.27	9.37	90	0.0
	2	9.33	9.27	9.39	90	
2,4-D	1	9.64	9.56	9.68	79	2.6
	2	9.74	9.67	9.79	77	
PCP	1	10.38	10.31	10.43	26	3.9
	2	10.15	10.09	10.21	25	
2,4,5-TP	1	10.59	10.51	10.63	8.3	4.9
	2	10.50	10.44	10.56	7.9	
2,4,5-T	1	10.94	10.87	10.99	7.0	0.0
	2	10.96	10.89	11.01	7.0	
2,4-DB	1	11.49	11.41	11.53	78	3.8
	2	11.42	11.35	11.47	81	
Dinoseb	1	11.60	11.53	11.65	17	12.5
	2	11.25	11.19	11.31	15	
Picloram	1	12.24	12.19	12.25	110	0.0
	2	12.84	12.81	12.87	110	

Pesticides Data

Case Narrative/Conformance Summary

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP02

Pesticide Residue Analysis

Fraction: Pesticides

Sample #	Client ID	Matrix			Comments
		Liquid	Solid	DF	
6848628	TCN-STC2		X	1	
6848633	TCN-STC3		X	1	
6848634	TCN-STC4		X	1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

Sample numbers: 6848628, 6848633-6848634: Analysis: 10738
For dual column analyses in which the calibration (initial and/or continuing) response is outside the acceptance criteria on one column and within criteria on the second column affected analytes are reported from the compliant column. The sample raw data identifies the column used to report each analyte.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

MS/MSD

Matrix QC may not be included if site-specific QC were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, laboratory spike data (LCS) are provided.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP02

Pesticide Residue Analysis

Fraction: Pesticides

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E = out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Narrative Reviewed and Approved 11/16/12 by
(Date)

Nancy E. Saunders
Nancy E. Saunders
Specialist

Sample Data

ORGANICS ANALYSIS DATA SHEET

NSTC2

Lab Name: Lancaster Laboratories Contract:Batchnumber: 123110015A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP02Matrix: (soil/water) SOILLab Sample ID: 6848628Sample wt/vol: 30 (g/ml) gLab File ID: 4P16311.0009.RAW% Moisture: 5.6 Decanted: (Y/N)Date Received: 11/6/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/6/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/13/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) Y pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
118-74-1	Hcb	0.22	U
319-84-6	alpha-BHC	0.18	U
58-89-9	gamma-BHC (Lindane)	0.18	U
319-85-7	beta-BHC	1.0	U
319-86-8	delta-BHC	0.48	U
76-44-8	Heptachlor	0.18	U
309-00-2	Aldrin	0.18	U
5103-71-9	alpha-Chlordane	0.18	U
72-55-9	4,4'-DDE	0.35	U
959-98-8	Endosulfan I	0.23	U
60-57-1	Dieldrin	0.35	U
72-20-8	Endrin	0.35	U
72-54-8	4,4'-DDD	0.35	U
33213-65-9	Endosulfan II	0.35	U
50-29-3	4,4'-DDT	0.37	U
1031-07-8	Endosulfan sulfate	0.35	U

ORGANICS ANALYSIS DATA SHEET

NSTC3

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123110015A
 Lab Code: Case No.: SAS No.: SDG No.: TAP02

Matrix: (soil/water) SOILLab Sample ID: 6848633Sample wt/vol: 30 (g/ml) gLab File ID: 4P16311.0010.RAW% Moisture: 5.4 Decanted: (Y/N)Date Received: 11/6/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/6/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/13/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) Y pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
118-74-1	Hcb	0.22	U
319-84-6	alpha-BHC	0.18	U
58-89-9	gamma-BHC (Lindane)	0.18	U
319-85-7	beta-BHC	1.0	U
319-86-8	delta-BHC	0.48	U
76-44-8	Heptachlor	0.18	U
309-00-2	Aldrin	0.18	U
5103-71-9	alpha-Chlordane	0.18	U
72-55-9	4,4'-DDE	0.35	U
959-98-8	Endosulfan I	0.23	U
60-57-1	Dieldrin	0.35	U
72-20-8	Endrin	0.35	U
72-54-8	4,4'-DDD	0.35	U
33213-65-9	Endosulfan II	0.35	U
50-29-3	4,4'-DDT	0.37	U
1031-07-8	Endosulfan sulfate	0.35	U

ORGANICS ANALYSIS DATA SHEET

NSTC4

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123110015A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP02Matrix: (soil/water) SOILLab Sample ID: 6848634Sample wt/vol: 30 (g/ml) gLab File ID: 4P16311.0011.RAW% Moisture: 6.3

Decanted: (Y/N)

Date Received: 11/6/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/6/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/13/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) Y pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) ug/kg	Q
118-74-1	Hcb	0.22	U
319-84-6	alpha-BHC	0.18	U
58-89-9	gamma-BHC (Lindane)	0.18	U
319-85-7	beta-BHC	1.0	U
319-86-8	delta-BHC	0.48	U
76-44-8	Heptachlor	0.18	U
309-00-2	Aldrin	0.18	U
5103-71-9	alpha-Chlordane	0.18	U
72-55-9	4,4'-DDE	0.35	U
959-98-8	Endosulfan I	0.23	U
60-57-1	Dieldrin	0.35	U
72-20-8	Endrin	0.35	U
72-54-8	4,4'-DDD	0.35	U
33213-65-9	Endosulfan II	0.35	U
50-29-3	4,4'-DDT	0.37	U
1031-07-8	Endosulfan sulfate	0.35	U

ORGANICS ANALYSIS DATA SHEET

PBLK15311

Lab Name: Lancaster Laboratories Contract:Batchnumber: 123110015A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water) SOILLab Sample ID: BLANKASample wt/vol: 30 (g/ml) gLab File ID: 4P16311.0007.RAW

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/6/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/13/2012Injection Volume: 1 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) Y pH:Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
118-74-1	Hcb	0.21	U
319-84-6	alpha-BHC	0.17	U
58-89-9	gamma-BHC (Lindane)	0.17	U
319-85-7	beta-BHC	0.96	U
319-86-8	delta-BHC	0.45	U
76-44-8	Heptachlor	0.17	U
309-00-2	Aldrin	0.17	U
297-78-9	Telodrin	0.40	U
3424-82-6	o,p-DDE	0.33	U
1024-57-3	Heptachlor epoxide	0.17	U
5103-74-2	gamma-Chlordane	0.17	U
5103-71-9	alpha-Chlordane	0.17	U
72-55-9	4,4'-DDE	0.33	U
959-98-8	Endosulfan I	0.22	U
53-19-0	o,p-DDD	0.33	U
60-57-1	Dieldrin	0.33	U
789-02-6	o,p-DDT	0.33	U
72-20-8	Endrin	0.33	U
72-54-8	4,4'-DDD	0.33	U
143-50-0	Kepone	2.3	U
33213-65-9	Endosulfan II	0.33	U
50-29-3	4,4'-DDT	0.35	U
7421-93-4	Endrin aldehyde	0.33	U
72-43-5	Methoxychlor	1.7	U
2385-85-5	Mirex	0.35	U
1031-07-8	Endosulfan sulfate	0.33	U
53494-70-5	Endrin ketone	0.60	U
57-74-9	Chlordane (Technical)	4.0	U
8001-35-2	Toxaphene	12	U

ORGANICS ANALYSIS DATA SHEET

LCS15311

Lab Name: Lancaster Laboratories Contract:Batchnumber: 123110015A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water) SOILLab Sample ID: LCSASample wt/vol: 30 (g/ml) gLab File ID: 4P16311.0008.RAW

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/6/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/13/2012Injection Volume: 1 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) Y pH:Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
319-84-6	alpha-BHC	3.1	
58-89-9	gamma-BHC (Lindane)	3.2	
319-85-7	beta-BHC	3.1	
319-86-8	delta-BHC	3.3	
76-44-8	Heptachlor	3.0	
309-00-2	Aldrin	2.9	
1024-57-3	Heptachlor epoxide	3.3	
5103-74-2	gamma-Chlordane	4.3	
5103-71-9	alpha-Chlordane	3.3	
72-55-9	4,4'-DDE	6.3	
959-98-8	Endosulfan I	3.1	
60-57-1	Dieldrin	6.7	
72-20-8	Endrin	6.3	
72-54-8	4,4'-DDD	6.4	
33213-65-9	Endosulfan II	6.4	
50-29-3	4,4'-DDT	6.9	
7421-93-4	Endrin aldehyde	6.4	
72-43-5	Methoxychlor	32	
1031-07-8	Endosulfan sulfate	6.5	
53494-70-5	Endrin ketone	6.6	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

LCS15311

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123110015A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Lab Sample ID: LCSADate(s) Analyzed: 11/13/2012 11/13/2012Instrument ID (1): H5262AInstrument ID (2): H5262BGC Column (1): RTX-CLPID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
alpha-BHC	1	3.25	3.23	3.29	3.1	0.0
	2	3.24	3.22	3.28	3.1	
gamma-BHC (Lindane)	1	3.51	3.49	3.55	3.0	6.5
	2	3.53	3.51	3.57	3.2	
beta-BHC	1	3.58	3.55	3.61	3.0	3.3
	2	3.60	3.57	3.63	3.1	
delta-BHC	1	3.72	3.70	3.76	3.1	6.3
	2	3.88	3.86	3.91	3.3	
Heptachlor	1	3.89	3.87	3.93	2.9	3.4
	2	3.83	3.80	3.86	3.0	
Aldrin	1	4.13	4.11	4.17	2.9	0.0
	2	4.12	4.10	4.16	2.9	
Heptachlor epoxide	1	4.58	4.56	4.62	3.3	9.5
	2	4.55	4.53	4.59	3.0	
gamma-Chlordane	1	4.68	4.65	4.72	3.2	29.3
	2	4.69	4.67	4.73	4.3	
alpha-Chlordane	1	4.77	4.75	4.81	3.3	6.3
	2	4.80	4.77	4.83	3.1	
4,4'-DDE	1	4.82	4.80	4.86	6.3	4.9
	2	4.91	4.89	4.95	6.0	
Endosulfan I	1	4.88	4.86	4.92	3.1	6.7
	2	4.84	4.82	4.88	2.9	
Dieldrin	1	5.06	5.03	5.09	6.7	4.6
	2	5.04	5.02	5.08	6.4	
Endrin	1	5.23	5.21	5.27	6.3	8.3
	2	5.27	5.25	5.31	5.8	
4,4'-DDD	1	5.26	5.24	5.30	6.4	6.5
	2	5.34	5.31	5.37	6.0	
Endosulfan II	1	5.39	5.37	5.43	6.4	11.6
	2	5.42	5.40	5.46	5.7	
4,4'-DDT	1	5.47	5.45	5.51	6.9	7.5
	2	5.57	5.55	5.61	6.4	
Endrin aldehyde	1	5.70	5.68	5.74	6.4	9.8
	2	5.67	5.65	5.71	5.8	
Methoxychlor	1	5.82	5.80	5.86	32	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

LCS15311

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123110015A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Lab Sample ID: LCSADate(s) Analyzed: 11/13/2012 11/13/2012Instrument ID (1): H5262AInstrument ID (2): H5262BGC Column (1): RTX-CLPID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Methoxychlor	2	6.08	6.06	6.12	31	3.2
Endosulfan sulfate	1	6.03	6.01	6.07	6.5	9.7
	2	5.87	5.85	5.91	5.9	
Endrin ketone	1	6.25	6.23	6.29	6.6	7.9
	2	6.28	6.26	6.32	6.1	

Polychlorinated Biphenyls (PCBs) Data

Case Narrative/Conformance Summary

Case Narrative/Conformance Summary**CLIENT: ExxonMobil Refining & Supply**
SDG: TAP02**Pesticide Residue Analysis**

Fraction: Polychlorinated Biphenyls (PCBs)

Sample #	Client ID	Matrix			Comments
		Liquid	Solid	DF	
6848628	TCN-STC2		X	1	
6848633	TCN-STC3		X	1	
6848634	TCN-STC4		X	1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

Sample numbers: 6848628, 6848633-6848634: Analysis: 10736
For dual column analyses in which the calibration (initial and/or continuing) response is outside the acceptance criteria on one column and within criteria on the second column affected analytes are reported from the compliant column. The sample raw data identifies the column used to report each analyte.

Sample numbers: 6848628, 6848633-6848634: Analysis: 10736
The % difference for the calibration verification standard is outside the +/- 15% criteria for the analyte(s) listed below. Since the average of the % difference values meets the criteria, the results are reported.
This applies to the following analyte(s): decachlorobiphenyl surrogate

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

All QC is within specification.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP02

Pesticide Residue Analysis

Fraction: Polychlorinated Biphenyls (PCBs)

Additional Comments

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E = out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Narrative Reviewed and Approved 11/13/12 by
(Date)

Nancy E. Saunders
Nancy E. Saunders
Specialist

Sample Data

ORGANICS ANALYSIS DATA SHEET

NSTC2

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123110016A
 Lab Code: Case No.: SAS No.: SDG No.: TAP02

Matrix: (soil/water) SOILLab Sample ID: 6848628Sample wt/vol: 30 (g/ml) gLab File ID: 6P20305.0008.RAW% Moisture: 5.6 Decanted: (Y/N)Date Received: 11/6/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/6/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/7/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	3.8	U
11104-28-2	Aroclor-1221	4.9	U
11141-16-5	Aroclor-1232	8.5	U
53469-21-9	Aroclor-1242	3.5	U
12672-29-6	Aroclor-1248	3.5	U
11097-69-1	Aroclor-1254	3.5	U
11096-82-5	Aroclor-1260	5.2	U

ORGANICS ANALYSIS DATA SHEET

NSTC3

Lab Name: Lancaster Laboratories Contract:Batchnumber: 123110016A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP02Matrix: (soil/water) SOILLab Sample ID: 6848633Sample wt/vol: 30 (g/ml) gLab File ID: 6P20305.0011.RAW% Moisture: 5.4 Decanted: (Y/N)Date Received: 11/6/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/6/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/7/2012Injection Volume: 1 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) N pH:Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	3.8	U
11104-28-2	Aroclor-1221	4.9	U
11141-16-5	Aroclor-1232	8.5	U
53469-21-9	Aroclor-1242	3.5	U
12672-29-6	Aroclor-1248	3.5	U
11097-69-1	Aroclor-1254	3.5	U
11096-82-5	Aroclor-1260	5.2	U

ORGANICS ANALYSIS DATA SHEET

NSTC4

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123110016A
 Lab Code: Case No.: SAS No.: SDG No.: TAP02

Matrix: (soil/water) SOILLab Sample ID: 6848634Sample wt/vol: 30 (g/ml) gLab File ID: 6P20305.0012.RAW% Moisture: 6.3 Decanted: (Y/N)Date Received: 11/6/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/6/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/7/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	3.8	U
11104-28-2	Aroclor-1221	4.9	U
11141-16-5	Aroclor-1232	8.5	U
53469-21-9	Aroclor-1242	3.5	U
12672-29-6	Aroclor-1248	3.5	U
11097-69-1	Aroclor-1254	3.5	U
11096-82-5	Aroclor-1260	5.2	U

ORGANICS ANALYSIS DATA SHEET

PBLK16311

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123110016A

Lab Code: Case No.: SAS No.: SDG No.:

Matrix: (soil/water) SOILLab Sample ID: BLANKASample wt/vol: 30 (g/ml) gLab File ID: 6P20305.0006.RAW

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/6/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/7/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	3.6	U
11104-28-2	Aroclor-1221	4.6	U
11141-16-5	Aroclor-1232	8.0	U
53469-21-9	Aroclor-1242	3.3	U
12672-29-6	Aroclor-1248	3.3	U
11097-69-1	Aroclor-1254	3.3	U
11096-82-5	Aroclor-1260	4.9	U
37324-23-5	Aroclor-1262	3.3	U
11100-14-4	Aroclor-1268	3.3	U
1336-36-3	Total PCBs	3.3	U

ORGANICS ANALYSIS DATA SHEET

LCS16311

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123110016A

Lab Code: Case No.: SAS No.: SDG No.:

Matrix: (soil/water) SOILLab Sample ID: LCSASample wt/vol: 30 (g/ml) gLab File ID: 6P20305.0007.RAW

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/6/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/7/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	180	
11096-82-5	Aroclor-1260	180	
1336-36-3	Total PCBs	360	P

ORGANICS ANALYSIS DATA SHEET

NSTC2MS

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123110016ALab Code: Case No.: SAS No.: SDG No.: TAP02Matrix: (soil/water) SOILLab Sample ID: 6848628Sample wt/vol: 30 (g/ml) gLab File ID: 6P20305.0009.RAW% Moisture: 5.6 Decanted: (Y/N)Date Received: 11/6/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/6/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/7/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	160	
11096-82-5	Aroclor-1260	130	
1336-36-3	Total PCBs	280	P

ORGANICS ANALYSIS DATA SHEET

NSTC2MSD

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123110016A
Lab Code: Case No.: SAS No.: SDG No.: TAP02

Matrix: (soil/water) SOILLab Sample ID: 6848628Sample wt/vol: 30 (g/ml) gLab File ID: 6P20305.0010.RAW% Moisture: 5.6 Decanted: (Y/N)Date Received: 11/6/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/6/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/7/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS	
		(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	150	
11096-82-5	Aroclor-1260	130	
1336-36-3	Total PCBs	280	P

IDENTIFICATION SUMMARY FOR MULTICOMPONENT ANALYTES

LCS16311

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123110016A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Lab Sample ID: LCSADate(s) Analyzed: 11/7/201211/7/2012Instrument ID (1): 17342AInstrument ID (2): 17342BGC Column (1): ZBmultiR1ID: 30 (mm)GC Column (2): ZBmultiR2ID: 30 (mm)

ANALYTE	PEAK	RT	RT WINDOW		CONCENTRATION	MEAN	%D			
			FROM	TO		CONCENTRATION				
Aroclor-1016 COLUMN 1	1	3.38	3.36	3.40	170	180				
	2	3.72	3.70	3.74	180					
	3	3.95	3.93	3.97	180					
	4	4.01	3.99	4.03	180					
	5	4.08	4.06	4.10	180					
	6	4.21	4.20	4.23	180					
	Aroclor-1016 COLUMN 2	1	3.13	3.12	3.16			150	150	18.2
		2	3.47	3.45	3.49			150		
		3	3.67	3.65	3.69			160		
		4	3.74	3.73	3.77			160		
		5	3.92	3.90	3.94			150		
6		4.01	4.00	4.04	150					
Aroclor-1260 COLUMN 1	1	5.24	5.22	5.26	160	160				
	2	5.45	5.43	5.47	160					
	3	5.51	5.49	5.53	160					
	4	5.68	5.66	5.70	150					
	5	5.91	5.89	5.93	160					
	6	6.12	6.10	6.14	170					
	Aroclor-1260 COLUMN 2	1	4.79	4.77	4.81			190	180	11.8
		2	4.90	4.88	4.92			170		
		3	5.04	5.02	5.06			170		
		4	5.27	5.25	5.29			170		
		5	5.46	5.44	5.48			190		
6		5.72	5.71	5.75	170					

IDENTIFICATION SUMMARY FOR MULTICOMPONENT ANALYTES

SAMPLE CODE NO.

NSTC2MS

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123110016A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP02Lab Sample ID: 6848628Date(s) Analyzed: 11/7/201211/7/2012Instrument ID (1): 17342AInstrument ID (2): 17342BGC Column (1): ZBmultiR1ID: 30 (mm)GC Column (2): ZBmultiR2ID: 30 (mm)

ANALYTE	PEAK	RT	RT WINDOW		CONCENTRATION	MEAN CONCENTRATION	%D			
			FROM	TO						
Aroclor-1016 COLUMN 1	1	3.38	3.36	3.40	160	160				
	2	3.72	3.70	3.74	150					
	3	3.95	3.93	3.97	140					
	4	4.01	3.99	4.03	140					
	5	4.08	4.06	4.10	140					
	6	4.21	4.20	4.23	140					
	Aroclor-1016 COLUMN 2	1	3.13	3.12	3.16			140	140	13.3
		2	3.47	3.45	3.49			130		
		3	3.67	3.65	3.69			130		
		4	3.74	3.73	3.77			130		
		5	3.92	3.90	3.94			120		
6		4.02	4.00	4.04	130					
Aroclor-1260 COLUMN 1	1	5.24	5.22	5.26	140	150				
	2	5.45	5.43	5.47	140					
	3	5.51	5.49	5.53	130					
	4	5.68	5.66	5.70	130					
	5	5.91	5.89	5.93	140					
	6	6.12	6.10	6.14	140					
	Aroclor-1260 COLUMN 2	1	4.79	4.77	4.81			130	130	14.3
		2	4.90	4.88	4.92			120		
		3	5.04	5.02	5.06			120		
		4	5.27	5.25	5.29			110		
		5	5.46	5.44	5.48			120		
6		5.72	5.71	5.75	120					

IDENTIFICATION SUMMARY FOR MULTICOMPONENT ANALYTES

SAMPLE CODE NO.

NSTC2MSD

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123110016A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP02Lab Sample ID: 6848628Date(s) Analyzed: 11/7/201211/7/2012Instrument ID (1): 17342AInstrument ID (2): 17342BGC Column (1): ZBmultiR1ID: 30 (mm)GC Column (2): ZBmultiR2ID: 30 (mm)

ANALYTE	PEAK	RT	RT WINDOW		CONCENTRATION	MEAN	%D	
			FROM	TO		CONCENTRATION		
Aroclor-1016	1	3.38	3.36	3.40	160	150	14.3	
COLUMN 1	2	3.71	3.70	3.74	150			
	3	3.95	3.93	3.97	140			
	4	4.01	3.99	4.03	140			
	5	4.08	4.06	4.10	140			
	6	4.21	4.20	4.23	140			
Aroclor-1016	1	3.13	3.12	3.16	140			130
COLUMN 2	2	3.47	3.45	3.49	130			
	3	3.67	3.65	3.69	130			
	4	3.74	3.73	3.77	120			
	5	3.92	3.90	3.94	120			
	6	4.02	4.00	4.04	120			
Aroclor-1260	1	5.24	5.22	5.26	140	140	7.4	
COLUMN 1	2	5.45	5.43	5.47	140			
	3	5.51	5.49	5.53	130			
	4	5.68	5.66	5.70	130			
	5	5.91	5.89	5.93	140			
	6	6.12	6.10	6.14	130			
Aroclor-1260	1	4.79	4.77	4.81	130			130
COLUMN 2	2	4.90	4.88	4.92	120			
	3	5.04	5.02	5.06	120			
	4	5.27	5.25	5.29	120			
	5	5.46	5.44	5.48	120			
	6	5.72	5.71	5.75	110			

Metals in Solid Data

Case Narrative/Conformance Summary

Case Narrative/Conformance Summary**CLIENT: ExxonMobil Refining & Supply**
SDG: TAP02**ICP Metals**

Fraction: Metals in Solid

Sample #	Client ID	Matrix			Comments
		Liquid	Solid	DF	
6848628	TCN-STC2		X	1	
6848633	TCN-STC3		X	1	
6848634	TCN-STC4		X	1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:**MS/MSD**

Method defined actions are taken for any failed matrix QC.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

The instrument detection limits (IDLs) are used for determining the U flags on the initial and continuing calibration blanks. The highest IDL is selected when multiple instruments are used for an analysis. The method detection limits (MDLs) are used for determining all other U flags.

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP02

ICP Metals

Fraction: Metals in Solid

Abbreviation Key

BKG - Background	AF - Cold Vapor Atomic Fluorescence
DUP - Duplicate	U - Below MDL
MS - Matrix Spike	B - Below LOQ
MSD - Matrix Spike Dup	N - Matrix Spike out of specifications
B - Blank	* - Duplicate out of specifications
Q - Laboratory Control Sample	E - Matrix Effects exist as proven by Serial Dilution or Spiked Dilution
Y - Laboratory Control Sample Duplicate	A - Post Digestion Spike
P - ICP Atomic Emission Spectrometer	L - Serial Dilution
MS - ICP Mass Spectrometry	R - Internal Standard Relative Intensity OOS
CV - Cold Vapor	NR - Not Required

Narrative Reviewed and Approved 11.13.12 by
(Date)


Betty L. Umble
Specialist

Sample Data



Lancaster
Laboratories

QUALITY ASSURANCE SUMMARY

FORM 1

INORGANIC ANALYSIS DATA SHEET

SDG No.: TAP02

Matrix: SOIL

Level (low/med): LOW

Lab Sample ID: 6848628, 6848628BKG

% Solids: 94.4

Concentration Units: MG/KG

Date Received: 11/06/2012

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	3.6			P
7440-39-3	Barium	12.9			P
7440-41-7	Beryllium	0.071	U		P
7440-43-9	Cadmium	0.035	U		P
7440-47-3	Chromium	6.5			P
7440-50-8	Copper	129			P
7439-92-1	Lead	2.7			P
7439-96-5	Manganese	194			P
7439-97-6	Mercury	0.011	U		CV
7440-02-0	Nickel	16.0			P
7782-49-2	Selenium	2.7			P
7440-22-4	Silver	0.38	B		P
7440-66-6	Zinc	51.8			P

Comments:

METHODS:

P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence
NR = Not Required

CONCENTRATION QUALIFIERS:

U = Below MDL,
B = Below LOQ



Lancaster
Laboratories

QUALITY ASSURANCE SUMMARY

FORM 1

INORGANIC ANALYSIS DATA SHEET

SDG No.: TAP02

Matrix: SOIL

Level (low/med): LOW

Lab Sample ID: 6848633, 6848633BKG

% Solids: 94.6

Concentration Units: MG/KG

Date Received: 11/06/2012

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	2.3			P
7440-39-3	Barium	15.7			P
7440-41-7	Beryllium	0.094	B		P
7440-43-9	Cadmium	0.034	U		P
7440-47-3	Chromium	7.1			P
7440-50-8	Copper	121			P
7439-92-1	Lead	2.7			P
7439-96-5	Manganese	176			P
7439-97-6	Mercury	0.011	U		CV
7440-02-0	Nickel	15.3			P
7782-49-2	Selenium	1.7	B		P
7440-22-4	Silver	0.21	B		P
7440-66-6	Zinc	39.4			P

Comments:

METHODS:

P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence
NR = Not Required

CONCENTRATION QUALIFIERS:

U = Below MDL,
B = Below LOQ



Lancaster
Laboratories

QUALITY ASSURANCE SUMMARY

FORM 1

INORGANIC ANALYSIS DATA SHEET

SDG No.: TAP02

Matrix: SOIL

Level (low/med): LOW

Lab Sample ID: 6848634

% Solids: 93.7

Concentration Units: MG/KG

Date Received: 11/06/2012

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	2.4			P
7440-39-3	Barium	13.0			P
7440-41-7	Beryllium	0.070	U		P
7440-43-9	Cadmium	0.035	U		P
7440-47-3	Chromium	4.3			P
7440-50-8	Copper	133			P
7439-92-1	Lead	2.6			P
7439-96-5	Manganese	170			P
7439-97-6	Mercury	0.010	U		CV
7440-02-0	Nickel	13.6			P
7782-49-2	Selenium	2.3			P
7440-22-4	Silver	0.33	B		P
7440-66-6	Zinc	41.1			P

Comments:

METHODS:

P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence
NR = Not Required

CONCENTRATION QUALIFIERS:

U = Below MDL,
B = Below LOQ

Instrumental Wet Chemistry Data

Case Narrative/Conformance Summary

Miscellaneous Wet Chemistry

Sample #	Matrix		Comments
	Liquid	Solid	
6848628		X	
6848633		X	
6848634		X	

ANALYSIS:

There were no dilutions performed for analyses associated with samples in this SDG.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Method defined actions are taken for any failed matrix QC.

DATA INTERPRETATION:

Due to the limitations of the data package software, form I's are not available for the Instrumental Analysis data. Please refer to the analysis reports for this information.

Abbreviation Key

U = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
R = Matrix Spike (MS)	MDL = Method Detection Limit
M = Matrix Spike Duplicate (MSD)	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	NA = Not Applicable
HS = High Spike	ME = Method
LS = Low Spike	CO = Colorimetric
SS = Soluble Spike	G = Gravimetric
IS = Insoluble Spike	IR = Infrared Spectrophotometry
ISD = Insoluble Spike Duplicate	MTR = Meter
PDS = Post Digestion Spike	OD = Oven Dried
* = Out of Specification	TI = Titration
V = Visual	TOC = Total Organic Carbon
AK = Alpkem	IC = Ion Chromatography
TC = Total Carbon	RA = Rapid Analyzer

Narrative Reviewed and Approved by:

Patricia Weirich

Patricia Weirich
Senior Administrator

Date 11/12/12

Dana Kauffman
Manager of Data Deliverables

Wet Chemistry Data

Case Narrative/Conformance Summary



Lancaster
Laboratories

CLIENT: ExxonMobil Refining & Supply
SDG: TAP02

Miscellaneous Wet Chemistry

Sample #	Matrix		Comments
	Liquid	Solid	
6848628		X	
6848633		X	
6848634		X	

ANALYSIS:

Dilutions are listed in the table below:

Samples	Hexavalent Chromium (SOLIDS)
6848634	IS/ DF25, PDS/ DF4
LCS-IS	DF25

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Method defined actions are taken for any failed matrix QC.

DATA INTERPRETATION:

Due to the limitations of the data package software, form I's are not available for the Instrumental Analysis data. Please refer to the analysis reports for this information.

Abbreviation Key

U = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
R = Matrix Spike (MS)	MDL = Method Detection Limit
M = Matrix Spike Duplicate (MSD)	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	NA = Not Applicable
HS = High Spike	ME = Method
LS = Low Spike	CO = Colorimetric
SS = Soluble Spike	G = Gravimetric
IS = Insoluble Spike	IR = Infrared Spectrophotometry
ISD = Insoluble Spike Duplicate	MTR = Meter
PDS = Post Digestion Spike	OD = Oven Dried
* = Out of Specification	TI = Titration
V = Visual	TOC = Total Organic Carbon
AK = Alpkem	IC = Ion Chromatography
TC = Total Carbon	RA = Rapid Analyzer

Narrative Reviewed and Approved by:


Patricia Weirich
Senior Administrator

Date 11-13-12

Dana Kauffman
Manager of Data Deliverables

Moisture Data

MOISTURE

SAMPLE NUMBERS:

<u>Sample #</u>	<u>Sample Code</u>
6848626	CNST3
6848627	CNST4
6848628	NSTC2
6848629	CNST5
6848630	CNST6
6848631	CNST7
6848632	CNST8
6848633	NSTC3
6848634	NSTC4

COMMENTS:

The moisture value calculation is:

$$\% \text{ moisture} = \frac{A - B}{C} \times 100$$

Where: A = weight of sample and container before drying
B = weight of sample and container after drying
C = weight of sample before drying

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>LCS</u> <u>%REC</u>	<u>LCSD</u> <u>%REC</u>	<u>LCS/LCSD</u> <u>Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 12311820001B					
Moisture	99		99-101		

Sample Matrix Quality Control

<u>Analysis Name</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 12311820001B				
Moisture	10.8	11.0	1	13

* - Outside of specification

(1) - The result for one or both determinations was less than five times the LOQ.

MOISTURE

Moisture Data Report

Batch #: 12311820001

<u>Sample ID</u>	<u>Batch ID</u>	<u>Analysis#</u>	<u>Tare Wt</u>	<u>Sample Wt</u>	<u>Dry Wt</u>	<u>%Moisture</u>	<u>Analysis Date (Emp#)</u>	<u>Verified Date (Emp#)</u>
LCS 89.5% Std.			1.0969	5.0228	1.6654	88.68	11/ 6/12 (1201/SWF)	11/ 7/12 (0236/CW)
6848626	B	00111	1.1082	8.4179	9.0193	6.02	11/ 6/12 (1201/SWF)	11/ 7/12 (0236/CW)
6848627	B	00111	1.1091	8.2047	8.9170	4.84	11/ 6/12 (1201/SWF)	11/ 7/12 (0236/CW)
6848628	B	00111	1.1123	8.9314	9.5446	5.59	11/ 6/12 (1201/SWF)	11/ 7/12 (0236/CW)
6848629	B	00111	1.1073	8.0876	8.6181	7.13	11/ 6/12 (1201/SWF)	11/ 7/12 (0236/CW)
6848630	B	00111	1.0778	8.3465	9.1099	3.77	11/ 6/12 (1201/SWF)	11/ 7/12 (0236/CW)
6848631	B	00111	1.0716	9.5951	10.1831	5.04	11/ 6/12 (1201/SWF)	11/ 7/12 (0236/CW)
6848632	B	00111	1.0910	8.1280	8.5884	7.76	11/ 6/12 (1201/SWF)	11/ 7/12 (0236/CW)
6848633	B	00111	1.0759	9.5617	10.1167	5.45	11/ 6/12 (1201/SWF)	11/ 7/12 (0236/CW)
6848634	B	00111	1.0940	8.8033	9.3389	6.34	11/ 6/12 (1201/SWF)	11/ 7/12 (0236/CW)
P847014BKG	B	00111	1.1063	9.1193	9.2382	10.83	11/ 6/12 (1201/SWF)	11/ 7/12 (0236/CW)
P847014DUP	B	00111	1.0949	9.6359	9.6749	10.96	11/ 6/12 (1201/SWF)	11/ 7/12 (0236/CW)

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

November 19, 2012

Project: Tappan Terminal

Submittal Date: 11/07/2012

Group Number: 1347278

SDG: TAP03

PO Number: 4410017954

Release Number: TRIFILETTI

State of Sample Origin: NY

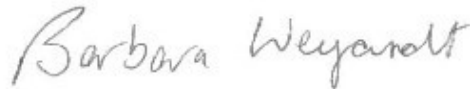
<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
TCN-ST9 Grab Soil	6850733
TCN-ST10 Grab Soil	6850734
TCN-ST11 Grab Soil	6850735
TCN-ST12 Grab Soil	6850736
TCN-STC5 Composite Soil	6850737
TCN-STC6 Composite Soil	6850738
TCN-ST13 Grab Soil	6850739
TCN-ST14 Grab Soil	6850740
TCN-STC7 Composite Soil	6850741
TCN-ST15 Grab Soil	6850742
TCN-ST16 Grab Soil	6850743
TCN-STC8 Composite Soil	6850744
TCN-ST17 Grab Soil	6850745
TCN-ST18 Grab Soil	6850746
TCN-STC9 Composite Soil	6850747
TCN-ST19 Grab Soil	6850748
TCN-ST20 Grab Soil	6850749
TCN-STC10 Composite Soil	6850750
TCN-ST21 Grab Soil	6850751
TCN-ST22 Grab Soil	6850752
TCN-STC11 Composite Soil	6850753
TCN-ST23 Grab Soil	6850754
TCN-ST24 Grab Soil	6850755
TCN-STC12 Composite Soil	6850756
POC-TS3 Grab Soil	6850757
POC-TS4 Grab Soil	6850758
POC-TSC2 Composite Soil	6850759
POC-TS5 Grab Soil	6850760
POC-TS6 Grab Soil	6850761
POC-TS7 Grab Soil	6850762

POC-TS8 Grab Soil	6850763
POC-TSC3 Composite Soil	6850764
POC-TSC4 Composite Soil	6850765
POC-TS9 Grab Soil	6850766
POC-TS10 Grab Soil	6850767
POC-TS11 Grab Soil	6850768
POC-TS12 Grab Soil	6850769
POC-TSC5 Composite Soil	6850770
POC-TSC6 Composite Soil	6850771

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Roux Associates	Attn: Tracy Bispham
1 COPY TO	Data Package Group	
ELECTRONIC COPY TO	Exxon Mobil: Woodard & Curran	Attn: Anne Proctor

Respectfully Submitted,



Barbara A. Weyandt
Specialist

(717) 556-7264

Project Name: Tappan Terminal
LLI Group #: 1347278

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:**SW-846 8260B, GC/MS Volatiles**

Batch #: A123131AA (Sample number(s): 6850762-6850763, 6850766-6850769 UNSPK: 6850762)

The recovery(ies) for the following analyte(s) in the MS was outside the acceptance window: Acetone

Batch #: B123122AA (Sample number(s): 6850733-6850736, 6850740, 6850742-6850743, 6850746, 6850748-6850749, 6850751-6850752, 6850754-6850755, 6850757-6850758 UNSPK: 6850733)

The recovery(ies) for the following analyte(s) in the MS was outside the acceptance window: Tetrachloroethene

SW-846 8081A, Pesticides/PCBs

Sample #s: 6850741

Sample #s: 6850759, 6850764, 6850765, 6850770, 6850771

Reporting limits were raised due to interference from the sample matrix.

SW-846 8082, Pesticides/PCBs

Sample #s: 6850764

Reporting limits were raised due to interference from the sample matrix.

SW-846 8151A, Herbicides

Batch #: 123120022A (Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764, 6850770 UNSPK: 6850737)

The recovery(ies) for the following analyte(s) in the LCS exceeded the acceptance window indicating a positive bias: 2,4,5-TP

SW-846 6010B, Metals

Batch #: 123125708001 (Sample number(s): 6850737-6850738, 6850741, 6850744,
6850747, 6850750, 6850753, 6850756, 6850759, 6850764-6850765, 6850770-6850771
UNSPK: 6850737 BKG: 6850737)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was
outside the acceptance window: Manganese, Copper

The duplicate RPD for the following analyte(s) exceeded the acceptance window:
Silver

SW-846 7196A, Wet Chemistry

Sample #s: 6850759, 6850764, 6850765, 6850770, 6850771

Reporting limits were raised due to interference from the sample matrix.

Sample Description: TCN-ST9 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850733
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:00 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CNST9 SDG#: TAP03-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.99
10237	Benzene	71-43-2	N.D.	0.0005	0.99
10237	2-Butanone	78-93-3	N.D.	0.004	0.99
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.99
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.99
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.99
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.99
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.99
10237	Chloroform	67-66-3	N.D.	0.001	0.99
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.99
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.99
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.99
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.99
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.99
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.99
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.99
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.99
10237	1,4-Dioxane	123-91-1	N.D.	0.072	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.99
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.99
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.99
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.99
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.99
10237	Trichloroethene	79-01-6	N.D.	0.001	0.99
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.99
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.99
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.99
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.99

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	2.7	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST9 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850733
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:00 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CNST9 SDG#: TAP03-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/07/2012 23:51	Andrea E Lando	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:01	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST10 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850734
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:05 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST10 SDG#: TAP03-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.98
10237	Benzene	71-43-2	N.D.	0.0005	0.98
10237	2-Butanone	78-93-3	N.D.	0.004	0.98
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.98
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.98
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.98
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.98
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.98
10237	Chloroform	67-66-3	N.D.	0.001	0.98
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.98
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.98
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.98
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.98
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.98
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.98
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.98
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.98
10237	1,4-Dioxane	123-91-1	N.D.	0.071	0.98
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.98
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.98
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.98
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.98
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.98
10237	Toluene	108-88-3	N.D.	0.001	0.98
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.98
10237	Trichloroethene	79-01-6	N.D.	0.001	0.98
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.98
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.98
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.98
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.98
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.98

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.6	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST10 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850734
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:05 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST10 SDG#: TAP03-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 00:14	Andrea E Lando	0.98
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:02	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST11 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850735
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:10 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST11 SDG#: TAP03-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.96
10237	Benzene	71-43-2	N.D.	0.0005	0.96
10237	2-Butanone	78-93-3	N.D.	0.004	0.96
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.96
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.96
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.96
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.96
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.96
10237	Chloroform	67-66-3	N.D.	0.001	0.96
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.96
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.96
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.96
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.96
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.96
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.96
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.96
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.96
10237	1,4-Dioxane	123-91-1	N.D.	0.069	0.96
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.96
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.96
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.96
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.96
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.96
10237	Toluene	108-88-3	N.D.	0.001	0.96
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.96
10237	Trichloroethene	79-01-6	N.D.	0.001	0.96
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.96
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.96
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.96
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.96
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.96

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.3	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST11 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850735
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:10 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST11 SDG#: TAP03-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 00:36	Andrea E Lando	0.96
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:04	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST12 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850736
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:15 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST12 SDG#: TAP03-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1.02
10237	Benzene	71-43-2	N.D.	0.0005	1.02
10237	2-Butanone	78-93-3	N.D.	0.004	1.02
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.02
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.02
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.02
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.02
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.02
10237	Chloroform	67-66-3	N.D.	0.001	1.02
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.02
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.02
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.02
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.02
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.02
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.02
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.02
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.02
10237	1,4-Dioxane	123-91-1	N.D.	0.073	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.02
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.02
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.02
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.02
10237	Toluene	108-88-3	N.D.	0.001	1.02
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.02
10237	Trichloroethene	79-01-6	N.D.	0.001	1.02
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.02
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.02
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.02
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.02

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	2.8	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST12 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850736
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:15 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST12 SDG#: TAP03-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 00:59	Andrea E Lando	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:06	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-STC5 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850737
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:20 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NSTC5 SDG#: TAP03-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	Acenaphthene	83-32-9	N.D.	3 ug/kg	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	34	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides SW-846 8151A					
10401	2,4,5-TP	93-72-1	N.D.	0.77 ug/kg	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.17 ug/kg	1
10738	Alpha BHC	319-84-6	N.D.	0.17	1
10738	Beta BHC	319-85-7	N.D.	0.99	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.17	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.17	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.36	1
10738	Delta BHC	319-86-8	N.D.	0.46	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.17	1
Pesticides/PCBs SW-846 8082					
10736	PCB-1016	12674-11-2	N.D.	3.7 ug/kg	1
10736	PCB-1221	11104-28-2	N.D.	4.8	1

Sample Description: TCN-STC5 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850737
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:20 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NSTC5 SDG#: TAP03-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.3	1
10736	PCB-1242	53469-21-9	N.D.	3.4	1
10736	PCB-1248	12672-29-6	N.D.	3.4	1
10736	PCB-1254	11097-69-1	N.D.	3.4	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	N.D.	0.336	1
06946	Barium	7440-39-3	16.4	0.0336	1
06947	Beryllium	7440-41-7	N.D.	0.0681	1
06949	Cadmium	7440-43-9	0.0559 J	0.0336	1
06951	Chromium	7440-47-3	4.47	0.0895	1
06953	Copper	7440-50-8	131	0.183	1
06955	Lead	7439-92-1	2.62	0.478	1
06958	Manganese	7439-96-5	251	0.0844	1
06961	Nickel	7440-02-0	16.0	0.112	1
06936	Selenium	7782-49-2	2.53	0.732	1
06966	Silver	7440-22-4	0.275 J	0.142	1
06972	Zinc	7440-66-6	48.7	0.203	1
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	4.5	0.52	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0107	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.17	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.19	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.52	1
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	3.6	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC5 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850737
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:20 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NSTC5 SDG#: TAP03-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 19:28	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 02:03	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 20:58	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 16:26	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 04:43	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 09:59	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 09:59	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 04:43	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 09:59	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 09:59	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 04:43	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 09:59	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 04:43	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 04:43	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 09:59	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 04:43	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 12:46	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:11	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:29	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-STC6 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850738
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:25 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NSTC6 SDG#: TAP03-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	Acenaphthene	83-32-9	N.D.	3 ug/kg	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	34	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides SW-846 8151A					
10401	2,4,5-TP	93-72-1	N.D.	0.77 ug/kg	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.17 ug/kg	1
10738	Alpha BHC	319-84-6	N.D.	0.17	1
10738	Beta BHC	319-85-7	N.D.	0.98	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.17	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.17	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.36	1
10738	Delta BHC	319-86-8	N.D.	0.46	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.17	1
Pesticides/PCBs SW-846 8082					
10736	PCB-1016	12674-11-2	N.D.	3.7 ug/kg	1
10736	PCB-1221	11104-28-2	N.D.	4.8	1

Sample Description: TCN-STC6 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850738
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:25 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NSTC6 SDG#: TAP03-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.3	1
10736	PCB-1242	53469-21-9	N.D.	3.4	1
10736	PCB-1248	12672-29-6	N.D.	3.4	1
10736	PCB-1254	11097-69-1	N.D.	3.4	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	N.D.	0.335	1
06946	Barium	7440-39-3	18.0	0.0335	1
06947	Beryllium	7440-41-7	N.D.	0.0679	1
06949	Cadmium	7440-43-9	N.D.	0.0335	1
06951	Chromium	7440-47-3	5.33	0.0892	1
06953	Copper	7440-50-8	130	0.182	1
06955	Lead	7439-92-1	1.42 J	0.477	1
06958	Manganese	7439-96-5	272	0.0841	1
06961	Nickel	7440-02-0	16.7	0.112	1
06936	Selenium	7782-49-2	2.60	0.730	1
06966	Silver	7440-22-4	0.384 J	0.142	1
06972	Zinc	7440-66-6	53.4	0.203	1
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	5.3	0.52	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0106	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.19	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.52	1
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	3.3	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC6 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850738
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:25 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NSTC6 SDG#: TAP03-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 20:36	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 03:25	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 21:12	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 17:10	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:08	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 10:24	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 10:24	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:08	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 10:24	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 10:24	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:08	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 10:24	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:08	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:08	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 10:24	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:08	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 12:52	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:15	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:33	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST13 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850739
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:30 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST13 SDG#: TAP03-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1.02
10237	Benzene	71-43-2	N.D.	0.0005	1.02
10237	2-Butanone	78-93-3	N.D.	0.004	1.02
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.02
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.02
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.02
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.02
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.02
10237	Chloroform	67-66-3	N.D.	0.001	1.02
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.02
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.02
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.02
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.02
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.02
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.02
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.02
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.02
10237	1,4-Dioxane	123-91-1	N.D.	0.074	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.02
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.02
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.02
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.02
10237	Toluene	108-88-3	N.D.	0.001	1.02
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.02
10237	Trichloroethene	79-01-6	N.D.	0.001	1.02
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.02
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.02
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.02
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.02

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.3	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST13 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850739
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:30 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST13 SDG#: TAP03-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123131AA	11/08/2012 12:37	Angela D Sneeringer	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:08	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST14 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850740
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:35 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST14 SDG#: TAP03-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1
10237	Benzene	71-43-2	N.D.	0.0005	1
10237	2-Butanone	78-93-3	N.D.	0.004	1
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1
10237	Chlorobenzene	108-90-7	N.D.	0.001	1
10237	Chloroform	67-66-3	N.D.	0.001	1
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1
10237	1,4-Dioxane	123-91-1	N.D.	0.072	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1
10237	Methylene Chloride	75-09-2	N.D.	0.002	1
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1
10237	Toluene	108-88-3	N.D.	0.001	1
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1
10237	Trichloroethene	79-01-6	N.D.	0.001	1
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1
Wet Chemistry	SM20 2540 G		%	%	
00111	Moisture	n.a.	2.9	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST14 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850740
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:35 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST14 SDG#: TAP03-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 02:07	Andrea E Lando	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:10	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-STC7 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850741
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:40 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NSTC7 SDG#: TAP03-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	Acenaphthene	83-32-9	N.D.	3 ug/kg	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	34	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides SW-846 8151A					
10401	2,4,5-TP	93-72-1	N.D.	0.78 ug/kg	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.18 ug/kg	1
10738	Alpha BHC	319-84-6	N.D.	0.18	1
10738	Beta BHC	319-85-7	N.D.	1.0	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.18	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.18	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.36	1
10738	Delta BHC	319-86-8	N.D.	0.47	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.18	1
Pesticides/PCBs SW-846 8082					
10736	PCB-1016	12674-11-2	N.D.	3.8 ug/kg	1
10736	PCB-1221	11104-28-2	N.D.	4.8	1

Sample Description: TCN-STC7 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850741
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:40 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NSTC7 SDG#: TAP03-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.4	1
10736	PCB-1242	53469-21-9	N.D.	3.4	1
10736	PCB-1248	12672-29-6	N.D.	3.4	1
10736	PCB-1254	11097-69-1	N.D.	3.4	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	N.D.	0.331	1
06946	Barium	7440-39-3	16.5	0.0331	1
06947	Beryllium	7440-41-7	N.D.	0.0672	1
06949	Cadmium	7440-43-9	0.0954 J	0.0331	1
06951	Chromium	7440-47-3	4.28	0.0883	1
06953	Copper	7440-50-8	161	0.181	1
06955	Lead	7439-92-1	3.07	0.472	1
06958	Manganese	7439-96-5	249	0.0833	1
06961	Nickel	7440-02-0	16.6	0.110	1
06936	Selenium	7782-49-2	2.68	0.723	1
06966	Silver	7440-22-4	0.398 J	0.141	1
06972	Zinc	7440-66-6	55.0	0.201	1
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	4.3	0.52	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0102	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.18	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.52	1
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	4.2	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC7 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850741
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:40 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NSTC7 SDG#: TAP03-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 20:58	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 03:53	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 21:55	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 17:24	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:12	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 10:28	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 10:28	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:12	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 10:28	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 10:28	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:12	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 10:28	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:12	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:12	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 10:28	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:12	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 12:54	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:16	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:34	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST15 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850742
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:50 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST15 SDG#: TAP03-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1.04
10237	Benzene	71-43-2	N.D.	0.0005	1.04
10237	2-Butanone	78-93-3	N.D.	0.004	1.04
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.04
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.04
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.04
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.04
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.04
10237	Chloroform	67-66-3	N.D.	0.001	1.04
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.04
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.04
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.04
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.04
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.04
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.04
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.04
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.04
10237	1,4-Dioxane	123-91-1	N.D.	0.075	1.04
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.04
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.04
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.04
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.04
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.04
10237	Toluene	108-88-3	N.D.	0.001	1.04
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.04
10237	Trichloroethene	79-01-6	N.D.	0.001	1.04
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.04
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.04
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.04
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.04
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.04

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.3	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST15 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850742
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:50 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST15 SDG#: TAP03-10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 02:30	Andrea E Lando	1.04
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:14	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST16 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850743
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:55 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST16 SDG#: TAP03-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.99
10237	Benzene	71-43-2	N.D.	0.0005	0.99
10237	2-Butanone	78-93-3	N.D.	0.004	0.99
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.99
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.99
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.99
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.99
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.99
10237	Chloroform	67-66-3	N.D.	0.001	0.99
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.99
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.99
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.99
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.99
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.99
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.99
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.99
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.99
10237	1,4-Dioxane	123-91-1	N.D.	0.072	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.99
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.99
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.99
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.99
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.99
10237	Trichloroethene	79-01-6	N.D.	0.001	0.99
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.99
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.99
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.99
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.99

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	2.8	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST16 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850743
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:55 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST16 SDG#: TAP03-11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 02:53	Andrea E Lando	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:16	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-STC8 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850744
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:45 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NSTC8 SDG#: TAP03-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	Acenaphthene	83-32-9	N.D.	3 ug/kg	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	34	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides SW-846 8151A					
10401	2,4,5-TP	93-72-1	N.D.	0.77 ug/kg	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.18 ug/kg	1
10738	Alpha BHC	319-84-6	N.D.	0.18	1
10738	Beta BHC	319-85-7	N.D.	0.99	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.18	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.18	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.36	1
10738	Delta BHC	319-86-8	N.D.	0.46	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.18	1
Pesticides/PCBs SW-846 8082					
10736	PCB-1016	12674-11-2	N.D.	3.7 ug/kg	1
10736	PCB-1221	11104-28-2	N.D.	4.8	1

Sample Description: TCN-STC8 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850744
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:45 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NSTC8 SDG#: TAP03-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.3	1
10736	PCB-1242	53469-21-9	N.D.	3.4	1
10736	PCB-1248	12672-29-6	N.D.	3.4	1
10736	PCB-1254	11097-69-1	N.D.	3.4	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	1.27 J	0.334	1
06946	Barium	7440-39-3	16.5	0.0334	1
06947	Beryllium	7440-41-7	N.D.	0.0679	1
06949	Cadmium	7440-43-9	N.D.	0.0334	1
06951	Chromium	7440-47-3	4.92	0.0891	1
06953	Copper	7440-50-8	145	0.182	1
06955	Lead	7439-92-1	2.90	0.476	1
06958	Manganese	7439-96-5	250	0.0841	1
06961	Nickel	7440-02-0	16.9	0.111	1
06936	Selenium	7782-49-2	3.24	0.729	1
06966	Silver	7440-22-4	0.342 J	0.142	1
06972	Zinc	7440-66-6	52.5	0.203	1
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	4.9	0.52	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0105	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.19	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.52	1
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	3.2	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC8 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850744
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:45 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NSTC8 SDG#: TAP03-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 21:21	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 04:20	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 22:09	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 17:39	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:24	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 10:40	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 10:40	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:24	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 10:40	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 10:40	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:24	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 10:40	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:24	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:24	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 10:40	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:24	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 12:56	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:17	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:35	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST17 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850745
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:15 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST17 SDG#: TAP03-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	1.03
10237	Benzene	71-43-2	N.D.	0.0005	1.03
10237	2-Butanone	78-93-3	N.D.	0.004	1.03
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.03
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.03
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.03
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.03
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.03
10237	Chloroform	67-66-3	N.D.	0.001	1.03
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.03
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.03
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.03
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.03
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.03
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.03
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.03
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.03
10237	1,4-Dioxane	123-91-1	N.D.	0.075	1.03
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.03
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.03
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.03
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.03
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.03
10237	Toluene	108-88-3	N.D.	0.001	1.03
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.03
10237	Trichloroethene	79-01-6	N.D.	0.001	1.03
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.03
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.03
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.03
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.03
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.03

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.6	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST17 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850745
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:15 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST17 SDG#: TAP03-13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123131AA	11/08/2012 13:54	Angela D Sneeringer	1.03
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:18	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST18 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850746
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:20 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST18 SDG#: TAP03-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1
10237	Benzene	71-43-2	N.D.	0.0005	1
10237	2-Butanone	78-93-3	N.D.	0.004	1
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1
10237	Chlorobenzene	108-90-7	N.D.	0.001	1
10237	Chloroform	67-66-3	N.D.	0.001	1
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1
10237	1,4-Dioxane	123-91-1	N.D.	0.072	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1
10237	Methylene Chloride	75-09-2	N.D.	0.002	1
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1
10237	Toluene	108-88-3	N.D.	0.001	1
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1
10237	Trichloroethene	79-01-6	N.D.	0.001	1
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.0	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST18 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850746
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:20 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST18 SDG#: TAP03-14

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 03:15	Andrea E Lando	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:20	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-STC9 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850747
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:25 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NSTC9 SDG#: TAP03-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	Acenaphthene	83-32-9	N.D.	3 ug/kg	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	34	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides SW-846 8151A					
10401	2,4,5-TP	93-72-1	N.D.	0.78 ug/kg	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.17 ug/kg	1
10738	Alpha BHC	319-84-6	N.D.	0.17	1
10738	Beta BHC	319-85-7	N.D.	0.98	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.17	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.17	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.36	1
10738	Delta BHC	319-86-8	N.D.	0.46	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.22	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.21	1
10738	Heptachlor	76-44-8	N.D.	0.17	1
Pesticides/PCBs SW-846 8082					
10736	PCB-1016	12674-11-2	N.D.	3.7 ug/kg	1
10736	PCB-1221	11104-28-2	N.D.	4.8	1

Sample Description: TCN-STC9 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850747
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:25 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NSTC9 SDG#: TAP03-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.3	1
10736	PCB-1242	53469-21-9	N.D.	3.4	1
10736	PCB-1248	12672-29-6	N.D.	3.4	1
10736	PCB-1254	11097-69-1	N.D.	3.4	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	N.D.	0.338	1
06946	Barium	7440-39-3	17.2	0.0338	1
06947	Beryllium	7440-41-7	N.D.	0.0686	1
06949	Cadmium	7440-43-9	N.D.	0.0338	1
06951	Chromium	7440-47-3	4.24	0.0901	1
06953	Copper	7440-50-8	141	0.184	1
06955	Lead	7439-92-1	2.49	0.481	1
06958	Manganese	7439-96-5	250	0.0850	1
06961	Nickel	7440-02-0	16.2	0.113	1
06936	Selenium	7782-49-2	2.94	0.737	1
06966	Silver	7440-22-4	0.340 J	0.143	1
06972	Zinc	7440-66-6	52.5	0.205	1
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	4.2	0.52	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0104	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.18	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.52	1
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	3.3	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC9 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850747
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:25 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NSTC9 SDG#: TAP03-15

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 21:43	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 04:48	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 22:23	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 17:54	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:28	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 10:44	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 10:44	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:28	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 10:44	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 10:44	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:28	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 10:44	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:28	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:28	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 10:44	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:28	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 12:58	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:18	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:36	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST19 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850748
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:25 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST19 SDG#: TAP03-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1.01
10237	Benzene	71-43-2	N.D.	0.0005	1.01
10237	2-Butanone	78-93-3	N.D.	0.004	1.01
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.01
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.01
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.01
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.01
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.01
10237	Chloroform	67-66-3	N.D.	0.001	1.01
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.01
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.01
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.01
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.01
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.01
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.01
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.01
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.01
10237	1,4-Dioxane	123-91-1	N.D.	0.073	1.01
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.01
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.01
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.01
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.01
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.01
10237	Toluene	108-88-3	N.D.	0.001	1.01
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.01
10237	Trichloroethene	79-01-6	N.D.	0.001	1.01
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.01
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.01
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.01
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.01
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.01

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.0	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST19 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850748
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:25 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST19 SDG#: TAP03-16

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 05:45	Andrea E Lando	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:22	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST20 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850749
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:30 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST20 SDG#: TAP03-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1.02
10237	Benzene	71-43-2	N.D.	0.0005	1.02
10237	2-Butanone	78-93-3	N.D.	0.004	1.02
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.02
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.02
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.02
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.02
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.02
10237	Chloroform	67-66-3	N.D.	0.001	1.02
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.02
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.02
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.02
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.02
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.02
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.02
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.02
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.02
10237	1,4-Dioxane	123-91-1	N.D.	0.074	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.02
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.02
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.02
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.02
10237	Toluene	108-88-3	N.D.	0.001	1.02
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.02
10237	Trichloroethene	79-01-6	N.D.	0.001	1.02
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.02
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.02
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.02
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.02

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.7	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST20 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850749
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:30 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST20 SDG#: TAP03-17

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 06:08	Andrea E Lando	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:23	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-STC10 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850750
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:35 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

STC10 SDG#: TAP03-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	Acenaphthene	83-32-9	N.D.	3 ug/kg	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	34	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides SW-846 8151A					
10401	2,4,5-TP	93-72-1	N.D.	0.78 ug/kg	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.17 ug/kg	1
10738	Alpha BHC	319-84-6	N.D.	0.17	1
10738	Beta BHC	319-85-7	N.D.	0.98	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.17	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.17	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.36	1
10738	Delta BHC	319-86-8	N.D.	0.46	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.17	1
Pesticides/PCBs SW-846 8082					
10736	PCB-1016	12674-11-2	N.D.	3.7 ug/kg	1
10736	PCB-1221	11104-28-2	N.D.	4.8	1

Sample Description: TCN-STC10 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850750
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:35 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

STC10 SDG#: TAP03-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.3	1
10736	PCB-1242	53469-21-9	N.D.	3.4	1
10736	PCB-1248	12672-29-6	N.D.	3.4	1
10736	PCB-1254	11097-69-1	N.D.	3.4	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	N.D.	0.333	1
06946	Barium	7440-39-3	16.9	0.0333	1
06947	Beryllium	7440-41-7	N.D.	0.0676	1
06949	Cadmium	7440-43-9	0.0888 J	0.0333	1
06951	Chromium	7440-47-3	4.09	0.0888	1
06953	Copper	7440-50-8	136	0.182	1
06955	Lead	7439-92-1	2.13	0.474	1
06958	Manganese	7439-96-5	261	0.0838	1
06961	Nickel	7440-02-0	16.1	0.111	1
06936	Selenium	7782-49-2	2.67	0.727	1
06966	Silver	7440-22-4	0.477 J	0.141	1
06972	Zinc	7440-66-6	56.4	0.202	1
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	4.1	0.52	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0106	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.18	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.52	1
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	3.8	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC10 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850750
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:35 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

STC10 SDG#: TAP03-18

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 22:06	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 06:10	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 22:37	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 18:09	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:32	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 10:48	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 10:48	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:32	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 10:48	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 10:48	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:32	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 10:48	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:32	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:32	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 10:48	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:32	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:00	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:20	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:40	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST21 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850751
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:40 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST21 SDG#: TAP03-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.97
10237	Benzene	71-43-2	N.D.	0.0005	0.97
10237	2-Butanone	78-93-3	N.D.	0.004	0.97
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.97
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.97
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.97
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.97
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.97
10237	Chloroform	67-66-3	N.D.	0.001	0.97
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.97
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.97
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.97
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.97
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.97
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.97
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.97
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.97
10237	1,4-Dioxane	123-91-1	N.D.	0.070	0.97
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.97
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.97
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.97
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.97
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.97
10237	Toluene	108-88-3	N.D.	0.001	0.97
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.97
10237	Trichloroethene	79-01-6	N.D.	0.001	0.97
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.97
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.97
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.97
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.97
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.97

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.1	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST21 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850751
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:40 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST21 SDG#: TAP03-19

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 06:30	Andrea E Lando	0.97
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:46	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST22 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850752
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:45 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST22 SDG#: TAP03-20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.97
10237	Benzene	71-43-2	N.D.	0.0005	0.97
10237	2-Butanone	78-93-3	N.D.	0.004	0.97
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.97
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.97
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.97
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.97
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.97
10237	Chloroform	67-66-3	N.D.	0.001	0.97
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.97
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.97
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.97
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.97
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.97
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.97
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.97
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.97
10237	1,4-Dioxane	123-91-1	N.D.	0.070	0.97
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.97
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.97
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.97
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.97
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.97
10237	Toluene	108-88-3	N.D.	0.001	0.97
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.97
10237	Trichloroethene	79-01-6	N.D.	0.001	0.97
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.97
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.97
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.97
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.97
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.97

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.1	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST22 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850752
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:45 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST22 SDG#: TAP03-20

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 06:53	Andrea E Lando	0.97
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:53	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-STC11 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850753
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 15:00 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

STC11 SDG#: TAP03-21

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	Acenaphthene	83-32-9	N.D.	3	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	34	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides SW-846 8151A					
10401	2,4,5-TP	93-72-1	N.D.	0.77	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.17	1
10738	Alpha BHC	319-84-6	N.D.	0.17	1
10738	Beta BHC	319-85-7	N.D.	0.98	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.17	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.17	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.36	1
10738	Delta BHC	319-86-8	N.D.	0.46	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.22	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.21	1
10738	Heptachlor	76-44-8	N.D.	0.17	1
Pesticides/PCBs SW-846 8082					
10736	PCB-1016	12674-11-2	N.D.	3.7	1
10736	PCB-1221	11104-28-2	N.D.	4.8	1

Sample Description: TCN-STC11 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850753
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 15:00 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

STC11 SDG#: TAP03-21

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.3	1
10736	PCB-1242	53469-21-9	N.D.	3.4	1
10736	PCB-1248	12672-29-6	N.D.	3.4	1
10736	PCB-1254	11097-69-1	N.D.	3.4	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	N.D.	0.331	1
06946	Barium	7440-39-3	17.4	0.0331	1
06947	Beryllium	7440-41-7	N.D.	0.0672	1
06949	Cadmium	7440-43-9	0.114 J	0.0331	1
06951	Chromium	7440-47-3	3.83	0.0883	1
06953	Copper	7440-50-8	138	0.181	1
06955	Lead	7439-92-1	2.19	0.471	1
06958	Manganese	7439-96-5	256	0.0832	1
06961	Nickel	7440-02-0	16.5	0.110	1
06936	Selenium	7782-49-2	3.03	0.722	1
06966	Silver	7440-22-4	0.435 J	0.140	1
06972	Zinc	7440-66-6	52.2	0.201	1
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	3.8	0.52	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0106	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.17	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.52	1
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	3.2	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC11 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850753
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 15:00 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

STC11 SDG#: TAP03-21

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 22:28	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 06:38	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 22:52	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 18:23	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:36	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 10:53	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 10:53	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:36	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 10:53	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 10:53	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:36	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 10:53	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:36	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:36	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 10:53	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:36	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:02	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:23	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:41	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: TCN-ST23 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850754
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:50 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST23 SDG#: TAP03-22

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.95
10237	Benzene	71-43-2	N.D.	0.0005	0.95
10237	2-Butanone	78-93-3	N.D.	0.004	0.95
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.95
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.95
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.95
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.95
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.95
10237	Chloroform	67-66-3	N.D.	0.001	0.95
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.95
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.95
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.95
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.95
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.95
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.95
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.95
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.95
10237	1,4-Dioxane	123-91-1	N.D.	0.068	0.95
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.95
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.95
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.95
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.95
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.95
10237	Toluene	108-88-3	N.D.	0.001	0.95
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.95
10237	Trichloroethene	79-01-6	N.D.	0.001	0.95
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.95
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.95
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.95
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.95
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.95

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.0	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST23 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850754
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:50 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST23 SDG#: TAP03-22

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 07:16	Andrea E Lando	0.95
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:54	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: TCN-ST24 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850755
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:55 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST24 SDG#: TAP03-23

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.98
10237	Benzene	71-43-2	N.D.	0.0005	0.98
10237	2-Butanone	78-93-3	N.D.	0.004	0.98
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.98
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.98
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.98
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.98
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.98
10237	Chloroform	67-66-3	N.D.	0.001	0.98
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.98
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.98
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.98
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.98
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.98
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.98
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.98
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.98
10237	1,4-Dioxane	123-91-1	N.D.	0.071	0.98
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.98
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.98
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.98
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.98
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.98
10237	Toluene	108-88-3	N.D.	0.001	0.98
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.98
10237	Trichloroethene	79-01-6	N.D.	0.001	0.98
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.98
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.98
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.98
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.98
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.98

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.1	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST24 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850755
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:55 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST24 SDG#: TAP03-23

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 07:38	Andrea E Lando	0.98
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:56	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: TCN-STC12 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850756
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 15:05 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

STC12 SDG#: TAP03-24

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	Acenaphthene	83-32-9	N.D.	3 ug/kg	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	35	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides SW-846 8151A					
10401	2,4,5-TP	93-72-1	N.D.	0.80 ug/kg	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.18 ug/kg	1
10738	Alpha BHC	319-84-6	N.D.	0.18	1
10738	Beta BHC	319-85-7	N.D.	1.0	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.18	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.18	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.37	1
10738	Delta BHC	319-86-8	N.D.	0.47	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.18	1
Pesticides/PCBs SW-846 8082					
10736	PCB-1016	12674-11-2	N.D.	3.8 ug/kg	1
10736	PCB-1221	11104-28-2	N.D.	4.9	1

Sample Description: TCN-STC12 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850756
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 15:05 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

STC12 SDG#: TAP03-24

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.5	1
10736	PCB-1242	53469-21-9	N.D.	3.5	1
10736	PCB-1248	12672-29-6	N.D.	3.5	1
10736	PCB-1254	11097-69-1	N.D.	3.5	1
10736	PCB-1260	11096-82-5	N.D.	5.2	1
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	N.D.	0.350	1
06946	Barium	7440-39-3	13.7	0.0350	1
06947	Beryllium	7440-41-7	N.D.	0.0711	1
06949	Cadmium	7440-43-9	0.0892 J	0.0350	1
06951	Chromium	7440-47-3	3.33	0.0934	1
06953	Copper	7440-50-8	132	0.191	1
06955	Lead	7439-92-1	3.00	0.499	1
06958	Manganese	7439-96-5	227	0.0881	1
06961	Nickel	7440-02-0	14.7	0.117	1
06936	Selenium	7782-49-2	2.37	0.764	1
06966	Silver	7440-22-4	0.314 J	0.149	1
06972	Zinc	7440-66-6	56.5	0.212	1
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	3.3	0.53	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0108	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.18	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.53	1
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	5.8	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC12 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850756
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 15:05 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

STC12 SDG#: TAP03-24

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 22:50	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 07:05	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 23:06	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 18:38	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:40	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 10:57	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 10:57	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:40	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 10:57	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 10:57	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:40	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 10:57	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:40	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:40	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 10:57	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:40	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:04	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:24	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:42	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TS3 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850757
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:10 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

OCTS3 SDG#: TAP03-25

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.009	1.01
10237	Benzene	71-43-2	N.D.	0.0007	1.01
10237	2-Butanone	78-93-3	N.D.	0.005	1.01
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.01
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.01
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.01
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.01
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.01
10237	Chloroform	67-66-3	N.D.	0.001	1.01
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.01
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.01
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.01
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.01
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.01
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.01
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.01
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.01
10237	1,4-Dioxane	123-91-1	N.D.	0.091	1.01
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.01
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0007	1.01
10237	Methylene Chloride	75-09-2	N.D.	0.003	1.01
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.01
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.01
10237	Toluene	108-88-3	N.D.	0.001	1.01
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.01
10237	Trichloroethene	79-01-6	N.D.	0.001	1.01
10237	Trichlorofluoromethane	75-69-4	N.D.	0.003	1.01
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.01
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.01
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.01
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.01

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	22.2	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: POC-TS3 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850757
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:10 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

OCTS3 SDG#: TAP03-25

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 08:01	Andrea E Lando	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TS4 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850758
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:05 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

OCTS4 SDG#: TAP03-26

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.009	0.97
10237	Benzene	71-43-2	N.D.	0.0006	0.97
10237	2-Butanone	78-93-3	N.D.	0.005	0.97
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.97
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.97
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.97
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.97
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.97
10237	Chloroform	67-66-3	N.D.	0.001	0.97
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.97
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.97
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.97
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.97
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.97
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.97
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.97
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.97
10237	1,4-Dioxane	123-91-1	N.D.	0.088	0.97
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.97
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	0.97
10237	Methylene Chloride	75-09-2	N.D.	0.003	0.97
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.97
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.97
10237	Toluene	108-88-3	N.D.	0.001	0.97
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.97
10237	Trichloroethene	79-01-6	N.D.	0.001	0.97
10237	Trichlorofluoromethane	75-69-4	N.D.	0.003	0.97
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.97
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.97
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.97
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.97

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	22.2	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: POC-TS4 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850758
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:05 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

OCTS4 SDG#: TAP03-26

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 08:24	Andrea E Lando	0.97
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:44	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TSC2 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850759
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:00 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS2 SDG#: TAP03-27

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
			ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	4	1
10727	Acenaphthylene	208-96-8	5 J	4	1
10727	Anthracene	120-12-7	11 J	4	1
10727	Benzo(a)anthracene	56-55-3	40	4	1
10727	Benzo(a)pyrene	50-32-8	48	4	1
10727	Benzo(b)fluoranthene	205-99-2	63	4	1
10727	Benzo(g,h,i)perylene	191-24-2	35	4	1
10727	Benzo(k)fluoranthene	207-08-9	30	4	1
10727	Chrysene	218-01-9	48	4	1
10727	Dibenz(a,h)anthracene	53-70-3	12 J	4	1
10727	Dibenzofuran	132-64-9	N.D.	21	1
10727	Fluoranthene	206-44-0	80	4	1
10727	Fluorene	86-73-7	4 J	4	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	30	4	1
10727	2-Methylphenol	95-48-7	N.D.	21	1
10727	4-Methylphenol	106-44-5	41 J	21	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	9 J	4	1
10727	Pentachlorophenol	87-86-5	N.D.	42	1
10727	Phenanthrene	85-01-8	48	4	1
10727	Phenol	108-95-2	N.D.	21	1
10727	Pyrene	129-00-0	81	4	1
Herbicides SW-846 8151A					
			ug/kg	ug/kg	
10401	2,4,5-TP	93-72-1	N.D.	0.96	1
Pesticides/PCBs SW-846 8081A					
			ug/kg	ug/kg	
10738	Aldrin	309-00-2	0.42 J	0.22	1
10738	Alpha BHC	319-84-6	0.81 J	0.22	1
10738	Beta BHC	319-85-7	N.D.	1.2	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.70	1
10738	Alpha Chlordane	5103-71-9	N.D.	1.4	1
10738	p,p-DDD	72-54-8	N.D.	0.98	1
10738	p,p-DDE	72-55-9	2.5	0.42	1
10738	p,p-DDT	50-29-3	2.4	0.45	1
10738	Delta BHC	319-86-8	N.D.	0.58	1
10738	Dieldrin	60-57-1	1.9 J	0.42	1
10738	Endosulfan I	959-98-8	N.D.	0.31	1
10738	Endosulfan II	33213-65-9	N.D.	0.42	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.42	1
10738	Endrin	72-20-8	N.D.	0.89	1
10738	HCB	118-74-1	1.5	0.27	1
10738	Heptachlor	76-44-8	N.D.	0.39	1
Reporting limits were raised due to interference from the sample matrix.					
Pesticides/PCBs SW-846 8082					
			ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	4.7	1

Sample Description: POC-TSC2 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850759
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:00 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS2 SDG#: TAP03-27

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs SW-846 8082 ug/kg					
10736	PCB-1221	11104-28-2	N.D.	6.0	1
10736	PCB-1232	11141-16-5	N.D.	10	1
10736	PCB-1242	53469-21-9	N.D.	4.3	1
10736	PCB-1248	12672-29-6	N.D.	4.3	1
10736	PCB-1254	11097-69-1	26	4.3	1
10736	PCB-1260	11096-82-5	29	6.3	1
Metals SW-846 6010B mg/kg					
06935	Arsenic	7440-38-2	4.59	0.419	1
06946	Barium	7440-39-3	153	0.0419	1
06947	Beryllium	7440-41-7	1.08	0.0851	1
06949	Cadmium	7440-43-9	0.175 J	0.0419	1
06951	Chromium	7440-47-3	26.5	0.112	1
06953	Copper	7440-50-8	25.4	0.229	1
06955	Lead	7439-92-1	30.0	0.597	1
06958	Manganese	7439-96-5	825	0.105	1
06961	Nickel	7440-02-0	22.4	0.140	1
06936	Selenium	7782-49-2	2.93	0.914	1
06966	Silver	7440-22-4	0.424 J	0.178	1
06972	Zinc	7440-66-6	91.0	0.254	1
SW-846 6010B modified mg/kg					
02829	Trivalent Chromium soils	16065-83-1	26.5	3.2	1
SW-846 7471A mg/kg					
00159	Mercury	7439-97-6	0.0614 J	0.0130	1
Wet Chemistry SW-846 9012B mg/kg					
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.22	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.23	1
SW-846 7196A mg/kg					
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	3.2	5
Reporting limits were raised due to interference from the sample matrix.					
Wet Chemistry SM20 2540 G %					
00111	Moisture	n.a.	22.8	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: POC-TSC2 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850759
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:00 by JC

ExxonMobil Refining & Supply

Submitted: 11/07/2012 09:20

Global Remed.-Major Projects

Reported: 11/19/2012 14:59

38 Varick Street
 Brooklyn NY 11222

CTCS2 SDG#: TAP03-27

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 23:13	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 07:33	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 23:20	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 18:53	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:44	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 11:01	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 11:01	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:44	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 11:01	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 11:01	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:44	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 11:01	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:44	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:44	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 11:01	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:44	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:06	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:25	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:43	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	5

Sample Description: POC-TSC2 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850759
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:00 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS2 SDG#: TAP03-27

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TS5 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850760
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:35 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

OCT55 SDG#: TAP03-28

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	0.93
10237	Benzene	71-43-2	N.D.	0.0006	0.93
10237	2-Butanone	78-93-3	N.D.	0.005	0.93
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.93
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.93
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.93
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.93
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.93
10237	Chloroform	67-66-3	N.D.	0.001	0.93
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.93
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.93
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.93
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.93
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.93
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.93
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.93
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.93
10237	1,4-Dioxane	123-91-1	N.D.	0.083	0.93
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.93
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	0.93
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.93
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.93
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.93
10237	Toluene	108-88-3	N.D.	0.001	0.93
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.93
10237	Trichloroethene	79-01-6	N.D.	0.001	0.93
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.93
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.93
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.93
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.93
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.93

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	22.0	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: POC-TS5 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850760
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:35 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

OCTS5 SDG#: TAP03-28

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123131AA	11/08/2012 13:08	Angela D Sneeringer	0.93
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:48	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TS6 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850761
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:40 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

OCTS6 SDG#: TAP03-29

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	0.92
10237	Benzene	71-43-2	N.D.	0.0006	0.92
10237	2-Butanone	78-93-3	N.D.	0.005	0.92
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.92
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.92
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.92
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.92
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.92
10237	Chloroform	67-66-3	N.D.	0.001	0.92
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.92
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.92
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.92
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.92
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.92
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.92
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.92
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.92
10237	1,4-Dioxane	123-91-1	N.D.	0.081	0.92
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.92
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	0.92
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.92
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.92
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.92
10237	Toluene	108-88-3	N.D.	0.001	0.92
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.92
10237	Trichloroethene	79-01-6	N.D.	0.001	0.92
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.92
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.92
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.92
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.92
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.92

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	20.7	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: POC-TS6 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850761
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:40 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

OCTS6 SDG#: TAP03-29

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123131AA	11/08/2012 15:25	Angela D Sneeringer	0.92
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:49	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TS7 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850762
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:45 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

OCT57 SDG#: TAP03-30

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.009	1
10237	Benzene	71-43-2	N.D.	0.0006	1
10237	2-Butanone	78-93-3	N.D.	0.005	1
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1
10237	Chlorobenzene	108-90-7	N.D.	0.001	1
10237	Chloroform	67-66-3	N.D.	0.001	1
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1
10237	1,4-Dioxane	123-91-1	N.D.	0.090	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	1
10237	Methylene Chloride	75-09-2	N.D.	0.003	1
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1
10237	Toluene	108-88-3	N.D.	0.001	1
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1
10237	Trichloroethene	79-01-6	N.D.	0.001	1
10237	Trichlorofluoromethane	75-69-4	N.D.	0.003	1
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	22.4	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: POC-TS7 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850762
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:45 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

OCTS7 SDG#: TAP03-30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	A123131AA	11/08/2012 03:35	Stephanie A Selis	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:51	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TS8 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850763
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:50 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

OCTS8 SDG#: TAP03-31

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.01	1.05
10237	Benzene	71-43-2	N.D.	0.0007	1.05
10237	2-Butanone	78-93-3	N.D.	0.005	1.05
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.05
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.05
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.05
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.05
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.05
10237	Chloroform	67-66-3	N.D.	0.001	1.05
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.05
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.05
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.05
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.05
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.05
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.05
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.05
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.05
10237	1,4-Dioxane	123-91-1	N.D.	0.096	1.05
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.05
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0007	1.05
10237	Methylene Chloride	75-09-2	N.D.	0.003	1.05
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.05
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.05
10237	Toluene	108-88-3	N.D.	0.001	1.05
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.05
10237	Trichloroethene	79-01-6	N.D.	0.001	1.05
10237	Trichlorofluoromethane	75-69-4	N.D.	0.003	1.05
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.05
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.05
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.05
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.05

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	22.7	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: POC-TS8 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850763
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:50 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

OCTS8 SDG#: TAP03-31

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	A123131AA	11/08/2012 03:57	Stephanie A Selis	1.05
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:40	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TSC3 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850764
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:25 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS3 SDG#: TAP03-32

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
			ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	7 J	4	1
10727	Acenaphthylene	208-96-8	9 J	4	1
10727	Anthracene	120-12-7	24	4	1
10727	Benzo(a)anthracene	56-55-3	70	4	1
10727	Benzo(a)pyrene	50-32-8	71	4	1
10727	Benzo(b)fluoranthene	205-99-2	100	4	1
10727	Benzo(g,h,i)perylene	191-24-2	53	4	1
10727	Benzo(k)fluoranthene	207-08-9	38	4	1
10727	Chrysene	218-01-9	72	4	1
10727	Dibenz(a,h)anthracene	53-70-3	15 J	4	1
10727	Dibenzofuran	132-64-9	N.D.	21	1
10727	Fluoranthene	206-44-0	140	4	1
10727	Fluorene	86-73-7	9 J	4	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	43	4	1
10727	2-Methylphenol	95-48-7	N.D.	21	1
10727	4-Methylphenol	106-44-5	25 J	21	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	14 J	4	1
10727	Pentachlorophenol	87-86-5	N.D.	43	1
10727	Phenanthrene	85-01-8	100	4	1
10727	Phenol	108-95-2	N.D.	21	1
10727	Pyrene	129-00-0	130	4	1
Herbicides SW-846 8151A					
			ug/kg	ug/kg	
10401	2,4,5-TP	93-72-1	N.D.	0.97	1
Pesticides/PCBs SW-846 8081A					
			ug/kg	ug/kg	
10738	Aldrin	309-00-2	N.D.	0.22	1
10738	Alpha BHC	319-84-6	N.D.	0.27	1
10738	Beta BHC	319-85-7	N.D.	1.2	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.22	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.89	1
10738	p,p-DDD	72-54-8	N.D.	1.2	1
10738	p,p-DDE	72-55-9	2.8	0.43	1
10738	p,p-DDT	50-29-3	2.4	0.45	1
10738	Delta BHC	319-86-8	N.D.	0.58	1
10738	Dieldrin	60-57-1	1.2 J	0.43	1
10738	Endosulfan I	959-98-8	N.D.	0.28	1
10738	Endosulfan II	33213-65-9	0.49 J	0.43	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.43	1
10738	Endrin	72-20-8	N.D.	1.4	1
10738	HCB	118-74-1	0.80 J	0.27	1
10738	Heptachlor	76-44-8	N.D.	0.36	1
Reporting limits were raised due to interference from the sample matrix.					
Pesticides/PCBs SW-846 8082					
			ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	4.7	1

Sample Description: POC-TSC3 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850764
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:25 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS3 SDG#: TAP03-32

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs					
	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1221	11104-28-2	N.D.	6.0	1
10736	PCB-1232	11141-16-5	N.D.	10	1
10736	PCB-1242	53469-21-9	N.D.	4.3	1
10736	PCB-1248	12672-29-6	N.D.	4.3	1
10736	PCB-1254	11097-69-1	N.D.	10	1
10736	PCB-1260	11096-82-5	N.D.	6.4	1
Reporting limits were raised due to interference from the sample matrix.					
Metals					
	SW-846 6010B		mg/kg	mg/kg	
06935	Arsenic	7440-38-2	5.16	0.416	1
06946	Barium	7440-39-3	143	0.0416	1
06947	Beryllium	7440-41-7	1.12	0.0844	1
06949	Cadmium	7440-43-9	0.287 J	0.0416	1
06951	Chromium	7440-47-3	27.4	0.111	1
06953	Copper	7440-50-8	20.4	0.227	1
06955	Lead	7439-92-1	33.6	0.592	1
06958	Manganese	7439-96-5	1,070	0.105	1
06961	Nickel	7440-02-0	28.5	0.139	1
06936	Selenium	7782-49-2	3.42	0.907	1
06966	Silver	7440-22-4	0.448 J	0.176	1
06972	Zinc	7440-66-6	108	0.252	1
	SW-846 6010B modified		mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	27.4	3.2	1
	SW-846 7471A		mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0686 J	0.0131	1
Wet Chemistry					
	SW-846 9012B		mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.22	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.23	1
	SW-846 7196A		mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	3.2	5
Reporting limits were raised due to interference from the sample matrix.					
Wet Chemistry					
	SM20 2540 G		%	%	
00111	Moisture	n.a.	22.9	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: POC-TSC3 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850764
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:25 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS3 SDG#: TAP03-32

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 23:36	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 08:00	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 23:34	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 19:07	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:48	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 11:05	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 11:05	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:48	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 11:05	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 11:05	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:48	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 11:05	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:48	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:48	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 11:05	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:48	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:08	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:27	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:44	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	5

Sample Description: POC-TSC3 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850764
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:25 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS3 SDG#: TAP03-32

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TSC4 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850765
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:30 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS4 SDG#: TAP03-33

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
			ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	7 J	4	1
10727	Acenaphthylene	208-96-8	7 J	4	1
10727	Anthracene	120-12-7	20 J	4	1
10727	Benzo(a)anthracene	56-55-3	66	4	1
10727	Benzo(a)pyrene	50-32-8	74	4	1
10727	Benzo(b)fluoranthene	205-99-2	100	4	1
10727	Benzo(g,h,i)perylene	191-24-2	54	4	1
10727	Benzo(k)fluoranthene	207-08-9	42	4	1
10727	Chrysene	218-01-9	70	4	1
10727	Dibenz(a,h)anthracene	53-70-3	17 J	4	1
10727	Dibenzofuran	132-64-9	N.D.	21	1
10727	Fluoranthene	206-44-0	130	4	1
10727	Fluorene	86-73-7	8 J	4	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	45	4	1
10727	2-Methylphenol	95-48-7	N.D.	21	1
10727	4-Methylphenol	106-44-5	35 J	21	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	15 J	4	1
10727	Pentachlorophenol	87-86-5	N.D.	42	1
10727	Phenanthrene	85-01-8	81	4	1
10727	Phenol	108-95-2	N.D.	21	1
10727	Pyrene	129-00-0	130	4	1
Herbicides SW-846 8151A					
			ug/kg	ug/kg	
10401	2,4,5-TP	93-72-1	N.D.	0.96	1
Pesticides/PCBs SW-846 8081A					
			ug/kg	ug/kg	
10738	Aldrin	309-00-2	0.30 J	0.22	1
10738	Alpha BHC	319-84-6	N.D.	0.22	1
10738	Beta BHC	319-85-7	N.D.	1.2	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.22	1
10738	Alpha Chlordane	5103-71-9	N.D.	2.2	1
10738	p,p-DDD	72-54-8	N.D.	2.1	1
10738	p,p-DDE	72-55-9	2.2	0.42	1
10738	p,p-DDT	50-29-3	3.5	0.45	1
10738	Delta BHC	319-86-8	N.D.	0.58	1
10738	Dieldrin	60-57-1	N.D.	3.1	1
10738	Endosulfan I	959-98-8	N.D.	0.28	1
10738	Endosulfan II	33213-65-9	0.83 J	0.42	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.42	1
10738	Endrin	72-20-8	N.D.	1.1	1
10738	HCB	118-74-1	1.5	0.27	1
10738	Heptachlor	76-44-8	N.D.	0.75	1
Reporting limits were raised due to interference from the sample matrix.					
Pesticides/PCBs SW-846 8082					
			ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	4.6	1

Sample Description: POC-TSC4 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850765
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:30 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS4 SDG#: TAP03-33

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1221	11104-28-2	N.D.	5.9	1
10736	PCB-1232	11141-16-5	N.D.	10	1
10736	PCB-1242	53469-21-9	N.D.	4.2	1
10736	PCB-1248	12672-29-6	N.D.	4.2	1
10736	PCB-1254	11097-69-1	7.5 J	4.2	1
10736	PCB-1260	11096-82-5	7.0 J	6.3	1
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	7.43	0.416	1
06946	Barium	7440-39-3	142	0.0416	1
06947	Beryllium	7440-41-7	1.05	0.0845	1
06949	Cadmium	7440-43-9	0.194 J	0.0416	1
06951	Chromium	7440-47-3	26.9	0.111	1
06953	Copper	7440-50-8	17.4	0.227	1
06955	Lead	7439-92-1	30.5	0.593	1
06958	Manganese	7439-96-5	567	0.105	1
06961	Nickel	7440-02-0	23.2	0.139	1
06936	Selenium	7782-49-2	3.03	0.908	1
06966	Silver	7440-22-4	0.327 J	0.177	1
06972	Zinc	7440-66-6	91.6	0.252	1
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	26.9	3.2	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0689 J	0.0130	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.22	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.22	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	3.2	5
Reporting limits were raised due to interference from the sample matrix.					
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	22.3	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: POC-TSC4 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850765
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:30 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS4 SDG#: TAP03-33

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 23:58	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123140018A	11/12/2012 18:43	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 23:49	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 19:22	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	2	123140018A	11/10/2012 06:30	Karen L Beyer	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:53	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 11:09	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 11:09	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:53	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 11:09	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 11:09	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:53	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 11:09	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:53	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:53	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 11:09	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:53	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:10	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201B	11/12/2012 07:28	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201B	11/09/2012 07:45	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201B	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201B	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	5

Sample Description: POC-TSC4 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850765
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:30 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS4 SDG#: TAP03-33

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TS9 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850766
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:55 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

OCTS9 SDG#: TAP03-34

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.009	0.99
10237	Benzene	71-43-2	N.D.	0.0006	0.99
10237	2-Butanone	78-93-3	N.D.	0.005	0.99
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.99
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.99
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.99
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.99
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.99
10237	Chloroform	67-66-3	N.D.	0.001	0.99
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.99
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.99
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.99
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.99
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.99
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.99
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.99
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.99
10237	1,4-Dioxane	123-91-1	N.D.	0.089	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	0.99
10237	Methylene Chloride	75-09-2	N.D.	0.003	0.99
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.99
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.99
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.99
10237	Trichloroethene	79-01-6	N.D.	0.001	0.99
10237	Trichlorofluoromethane	75-69-4	N.D.	0.003	0.99
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.99
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.99
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.99

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	22.5	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: POC-TS9 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850766
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:55 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

OCTS9 SDG#: TAP03-34

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	A123131AA	11/08/2012 04:20	Stephanie A Selis	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:41	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TS10 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850767
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:00 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTS10 SDG#: TAP03-35

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	0.93
10237	Benzene	71-43-2	N.D.	0.0006	0.93
10237	2-Butanone	78-93-3	N.D.	0.005	0.93
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.93
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.93
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.93
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.93
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.93
10237	Chloroform	67-66-3	N.D.	0.001	0.93
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.93
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.93
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.93
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.93
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.93
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.93
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.93
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.93
10237	1,4-Dioxane	123-91-1	N.D.	0.083	0.93
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.93
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	0.93
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.93
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.93
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.93
10237	Toluene	108-88-3	N.D.	0.001	0.93
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.93
10237	Trichloroethene	79-01-6	N.D.	0.001	0.93
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.93
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.93
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.93
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.93
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.93
Wet Chemistry	SM20 2540 G		%	%	
00111	Moisture	n.a.	21.6	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: POC-TS10 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850767
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:00 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTS10 SDG#: TAP03-35

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	A123131AA	11/08/2012 06:36	Stephanie A Selis	0.93
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:43	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TS11 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850768
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:05 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTS11 SDG#: TAP03-36

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.009	1.01
10237	Benzene	71-43-2	N.D.	0.0007	1.01
10237	2-Butanone	78-93-3	N.D.	0.005	1.01
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.01
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.01
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.01
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.01
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.01
10237	Chloroform	67-66-3	N.D.	0.001	1.01
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.01
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.01
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.01
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.01
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.01
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.01
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.01
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.01
10237	1,4-Dioxane	123-91-1	N.D.	0.091	1.01
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.01
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0007	1.01
10237	Methylene Chloride	75-09-2	N.D.	0.003	1.01
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.01
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.01
10237	Toluene	108-88-3	N.D.	0.001	1.01
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.01
10237	Trichloroethene	79-01-6	N.D.	0.001	1.01
10237	Trichlorofluoromethane	75-69-4	N.D.	0.003	1.01
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.01
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.01
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.01
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.01

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	22.4	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: POC-TS11 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850768
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:05 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTS11 SDG#: TAP03-36

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	A123131AA	11/08/2012 05:05	Stephanie A Selis	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:38	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TS12 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850769
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:10 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTS12 SDG#: TAP03-37

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	0.93
10237	Benzene	71-43-2	N.D.	0.0006	0.93
10237	2-Butanone	78-93-3	N.D.	0.005	0.93
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.93
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.93
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.93
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.93
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.93
10237	Chloroform	67-66-3	N.D.	0.001	0.93
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.93
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.93
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.93
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.93
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.93
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.93
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.93
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.93
10237	1,4-Dioxane	123-91-1	N.D.	0.082	0.93
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.93
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	0.93
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.93
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.93
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.93
10237	Toluene	108-88-3	0.001 J	0.001	0.93
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.93
10237	Trichloroethene	79-01-6	N.D.	0.001	0.93
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.93
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.93
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.93
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.93
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.93

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	21.3	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: POC-TS12 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850769
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:10 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTS12 SDG#: TAP03-37

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	A123131AA	11/08/2012 07:28	Stephanie A Selis	0.93
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:36	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TSC5 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850770
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:15 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS5 SDG#: TAP03-38

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
			ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	5 J	4	1
10727	Acenaphthylene	208-96-8	7 J	4	1
10727	Anthracene	120-12-7	14 J	4	1
10727	Benzo(a)anthracene	56-55-3	50	4	1
10727	Benzo(a)pyrene	50-32-8	57	4	1
10727	Benzo(b)fluoranthene	205-99-2	78	4	1
10727	Benzo(g,h,i)perylene	191-24-2	43	4	1
10727	Benzo(k)fluoranthene	207-08-9	33	4	1
10727	Chrysene	218-01-9	54	4	1
10727	Dibenz(a,h)anthracene	53-70-3	12 J	4	1
10727	Dibenzofuran	132-64-9	N.D.	21	1
10727	Fluoranthene	206-44-0	94	4	1
10727	Fluorene	86-73-7	5 J	4	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	36	4	1
10727	2-Methylphenol	95-48-7	N.D.	21	1
10727	4-Methylphenol	106-44-5	N.D.	21	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	11 J	4	1
10727	Pentachlorophenol	87-86-5	N.D.	42	1
10727	Phenanthrene	85-01-8	57	4	1
10727	Phenol	108-95-2	N.D.	21	1
10727	Pyrene	129-00-0	92	4	1
Herbicides SW-846 8151A					
			ug/kg	ug/kg	
10401	2,4,5-TP	93-72-1	N.D.	0.96	1
Pesticides/PCBs SW-846 8081A					
			ug/kg	ug/kg	
10738	Aldrin	309-00-2	N.D.	0.27	1
10738	Alpha BHC	319-84-6	0.92 J	0.22	1
10738	Beta BHC	319-85-7	N.D.	1.2	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.97	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.22	1
10738	p,p-DDD	72-54-8	N.D.	2.3	1
10738	p,p-DDE	72-55-9	3.7	0.42	1
10738	p,p-DDT	50-29-3	2.9	0.45	1
10738	Delta BHC	319-86-8	N.D.	0.57	1
10738	Dieldrin	60-57-1	2.1 J	0.42	1
10738	Endosulfan I	959-98-8	0.64 J	0.28	1
10738	Endosulfan II	33213-65-9	0.60 J	0.42	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.42	1
10738	Endrin	72-20-8	N.D.	1.0	1
10738	HCB	118-74-1	3.1	0.27	1
10738	Heptachlor	76-44-8	N.D.	0.41	1
Reporting limits were raised due to interference from the sample matrix.					
Pesticides/PCBs SW-846 8082					
			ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	4.7	1

Sample Description: POC-TSC5 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850770
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:15 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS5 SDG#: TAP03-38

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1221	11104-28-2	N.D.	6.0	1
10736	PCB-1232	11141-16-5	N.D.	10	1
10736	PCB-1242	53469-21-9	N.D.	4.3	1
10736	PCB-1248	12672-29-6	N.D.	4.3	1
10736	PCB-1254	11097-69-1	8.4 J	4.3	1
10736	PCB-1260	11096-82-5	6.9 J	6.3	1
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	6.55	0.414	1
06946	Barium	7440-39-3	164	0.0414	1
06947	Beryllium	7440-41-7	1.29	0.0842	1
06949	Cadmium	7440-43-9	0.160 J	0.0414	1
06951	Chromium	7440-47-3	29.2	0.111	1
06953	Copper	7440-50-8	23.2	0.226	1
06955	Lead	7439-92-1	24.2	0.590	1
06958	Manganese	7439-96-5	649	0.104	1
06961	Nickel	7440-02-0	24.3	0.138	1
06936	Selenium	7782-49-2	3.46	0.904	1
06966	Silver	7440-22-4	0.514 J	0.176	1
06972	Zinc	7440-66-6	92.6	0.251	1
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	29.2	3.2	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0550 J	0.0125	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.22	1
05895	Total Cyanide (solid)	57-12-5	0.25 J	0.23	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	3.2	5
Reporting limits were raised due to interference from the sample matrix.					
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	22.7	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: POC-TSC5 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850770
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:15 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS5 SDG#: TAP03-38

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/09/2012 00:21	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 08:54	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/14/2012 00:03	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 19:36	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:57	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 11:13	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 11:13	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:57	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 11:13	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 11:13	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:57	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 11:13	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:57	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:57	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 11:13	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:57	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:16	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201B	11/12/2012 07:31	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201B	11/09/2012 07:49	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201B	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201B	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	5

Sample Description: POC-TSC5 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850770
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:15 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS5 SDG#: TAP03-38

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TSC6 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850771
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:20 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS6 SDG#: TAP03-39*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
			ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	7 J	4	1
10727	Acenaphthylene	208-96-8	8 J	4	1
10727	Anthracene	120-12-7	23	4	1
10727	Benzo(a)anthracene	56-55-3	65	4	1
10727	Benzo(a)pyrene	50-32-8	74	4	1
10727	Benzo(b)fluoranthene	205-99-2	100	4	1
10727	Benzo(g,h,i)perylene	191-24-2	68	4	1
10727	Benzo(k)fluoranthene	207-08-9	44	4	1
10727	Chrysene	218-01-9	74	4	1
10727	Dibenz(a,h)anthracene	53-70-3	23	4	1
10727	Dibenzofuran	132-64-9	N.D.	21	1
10727	Fluoranthene	206-44-0	140	4	1
10727	Fluorene	86-73-7	8 J	4	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	51	4	1
10727	2-Methylphenol	95-48-7	N.D.	21	1
10727	4-Methylphenol	106-44-5	N.D.	21	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	15 J	4	1
10727	Pentachlorophenol	87-86-5	N.D.	41	1
10727	Phenanthrene	85-01-8	98	4	1
10727	Phenol	108-95-2	N.D.	21	1
10727	Pyrene	129-00-0	130	4	1
Herbicides SW-846 8151A					
			ug/kg	ug/kg	
10401	2,4,5-TP	93-72-1	N.D.	0.93	1
Pesticides/PCBs SW-846 8081A					
			ug/kg	ug/kg	
10738	Aldrin	309-00-2	N.D.	0.21	1
10738	Alpha BHC	319-84-6	N.D.	0.56	1
10738	Beta BHC	319-85-7	N.D.	1.2	1
10738	Gamma BHC - Lindane	58-89-9	4.4	0.21	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.21	1
10738	p,p-DDD	72-54-8	N.D.	1.8	1
10738	p,p-DDE	72-55-9	3.7	0.41	1
10738	p,p-DDT	50-29-3	2.0 J	0.44	1
10738	Delta BHC	319-86-8	N.D.	0.56	1
10738	Dieldrin	60-57-1	1.4 J	0.41	1
10738	Endosulfan I	959-98-8	N.D.	0.27	1
10738	Endosulfan II	33213-65-9	0.62 J	0.41	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.41	1
10738	Endrin	72-20-8	N.D.	1.0	1
10738	HCB	118-74-1	4.5	0.26	1
10738	Heptachlor	76-44-8	0.63 J	0.21	1
Reporting limits were raised due to interference from the sample matrix.					
Pesticides/PCBs SW-846 8082					
			ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	4.5	1

Sample Description: POC-TSC6 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850771
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:20 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS6 SDG#: TAP03-39*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1221	11104-28-2	N.D.	5.8	1
10736	PCB-1232	11141-16-5	N.D.	10	1
10736	PCB-1242	53469-21-9	N.D.	4.1	1
10736	PCB-1248	12672-29-6	N.D.	4.1	1
10736	PCB-1254	11097-69-1	12 J	4.1	1
10736	PCB-1260	11096-82-5	8.4 J	6.1	1
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	5.94	0.409	1
06946	Barium	7440-39-3	124	0.0409	1
06947	Beryllium	7440-41-7	1.07	0.0831	1
06949	Cadmium	7440-43-9	0.460 J	0.0409	1
06951	Chromium	7440-47-3	29.7	0.109	1
06953	Copper	7440-50-8	23.5	0.223	1
06955	Lead	7439-92-1	34.6	0.583	1
06958	Manganese	7439-96-5	1,860	0.515	5
06961	Nickel	7440-02-0	25.4	0.136	1
06936	Selenium	7782-49-2	4.12	0.893	1
06966	Silver	7440-22-4	0.633	0.174	1
06972	Zinc	7440-66-6	105	0.248	1
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	29.7	3.1	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.117 J	0.0127	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.21	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.22	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	3.1	5
Reporting limits were raised due to interference from the sample matrix.					
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	20.2	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: POC-TSC6 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850771
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:20 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS6 SDG#: TAP03-39*

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/09/2012 00:44	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123140018A	11/12/2012 20:06	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/14/2012 00:17	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 19:51	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	2	123140018A	11/10/2012 06:30	Karen L Beyer	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 06:01	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 11:29	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 11:29	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 06:01	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 11:29	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 11:29	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 06:01	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 11:17	Joanne M Gates	5
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 06:01	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 06:01	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 11:29	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 06:01	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:19	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201B	11/12/2012 07:32	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201B	11/09/2012 07:50	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201B	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201B	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	5

Sample Description: POC-TSC6 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850771
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:20 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS6 SDG#: TAP03-39*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/19/12 at 02:59 PM

Group Number: 1347278

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: A123131AA Sample number(s): 6850762-6850763, 6850766-6850769								
Acetone	N.D.	0.007	mg/kg	144	155	32-209	7	30
Benzene	N.D.	0.0005	mg/kg	92	93	80-120	1	30
2-Butanone	N.D.	0.004	mg/kg	99	104	37-155	5	30
n-Butylbenzene	N.D.	0.001	mg/kg	96	96	72-120	0	30
sec-Butylbenzene	N.D.	0.001	mg/kg	99	100	75-120	1	30
tert-Butylbenzene	N.D.	0.001	mg/kg	106	106	75-120	0	30
Carbon Tetrachloride	N.D.	0.001	mg/kg	85	86	69-122	1	30
Chlorobenzene	N.D.	0.001	mg/kg	96	97	80-120	1	30
Chloroform	N.D.	0.001	mg/kg	89	90	80-120	1	30
1,2-Dichlorobenzene	N.D.	0.001	mg/kg	97	98	79-120	1	30
1,3-Dichlorobenzene	N.D.	0.001	mg/kg	98	98	78-120	1	30
1,4-Dichlorobenzene	N.D.	0.001	mg/kg	96	96	79-120	0	30
1,1-Dichloroethane	N.D.	0.001	mg/kg	88	90	80-120	2	30
1,2-Dichloroethane	N.D.	0.001	mg/kg	87	88	70-137	1	30
1,1-Dichloroethene	N.D.	0.001	mg/kg	90	91	73-129	2	30
cis-1,2-Dichloroethene	N.D.	0.001	mg/kg	96	98	80-120	2	30
trans-1,2-Dichloroethene	N.D.	0.001	mg/kg	92	93	79-120	1	30
1,4-Dioxane	N.D.	0.070	mg/kg	100	98	48-129	1	30
Ethylbenzene	N.D.	0.001	mg/kg	96	97	80-120	1	30
Methyl Tertiary Butyl Ether	N.D.	0.0005	mg/kg	86	88	74-121	2	30
Methylene Chloride	N.D.	0.002	mg/kg	93	93	76-124	0	30
n-Propylbenzene	N.D.	0.001	mg/kg	100	100	77-120	0	30
Tetrachloroethene	N.D.	0.001	mg/kg	97	96	78-126	1	30
Toluene	N.D.	0.001	mg/kg	94	95	80-120	1	30
1,1,1-Trichloroethane	N.D.	0.001	mg/kg	86	88	71-125	2	30
Trichloroethene	N.D.	0.001	mg/kg	93	93	80-120	0	30
Trichlorofluoromethane	N.D.	0.002	mg/kg	74	76	58-133	3	30
1,2,4-Trimethylbenzene	N.D.	0.001	mg/kg	98	97	79-120	0	30
1,3,5-Trimethylbenzene	N.D.	0.001	mg/kg	98	99	78-120	1	30
Vinyl Chloride	N.D.	0.001	mg/kg	73	74	53-120	1	30
Xylene (Total)	N.D.	0.001	mg/kg	97	97	80-120	1	30
Batch number: B123122AA Sample number(s): 6850733-6850736, 6850740, 6850742-6850743, 6850746, 6850748-6850749, 6850751-6850752, 6850754-6850755, 6850757-6850758								
Acetone	N.D.	0.007	mg/kg	111	102	32-209	9	30
Benzene	N.D.	0.0005	mg/kg	100	98	80-120	3	30
2-Butanone	N.D.	0.004	mg/kg	108	102	37-155	7	30
n-Butylbenzene	N.D.	0.001	mg/kg	99	98	72-120	1	30
sec-Butylbenzene	N.D.	0.001	mg/kg	100	100	75-120	1	30
tert-Butylbenzene	N.D.	0.001	mg/kg	97	95	75-120	2	30
Carbon Tetrachloride	N.D.	0.001	mg/kg	102	99	69-122	3	30
Chlorobenzene	N.D.	0.001	mg/kg	98	96	80-120	3	30
Chloroform	N.D.	0.001	mg/kg	106	101	80-120	5	30

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/19/12 at 02:59 PM

Group Number: 1347278

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,2-Dichlorobenzene	N.D.	0.001	mg/kg	100	97	79-120	3	30
1,3-Dichlorobenzene	N.D.	0.001	mg/kg	100	98	78-120	1	30
1,4-Dichlorobenzene	N.D.	0.001	mg/kg	101	98	79-120	3	30
1,1-Dichloroethane	N.D.	0.001	mg/kg	105	101	80-120	4	30
1,2-Dichloroethane	N.D.	0.001	mg/kg	116	110	70-137	5	30
1,1-Dichloroethene	N.D.	0.001	mg/kg	107	103	73-129	4	30
cis-1,2-Dichloroethene	N.D.	0.001	mg/kg	101	98	80-120	3	30
trans-1,2-Dichloroethene	N.D.	0.001	mg/kg	106	102	79-120	4	30
1,4-Dioxane	N.D.	0.070	mg/kg	73	64	48-129	13	30
Ethylbenzene	N.D.	0.001	mg/kg	100	97	80-120	3	30
Methyl Tertiary Butyl Ether	N.D.	0.0005	mg/kg	116	111	74-121	4	30
Methylene Chloride	0.002 J	0.002	mg/kg	122	115	76-124	6	30
n-Propylbenzene	N.D.	0.001	mg/kg	87	85	77-120	2	30
Tetrachloroethene	N.D.	0.001	mg/kg	105	105	78-126	0	30
Toluene	N.D.	0.001	mg/kg	99	97	80-120	2	30
1,1,1-Trichloroethane	N.D.	0.001	mg/kg	111	108	71-125	3	30
Trichloroethene	N.D.	0.001	mg/kg	100	98	80-120	2	30
Trichlorofluoromethane	N.D.	0.002	mg/kg	110	106	58-133	4	30
1,2,4-Trimethylbenzene	N.D.	0.001	mg/kg	103	101	79-120	2	30
1,3,5-Trimethylbenzene	N.D.	0.001	mg/kg	102	101	78-120	1	30
Vinyl Chloride	N.D.	0.001	mg/kg	96	93	53-120	3	30
Xylene (Total)	N.D.	0.001	mg/kg	98	96	80-120	2	30

Batch number: B123131AA

Sample number(s): 6850739, 6850745, 6850760-6850761

Acetone	N.D.	0.007	mg/kg	155	32-209
Benzene	N.D.	0.0005	mg/kg	96	80-120
2-Butanone	N.D.	0.004	mg/kg	140	37-155
n-Butylbenzene	N.D.	0.001	mg/kg	96	72-120
sec-Butylbenzene	N.D.	0.001	mg/kg	96	75-120
tert-Butylbenzene	N.D.	0.001	mg/kg	91	75-120
Carbon Tetrachloride	N.D.	0.001	mg/kg	101	69-122
Chlorobenzene	N.D.	0.001	mg/kg	96	80-120
Chloroform	N.D.	0.001	mg/kg	101	80-120
1,2-Dichlorobenzene	N.D.	0.001	mg/kg	95	79-120
1,3-Dichlorobenzene	N.D.	0.001	mg/kg	95	78-120
1,4-Dichlorobenzene	N.D.	0.001	mg/kg	95	79-120
1,1-Dichloroethane	N.D.	0.001	mg/kg	101	80-120
1,2-Dichloroethane	N.D.	0.001	mg/kg	116	70-137
1,1-Dichloroethene	N.D.	0.001	mg/kg	100	73-129
cis-1,2-Dichloroethene	N.D.	0.001	mg/kg	99	80-120
trans-1,2-Dichloroethene	N.D.	0.001	mg/kg	101	79-120
1,4-Dioxane	N.D.	0.070	mg/kg	69	48-129
Ethylbenzene	N.D.	0.001	mg/kg	95	80-120
Methyl Tertiary Butyl Ether	N.D.	0.0005	mg/kg	117	74-121
Methylene Chloride	N.D.	0.002	mg/kg	107	76-124
n-Propylbenzene	N.D.	0.001	mg/kg	83	77-120
Tetrachloroethene	N.D.	0.001	mg/kg	100	78-126
Toluene	N.D.	0.001	mg/kg	97	80-120
1,1,1-Trichloroethane	N.D.	0.001	mg/kg	111	71-125
Trichloroethene	N.D.	0.001	mg/kg	97	80-120
Trichlorofluoromethane	N.D.	0.002	mg/kg	103	58-133
1,2,4-Trimethylbenzene	N.D.	0.001	mg/kg	98	79-120
1,3,5-Trimethylbenzene	N.D.	0.001	mg/kg	98	78-120
Vinyl Chloride	N.D.	0.001	mg/kg	86	53-120
Xylene (Total)	N.D.	0.001	mg/kg	95	80-120

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control SummaryClient Name: ExxonMobil Refining & Supply
Reported: 11/19/12 at 02:59 PM

Group Number: 1347278

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 12312SLF026	Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-6850765, 6850770-6850771							
Acenaphthene	N.D.	3.	ug/kg	95		83-111		
Acenaphthylene	N.D.	3.	ug/kg	102		83-127		
Anthracene	N.D.	3.	ug/kg	94		83-111		
Benzo(a)anthracene	N.D.	3.	ug/kg	96		73-123		
Benzo(a)pyrene	N.D.	3.	ug/kg	99		80-123		
Benzo(b)fluoranthene	N.D.	3.	ug/kg	97		76-124		
Benzo(g,h,i)perylene	N.D.	3.	ug/kg	94		77-122		
Benzo(k)fluoranthene	N.D.	3.	ug/kg	100		71-135		
Chrysene	N.D.	3.	ug/kg	89		73-119		
Dibenz(a,h)anthracene	N.D.	3.	ug/kg	97		67-129		
Dibenzofuran	N.D.	17.	ug/kg	97		78-116		
Fluoranthene	N.D.	3.	ug/kg	93		80-113		
Fluorene	N.D.	3.	ug/kg	95		81-117		
Indeno(1,2,3-cd)pyrene	N.D.	3.	ug/kg	97		64-128		
2-Methylphenol	N.D.	17.	ug/kg	92		75-126		
4-Methylphenol	N.D.	17.	ug/kg	90		74-116		
Naphthalene	N.D.	3.	ug/kg	94		77-115		
Pentachlorophenol	N.D.	33.	ug/kg	106		60-134		
Phenanthrene	N.D.	3.	ug/kg	92		77-119		
Phenol	N.D.	17.	ug/kg	90		69-126		
Pyrene	N.D.	3.	ug/kg	97		80-121		
Batch number: 123120022A	Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764, 6850770							
2,4,5-TP	N.D.	0.75	ug/kg	128*		60-111		
Batch number: 123140018A	Sample number(s): 6850765, 6850771							
2,4,5-TP	N.D.	0.75	ug/kg	108		60-111		
Batch number: 123120023A	Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-6850765, 6850770-6850771							
PCB-1016	N.D.	3.6	ug/kg	102		64-121		
PCB-1221	N.D.	4.6	ug/kg					
PCB-1232	N.D.	8.0	ug/kg					
PCB-1242	N.D.	3.3	ug/kg					
PCB-1248	N.D.	3.3	ug/kg					
PCB-1254	N.D.	3.3	ug/kg					
PCB-1260	N.D.	4.9	ug/kg	106		72-123		
Batch number: 123130020A	Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-6850765, 6850770-6850771							
Aldrin	N.D.	0.17	ug/kg	93		62-134		
Alpha BHC	N.D.	0.17	ug/kg	104		67-131		
Beta BHC	N.D.	0.96	ug/kg	103		59-161		
Gamma BHC - Lindane	N.D.	0.17	ug/kg	102		66-132		
Alpha Chlordane	N.D.	0.17	ug/kg	93		64-140		
p,p-DDD	N.D.	0.33	ug/kg	98		73-131		
p,p-DDE	N.D.	0.33	ug/kg	95		72-132		
p,p-DDT	N.D.	0.35	ug/kg	89		65-131		
Delta BHC	N.D.	0.45	ug/kg	99		44-145		

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
 (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/19/12 at 02:59 PM

Group Number: 1347278

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Dieldrin	N.D.	0.33	ug/kg	98		71-134		
Endosulfan I	N.D.	0.22	ug/kg	89		57-127		
Endosulfan II	N.D.	0.33	ug/kg	91		63-127		
Endosulfan Sulfate	N.D.	0.33	ug/kg	100		80-137		
Endrin	N.D.	0.33	ug/kg	93		66-136		
HCB	N.D.	0.21	ug/kg					
Heptachlor	N.D.	0.17	ug/kg	94		68-132		

Batch number: 123125708001

Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-6850765, 6850770-6850771

Arsenic	N.D.	0.330	mg/kg	101		80-120		
Barium	0.209 J	0.0330	mg/kg	105		80-120		
Beryllium	N.D.	0.0670	mg/kg	100		80-120		
Cadmium	N.D.	0.0330	mg/kg	105		80-120		
Chromium	N.D.	0.0880	mg/kg	104		80-120		
Copper	N.D.	0.180	mg/kg	102		80-120		
Lead	N.D.	0.470	mg/kg	106		80-120		
Manganese	N.D.	0.0830	mg/kg	104		80-120		
Nickel	N.D.	0.110	mg/kg	107		80-120		
Selenium	N.D.	0.720	mg/kg	105		80-120		
Silver	N.D.	0.140	mg/kg	110		80-120		
Zinc	N.D.	0.200	mg/kg	100		80-120		

Batch number: 123135711001

Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-6850765, 6850770-6850771

Mercury	N.D.	0.0099	mg/kg	101		80-120		
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Batch number: 12313102201A

Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764

Total Cyanide (solid)	N.D.	0.18	mg/kg	101		90-110		
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Batch number: 12313102201B

Sample number(s): 6850765, 6850770-6850771

Total Cyanide (solid)	N.D.	0.18	mg/kg	101		90-110		
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Batch number: 12314103201A

Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764

Amenable Cyanide (solid)	N.D.	0.18	mg/kg	0		-20-20		
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Batch number: 12314103201B

Sample number(s): 6850765, 6850770-6850771

Amenable Cyanide (solid)	N.D.	0.18	mg/kg	0		-20-20		
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Batch number: 12313042501A

Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-6850765, 6850770-6850771

Hexavalent Chromium (SOLIDS)	N.D.	0.50	mg/kg	91		80-120		
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Batch number: 12312820001A

Sample number(s): 6850733-6850740

Moisture				100		99-101		
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Batch number: 12312820001B

Sample number(s): 6850741-6850752

Moisture				100		99-101		
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Batch number: 12312820002B

Sample number(s): 6850753-6850771

Moisture				100		99-101		
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*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/19/12 at 02:59 PM

Group Number: 1347278

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
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Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: A123131AA Sample number(s): 6850762-6850763, 6850766-6850769 UNSPK: 6850762									
Acetone	201*		31-195						
Benzene	96		55-143						
2-Butanone	105		37-163						
n-Butylbenzene	86		30-146						
sec-Butylbenzene	101		33-157						
tert-Butylbenzene	106		41-152						
Carbon Tetrachloride	96		45-153						
Chlorobenzene	95		49-135						
Chloroform	90		61-142						
1,2-Dichlorobenzene	85		36-133						
1,3-Dichlorobenzene	93		34-134						
1,4-Dichlorobenzene	90		35-136						
1,1-Dichloroethane	94		63-142						
1,2-Dichloroethane	87		68-131						
1,1-Dichloroethene	108		61-149						
cis-1,2-Dichloroethene	98		60-136						
trans-1,2-Dichloroethene	100		59-142						
1,4-Dioxane	154		39-180						
Ethylbenzene	98		44-141						
Methyl Tertiary Butyl Ether	84		55-129						
Methylene Chloride	95		61-141						
n-Propylbenzene	117		39-157						
Tetrachloroethene	102		42-149						
Toluene	105		50-146						
1,1,1-Trichloroethane	93		64-142						
Trichloroethene	97		53-144						
Trichlorofluoromethane	102		47-163						
1,2,4-Trimethylbenzene	105		37-149						
1,3,5-Trimethylbenzene	111		38-150						
Vinyl Chloride	94		50-154						
Xylene (Total)	95		44-136						
Batch number: B123122AA Sample number(s): 6850733-6850736, 6850740, 6850742-6850743, 6850746, 6850748-6850749, 6850751-6850752, 6850754-6850755, 6850757-6850758 UNSPK: 6850733									
Acetone	131		31-195						
Benzene	92		55-143						
2-Butanone	113		37-163						
n-Butylbenzene	90		30-146						
sec-Butylbenzene	92		33-157						
tert-Butylbenzene	83		41-152						
Carbon Tetrachloride	99		45-153						
Chlorobenzene	91		49-135						
Chloroform	94		61-142						
1,2-Dichlorobenzene	88		36-133						

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/19/12 at 02:59 PM

Group Number: 1347278

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1,3-Dichlorobenzene	91		34-134						
1,4-Dichlorobenzene	89		35-136						
1,1-Dichloroethane	96		63-142						
1,2-Dichloroethane	104		68-131						
1,1-Dichloroethene	99		61-149						
cis-1,2-Dichloroethene	93		60-136						
trans-1,2-Dichloroethene	97		59-142						
1,4-Dioxane	76		39-180						
Ethylbenzene	91		44-141						
Methyl Tertiary Butyl Ether	97		55-129						
Methylene Chloride	101		61-141						
n-Propylbenzene	81		39-157						
Tetrachloroethene	155*		42-149						
Toluene	92		50-146						
1,1,1-Trichloroethane	106		64-142						
Trichloroethene	108		53-144						
Trichlorofluoromethane	102		47-163						
1,2,4-Trimethylbenzene	92		37-149						
1,3,5-Trimethylbenzene	95		38-150						
Vinyl Chloride	83		50-154						
Xylene (Total)	90		44-136						

Batch number: B123131AA Sample number(s): 6850739,6850745,6850760-6850761 UNSPK: P847401

Acetone	153	144	31-195	5	30
Benzene	110	106	55-143	3	30
2-Butanone	131	118	37-163	10	30
n-Butylbenzene	108	97	30-146	11	30
sec-Butylbenzene	124	112	33-157	10	30
tert-Butylbenzene	124	113	41-152	8	30
Carbon Tetrachloride	122	115	45-153	6	30
Chlorobenzene	102	95	49-135	7	30
Chloroform	115	110	61-142	4	30
1,2-Dichlorobenzene	89	82	36-133	8	30
1,3-Dichlorobenzene	94	86	34-134	8	30
1,4-Dichlorobenzene	93	86	35-136	8	30
1,1-Dichloroethane	118	113	63-142	4	30
1,2-Dichloroethane	122	113	68-131	7	30
1,1-Dichloroethene	124	121	61-149	2	30
cis-1,2-Dichloroethene	111	107	60-136	3	30
trans-1,2-Dichloroethene	119	114	59-142	4	30
1,4-Dioxane	152	143	39-180	6	30
Ethylbenzene	108	99	44-141	8	30
Methyl Tertiary Butyl Ether	115	110	55-129	4	30
Methylene Chloride	127	121	61-141	4	30
n-Propylbenzene	104	96	39-157	8	30
Tetrachloroethene	122	110	42-149	9	30
Toluene	114	107	50-146	6	30
1,1,1-Trichloroethane	133	127	64-142	4	30
Trichloroethene	109	103	53-144	5	30
Trichlorofluoromethane	135	130	47-163	4	30
1,2,4-Trimethylbenzene	118	109	37-149	8	30
1,3,5-Trimethylbenzene	125	115	38-150	8	30

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/19/12 at 02:59 PM

Group Number: 1347278

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Vinyl Chloride	110	111	50-154	1	30				
Xylene (Total)	104	96	44-136	7	30				
Batch number: 12312SLF026									
Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-6850765, 6850770-6850771 UNSPK: 6850737									
Acenaphthene	95	92	33-140	3	30				
Acenaphthylene	103	99	47-137	4	30				
Anthracene	94	94	40-147	0	30				
Benzo(a)anthracene	91	90	32-150	1	30				
Benzo(a)pyrene	99	98	30-150	1	30				
Benzo(b)fluoranthene	94	89	29-150	5	30				
Benzo(g,h,i)perylene	94	91	31-152	3	30				
Benzo(k)fluoranthene	103	102	35-148	0	30				
Chrysene	86	84	33-142	2	30				
Dibenz(a,h)anthracene	97	95	37-151	2	30				
Dibenzofuran	96	94	38-148	2	30				
Fluoranthene	93	92	30-151	2	30				
Fluorene	94	91	36-140	4	30				
Indeno(1,2,3-cd)pyrene	97	94	31-154	3	30				
2-Methylphenol	91	95	32-146	4	30				
4-Methylphenol	89	90	36-149	1	30				
Naphthalene	91	90	35-141	1	30				
Pentachlorophenol	101	102	23-145	2	30				
Phenanthrene	92	91	34-147	0	30				
Phenol	88	89	39-151	1	30				
Pyrene	94	93	29-148	0	30				
Batch number: 123120022A									
Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764, 6850770 UNSPK: 6850737									
2,4,5-TP	122	122	10-142	0	35				
Batch number: 123140018A									
Sample number(s): 6850765, 6850771 UNSPK: P844767									
2,4,5-TP	100	103	10-142	3	35				
Batch number: 123120023A									
Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-6850765, 6850770-6850771 UNSPK: 6850737									
PCB-1016	101	94	29-146	7	50				
PCB-1260	101	100	39-149	2	50				
Batch number: 123130020A									
Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-6850765, 6850770-6850771 UNSPK: 6850738									
Aldrin	84	93	18-138	9	50				
Alpha BHC	92	101	9-143	9	50				
Beta BHC	85	95	14-168	10	50				
Gamma BHC - Lindane	87	97	14-143	10	50				
Alpha Chlordane	86	95	15-153	10	50				
p,p-DDD	89	98	17-163	9	50				
p,p-DDE	88	97	22-169	9	50				

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/19/12 at 02:59 PM

Group Number: 1347278

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
p,p-DDT	83	91	4-159	8	50				
Delta BHC	77	82	30-144	5	50				
Dieldrin	87	97	17-163	10	50				
Endosulfan I	76	88	8-137	14	50				
Endosulfan II	78	89	17-146	13	50				
Endosulfan Sulfate	91	101	6-190	10	50				
Endrin	83	92	25-166	10	50				
Heptachlor	86	94	25-148	8	50				

Batch number: 123125708001

Sample number(s): 6850737-
6850738,6850741,6850744,6850747,6850750,6850753,6850756,6850759,6850764-
6850765,6850770-6850771 UNSPK: 6850737 BKG: 6850737

Arsenic	79	90	75-125	13	20	N.D.	N.D.	0 (1)	20
Barium	91	99	75-125	7	20	15.8	16.8	6	20
Beryllium	93	100	83-111	7	20	N.D.	N.D.	0 (1)	20
Cadmium	86	96	75-125	11	20	0.0539 J	0.0500 J	8 (1)	20
Chromium	95	108	75-125	10	20	4.31	4.60	6 (1)	20
Copper	40 (2)	96 (2)	75-125	9	20	126	124	2	20
Lead	82	95	75-125	13	20	2.53	2.97	16 (1)	20
Manganese	184 (2)	192 (2)	75-125	1	20	242	251	4	20
Nickel	86	98	75-125	10	20	15.4	15.4	0	20
Selenium	90	97	75-125	7	20	2.44	2.78	13 (1)	20
Silver	105	115	75-125	9	20	0.265 J	0.400 J	41* (1)	20
Zinc	99	106	75-125	3	20	46.9	50.4	7	20

Batch number: 123135711001

Sample number(s): 6850737-
6850738,6850741,6850744,6850747,6850750,6850753,6850756,6850759,6850764-
6850765,6850770-6850771 UNSPK: P848628 BKG: P848628

Mercury	106	102	80-120	3	20	N.D.	N.D.	0 (1)	20
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Batch number: 12313102201A

Sample number(s): 6850737-
6850738,6850741,6850744,6850747,6850750,6850753,6850756,6850759,6850764 UNSPK:
6850737 BKG: 6850737

Total Cyanide (solid)	106		68-134			N.D.	N.D.	0 (1)	20
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Batch number: 12313102201B

Sample number(s): 6850765,6850770-6850771 UNSPK: 6850765 BKG: 6850765
101 68-134 N.D. N.D. 0 (1) 20

Batch number: 12314103201A

Sample number(s): 6850737-
6850738,6850741,6850744,6850747,6850750,6850753,6850756,6850759,6850764 UNSPK:
6850737 BKG: 6850737

Amenable Cyanide (solid)	0		-20-20			N.D.	N.D.	0 (1)	20
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Batch number: 12314103201B

Sample number(s): 6850765,6850770-6850771 UNSPK: 6850765 BKG: 6850765
0 -20-20 N.D. N.D. 0 (1) 20

Batch number: 12313042501A

Sample number(s): 6850737-
6850738,6850741,6850744,6850747,6850750,6850753,6850756,6850759,6850764-
6850765,6850770-6850771 UNSPK: 6850738 BKG: 6850738

Hexavalent Chromium (SOLIDS)	89		75-125			N.D.	N.D.	0 (1)	20
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Batch number: 12312820001A

Sample number(s): 6850733-6850740 BKG: 6850737

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control SummaryClient Name: ExxonMobil Refining & Supply
Reported: 11/19/12 at 02:59 PM

Group Number: 1347278

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Moisture						3.6	3.5	1	13
Batch number: 12312820001B Moisture	Sample number(s): 6850741-6850752					BKG: 6850741 4.2	4.2	1	13
Batch number: 12312820002B Moisture	Sample number(s): 6850753-6850771					BKG: 6850761 20.7	23.1	11	13

Surrogate Quality ControlSurrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 Benzene and Toluene

Batch number: A123131AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6850762	96	106	98	93
6850763	95	98	106	81
6850766	97	104	98	93
6850767	98	100	107	79
6850768	97	98	107	79
6850769	98	102	106	78
Blank	94	99	97	94
LCS	94	97	100	98
LCSD	96	97	100	98
MS	97	97	107	88
Limits:	50-141	54-135	52-141	50-131

Analysis Name: 8260 Benzene and Toluene

Batch number: B123122AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6850733	102	101	99	90
6850734	103	102	99	88
6850735	104	103	99	90
6850736	105	104	99	90
6850740	103	101	101	90
6850742	106	103	99	88
6850743	106	102	99	89
6850746	106	103	99	90
6850748	106	104	100	92
6850749	105	102	100	90
6850751	107	105	99	90
6850752	106	102	98	89
6850754	108	103	99	91
6850755	107	102	99	89
6850757	110	109	98	88

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/19/12 at 02:59 PM

Group Number: 1347278

Surrogate Quality Control

6850758	111	111	98	88
Blank	105	101	98	91
LCS	103	103	104	100
LCSD	101	104	102	100
MS	103	102	103	100

Limits:	50-141	54-135	52-141	50-131
---------	--------	--------	--------	--------

Analysis Name: 8260 Benzene and Toluene
Batch number: B123131AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6850739	105	105	99	92
6850745	108	105	98	88
6850760	109	106	105	79
6850761	109	112	98	88
Blank	106	105	99	90
LCS	104	107	103	101
MS	104	100	111	93
MSD	103	99	111	91

Limits:	50-141	54-135	52-141	50-131
---------	--------	--------	--------	--------

Analysis Name: TCL 8270 (microwave)
Batch number: 12312SLF026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6850737	84	85	87	84	86	92
6850738	83	86	84	87	87	94
6850741	86	90	95	90	90	99
6850744	83	85	91	86	87	95
6850747	83	85	87	85	86	97
6850750	80	82	89	81	85	95
6850753	82	86	85	85	86	92
6850756	85	88	94	88	90	98
6850759	83	84	88	81	85	91
6850764	82	85	85	81	85	90
6850765	90	91	94	85	89	96
6850770	75	77	77	75	80	86
6850771	73	76	77	76	80	85
Blank	86	90	102	90	90	99
LCS	88	95	99	94	96	102
MS	86	90	96	89	96	100
MSD	87	93	95	89	93	99

Limits:	42-130	48-136	28-139	45-123	47-126	46-143
---------	--------	--------	--------	--------	--------	--------

Analysis Name: Herbicide soils 8151A Master
Batch number: 123120022A
2,4-Dichlorophenylacetic
acid

6850737	99
6850738	97
6850741	100
6850744	102

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/19/12 at 02:59 PM

Group Number: 1347278

Surrogate Quality Control

6850747 88
6850750 99
6850753 114
6850756 97
6850759 114
6850764 98
6850770 69
Blank 94
LCS 117
MS 115
MSD 107

Limits: 36-156

Analysis Name: PCBs in Soil (microwave)
Batch number: 123120023A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6850737	115	118
6850738	109	112
6850741	109	110
6850744	111	114
6850747	107	110
6850750	109	109
6850753	109	107
6850756	109	109
6850759	101	101
6850764	102	102
6850765	103	102
6850770	104	102
6850771	96	93
Blank	113	117
LCS	113	118
MS	110	115
MSD	110	112

Limits: 33-143 24-164

Analysis Name: TCL Pesticides 8081A Soil
Batch number: 123130020A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6850737	89	101
6850738	94	107
6850741	92	106
6850744	87	102
6850747	82	95
6850750	91	106
6850753	79	96
6850756	90	107
6850759	107	108
6850764	84	104
6850765	101	115
6850770	66	108
6850771	87	101
Blank	88	101

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 11/19/12 at 02:59 PM

Group Number: 1347278

Surrogate Quality Control

LCS	102	99
MS	84	93
MSD	90	103

Limits: 33-140 45-150

Analysis Name: Herbicide soils 8151A Master
Batch number: 123140018A
2,4-Dichlorophenylacetic
acid

6850765	94
6850771	89
Blank	67
LCS	96
MS	95
MSD	101

Limits: 36-156

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

ExxonMobil Analysis Request/Chain of Custody



Lancaster
Laboratories

Acct. # 10629

For Lancaster Laboratories use only
Group # 1347278 Sample # 6850733-71
Instructions on reverse side correspond with circled numbers.

144

1 Client Information				4 Matrix		5 Analyses Requested										SCR#: _____																																					
Facility #/SID <u>S2010L4632</u>				☐ Sediment ☐ Potable ☐ Ground ☐ Water ☐ NPDES ☐ Surface ☐ Air ☐ Oil ☐ Total # of Containers		Preservation Code										Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other																																					
Site Address <u>1 Railroad Ave, Hahns-on-Hudson, NY</u>						<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>VOC</td><td>SVOC</td><td>TAL Metals</td><td>Hex/Tri Crown</td><td>Mercury</td><td>Cyanide</td><td>Pest</td><td>PCBs</td><td>Herbicides</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>												VOC	SVOC	TAL Metals	Hex/Tri Crown	Mercury	Cyanide	Pest	PCBs	Herbicides																											
VOC	SVOC	TAL Metals	Hex/Tri Crown															Mercury	Cyanide	Pest	PCBs	Herbicides																															
ExxonMobil PM <u>Steve Trifiletti</u>		Cost Center/AFE <u>E2.1986.86X16</u>																																																			
Consultant/Office <u>Roux Associates, Inc / Islandia, NY</u>		Consultant Phone # <u>(631) 232-2600</u>																																																			
Consultant PM <u>Tracy Bisphan</u>																6 Remarks <u>Part 375</u> <u>analyses</u> <u>PO# 4410017154</u>																																					
Sampler <u>Jessica Collins</u>																																																					
2 Sample Identification				3																																																	
		Collected		Grab																																																	
		Date	Time	Composite																																																	
TCN-ST9		11/6/12	1200	X																																																	
TCN-ST10		11/6/12	1205	X																																																	
TCN-ST11		11/6/12	1210	X																																																	
TCN-ST12		11/6/12	1215	X																																																	
TCN-STC5		11/6/12	1220		X		X	X	X	X	X	X	X																																								
TCN-STC6		11/6/12	1225		X		X	X	X	X	X	X	X																																								
TCN-ST13		11/6/12	1230	X			X																																														
TCN-ST14		11/6/12	1235	X			X																																														
TCN-STC7		11/6/12	1240		X		X	X	X	X	X	X	X																																								
TCN-ST15		11/6/12	1250	X			X																																														
TCN-ST16		11/6/12	1255	X			X																																														
TCN-STC8		11/6/12	1245		X		X	X	X	X	X	X	X																																								
7 Turnaround Time Requested (TAT) (please circle)				8 Data Package (circle if required)		EDD (circle if required)		Relinquished by		Date		Time		Received by		Date		Time																																			
Standard 5 day 4 day				Type I - Full		Locus EIM (default)		Relinquished by		Date		Time		Received by		Date		Time																																			
72 hour 48 hour 24 hour				Type VI (Raw Data)		Other _____		Relinquished by		Date		Time		Received by		Date		Time																																			
Other <u>CALA</u>								Relinquished by Commercial Carrier		Date		Time		Received by		Date		Time																																			
								UPS FedEx <u>X</u> Other _____		Date		Time		Received by <u>Post 4/6</u>		Date <u>4/7/12</u>		Time <u>0920</u>																																			
								Temperature Upon Receipt <u>0.7</u> °C		Date		Time		Custody Seals Intact? Yes		Date		Time																																			

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Laboratories**

For Lancaster Laboratories use only
Acct. # 10629 Group # 1347278 Sample # 6850733-71
Instructions on reverse side correspond with circled numbers.

2 of 4

1 Client Information				4 Matrix		5 Analyses Requested Preservation Code								SCR#: _____					
Facility #/SID S2010 L4632				☐ Sediment ☐ Ground ☐ Surface ☐ Potable ☐ NPDES ☐ Air ☒ Soil		VOC SVOC TAL Metals Mercury Cyanide Hex/Tri Chlora Pest PCBs Herb								Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other					
Site Address 1 Railroad Ave, Hasings-on-Hudson, NJ																			
Exxon/Mobil PM Steve TrGiletti		Cost Center/AFE E2-1986-SGXIC																	
Consultant/Office Roux Associates, Inc / Islandia, NJ																			
Consultant PM Tracy Bispham		Consultant Phone # (631) 232-2600												Remarks Part 375 analytes PO# 441001795Y					
Sampler Jessica Collins																			
2 Sample Identification			3 Collected		Grab	Composite	Soil	Water	Oil	Total # of Containers									
			Date	Time															
TCN-ST17			11/6/12	1315	X					1	X								
TCN-ST18			11/6/12	1320	X					1	X								
TCN-STC9			11/6/12	1325		X				1		X	X	X	X	X	X	X	X
TCN-ST19			11/6/12	1425	X					1	X								
TCN-ST20			11/6/12	1430	X					1	X								
TCN-STC10			11/6/12	1435		X				1		X	X	X	X	X	X	X	
TCN-ST21			11/6/12	1440	X					1	X								
TCN-ST22			11/6/12	1445	X					1	X								
TCN-STC11			11/6/12	1500		X				1		X	X	X	X	X	X	X	
TCN-ST23			11/6/12	1450	X					1	X								
TCN-ST24			11/6/12	1455	X					1	X								
TCN-STC12			11/6/12	1505		X				1		X	X	X	X	X	X	X	
7 Turnaround Time Requested (TAT) (please circle)				Relinquished by 		Date 11/6/12		Time 1645		Received by 		Date		Time					
Standard 5 day 4 day				Relinquished by 		Date		Time		Received by 		Date		Time					
72 hour 48 hour 24 hour				Relinquished by 		Date		Time		Received by 		Date		Time					
8 Data Package (circle if required) Type I - Full Type VI (Raw Data) NJ Reduced Other COLA				EDD (circle if required) Locus EIM (default) Other _____		Relinquished by Commercial Carrier UPS _____ FedEx X Other _____						Received by Pat h/h		Date 11/7/12		Time 0920			
Temperature Upon Receipt 0.7 °C										Custody Seals Intact? Yes No									

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ExxonMobil Analysis Request/Chain of Custody



Lancaster
Laboratories

Acct. # 10629 Group # 1347278 Sample # 6850733-71
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Instructions on reverse side correspond with circled numbers.

3 of 4

1 Client Information				4 Matrix		5 Analyses Requested										6 Remarks																																	
Facility #/SID				Sediment ☐ Ground ☐ Surface ☐		Preservation Code										SCR#:																																	
Site Address				Potable ☐ NPDES ☐ Air ☐		VOC SVOC Metals TAL Hex/Trivalent Chromium Mercury Cyanide Pest PCBs Herbicides										Preservation Codes																																	
ExxonMobil PM				Water ☐ Oil ☐												H = HCl T = Thiosulfate																																	
Consultant/Office				Total # of Containers												N = HNO ₃ B = NaOH																																	
Consultant PM				Total # of Containers												S = H ₂ SO ₄ O = Other																																	
Sampler				Total # of Containers												6																																	
52010L 4632				Total # of Containers												Part 375																																	
1 Railroad Ave, Hastings-on-Hudson, NY				Total # of Containers												Analytes																																	
Steve Trifiletti				Total # of Containers												PO# 4410017954																																	
E2.1986.86X1C				Total # of Containers																																													
Roux Associates / Islandia, NY				Total # of Containers																																													
Tracy Bispham				Total # of Containers																																													
631 232-2600				Total # of Containers																																													
Jessica Collins				Total # of Containers																																													
2 Sample Identification			3 Collected		Grab Composite		Soil		Water		Oil		Total # of Containers		VOC		SVOC		Metals TAL		Hex/Trivalent Chromium		Mercury		Cyanide		Pest		PCBs		Herbicides																		
Date			Time		Grab Composite		Soil		Water		Oil		Total # of Containers		VOC		SVOC		Metals TAL		Hex/Trivalent Chromium		Mercury		Cyanide		Pest		PCBs		Herbicides																		
POC-TS3			11/6/12		1310		X		X		X		X		X		X		X		X		X		X		X		X		X																		
POC-TS4			11/6/12		1305		X		X		X		X		X		X		X		X		X		X		X		X		X																		
POC-TSC2			11/6/12		1300		X		X		X		X		X		X		X		X		X		X		X		X		X																		
POC-TS5			11/6/12		1335		X		X		X		X		X		X		X		X		X		X		X		X		X																		
POC-TS6			11/6/12		1340		X		X		X		X		X		X		X		X		X		X		X		X		X																		
POC-TS7			11/6/12		1345		X		X		X		X		X		X		X		X		X		X		X		X		X																		
POC-TS8			11/6/12		1350		X		X		X		X		X		X		X		X		X		X		X		X		X																		
POC-TSC3			11/6/12		1325		X		X		X		X		X		X		X		X		X		X		X		X		X																		
POC-TSC4			11/6/12		1330		X		X		X		X		X		X		X		X		X		X		X		X		X																		
POC-TS9			11/6/12		1355		X		X		X		X		X		X		X		X		X		X		X		X		X																		
POC-TS10			11/6/12		1400		X		X		X		X		X		X		X		X		X		X		X		X		X																		
POC-TS11			11/6/12		1405		X		X		X		X		X		X		X		X		X		X		X		X		X																		
7 Turnaround Time Requested (TAT) (please circle)					Relinquished by					Date					Time					Received by					Date					Time																			
Standard 5 day 4 day					Relinquished by					Date					Time					Received by					Date					Time																			
72 hour 48 hour 24 hour					Relinquished by					Date					Time					Received by					Date					Time																			
8 Data Package (circle if required)					EDD (circle if required)					Relinquished by Commercial Carrier					Date					Time					Received by					Date					Time														
Type I - Full					Locus EIM (default)					Relinquished by Commercial Carrier					Date					Time					Received by					Date					Time														
Type VI (Raw Data)					Other					Relinquished by Commercial Carrier					Date					Time					Received by					Date					Time														
NJ Reduced					Other					Relinquished by Commercial Carrier					Date					Time					Received by					Date					Time														
Other Cat A					Other					Relinquished by Commercial Carrier					Date					Time					Received by					Date					Time														
UPS FedEx X Other										Temperature Upon Receipt 0.7 °C										Custody Seals Intact? Yes No										Date										Time									

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Acct. # 10629 Group # 1347278 Sample # 6850733-71
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4 of 2

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Environmental Sample Administration
Receipt Documentation Log

1347278

Client/Project: Roux AssociatesShipping Container Sealed: YES NODate of Receipt: 11/7/12Custody Seal Present * : YES NOTime of Receipt: 0920* Custody seal was intact unless otherwise noted in the
discrepancy sectionSource Code: SOPackage: Chilled Not Chilled

Temperature of Shipping Containers

Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	429951	0.7	TB	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Pat Gyle 3472 Date/Time: 11/7/12 1000

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

NYSDEC ASP Category A Data Package

Prepared for:

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Project: Tappan Terminal
Soil Samples
Collected on 11/06/12

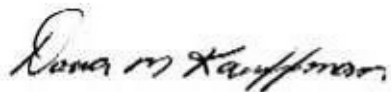
SDG# TAP03

GROUP	SAMPLE NUMBERS
1347278	6850733-6850771

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-08A-TX

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client.

Authorized by:



Date: 11/21/2012

Dana M. Kauffman
Manager

Any questions or concerns you might have regarding this data package should be directed to your client representative, Barbara Weyandt at Ext. 1576.

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**Sample Reference List for SDG Number TAP03
with a Data Package Type of NYSDEC A
10629 - ExxonMobil Refining & Supply
Project: Tappan Terminal**

Lab Sample Number	Lab Sample Code	Client Sample Description
6850733	CNST9	TCN-ST9 Grab Soil S2010L4632
6850734	NST10	TCN-ST10 Grab Soil S2010L4632
6850735	NST11	TCN-ST11 Grab Soil S2010L4632
6850736	NST12	TCN-ST12 Grab Soil S2010L4632
6850737	NSTC5	TCN-STC5 Composite Soil S2010L4632
6850738	NSTC6	TCN-STC6 Composite Soil S2010L4632
6850739	NST13	TCN-ST13 Grab Soil S2010L4632
6850740	NST14	TCN-ST14 Grab Soil S2010L4632
6850741	NSTC7	TCN-STC7 Composite Soil S2010L4632
6850742	NST15	TCN-ST15 Grab Soil S2010L4632
6850743	NST16	TCN-ST16 Grab Soil S2010L4632
6850744	NSTC8	TCN-STC8 Composite Soil S2010L4632
6850745	NST17	TCN-ST17 Grab Soil S2010L4632
6850746	NST18	TCN-ST18 Grab Soil S2010L4632
6850747	NSTC9	TCN-STC9 Composite Soil S2010L4632
6850748	NST19	TCN-ST19 Grab Soil S2010L4632
6850749	NST20	TCN-ST20 Grab Soil S2010L4632
6850750	STC10	TCN-STC10 Composite Soil S2010L4632
6850751	NST21	TCN-ST21 Grab Soil S2010L4632
6850752	NST22	TCN-ST22 Grab Soil S2010L4632
6850753	STC11	TCN-STC11 Composite Soil S2010L4632
6850754	NST23	TCN-ST23 Grab Soil S2010L4632
6850755	NST24	TCN-ST24 Grab Soil S2010L4632
6850756	STC12	TCN-STC12 Composite Soil S2010L4632
6850757	OCTS3	POC-TS3 Grab Soil S2010L4632
6850758	OCTS4	POC-TS4 Grab Soil S2010L4632
6850759	CTCS2	POC-TSC2 Composite Soil S2010L4632
6850760	OCTS5	POC-TS5 Grab Soil S2010L4632
6850761	OCTS6	POC-TS6 Grab Soil S2010L4632
6850762	OCTS7	POC-TS7 Grab Soil S2010L4632
6850763	OCTS8	POC-TS8 Grab Soil S2010L4632
6850764	CTCS3	POC-TSC3 Composite Soil S2010L4632
6850765	CTCS4	POC-TSC4 Composite Soil S2010L4632
6850766	OCTS9	POC-TS9 Grab Soil S2010L4632
6850767	CTS10	POC-TS10 Grab Soil S2010L4632
6850768	CTS11	POC-TS11 Grab Soil S2010L4632
6850769	CTS12	POC-TS12 Grab Soil S2010L4632
6850770	CTCS5	POC-TSC5 Composite Soil S2010L4632
6850771	CTCS6	POC-TSC6 Composite Soil S2010L4632

ExxonMobil Analysis Request/Chain of Custody



Lancaster Laboratories

Acct. # 10629 Group # 1347278 Sample # 6850733-71

144

For Lancaster Laboratories use only
Instructions on reverse side correspond with circled numbers.

1 Client Information			4 Matrix		5 Analyses Requested		6 Preservation Codes		7 Remarks	
Facility #/SID	Site Address	ExxonMobil PM	Consulant/Office	Consulant PM	Consulant Phone #	Sample Identification	Collected Date	Time	Matrix	Preservation Code
52010L4632	1 Railroad Ave, Hightstown - Hudson, NJ	Steve Trifiletti	Rowe Associates, Inc / 151 Linden Ave, NY	Tracy Bispham	(631) 232-2600	Jessica Collins	11/6/12	1200	Soil	Herbicides
							11/6/12	1205	Soil	PCBs
							11/6/12	1210	Soil	Pest
							11/6/12	1215	Soil	Cyanide
							11/6/12	1220	Soil	Mercury
							11/6/12	1225	Soil	Hex/Triclor
							11/6/12	1230	Soil	TAL Metals
							11/6/12	1235	Soil	VOC
							11/6/12	1246	Soil	SVOC
							11/6/12	1250	Soil	
							11/6/12	1255	Soil	
							11/6/12	1245	Soil	
7 Turnaround Time Requested (TAT) (please circle)							Date		Time	
Standard							11/6/12		1645	
72 hour							Date		Time	
5 day							Date		Time	
48 hour							Date		Time	
4 day							Date		Time	
4 hour							Date		Time	
8 Data Package (circle if required)							Date		Time	
Type I - Full							Date		Time	
Type VI (Raw Data)							Date		Time	
NJ Reduced							Date		Time	
Other CAT							Date		Time	
8 EDD (circle if required)							Date		Time	
Locus EIM (default)							Date		Time	
Other							Date		Time	
8 UPS							Date		Time	
FedEx							Date		Time	
Other							Date		Time	
Temperature Upon Receipt 0.7 °C							Date		Time	
Custody Seals Intact?							Date		Time	
Yes							Date		Time	
No							Date		Time	



**Lancaster
Laboratories**

Acct. # _____

66290

Group # 7

Sample # 6

1733-71

2044

[illegible]

Issued by Dept. 40 Management 7053.01

Eurofins Lancaster Laboratories, Inc. • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

Other W-1-2

ExxonMobil Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories | Act. # 10629 | Group # 1347278 | Sample # 6850733-71 | 3044

For Lancaster Laboratories use only
Instructions on reverse side correspond with circled numbers.

1 Client Information			2 Matrix		3 Analyses Requested		4 Preservation Codes		5 Remarks	
Facility #/SID	Site Address	ExxonMobil PM	Consultant/Office	Consultant PM	Sampler	Preservation Code	Preservation Codes	Remarks	SCR#	
52010L4632	1 Railroad Ave, Hastings-on-Hudson, NY	Steve Trifiletti	Roux Associates / Islandia, NY	Tracy Bispham	Jessica Collins		H = HCl N = HNO ₃ S = H ₂ SO ₄ T = Thiocyanate B = NaOH O = Other	Part 375 analytes DO# 4410017954		
Turnaround Time Requested (TAT) (please circle)			Total # of Containers		Oil		Water		Air	
Standard	5 day	48 hour	Grab	Composite	Soil	Potable	NPDES	Surface	Ground	
72 hour										
EDD (circle if required)	Locus EIM (default)		Date		Time	Date		Time	Date	
Type I - Full	Type VI (Raw Data)		11/6/12		1310	11/6/12		1305	11/6/12	
NJ Reduced	Other		11/6/12		1340	11/6/12		1335	11/6/12	
Other			11/6/12		1345	11/6/12		1340	11/6/12	
			11/6/12		1350	11/6/12		1325	11/6/12	
			11/6/12		1325	11/6/12		1320	11/6/12	
			11/6/12		1335	11/6/12		1330	11/6/12	
			11/6/12		1400	11/6/12		1400	11/6/12	
			11/6/12		1405	11/6/12		1405	11/6/12	
Data Package (circle if required)			Relinquished by		Date	Time	Relinquished by		Date	Time
Type I - Full	Type VI (Raw Data)		Signature		11/6/12	1645	Signature		11/6/12	1645
NJ Reduced	Other									
Other										
Temperature Upon Receipt 0.7 °C			Relinquished by		Date	Time	Relinquished by		Date	Time
UPS			Signature				Signature			
FedEx										
Other										
Custody Seals Intact?			Relinquished by		Date	Time	Relinquished by		Date	Time
Yes			Signature				Signature			
No										

Environmental Sample Administration
Receipt Documentation Log

1347278

Client/Project: Roux AssociatesShipping Container Sealed: YES NODate of Receipt: 11/7/12Custody Seal Present *: YES NOTime of Receipt: 0920* Custody seal was intact unless otherwise noted in the
discrepancy sectionSource Code: SOPackage: Chilled Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	429451	0.7	TB	WI	y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Pat Galt 3472 Date/Time: 11/7/12 1000

Issued by Dept. 6042 Management

2174.06

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 · 717-656-2300 Fax: 717-656-2681 · www.lancasterlabs.com

10237 8260 Ext. Soil Master w/GRO

The soil sample is purged and the volatile compounds are collected on a sorbent trap that is subsequently desorbed onto the GC/MS system for chromatographic and mass spectral analysis.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8260B, December 1996

00159 Mercury

The solution resulting from the mercury digestion is analyzed by Cold Vapor AA.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 7471A, September 1994

02829 Trivalent Chromium soils

Calculation performed by subtracting hexavalent chromium from total chromium.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 6010B Modified, December 1996.

05711 SW SW846 Hg Digest

The sample is heated at 95 c with nitric acid, sulfuric acid, potassium persulfate, and potassium permanganate. Excess potassium permanganate is reduced with sodium chloride/hydroxylamine hydrochloride. Mercuric ions are reduced to mercury metal using stannous chloride.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 7471A Modified, September 1994.

- 06935 Arsenic
- 06946 Barium
- 06947 Beryllium
- 06949 Cadmium
- 06951 Chromium
- 06953 Copper
- 06955 Lead
- 06958 Manganese
- 06961 Nickel
- 06936 Selenium
- 06966 Silver
- 06972 Zinc

The solution resulting from the metals digestion is analyzed by Trace ICP.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 6010B, December 1996.

05708 SW SW846 ICP/ICP MS Digest

The sample is digested with nitric acid, hydrochloric acid and hydrogen peroxide.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 3050B, December 1996

10738 Pesticides in Soil (microwave)

The sample is solvent extracted and exchanged to hexane. Florisil cleanup is performed to reduce potential matrix interferences. The extract is analyzed using gas chromatography on two capillary columns (primary and confirmation) with electron capture detectors.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8081A, December 1996.

10401 Herbicide soils 8151A Master

The sample is acidified and solvent extracted. The extract is then hydrolyzed, solvent washed, and acidified for final extraction. The chlorophenoxy acids, phenols and related target compounds are converted to the methyl esters using diazomethane. Florisil cleanup is performed to reduce potential matrix interferences.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8151A, December 1996.

04181 Herbicide Soil Extraction

The sample is acidified and solvent extracted. The extract is then hydrolyzed, solvent washed, and acidified for final extraction. The chlorophenoxy acids, phenols and related target compounds are converted to the methyl esters using diazomethane. Florisil cleanup is performed to reduce potential matrix interferences.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Methods 3550B & 8151A, December 1996.

10736 PCBs in Soil (microwave)

The sample is solvent-extracted and exchanged to hexane. Sulfuric acid and Florisil cleanups are performed to reduce potential matrix interferences. The extract is analyzed using gas chromatography on two capillary columns (primary and confirmation) with electron capture detectors.

Reference: Test Methods for Evaluating Solid Waste, SW-846 Method 8082, December 1996.

10497 PCB Microwave Soil Extraction**10809 BNA Soil Microwave**

The sample aliquot is extracted using microwave extraction with 1:1 methylene chloride and acetone. The extract is concentrated prior to analysis.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 3546, Revision 0, February 2007.

10496 PPL Pest. Microwave Extraction

The sample aliquot is extracted using microwave extraction with 1:1 hexane and acetone. The extract is concentrated prior to analysis.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 3546, Revision 0, February 2007.

10727 TCL 8270 (microwave)

The sample extract is analyzed by capillary column Gas Chromatography/Mass Spectrometry.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8270C, December 1996

05895 Total Cyanide (solid)

During the distillation step, complex cyanides are converted to hydrogen cyanide which readily reacts with chloramine T. Simple cyanides are converted to cyanogen chloride by reaction with chloramine T. This reacts with pyridine and barbituric acid to give a red colored complex determined colorimetrically.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 9012B, August 2002.

05896 Cyanide Solid Distillation

The sample is acidified and distilled. Cyanide is released as hydrogen cyanide and is absorbed in a sodium hydroxide solution.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 9012B, August 2002.

05898 Amenable Cyanide (solid)**05897 Amenable Cyanide Solid Distill**

A portion of the sample is pretreated with chlorine to release the dissociable cyanide. Both treated and untreated portions of the sample are acidified and distilled. Cyanide is released as hydrogen cyanide and is absorbed in a sodium hydroxide solution. The amenable cyanide is calculated as the difference between the untreated and chlorine treated portions.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 9012B, August 2002.

00425 Hexavalent Chromium (SOLIDS)

The filtrate from method #7825 is analyzed colorimetrically using diphenylcarbazide to produce a red-violet color. The absorbance is read at 540 nm and compared to a standard curve.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 7196A, July 1992.

07825 Hexavalent Cr (Extraction)

The sample is digested using a 3% sodium carbonate - 2% sodium hydroxide solution and then filtered through a 0.45 micron filter.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 3060A, December 1996

00111 Moisture

A well-mixed sample is placed in a tared container and dried to a constant weight in an oven at 103-105C. The increase in weight is the total solids.

Reference: Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998, Method 2540 G

00374 GC/MS - Bulk Soil Prep

Samples are field collected in glass containers, and preserved within 48 hours. An aliquot of the soil sample is prepared in reagent water and is purged at 40oC with helium.

Reference: Test Methods for Evaluating Solid Waste, SW-846, Method 5035A Modified, July 2002.

06646 GC/MS HL Bulk Sample Prep

Samples are field collected in glass containers, and preserved within 48 hours. An aliquot of the methanolic extract of the sample is diluted in reagent water and purged at ambient temperature with helium.

Reference: Test Methods for Evaluating Solid Waste, SW-846, Method 5035A Modified, July 2002.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

November 19, 2012

Project: Tappan Terminal

Submittal Date: 11/07/2012

Group Number: 1347278

SDG: TAP03

PO Number: 4410017954

Release Number: TRIFILETTI

State of Sample Origin: NY

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
TCN-ST9 Grab Soil	6850733
TCN-ST10 Grab Soil	6850734
TCN-ST11 Grab Soil	6850735
TCN-ST12 Grab Soil	6850736
TCN-STC5 Composite Soil	6850737
TCN-STC6 Composite Soil	6850738
TCN-ST13 Grab Soil	6850739
TCN-ST14 Grab Soil	6850740
TCN-STC7 Composite Soil	6850741
TCN-ST15 Grab Soil	6850742
TCN-ST16 Grab Soil	6850743
TCN-STC8 Composite Soil	6850744
TCN-ST17 Grab Soil	6850745
TCN-ST18 Grab Soil	6850746
TCN-STC9 Composite Soil	6850747
TCN-ST19 Grab Soil	6850748
TCN-ST20 Grab Soil	6850749
TCN-STC10 Composite Soil	6850750
TCN-ST21 Grab Soil	6850751
TCN-ST22 Grab Soil	6850752
TCN-STC11 Composite Soil	6850753
TCN-ST23 Grab Soil	6850754
TCN-ST24 Grab Soil	6850755
TCN-STC12 Composite Soil	6850756
POC-TS3 Grab Soil	6850757
POC-TS4 Grab Soil	6850758
POC-TSC2 Composite Soil	6850759
POC-TS5 Grab Soil	6850760
POC-TS6 Grab Soil	6850761
POC-TS7 Grab Soil	6850762

POC-TS8 Grab Soil	6850763
POC-TSC3 Composite Soil	6850764
POC-TSC4 Composite Soil	6850765
POC-TS9 Grab Soil	6850766
POC-TS10 Grab Soil	6850767
POC-TS11 Grab Soil	6850768
POC-TS12 Grab Soil	6850769
POC-TSC5 Composite Soil	6850770
POC-TSC6 Composite Soil	6850771

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC	Roux Associates	Attn: Tracy Bispham
COPY TO		
1 COPY TO	Data Package Group	
ELECTRONIC	Exxon Mobil: Woodard & Curran	Attn: Anne Proctor
COPY TO		

Respectfully Submitted,

Barbara A. Weyandt
Specialist

(717) 556-7264

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value - The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Sample Description: TCN-ST9 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850733
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:00 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

CNST9 SDG#: TAP03-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.99
10237	Benzene	71-43-2	N.D.	0.0005	0.99
10237	2-Butanone	78-93-3	N.D.	0.004	0.99
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.99
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.99
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.99
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.99
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.99
10237	Chloroform	67-66-3	N.D.	0.001	0.99
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.99
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.99
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.99
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.99
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.99
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.99
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.99
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.99
10237	1,4-Dioxane	123-91-1	N.D.	0.072	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.99
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.99
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.99
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.99
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.99
10237	Trichloroethene	79-01-6	N.D.	0.001	0.99
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.99
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.99
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.99
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.99
Wet Chemistry	SM20 2540 G	%	%		
00111	Moisture	n.a.	2.7	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST9 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850733
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:00 by JC

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Submitted: 11/07/2012 09:20

38 Varick Street

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Brooklyn NY 11222

CNST9 SDG#: TAP03-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/07/2012 23:51	Andrea E Lando	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:01	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST10 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850734
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:05 by JC

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Submitted: 11/07/2012 09:20

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Reported: 11/19/2012 14:59

Brooklyn NY 11222

NST10 SDG#: TAP03-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.98
10237	Benzene	71-43-2	N.D.	0.0005	0.98
10237	2-Butanone	78-93-3	N.D.	0.004	0.98
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.98
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.98
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.98
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.98
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.98
10237	Chloroform	67-66-3	N.D.	0.001	0.98
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.98
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.98
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.98
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.98
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.98
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.98
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.98
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.98
10237	1,4-Dioxane	123-91-1	N.D.	0.071	0.98
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.98
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.98
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.98
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.98
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.98
10237	Toluene	108-88-3	N.D.	0.001	0.98
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.98
10237	Trichloroethene	79-01-6	N.D.	0.001	0.98
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.98
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.98
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.98
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.98
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.98
Wet Chemistry	SM20 2540 G	%	%		
00111	Moisture	n.a.	3.6	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST10 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850734
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:05 by JC

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Submitted: 11/07/2012 09:20

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NST10 SDG#: TAP03-02

Laboratory Sample Analysis Record

SMT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 00:14	Andrea E Lando	0.98
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:02	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST11 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850735
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:10 by JC

ExxonMobil Refining & Supply

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Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NST11 SDG#: TAP03-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.96
10237	Benzene	71-43-2	N.D.	0.0005	0.96
10237	2-Butanone	78-93-3	N.D.	0.004	0.96
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.96
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.96
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.96
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.96
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.96
10237	Chloroform	67-66-3	N.D.	0.001	0.96
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.96
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.96
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.96
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.96
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.96
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.96
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.96
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.96
10237	1,4-Dioxane	123-91-1	N.D.	0.069	0.96
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.96
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.96
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.96
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.96
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.96
10237	Toluene	108-88-3	N.D.	0.001	0.96
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.96
10237	Trichloroethene	79-01-6	N.D.	0.001	0.96
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.96
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.96
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.96
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.96
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.96
Wet Chemistry	SM20 2540 G	%	%		
GC111	Moisture	n.a.	3.3	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST11 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850735
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:10 by JC

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Brooklyn NY 11222

NST11 SDG#: TAP03-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 00:36	Andrea E Lando	0.96
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:04	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST12 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850736
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:15 by JC

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Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NST12 SDG#: TAP03-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1.02
10237	Benzene	71-43-2	N.D.	0.0005	1.02
10237	2-Butanone	78-93-3	N.D.	0.004	1.02
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.02
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.02
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.02
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.02
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.02
10237	Chloroform	67-66-3	N.D.	0.001	1.02
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.02
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.02
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.02
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.02
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.02
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.02
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.02
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.02
10237	1,4-Dioxane	123-91-1	N.D.	0.073	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.02
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.02
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.02
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.02
10237	Toluene	108-88-3	N.D.	0.001	1.02
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.02
10237	Trichloroethene	79-01-6	N.D.	0.001	1.02
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.02
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.02
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.02
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.02
Wet Chemistry	SM20 2540 G	%	%		
00111	Moisture	n.a.	2.8	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST12 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850736
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:15 by JC

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Submitted: 11/07/2012 09:20

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Brooklyn NY 11222

NST12 SDG#: TAP03-04

Laboratory Sample Analysis Record

C&T No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260E	1	B123122AA	11/08/2012 00:59	Andrea E Lando	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:06	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-STC5 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850737
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:20 by JC

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Brooklyn NY 11222

NSTC5 SDG#: TAP03-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	3	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.				
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	34	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides	SW-846 8151A		ug/kg	ug/kg	
10401	2,4,5-TP	93-72-1	N.D.	0.77	1
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	
10738	Aldrin	309-00-2	N.D.	0.17	1
10738	Alpha BHC	319-84-6	N.D.	0.17	1
10738	Beta BHC	319-85-7	N.D.	0.99	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.17	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.17	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.36	1
10738	Delta BHC	319-86-8	N.D.	0.46	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	Heptachlor	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.17	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	
10738	PCE-1016	12674-11-2	N.D.	3.7	1
10738	PCB-1221	11104-28-2	N.D.	4.8	1

Sample Description: TCN-STC5 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850737
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:20 by JC

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Submitted: 11/07/2012 09:20

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Brooklyn NY 11222

NSTC5 SDG#: TAP03-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs					
	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.3	1
10736	PCB-1242	53469-21-9	N.D.	3.4	1
10736	PCB-1248	12672-29-6	N.D.	3.4	1
10736	PCB-1254	11097-69-1	N.D.	3.4	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals					
	SW-846 6010B		mg/kg	mg/kg	
06935	Arsenic	7440-38-2	N.D.	0.336	1
06946	Barium	7440-39-3	16.4	0.0336	1
06947	Beryllium	7440-41-7	N.D.	0.0681	1
06949	Cadmium	7440-43-9	0.0559 J	0.0336	1
06951	Chromium	7440-47-3	4.47	0.0895	1
06953	Copper	7440-50-8	131	0.183	1
06955	Lead	7439-92-1	2.62	0.478	1
06958	Manganese	7439-96-5	251	0.0844	1
06961	Nickel	7440-02-0	16.0	0.112	1
06936	Selenium	7782-49-2	2.53	0.732	1
06966	Silver	7440-22-4	0.275 J	0.142	1
06972	Zinc	7440-66-6	48.7	0.203	1
	SW-846 6010B modified		mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	4.5	0.52	1
	SW-846 7471A		mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0107	1
Wet Chemistry					
	SW-846 9012B		mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.17	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.19	1
	SW-846 7196A		mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.52	1
Wet Chemistry					
	SM20 2540 G		%	%	
00111	Moisture	n.a.	3.6	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC5 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850737
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:20 by JC

ExxonMobil Refining & Supply

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Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NSTC5 SDG#: TAP03-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 19:28	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 02:03	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 20:58	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 16:26	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 04:43	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 09:59	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 09:59	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 04:43	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 09:59	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 09:59	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 04:43	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 09:59	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 04:43	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 04:43	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 09:59	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 04:43	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 12:46	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:11	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:29	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-STC6 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850738
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:25 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NSTC6 SDG#: TAP03-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	3	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	34	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides	SW-846 8151A	ug/kg	ug/kg		
10401	2,4,5-TP	93-72-1	N.D.	0.77	1
Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg		
10738	Aldrin	309-00-2	N.D.	0.17	1
10738	Alpha BHC	319-84-6	N.D.	0.17	1
10738	Beta BHC	319-85-7	N.D.	0.98	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.17	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.17	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.36	1
10738	Delta BHC	319-86-8	N.D.	0.46	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.17	1
Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg		
10736	PCB-1016	12674-11-2	N.D.	3.7	1
10736	PCB-1221	11104-28-2	N.D.	4.8	1

Sample Description: TCN-STC6 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850738
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:25 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NSTC6 SDG#: TAP03-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs					
	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.3	1
10736	PCB-1242	53469-21-9	N.D.	3.4	1
10736	PCB-1248	12672-29-6	N.D.	3.4	1
10736	PCB-1254	11097-69-1	N.D.	3.4	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals					
	SW-846 6010B		mg/kg	mg/kg	
06935	Arsenic	7440-38-2	N.D.	0.335	1
06946	Barium	7440-39-3	18.0	0.0335	1
06947	Beryllium	7440-41-7	N.D.	0.0679	1
06949	Cadmium	7440-43-9	N.D.	0.0335	1
06951	Chromium	7440-47-3	5.33	0.0892	1
06953	Copper	7440-50-8	130	0.182	1
06955	Lead	7439-92-1	1.42 J	0.477	1
06958	Manganese	7439-96-5	272	0.0841	1
06961	Nickel	7440-02-0	16.7	0.112	1
06936	Selenium	7782-49-2	2.60	0.730	1
06966	Silver	7440-22-4	0.384 J	0.142	1
06972	Zinc	7440-66-6	53.4	0.203	1
	SW-846 6010B modified		mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	5.3	0.52	1
	SW-846 7471A		mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0106	1
Wet Chemistry					
	SW-846 9012B		mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.19	1
	SW-846 7196A		mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.52	1
Wet Chemistry					
	SM20 2540 G		%	%	
00111	Moisture	n.a.	3.3	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC6 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850738
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:25 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NSTC6 SDG#: TAP03-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 20:36	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 03:25	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 21:12	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 17:10	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:08	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 10:24	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 10:24	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:08	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 10:24	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 10:24	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:08	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 10:24	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:08	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:08	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 10:24	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:08	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 12:52	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:15	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:33	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST13 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850739
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:30 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NST13 SDG#: TAP03-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1.02
10237	Benzene	71-43-2	N.D.	0.0005	1.02
10237	2-Butanone	78-93-3	N.D.	0.004	1.02
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.02
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.02
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.02
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.02
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.02
10237	Chloroform	67-66-3	N.D.	0.001	1.02
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.02
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.02
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.02
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.02
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.02
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.02
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.02
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.02
10237	1,4-Dioxane	123-91-1	N.D.	0.074	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.02
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.02
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.02
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.02
10237	Toluene	108-88-3	N.D.	0.001	1.02
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.02
10237	Trichloroethene	79-01-6	N.D.	0.001	1.02
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.02
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.02
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.02
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.02
Wet Chemistry	SM20 2540 G	%	%		
00111	Moisture	n.a.	3.3	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST13 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850739
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:30 by JC

ExxonMobil Refining & Supply

Submitted: 11/07/2012 09:20

Global Remed.-Major Projects

Reported: 11/19/2012 14:59

38 Varick Street

Brooklyn NY 11222

NST13 SDG#: TAP03-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123131AA	11/08/2012 12:37	Angela D Sneeringer	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:08	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST14 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850740
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:35 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NST14 SDG#: TAP03-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1
10237	Benzene	71-43-2	N.D.	0.0005	1
10237	2-Butanone	78-93-3	N.D.	0.004	1
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1
10237	Chlorobenzene	108-90-7	N.D.	0.001	1
10237	Chloroform	67-66-3	N.D.	0.001	1
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1
10237	1,4-Dioxane	123-91-1	N.D.	0.072	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1
10237	Methylene Chloride	75-09-2	N.D.	0.002	1
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1
10237	Toluene	108-88-3	N.D.	0.001	1
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1
10237	Trichloroethene	79-01-6	N.D.	0.001	1
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1
Wet Chemistry	SM20 2540 G	%	%		
00111	Moisture	n.a.	2.9	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST14 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850740
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:35 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NST14 SDG#: TAP03-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 02:07	Andrea E Lando	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:10	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-STC7 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850741
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:40 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NSTC7 SDG#: TAP03-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846. 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	3	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	34	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides	SW-846 8151A	ug/kg	ug/kg		
10401	2,4,5-TP	93-72-1	N.D.	0.78	1
Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg		
10738	Aldrin	309-00-2	N.D.	0.18	1
10738	Alpha BHC	319-84-6	N.D.	0.18	1
10738	Beta BHC	319-85-7	N.D.	1.0	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.18	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.18	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.36	1
10738	Delta BHC	319-86-8	N.D.	0.47	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.18	1
Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg		
10736	PCB-1016	12674-11-2	N.D.	3.8	1
10736	PCB-1221	11104-28-2	N.D.	4.8	1

Sample Description: TCN-STC7 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850741
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:40 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NSTC7 SDG#: TAP03-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs					
	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.4	1
10736	PCB-1242	53469-21-9	N.D.	3.4	1
10736	PCB-1248	12672-29-6	N.D.	3.4	1
10736	PCB-1254	11097-69-1	N.D.	3.4	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals					
	SW-846 6010B		mg/kg	mg/kg	
06935	Arsenic	7440-38-2	N.D.	0.331	1
06946	Barium	7440-39-3	16.5	0.0331	1
06947	Beryllium	7440-41-7	N.D.	0.0672	1
06949	Cadmium	7440-43-9	0.0954 J	0.0331	1
06951	Chromium	7440-47-3	4.28	0.0883	1
06953	Copper	7440-50-8	161	0.181	1
06955	Lead	7439-92-1	3.07	0.472	1
06958	Manganese	7439-96-5	249	0.0833	1
06961	Nickel	7440-02-0	16.6	0.110	1
06936	Selenium	7782-49-2	2.68	0.723	1
06966	Silver	7440-22-4	0.398 J	0.141	1
06972	Zinc	7440-66-6	55.0	0.201	1
	SW-846 6010B modified		mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	4.3	0.52	1
	SW-846 7471A		mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0102	1
Wet Chemistry					
	SW-846 9012B		mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.18	1
	SW-846 7196A		mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.52	1
Wet Chemistry					
	SM20 2540 G		%	%	
00111	Moisture	n.a.	4.2	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC7 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850741
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:40 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NSTC7 SDG#: TAP03-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 20:58	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 03:53	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 21:55	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 17:24	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:12	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 10:28	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 10:28	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:12	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 10:28	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 10:28	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:12	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 10:28	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:12	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:12	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 10:28	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:12	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 12:54	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:16	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:34	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST15 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850742
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:50 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NST15 SDG#: TAP03-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1.04
10237	Benzene	71-43-2	N.D.	0.0005	1.04
10237	2-Butanone	78-93-3	N.D.	0.004	1.04
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.04
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.04
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.04
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.04
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.04
10237	Chloroform	67-66-3	N.D.	0.001	1.04
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.04
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.04
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.04
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.04
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.04
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.04
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.04
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.04
10237	1,4-Dioxane	123-91-1	N.D.	0.075	1.04
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.04
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.04
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.04
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.04
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.04
10237	Toluene	108-88-3	N.D.	0.001	1.04
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.04
10237	Trichloroethene	79-01-6	N.D.	0.001	1.04
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.04
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.04
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.04
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.04
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.04
Wet Chemistry	SM20 2540 G	%	%		
00111	Moisture	n.a.	3.3	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST15 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850742
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:50 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NST15 SDG#: TAP03-10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 02:30	Andrea E Lando	1.04
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:14	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST16 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850743
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:55 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NST16 SDG#: TAP03-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.99
10237	Benzene	71-43-2	N.D.	0.0005	0.99
10237	2-Butanone	78-93-3	N.D.	0.004	0.99
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.99
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.99
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.99
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.99
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.99
10237	Chloroform	67-66-3	N.D.	0.001	0.99
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.99
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.99
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.99
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.99
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.99
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.99
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.99
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.99
10237	1,4-Dioxane	123-91-1	N.D.	0.072	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.99
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.99
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.99
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.99
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.99
10237	Trichloroethene	79-01-6	N.D.	0.001	0.99
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.99
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.99
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.99
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.99
Wet Chemistry	SM20 2540 G	%	%		
00111	Moisture	n.a.	2.8	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST16 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850743
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:55 by JC

ExxonMobil Refining & Supply

Submitted: 11/07/2012 09:20

Global Remed.-Major Projects

Reported: 11/19/2012 14:59

38 Varick Street

Brooklyn NY 11222

NST16 SDG#: TAP03-11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 02:53	Andrea E Lando	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:16	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-STC8 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850744
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:45 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NSTC8 SDG#: TAP03-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	3	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	34	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides	SW-846 8151A	ug/kg	ug/kg		
10401	2,4,5-TP	93-72-1	N.D.	0.77	1
Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg		
10738	Aldrin	309-00-2	N.D.	0.18	1
10738	Alpha BHC	319-84-6	N.D.	0.18	1
10738	Beta BHC	319-85-7	N.D.	0.99	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.18	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.18	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.36	1
10738	Delta BHC	319-86-8	N.D.	0.46	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.18	1
Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg		
10736	PCB-1016	12674-11-2	N.D.	3.7	1
10736	PCB-1221	11104-28-2	N.D.	4.8	1

Sample Description: TCN-STC8 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850744
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:45 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NSTC8 SDG#: TAP03-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs					
	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.3	1
10736	PCB-1242	53469-21-9	N.D.	3.4	1
10736	PCB-1248	12672-29-6	N.D.	3.4	1
10736	PCB-1254	11097-69-1	N.D.	3.4	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals					
	SW-846 6010B		mg/kg	mg/kg	
06935	Arsenic	7440-38-2	1.27 J	0.334	1
06946	Barium	7440-39-3	16.5	0.0334	1
06947	Beryllium	7440-41-7	N.D.	0.0679	1
06949	Cadmium	7440-43-9	N.D.	0.0334	1
06951	Chromium	7440-47-3	4.92	0.0891	1
06953	Copper	7440-50-8	145	0.182	1
06955	Lead	7439-92-1	2.90	0.476	1
06958	Manganese	7439-96-5	250	0.0841	1
06961	Nickel	7440-02-0	16.9	0.111	1
06936	Selenium	7782-49-2	3.24	0.729	1
06966	Silver	7440-22-4	0.342 J	0.142	1
06972	Zinc	7440-66-6	52.5	0.203	1
	SW-846 6010B modified		mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	4.9	0.52	1
	SW-846 7471A		mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0105	1
Wet Chemistry					
	SW-846 9012B		mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.19	1
	SW-846 7196A		mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.52	1
Wet Chemistry					
	SM20 2540 G		%	%	
00111	Moisture	n.a.	3.2	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC8 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850744
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:45 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NSTC8 SDG#: TAP03-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 21:21	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 04:20	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 22:09	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 17:39	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:24	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 10:40	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 10:40	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:24	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 10:40	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 10:40	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:24	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 10:40	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:24	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:24	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 10:40	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:24	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 12:56	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:17	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:35	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST17 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850745
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:15 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST17 SDG#: TAP03-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	1.03
10237	Benzene	71-43-2	N.D.	0.0005	1.03
10237	2-Butanone	78-93-3	N.D.	0.004	1.03
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.03
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.03
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.03
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.03
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.03
10237	Chloroform	67-66-3	N.D.	0.001	1.03
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.03
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.03
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.03
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.03
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.03
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.03
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.03
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.03
10237	1,4-Dioxane	123-91-1	N.D.	0.075	1.03
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.03
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.03
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.03
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.03
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.03
10237	Toluene	108-88-3	N.D.	0.001	1.03
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.03
10237	Trichloroethene	79-01-6	N.D.	0.001	1.03
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.03
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.03
10237	1,3,5-Trimethylbenzene	108-67-3	N.D.	0.001	1.03
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.03
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.03

Wet Chemistry	SM20 2540 G	%	%	
00111 Moisture	n.a.	3.6	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST17 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850745
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:15 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NST17 SDG#: TAP03-13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123131AA	11/08/2012 13:54	Angela D Sneeringer	1.03
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:18	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST18 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850746
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:20 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NST18 SDG#: TAP03-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1
10237	Benzene	71-43-2	N.D.	0.0005	1
10237	2-Butanone	78-93-3	N.D.	0.004	1
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1
10237	Chlorobenzene	108-90-7	N.D.	0.001	1
10237	Chloroform	67-66-3	N.D.	0.001	1
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1
10237	1,4-Dioxane	123-91-1	N.D.	0.072	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1
10237	Methylene Chloride	75-09-2	N.D.	0.002	1
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1
10237	Toluene	108-88-3	N.D.	0.001	1
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1
10237	Trichloroethene	79-01-6	N.D.	0.001	1
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.0	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST18 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850746
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:20 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NST18 SDG#: TAP03-14

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 03:15	Andrea E Lando	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:20	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-STC9 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850747
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:25 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NSTC9 SDG#: TAP03-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	3	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	34	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides	SW-846 8151A		ug/kg	ug/kg	
10401	2,4,5-TP	93-72-1	N.D.	0.78	1
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	
10738	Aldrin	309-00-2	N.D.	0.17	1
10738	Alpha BHC	319-84-6	N.D.	0.17	1
10738	Beta BHC	319-85-7	N.D.	0.98	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.17	1
10738	Alpha Chlordane	5102-71-9	N.D.	0.17	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.36	1
10738	Delta BHC	319-86-8	N.D.	0.46	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.22	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.21	1
10738	Heptachlor	76-44-8	N.D.	0.17	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	3.7	1
10736	PCB-1221	11104-28-2	N.D.	4.8	1

Sample Description: TCN-STC9 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850747
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:25 by JC

ExxonMobil Refining & Supply

Submitted: 11/07/2012 09:20

Global Remed.-Major Projects

Reported: 11/19/2012 14:59

38 Varick Street

Brooklyn NY 11222

NSTC9 SDG#: TAP03-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs					
	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.3	1
10736	PCB-1242	53469-21-9	N.D.	3.4	1
10736	PCB-1248	12672-29-6	N.D.	3.4	1
10736	PCB-1254	11097-69-1	N.D.	3.4	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals					
	SW-846 6010B		mg/kg	mg/kg	
06935	Arsenic	7440-38-2	N.D.	0.338	1
06946	Barium	7440-39-3	17.2	0.0338	1
06947	Beryllium	7440-41-7	N.D.	0.0686	1
06949	Cadmium	7440-43-9	N.D.	0.0338	1
06951	Chromium	7440-47-3	4.24	0.0901	1
06953	Copper	7440-50-8	141	0.184	1
06955	Lead	7439-92-1	2.49	0.481	1
06958	Manganese	7439-96-5	250	0.0850	1
06961	Nickel	7440-02-0	16.2	0.113	1
06936	Selenium	7782-49-2	2.94	0.737	1
06966	Silver	7440-22-4	0.340 J	0.143	1
06972	Zinc	7440-66-6	52.5	0.205	1
	SW-846 6010B modified		mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	4.2	0.52	1
	SW-846 7471A		mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0104	1
Wet Chemistry					
	SW-846 9012B		mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.18	1
	SW-846 7196A		mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.52	1
Wet Chemistry					
	SM20 2540 G		%	%	
00111	Moisture	n.a.	3.3	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC9 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850747
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:25 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NSTC9 SDG#: TAP03-15

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 21:43	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 04:48	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 22:23	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 17:54	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:28	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 10:44	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 10:44	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:28	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 10:44	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 10:44	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:28	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 10:44	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:28	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:28	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 10:44	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:28	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 12:58	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:18	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:36	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
06425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST19 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850748
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:25 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST19 SDG#: TAP03-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1.01
10237	Benzene	71-43-2	N.D.	0.0005	1.01
10237	2-Butanone	78-93-3	N.D.	0.004	1.01
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.01
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.01
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.01
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.01
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.01
10237	Chloroform	67-66-3	N.D.	0.001	1.01
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.01
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.01
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.01
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.01
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.01
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.01
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.01
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.01
10237	1,4-Dioxane	123-91-1	N.D.	0.073	1.01
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.01
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.01
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.01
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.01
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.01
10237	Toluene	108-88-3	N.D.	0.001	1.01
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.01
10237	Trichloroethene	79-01-6	N.D.	0.001	1.01
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.01
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.01
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.01
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.01
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.01

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.0	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST19 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850748
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:25 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NST19 SDG#: TAP03-16

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 05:45	Andrea E Lando	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:22	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST20 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850749
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:30 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NST20 SDG#: TAP03-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1.02
10237	Benzene	71-43-2	N.D.	0.0005	1.02
10237	2-Butanone	78-93-3	N.D.	0.004	1.02
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.02
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.02
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.02
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.02
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.02
10237	Chloroform	67-66-3	N.D.	0.001	1.02
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.02
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.02
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.02
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.02
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.02
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.02
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.02
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.02
10237	1,4-Dioxane	123-91-1	N.D.	0.074	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.02
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.02
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.02
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.02
10237	Toluene	108-88-3	N.D.	0.001	1.02
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.02
10237	Trichloroethene	79-01-6	N.D.	0.001	1.02
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.02
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.02
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.02
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.02
Wet Chemistry	SM20 2540 G	%	%		
00111	Moisture	n.a.	3.7	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST20 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850749
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:30 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NST20 SDG#: TAP03-17

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 06:08	Andrea E Lando	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:23	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-STC10 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850750
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:35 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

STC10 SDG#: TAP03-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	3	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.				
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	34	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides	SW-846 8151A		ug/kg	ug/kg	
10401	2,4,5-TP	93-72-1	N.D.	0.78	1
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	
10738	Aldrin	309-00-2	N.D.	0.17	1
10738	Alpha BHC	319-84-6	N.D.	0.17	1
10738	Beta BHC	319-85-7	N.D.	0.98	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.17	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.17	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.36	1
10738	Delta BHC	319-86-8	N.D.	0.46	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.17	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	3.7	1
10736	PCB-1221	11104-28-2	N.D.	4.8	1

Sample Description: TCN-STC10 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850750
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:35 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

STC10 SDG#: TAP03-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs					
	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.3	1
10736	PCB-1242	53469-21-9	N.D.	3.4	1
10736	PCB-1248	12672-29-6	N.D.	3.4	1
10736	PCB-1254	11097-69-1	N.D.	3.4	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals					
	SW-846 6010B		mg/kg	mg/kg	
06935	Arsenic	7440-38-2	N.D.	0.333	1
06946	Barium	7440-39-3	16.9	0.0333	1
06947	Beryllium	7440-41-7	N.D.	0.0676	1
06949	Cadmium	7440-43-9	0.0888 J	0.0333	1
06951	Chromium	7440-47-3	4.09	0.0888	1
06953	Copper	7440-50-8	136	0.182	1
06955	Lead	7439-92-1	2.13	0.474	1
06958	Manganese	7439-96-5	261	0.0838	1
06961	Nickel	7440-02-0	16.1	0.111	1
06936	Selenium	7782-49-2	2.67	0.727	1
06966	Silver	7440-22-4	0.477 J	0.141	1
06972	Zinc	7440-66-6	56.4	0.202	1
	SW-846 6010B modified		mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	4.1	0.52	1
	SW-846 7471A		mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0106	1
Wet Chemistry					
	SW-846 9012B		mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.18	1
	SW-846 7196A		mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.52	1
Wet Chemistry					
	SM20 2540 G		%	%	
00111	Moisture	n.a.	3.8	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC10 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850750
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:35 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

STC10 SDG#: TAP03-18

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 22:06	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 06:10	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 22:37	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 18:09	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:32	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 10:48	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 10:48	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:32	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 10:48	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 10:48	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:32	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 10:48	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:32	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:32	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 10:48	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:32	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:00	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:20	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:40	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7195A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST21 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850751
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:40 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

38 Varick Street

Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST21 SDG#: TAP03-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.97
10237	Benzene	71-43-2	N.D.	0.0005	0.97
10237	2-Butanone	78-93-3	N.D.	0.004	0.97
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.97
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.97
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.97
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.97
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.97
10237	Chloroform	67-66-3	N.D.	0.001	0.97
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.97
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.97
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.97
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.97
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.97
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.97
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.97
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.97
10237	1,4-Dioxane	123-91-1	N.D.	0.070	0.97
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.97
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.97
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.97
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.97
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.97
10237	Toluene	108-88-3	N.D.	0.001	0.97
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.97
10237	Trichloroethene	79-01-6	N.D.	0.001	0.97
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.97
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.97
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.97
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.97
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.97
Wet Chemistry	SM20 2540 G	%	%		
00111	Moisture	n.a.	3.1	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST21 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850751
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:40 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NST21 SDG#: TAP03-19

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 06:30	Andrea E Lando	0.97
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:46	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-ST22 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850752
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:45 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NST22 SDG#: TAP03-20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.97
10237	Benzene	71-43-2	N.D.	0.0005	0.97
10237	2-Butanone	78-93-3	N.D.	0.004	0.97
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.97
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.97
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.97
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.97
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.97
10237	Chloroform	67-66-3	N.D.	0.001	0.97
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.97
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.97
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.97
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.97
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.97
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.97
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.97
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.97
10237	1,4-Dioxane	123-91-1	N.D.	0.070	0.97
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.97
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.97
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.97
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.97
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.97
10237	Toluene	108-88-3	N.D.	0.001	0.97
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.97
10237	Trichloroethene	79-01-6	N.D.	0.001	0.97
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.97
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.97
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.97
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.97
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.97
Wet Chemistry	SM20 2540 G	%	%		
00111	Moisture	n.a.	3.1	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10570

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST22 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850752
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:45 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NST22 SDG#: TAP03-20

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 06:53	Andrea E Lando	0.97
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:53	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

Sample Description: TCN-STC11 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850753
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 15:00 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

STC11 SDG#: TAP03-21

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	3	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	34	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides	SW-846 8151A		ug/kg	ug/kg	
10401	2,4,5-TP	93-72-1	N.D.	0.77	1
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	
10738	Aldrin	309-00-2	N.D.	0.17	1
10738	Alpha BHC	319-84-6	N.D.	0.17	1
10738	Beta BHC	319-85-7	N.D.	0.98	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.17	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.17	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.36	1
10738	Delta BHC	319-86-8	N.D.	0.46	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.22	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.21	1
10738	Heptachlor	76-44-8	N.D.	0.17	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	3.7	1
10736	PCB-1221	11104-28-2	N.D.	4.8	1

Sample Description: TCN-STC11 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850753
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 15:00 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

STC11 SDG#: TAP03-21

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs					
	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.3	1
10736	PCB-1242	53469-21-9	N.D.	3.4	1
10736	PCB-1248	12672-29-6	N.D.	3.4	1
10736	PCB-1254	11097-69-1	N.D.	3.4	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals					
	SW-846 6010B		mg/kg	mg/kg	
06935	Arsenic	7440-38-2	N.D.	0.331	1
06946	Barium	7440-39-3	17.4	0.0331	1
06947	Beryllium	7440-41-7	N.D.	0.0672	1
06949	Cadmium	7440-43-9	0.114 J	0.0331	1
06951	Chromium	7440-47-3	3.83	0.0883	1
06953	Copper	7440-50-8	138	0.181	1
06955	Lead	7439-92-1	2.19	0.471	1
06958	Manganese	7439-96-5	256	0.0832	1
06961	Nickel	7440-02-0	16.5	0.110	1
06936	Selenium	7782-49-2	3.03	0.722	1
06966	Silver	7440-22-4	0.435 J	0.140	1
06972	Zinc	7440-66-6	52.2	0.201	1
	SW-846 6010B modified		mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	3.8	0.52	1
	SW-846 7471A		mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0106	1
Wet Chemistry					
	SW-846 9012B		mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.17	1
	SW-846 7196A		mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.52	1
Wet Chemistry					
	SM20 2540 G		%	%	
00111	Moisture	n.a.	3.2	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC11 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850753
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 15:00 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

STC11 SDG#: TAP03-21

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 22:28	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 06:38	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 22:52	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 18:23	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:36	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 10:53	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 10:53	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:36	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 10:53	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 10:53	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:36	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 10:53	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:36	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:36	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 10:53	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:36	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:02	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:23	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:41	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: TCN-ST23 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850754
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:50 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

NST23 SDG#: TAP03-22

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.95
10237	Benzene	71-43-2	N.D.	0.0005	0.95
10237	2-Butanone	78-93-3	N.D.	0.004	0.95
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.95
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.95
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.95
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.95
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.95
10237	Chloroform	67-66-3	N.D.	0.001	0.95
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.95
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.95
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.95
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.95
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.95
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.95
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.95
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.95
10237	1,4-Dioxane	123-91-1	N.D.	0.068	0.95
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.95
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.95
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.95
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.95
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.95
10237	Toluene	108-88-3	N.D.	0.001	0.95
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.95
10237	Trichloroethene	79-01-6	N.D.	0.001	0.95
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.95
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.95
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.95
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.95
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.95

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.0	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST23 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850754
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:50 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST23 SDG#: TAP03-22

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 07:16	Andrea E Lando	0.95
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:54	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: TCN-ST24 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850755
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:55 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST24 SDG#: TAP03-23

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.98
10237	Benzene	71-43-2	N.D.	0.0005	0.98
10237	2-Butanone	78-93-3	N.D.	0.004	0.98
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.98
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.98
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.98
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.98
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.98
10237	Chloroform	67-66-3	N.D.	0.001	0.98
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.98
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.98
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.98
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.98
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.98
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.98
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.98
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.98
10237	1,4-Dioxane	123-91-1	N.D.	0.071	0.98
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.98
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.98
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.98
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.98
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.98
10237	Toluene	108-88-3	N.D.	0.001	0.98
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.98
10237	Trichloroethene	79-01-6	N.D.	0.001	0.98
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.98
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.98
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.98
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.98
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.98

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.1	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-ST24 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850755
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:55 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

NST24 SDG#: TAP03-23

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 07:38	Andrea E Lando	0.98
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:56	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: TCN-STC12 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850756
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 15:05 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

STC12 SDG#: TAP03-24

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	3	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	35	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides	SW-846 8151A	ug/kg	ug/kg		
10401	2,4,5-TP	93-72-1	N.D.	0.80	1
Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg		
10738	Aldrin	309-00-2	N.D.	0.18	1
10738	Alpha BHC	319-84-6	N.D.	0.18	1
10738	Beta BHC	319-85-7	N.D.	1.0	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.18	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.18	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.37	1
10738	Delta BHC	319-86-8	N.D.	0.47	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.18	1
Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg		
10736	PCB-1016	12674-11-2	N.D.	3.8	1
10736	PCB-1221	11104-28-2	N.D.	4.9	1

Sample Description: TCN-STC12 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850756
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 15:05 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

STC12 SDG#: TAP03-24

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs					
	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.5	1
10736	PCB-1242	53469-21-9	N.D.	3.5	1
10736	PCB-1248	12672-29-6	N.D.	3.5	1
10736	PCB-1254	11097-69-1	N.D.	3.5	1
10736	PCB-1260	11096-82-5	N.D.	5.2	1
Metals					
	SW-846 6010B		mg/kg	mg/kg	
06935	Arsenic	7440-38-2	N.D.	0.350	1
06946	Barium	7440-39-3	13.7	0.0350	1
06947	Beryllium	7440-41-7	N.D.	0.0711	1
06949	Cadmium	7440-43-9	0.0892 J	0.0350	1
06951	Chromium	7440-47-3	3.33	0.0934	1
06953	Copper	7440-50-8	132	0.191	1
06955	Lead	7439-92-1	3.00	0.499	1
06958	Manganese	7439-96-5	227	0.0881	1
06961	Nickel	7440-02-0	14.7	0.117	1
06936	Selenium	7782-49-2	2.37	0.764	1
06966	Silver	7440-22-4	0.314 J	0.149	1
06972	Zinc	7440-66-6	56.5	0.212	1
	SW-846 6010B modified		mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	3.3	0.53	1
	SW-846 7471A		mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0108	1
Wet Chemistry					
	SW-846 9012B		mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.18	1
	SW-846 7196A		mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.53	1
Wet Chemistry					
	SM20 2540 G		%	%	
00111	Moisture	n.a.	5.8	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC12 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850756
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 15:05 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

STC12 SDG#: TAP03-24

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 22:50	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 07:05	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 23:06	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 18:38	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:40	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 10:57	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 10:57	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:40	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 10:57	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 10:57	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:40	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 10:57	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:40	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:40	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 10:57	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:40	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:04	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:24	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:42	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TS3 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850757
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:10 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

OCTS3 SDG#: TAP03-25

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.009	1.01
10237	Benzene	71-43-2	N.D.	0.0007	1.01
10237	2-Butanone	78-93-3	N.D.	0.005	1.01
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.01
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.01
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.01
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.01
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.01
10237	Chloroform	67-66-3	N.D.	0.001	1.01
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.01
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.01
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.01
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.01
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.01
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.01
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.01
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.01
10237	1,4-Dioxane	123-91-1	N.D.	0.091	1.01
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.01
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0007	1.01
10237	Methylene Chloride	75-09-2	N.D.	0.003	1.01
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.01
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.01
10237	Toluene	108-88-3	N.D.	0.001	1.01
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.01
10237	Trichloroethene	79-01-6	N.D.	0.001	1.01
10237	Trichlorofluoromethane	75-69-4	N.D.	0.003	1.01
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.01
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.01
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.01
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.01
Wet Chemistry	SM20 2540 G	%	%		
00111	Moisture	n.a.	22.2	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: POC-TS3 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850757
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:10 by JC

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Brooklyn NY 11222

OCTS3 SDG#: TAP03-25

Laboratory Sample Analysis Record

Lab No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 08:01	Andrea E Lando	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TS4 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850758
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:05 by JC

ExxonMobil Refining & Supply

Submitted: 11/07/2012 09:20

Global Remed.-Major Projects

Reported: 11/19/2012 14:59

38 Varick Street

Brooklyn NY 11222

OCTS4 SDG#: TAP03-26

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.009	0.97
10237	Benzene	71-43-2	N.D.	0.0006	0.97
10237	2-Butanone	78-93-3	N.D.	0.005	0.97
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.97
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.97
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.97
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.97
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.97
10237	Chloroform	67-66-3	N.D.	0.001	0.97
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.97
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.97
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.97
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.97
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.97
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.97
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.97
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.97
10237	1,4-Dioxane	123-91-1	N.D.	0.088	0.97
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.97
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	0.97
10237	Methylene Chloride	75-09-2	N.D.	0.003	0.97
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.97
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.97
10237	Toluene	108-88-3	N.D.	0.001	0.97
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.97
10237	Trichloroethene	79-01-6	N.D.	0.001	0.97
10237	Trichlorofluoromethane	75-69-4	N.D.	0.003	0.97
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.97
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.97
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.97
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.97
Wet Chemistry	SM20 2540 G	%	%		
00111	Moisture	n.a.	22.2	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: POC-TS4 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850758
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:05 by JC

ExxonMobil Refining & Supply

Submitted: 11/07/2012 09:20

Global Remed.-Major Projects

Reported: 11/19/2012 14:59

38 Varick Street

Brooklyn NY 11222

OCTS4 SDG#: TAP03-26

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 08:24	Andrea E Lando	0.97
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:44	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TSC2 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850759
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:00 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

CTCS2 SDG#: TAP03-27

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	4	1
10727	Acenaphthylene	208-96-8	5 J	4	1
10727	Anthracene	120-12-7	11 J	4	1
10727	Benzo(a)anthracene	56-55-3	40	4	1
10727	Benzo(a)pyrene	50-32-8	48	4	1
10727	Benzo(b)fluoranthene	205-99-2	63	4	1
10727	Benzo(g,h,i)perylene	191-24-2	35	4	1
10727	Benzo(k)fluoranthene	207-08-9	30	4	1
10727	Chrysene	218-01-9	48	4	1
10727	Dibenz(a,h)anthracene	53-70-3	12 J	4	1
10727	Dibenzofuran	132-64-9	N.D.	21	1
10727	Fluoranthene	206-44-0	80	4	1
10727	Fluorene	86-73-7	4 J	4	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	30	4	1
10727	2-Methylphenol	95-48-7	N.D.	21	1
10727	4-Methylphenol	106-44-5	41 J	21	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	9 J	4	1
10727	Pentachlorophenol	87-86-5	N.D.	42	1
10727	Phenanthrene	85-01-8	48	4	1
10727	Phenol	108-95-2	N.D.	21	1
10727	Pyrene	129-00-0	81	4	1

Herbicides	SW-846 8151A	ug/kg	ug/kg	
10401 2,4,5-TP	93-72-1	N.D.	0.96	1

Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg	
10738 Aldrin	309-00-2	0.42 J	0.22	1
10738 Alpha BHC	319-84-6	0.81 J	0.22	1
10738 Beta BHC	319-85-7	N.D.	1.2	1
10738 Gamma BHC - Lindane	58-89-9	N.D.	0.70	1
10738 Alpha Chlordane	5103-71-9	N.D.	1.4	1
10738 p,p-DDD	72-54-8	N.D.	0.98	1
10738 p,p-DDE	72-55-9	2.5	0.42	1
10738 p,p-DDT	50-29-3	2.4	0.45	1
10738 Delta BHC	319-86-8	N.D.	0.58	1
10738 Dieldrin	60-57-1	1.9 J	0.42	1
10738 Endosulfan I	959-98-8	N.D.	0.31	1
10738 Endosulfan II	33213-65-9	N.D.	0.42	1
10738 Endosulfan Sulfate	1031-07-8	N.D.	0.42	1
10738 Endrin	72-20-8	N.D.	0.89	1
10738 HCB	118-74-1	1.5	0.27	1
10738 Heptachlor	76-44-8	N.D.	0.39	1

Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg	
10736 PCB-1016	12674-11-2	N.D.	4.7	1

Sample Description: POC-TSC2 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850759
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:00 by JC

ExxonMobil Refining & Supply
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38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS2 SDG#: TAP03-27

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1221	11104-28-2	N.D.	6.0	1
10736	PCB-1232	11141-16-5	N.D.	10	1
10736	PCB-1242	53469-21-9	N.D.	4.3	1
10736	PCB-1248	12672-29-6	N.D.	4.3	1
10736	PCB-1254	11097-69-1	26	4.3	1
10736	PCB-1260	11096-82-5	29	6.3	1
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	4.59	0.419	1
06946	Barium	7440-39-3	153	0.0419	1
06947	Beryllium	7440-41-7	1.08	0.0851	1
06949	Cadmium	7440-43-9	0.175 J	0.0419	1
06951	Chromium	7440-47-3	26.5	0.112	1
06953	Copper	7440-50-8	25.4	0.229	1
06955	Lead	7439-92-1	30.0	0.597	1
06958	Manganese	7439-96-5	825	0.105	1
06961	Nickel	7440-02-0	22.4	0.140	1
06936	Selenium	7782-49-2	2.93	0.914	1
06966	Silver	7440-22-4	0.424 J	0.178	1
06972	Zinc	7440-66-6	91.0	0.254	1
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	26.5	3.2	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0614 J	0.0130	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.22	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.23	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	3.2	5
Reporting limits were raised due to interference from the sample matrix.					
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	22.8	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: POC-TSC2 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850759
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:00 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

CTCS2 SDG#: TAP03-27

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 23:13	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 07:33	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 23:20	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 18:53	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:44	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 11:01	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 11:01	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:44	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 11:01	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 11:01	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:44	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 11:01	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:44	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:44	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 11:01	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:44	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:06	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:25	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:43	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	5

Sample Description: POC-TSC2 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850759
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:00 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

CTCS2 SDG#: TAP03-27

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TS5 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850760
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:35 by JC

ExxonMobil Refining & Supply

Submitted: 11/07/2012 09:20

Global Remed.-Major Projects

Reported: 11/19/2012 14:59

38 Varick Street

Brooklyn NY 11222

OCT55 SDG#: TAP03-28

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	0.93
10237	Benzene	71-43-2	N.D.	0.0006	0.93
10237	2-Butanone	78-93-3	N.D.	0.005	0.93
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.93
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.93
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.93
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.93
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.93
10237	Chloroform	67-66-3	N.D.	0.001	0.93
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.93
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.93
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.93
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.93
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.93
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.93
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.93
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.93
10237	1,4-Dioxane	123-91-1	N.D.	0.083	0.93
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.93
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	0.93
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.93
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.93
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.93
10237	Toluene	108-88-3	N.D.	0.001	0.93
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.93
10237	Trichloroethene	79-01-6	N.D.	0.001	0.93
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.93
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.93
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.93
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.93
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.93

Wet Chemistry SM20 2540 G %
00111 Moisture n.a. 22.0 0.50 1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: POC-TS5 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850760
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:35 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

OCT55 SDG#: TAP03-28

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123131AA	11/08/2012 13:08	Angela D Sneeringer	0.93
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:48	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TS6 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850761
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:40 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects.

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

OCTS6 SDG#: TAP03-29

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	0.92
10237	Benzene	71-43-2	N.D.	0.0006	0.92
10237	2-Butanone	78-93-3	N.D.	0.005	0.92
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.92
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.92
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.92
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.92
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.92
10237	Chloroform	67-66-3	N.D.	0.001	0.92
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.92
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.92
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.92
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.92
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.92
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.92
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.92
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.92
10237	1,4-Dioxane	123-91-1	N.D.	0.081	0.92
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.92
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	0.92
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.92
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.92
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.92
10237	Toluene	108-88-3	N.D.	0.001	0.92
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.92
10237	Trichloroethene	79-01-6	N.D.	0.001	0.92
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.92
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.92
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.92
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.92
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.92
Wet Chemistry	SM20 2540 G	%	%		
00111	Moisture	n.a.	20.7	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: POC-TS6 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850761
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:40 by JC

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38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

OCTS6 SDG#: TAP03-29

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123131AA	11/08/2012 15:25	Angela D Sneeringer	0.92
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:49	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TS7 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850762
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:45 by JC

ExxonMobil Refining & Supply

Submitted: 11/07/2012 09:20

Global Remed.-Major Projects

Reported: 11/19/2012 14:59

38 Varick Street

Brooklyn NY 11222

OCTS7 SDG#: TAP03-30

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.009	1
10237	Benzene	71-43-2	N.D.	0.0006	1
10237	2-Butanone	78-93-3	N.D.	0.005	1
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1
10237	Chlorobenzene	108-90-7	N.D.	0.001	1
10237	Chloroform	67-66-3	N.D.	0.001	1
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1
10237	1,4-Dioxane	123-91-1	N.D.	0.090	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	1
10237	Methylene Chloride	75-09-2	N.D.	0.003	1
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1
10237	Toluene	108-88-3	N.D.	0.001	1
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1
10237	Trichloroethene	79-01-6	N.D.	0.001	1
10237	Trichlorofluoromethane	75-69-4	N.D.	0.003	1
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1
Wet Chemistry	SM20 2540 G	%	%		
00111	Moisture	n.a.	22.4	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: POC-TS7 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850762
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:45 by JC

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Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

OCTS7 SDG#: TAP03-30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	A123131AA	11/08/2012 03:35	Stephanie A Selis	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:51	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TS8 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850763
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:50 by JC

ExxonMobil Refining & Supply

Submitted: 11/07/2012 09:20

Global Remed.-Major Projects

Reported: 11/19/2012 14:59

38 Varick Street

Brooklyn NY 11222

OCTS8 SDG#: TAP03-31

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.01	1.05
10237	Benzene	71-43-2	N.D.	0.0007	1.05
10237	2-Butanone	78-93-3	N.D.	0.005	1.05
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.05
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.05
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.05
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.05
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.05
10237	Chloroform	67-66-3	N.D.	0.001	1.05
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.05
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.05
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.05
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.05
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.05
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.05
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.05
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.05
10237	1,4-Dioxane	123-91-1	N.D.	0.096	1.05
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.05
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0007	1.05
10237	Methylene Chloride	75-09-2	N.D.	0.003	1.05
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.05
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.05
10237	Toluene	108-88-3	N.D.	0.001	1.05
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.05
10237	Trichloroethene	79-01-6	N.D.	0.001	1.05
10237	Trichlorofluoromethane	75-69-4	N.D.	0.003	1.05
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.05
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.05
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.05
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.05
Wet Chemistry	SM20 2540 G	%	%		
00111	Moisture	n.a.	22.7	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: POC-TS8 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850763
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:50 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

OCTS8 SDG#: TAP03-31

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	A123131AA	11/08/2012 03:57	Stephanie A Selis	1.05
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:40	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TSC3 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850764
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:25 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

CTCS3 SDG#: TAP03-32

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	7 J	4	1
10727	Acenaphthylene	208-96-8	9 J	4	1
10727	Anthracene	120-12-7	24	4	1
10727	Benzo(a)anthracene	56-55-3	70	4	1
10727	Benzo(a)pyrene	50-32-8	71	4	1
10727	Benzo(b)fluoranthene	205-99-2	100	4	1
10727	Benzo(g,h,i)perylene	191-24-2	53	4	1
10727	Benzo(k)fluoranthene	207-08-9	38	4	1
10727	Chrysene	218-01-9	72	4	1
10727	Dibenz(a,h)anthracene	53-70-3	15 J	4	1
10727	Dibenzofuran	132-64-9	N.D.	21	1
10727	Fluoranthene	206-44-0	140	4	1
10727	Fluorene	86-73-7	9 J	4	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	43	4	1
10727	2-Methylphenol	95-48-7	N.D.	21	1
10727	4-Methylphenol	106-44-5	25 J	21	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	14 J	4	1
10727	Pentachlorophenol	87-86-5	N.D.	43	1
10727	Phenanthrene	85-01-8	100	4	1
10727	Phenol	108-95-2	N.D.	21	1
10727	Pyrene	129-00-0	130	4	1
Herbicides	SW-846 8151A		ug/kg	ug/kg	
10401	2,4,5-TP	93-72-1	N.D.	0.97	1
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	
10738	Aldrin	309-00-2	N.D.	0.22	1
10738	Alpha BHC	319-84-6	N.D.	0.27	1
10738	Beta BHC	319-85-7	N.D.	1.2	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.22	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.89	1
10738	p,p-DDD	72-54-8	N.D.	1.2	1
10738	p,p-DDE	72-55-9	2.8	0.43	1
10738	p,p-DDT	50-29-3	2.4	0.45	1
10738	Delta BHC	319-86-8	N.D.	0.58	1
10738	Dieldrin	60-57-1	1.2 J	0.43	1
10738	Endosulfan I	959-98-8	N.D.	0.28	1
10738	Endosulfan II	33213-65-9	0.49 J	0.43	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.43	1
10738	Endrin	72-20-8	N.D.	1.4	1
10738	HCB	118-74-1	0.80 J	0.27	1
10738	Heptachlor	76-44-8	N.D.	0.36	1
Reporting limits were raised due to interference from the sample matrix.					
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	4.7	1

Sample Description: POC-TSC3 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850764
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:25 by JC

ExxonMobil Refining & Supply

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Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

CTCS3 SDG#: TAP03-32

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1221	11104-28-2	N.D.	6.0	1
10736	PCB-1232	11141-16-5	N.D.	10	1
10736	PCB-1242	53469-21-9	N.D.	4.3	1
10736	PCB-1248	12672-29-6	N.D.	4.3	1
10736	PCB-1254	11097-69-1	N.D.	10	1
10736	PCB-1260	11096-82-5	N.D.	6.4	1

Reporting limits were raised due to interference from the sample matrix.

Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	5.16	0.416	1
06946	Barium	7440-39-3	143	0.0416	1
06947	Beryllium	7440-41-7	1.12	0.0844	1
06949	Cadmium	7440-43-9	0.287 J	0.0416	1
06951	Chromium	7440-47-3	27.4	0.111	1
06953	Copper	7440-50-8	20.4	0.227	1
06955	Lead	7439-92-1	33.6	0.592	1
06958	Manganese	7439-96-5	1,070	0.105	1
06961	Nickel	7440-02-0	28.5	0.139	1
06936	Selenium	7782-49-2	3.42	0.907	1
06966	Silver	7440-22-4	0.448 J	0.176	1
06972	Zinc	7440-66-6	108	0.252	1

SW-846 6010B modified mg/kg mg/kg

02829 Trivalent Chromium soils 16065-83-1 27.4 3.2 1

00159 Mercury SW-846 7471A 7439-97-6 0.0686 J 0.0131 1

Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.22	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.23	1

		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	3.2	5

Reporting limits were raised due to interference from the sample matrix.

Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	22.9	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

Sample Description: POC-TSC3 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850764
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:25 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

CTCS3 SDG#: TAP03-32

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 23:36	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a)	SW-846 8151A	1	123120022A	11/09/2012 08:00	Matthew S Listner	1
	Herbicides						
10738	Table 375-6.8(a)	SW-846 8081A	1	123130020A	11/13/2012 23:34	Jamie L Brillhart	1
	Pesticides						
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 19:07	Jessica L Miller	1
10497	PCB Microwave Soil	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
	Extraction						
10496	PPL Pest. Microwave	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
	Extraction						
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:48	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 11:05	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 11:05	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:48	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 11:05	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 11:05	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:48	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 11:05	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:48	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:48	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 11:05	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:48	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:08	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:27	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:44	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
	Distill						
05896	Cyanide Solid	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
	Distillation						
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	5

Sample Description: POC-TSC3 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850764
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:25 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

CTCS3 SDG#: TAP03-32

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TSC4 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850765
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:30 by JC

ExxonMobil Refining & Supply

Submitted: 11/07/2012 09:20

Global Remed.-Major Projects

Reported: 11/19/2012 14:59

38 Varick Street

Brooklyn NY 11222

CTCS4 SDG#: TAP03-33

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	7 J	4	1
10727	Acenaphthylene	208-96-8	7 J	4	1
10727	Anthracene	120-12-7	20 J	4	1
10727	Benzo(a)anthracene	56-55-3	66	4	1
10727	Benzo(a)pyrene	50-32-8	74	4	1
10727	Benzo(b)fluoranthene	205-99-2	100	4	1
10727	Benzo(g,h,i)perylene	191-24-2	54	4	1
10727	Benzo(k)fluoranthene	207-08-9	42	4	1
10727	Chrysene	218-01-9	70	4	1
10727	Dibenz(a,h)anthracene	53-70-3	17 J	4	1
10727	Dibenzofuran	132-64-9	N.D.	21	1
10727	Fluoranthene	206-44-0	130	4	1
10727	Fluorene	86-73-7	8 J	4	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	45	4	1
10727	2-Methylphenol	95-48-7	N.D.	21	1
10727	4-Methylphenol	106-44-5	35 J	21	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	15 J	4	1
10727	Pentachlorophenol	87-86-5	N.D.	42	1
10727	Phenanthrene	85-01-8	81	4	1
10727	Phenol	108-95-2	N.D.	21	1
10727	Pyrene	129-00-0	130	4	1

Herbicides	SW-846 8151A	ug/kg	ug/kg	
10401 2,4,5-TP	93-72-1	N.D.	0.96	1

Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg	
10738 Aldrin	309-00-2	0.30 J	0.22	1
10738 Alpha BHC	319-84-6	N.D.	0.22	1
10738 Beta BHC	319-85-7	N.D.	1.2	1
10738 Gamma BHC - Lindane	58-89-9	N.D.	0.22	1
10738 Alpha Chlordane	5103-71-9	N.D.	2.2	1
10738 p,p-DDD	72-54-8	N.D.	2.1	1
10738 p,p-DDE	72-55-9	2.2	0.42	1
10738 p,p-DDT	50-29-3	3.5	0.45	1
10738 Delta BHC	319-86-8	N.D.	0.58	1
10738 Dieldrin	60-57-1	N.D.	3.1	1
10738 Endosulfan I	959-98-8	N.D.	0.28	1
10738 Endosulfan II	33213-65-9	0.83 J	0.42	1
10738 Endosulfan Sulfate	1031-07-8	N.D.	0.42	1
10738 Endrin	72-20-8	N.D.	1.1	1
10738 HCB	118-74-1	1.5	0.27	1
10738 Heptachlor	76-44-8	N.D.	0.75	1

Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg	
10736 PCB-1016	12674-11-2	N.D.	4.6	1

Sample Description: POC-TSC4 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850765
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:30 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

CTCS4 SDG#: TAP03-33

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs					
	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1221	11104-28-2	N.D.	5.9	1
10736	PCB-1232	11141-16-5	N.D.	10	1
10736	PCB-1242	53469-21-9	N.D.	4.2	1
10736	PCB-1248	12672-29-6	N.D.	4.2	1
10736	PCB-1254	11097-69-1	7.5 J	4.2	1
10736	PCB-1260	11096-82-5	7.0 J	6.3	1
Metals					
	SW-846 6010B		mg/kg	mg/kg	
06935	Arsenic	7440-38-2	7.43	0.416	1
06946	Barium	7440-39-3	142	0.0416	1
06947	Beryllium	7440-41-7	1.05	0.0845	1
06949	Cadmium	7440-43-9	0.194 J	0.0416	1
06951	Chromium	7440-47-3	26.9	0.111	1
06953	Copper	7440-50-8	17.4	0.227	1
06955	Lead	7439-92-1	30.5	0.593	1
06958	Manganese	7439-96-5	567	0.105	1
06961	Nickel	7440-02-0	23.2	0.139	1
06936	Selenium	7782-49-2	3.03	0.908	1
06966	Silver	7440-22-4	0.327 J	0.177	1
06972	Zinc	7440-66-6	91.6	0.252	1
	SW-846 6010B modified		mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	26.9	3.2	1
	SW-846 7471A		mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0689 J	0.0130	1
Wet Chemistry					
	SW-846 9012B		mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.22	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.22	1
	SW-846 7196A		mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	3.2	5
Reporting limits were raised due to interference from the sample matrix.					
Wet Chemistry					
	SM20 2540 G		%	%	
00111	Moisture	n.a.	22.3	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: POC-TSC4 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850765
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:30 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

CTCS4 SDG#: TAP03-33

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 23:58	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123140018A	11/12/2012 18:43	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 23:49	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 19:22	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	2	123140018A	11/10/2012 06:30	Karen L Beyer	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:53	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 11:09	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 11:09	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:53	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 11:09	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 11:09	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:53	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 11:09	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:53	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:53	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 11:09	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:53	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:10	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201B	11/12/2012 07:28	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201B	11/09/2012 07:45	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid	SW-846 9012B	1	12314103201B	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201B	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	5

Sample Description: POC-TSC4 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850765
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:30 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

CTCS4 SDG#: TAP03-33

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TS9 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850766
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:55 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

OCTS9 SDG#: TAP03-34

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.009	0.99
10237	Benzene	71-43-2	N.D.	0.0006	0.99
10237	2-Butanone	78-93-3	N.D.	0.005	0.99
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.99
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.99
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.99
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.99
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.99
10237	Chloroform	67-66-3	N.D.	0.001	0.99
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.99
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.99
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.99
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.99
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.99
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.99
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.99
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.99
10237	1,4-Dioxane	123-91-1	N.D.	0.089	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	0.99
10237	Methylene Chloride	75-09-2	N.D.	0.003	0.99
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.99
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.99
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.99
10237	Trichloroethene	79-01-6	N.D.	0.001	0.99
10237	Trichlorofluoromethane	75-69-4	N.D.	0.003	0.99
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.99
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.99
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.99

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	22.5	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: POC-TS9 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850766
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:55 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

OCTS9 SDG#: TAP03-34

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	A123131AA	11/08/2012 04:20	Stephanie A Selis	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:41	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TS10 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850767
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:00 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

CTS10 SDG#: TAP03-35

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	0.93
10237	Benzene	71-43-2	N.D.	0.0006	0.93
10237	2-Butanone	78-93-3	N.D.	0.005	0.93
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.93
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.93
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.93
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.93
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.93
10237	Chloroform	67-66-3	N.D.	0.001	0.93
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.93
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.93
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.93
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.93
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.93
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.93
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.93
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.93
10237	1,4-Dioxane	123-91-1	N.D.	0.083	0.93
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.93
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	0.93
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.93
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.93
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.93
10237	Toluene	108-88-3	N.D.	0.001	0.93
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.93
10237	Trichloroethene	79-01-6	N.D.	0.001	0.93
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.93
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.93
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.93
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.93
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.93

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	21.6	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: POC-TS10 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850767
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:00 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTS10 SDG#: TAP03-35

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	A123131AA	11/08/2012 06:36	Stephanie A Selis	0.93
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:43	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TS11 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850768
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:05 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

CTS11 SDG#: TAP03-36

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.009	1.01
10237	Benzene	71-43-2	N.D.	0.0007	1.01
10237	2-Butanone	78-93-3	N.D.	0.005	1.01
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.01
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.01
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.01
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.01
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.01
10237	Chloroform	67-66-3	N.D.	0.001	1.01
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.01
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.01
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.01
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.01
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.01
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.01
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.01
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.01
10237	1,4-Dioxane	123-91-1	N.D.	0.091	1.01
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.01
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0007	1.01
10237	Methylene Chloride	75-09-2	N.D.	0.003	1.01
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.01
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.01
10237	Toluene	108-88-3	N.D.	0.001	1.01
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.01
10237	Trichloroethene	79-01-6	N.D.	0.001	1.01
10237	Trichlorofluoromethane	75-69-4	N.D.	0.003	1.01
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.01
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.01
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.01
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.01

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	22.4	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: POC-TS11 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850768
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:05 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTS11 SDG#: TAP03-36

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	A123131AA	11/08/2012 05:05	Stephanie A Selis	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:38	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TS12 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850769
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:10 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

CTS12 SDG#: TAP03-37

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	0.93
10237	Benzene	71-43-2	N.D.	0.0006	0.93
10237	2-Butanone	78-93-3	N.D.	0.005	0.93
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.93
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.93
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.93
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.93
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.93
10237	Chloroform	67-66-3	N.D.	0.001	0.93
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.93
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.93
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.93
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.93
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.93
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.93
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.93
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.93
10237	1,4-Dioxane	123-91-1	N.D.	0.082	0.93
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.93
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	0.93
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.93
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.93
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.93
10237	Toluene	108-88-3	0.001 J	0.001	0.93
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.93
10237	Trichloroethene	79-01-6	N.D.	0.001	0.93
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.93
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.93
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.93
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.93
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.93

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	21.3	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: POC-TS12 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850769
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:10 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTS12 SDG#: TAP03-37

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	A123131AA	11/08/2012 07:28	Stephanie A Selis	0.93
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:36	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TSC5 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850770
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:15 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCSS SDG#: TAP03-38

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	5 J	4	1
10727	Acenaphthylene	208-96-8	7 J	4	1
10727	Anthracene	120-12-7	14 J	4	1
10727	Benzo(a)anthracene	56-55-3	50	4	1
10727	Benzo(a)pyrene	50-32-8	57	4	1
10727	Benzo(b)fluoranthene	205-99-2	78	4	1
10727	Benzo(g,h,i)perylene	191-24-2	43	4	1
10727	Benzo(k)fluoranthene	207-08-9	33	4	1
10727	Chrysene	218-01-9	54	4	1
10727	Dibenz(a,h)anthracene	53-70-3	12 J	4	1
10727	Dibenzofuran	132-64-9	N.D.	21	1
10727	Fluoranthene	206-44-0	94	4	1
10727	Fluorene	86-73-7	5 J	4	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	36	4	1
10727	2-Methylphenol	95-48-7	N.D.	21	1
10727	4-Methylphenol	106-44-5	N.D.	21	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	11 J	4	1
10727	Pentachlorophenol	87-86-5	N.D.	42	1
10727	Phenanthrene	85-01-8	57	4	1
10727	Phenol	108-95-2	N.D.	21	1
10727	Pyrene	129-00-0	92	4	1
Herbicides	SW-846 8151A	ug/kg	ug/kg		
10401	2,4,5-TP	93-72-1	N.D.	0.96	1
Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg		
10738	Aldrin	309-00-2	N.D.	0.27	1
10738	Alpha BHC	319-84-6	0.92 J	0.22	1
10738	Beta BHC	319-85-7	N.D.	1.2	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.97	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.22	1
10738	p,p-DDD	72-54-8	N.D.	2.3	1
10738	p,p-DDE	72-55-9	3.7	0.42	1
10738	p,p-DDT	50-29-3	2.9	0.45	1
10738	Delta BHC	319-86-8	N.D.	0.57	1
10738	Dieldrin	60-57-1	2.1 J	0.42	1
10738	Endosulfan I	959-98-8	0.64 J	0.28	1
10738	Endosulfan II	33213-65-9	0.60 J	0.42	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.42	1
10738	Endrin	72-20-8	N.D.	1.0	1
10738	HCB	118-74-1	3.1	0.27	1
10738	Heptachlor	76-44-8	N.D.	0.41	1
Reporting limits were raised due to interference from the sample matrix.					
Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg		
10736	PCB-1016	12674-11-2	N.D.	4.7	1

Sample Description: POC-TSC5 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850770
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:15 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS5 SDG#: TAP03-38

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs					
	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1221	11104-28-2	N.D.	6.0	1
10736	PCB-1232	11141-16-5	N.D.	10	1
10736	PCB-1242	53469-21-9	N.D.	4.3	1
10736	PCB-1248	12672-29-6	N.D.	4.3	1
10736	PCB-1254	11097-69-1	8.4 J	4.3	1
10736	PCB-1260	11096-82-5	6.9 J	6.3	1
Metals					
	SW-846 6010B		mg/kg	mg/kg	
06935	Arsenic	7440-38-2	6.55	0.414	1
06946	Barium	7440-39-3	164	0.0414	1
06947	Beryllium	7440-41-7	1.29	0.0842	1
06949	Cadmium	7440-43-9	0.160 J	0.0414	1
06951	Chromium	7440-47-3	29.2	0.111	1
06953	Copper	7440-50-8	23.2	0.226	1
06955	Lead	7439-92-1	24.2	0.590	1
06958	Manganese	7439-96-5	649	0.104	1
06961	Nickel	7440-02-0	24.3	0.138	1
06936	Selenium	7782-49-2	3.46	0.904	1
06966	Silver	7440-22-4	0.514 J	0.176	1
06972	Zinc	7440-66-6	92.6	0.251	1
	SW-846 6010B modified		mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	29.2	3.2	1
	SW-846 7471A		mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0550 J	0.0125	1
Wet Chemistry					
	SW-846 9012B		mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.22	1
05895	Total Cyanide (solid)	57-12-5	0.25 J	0.23	1
	SW-846 7196A		mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	3.2	5
Reporting limits were raised due to interference from the sample matrix.					
Wet Chemistry					
	SM20 2540 G		%	%	
00111	Moisture	n.a.	22.7	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: POC-TSC5 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850770
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:15 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

CTCS5 SDG#: TAP03-38

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/09/2012 00:21	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 08:54	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/14/2012 00:03	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 19:36	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:57	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 11:13	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 11:13	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:57	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 11:13	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 11:13	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:57	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 11:13	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:57	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:57	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 11:13	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:57	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:16	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201B	11/12/2012 07:31	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201B	11/09/2012 07:49	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201B	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201B	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	5

Sample Description: POC-TSC5 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850770
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:15 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS5 SDG#: TAP03-38

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TSC6 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850771
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:20 by JC

ExxonMobil Refining & Supply

Submitted: 11/07/2012 09:20

Global Remed.-Major Projects

Reported: 11/19/2012 14:59

38 Varick Street

Brooklyn NY 11222

CTCS6 SDG#: TAP03-39*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	7 J	4	1
10727	Acenaphthylene	208-96-8	8 J	4	1
10727	Anthracene	120-12-7	23	4	1
10727	Benzo(a)anthracene	56-55-3	65	4	1
10727	Benzo(a)pyrene	50-32-8	74	4	1
10727	Benzo(b)fluoranthene	205-99-2	100	4	1
10727	Benzo(g,h,i)perylene	191-24-2	68	4	1
10727	Benzo(k)fluoranthene	207-08-9	44	4	1
10727	Chrysene	218-01-9	74	4	1
10727	Dibenz(a,h)anthracene	53-70-3	23	4	1
10727	Dibenzofuran	132-64-9	N.D.	21	1
10727	Fluoranthene	206-44-0	140	4	1
10727	Fluorene	86-73-7	8 J	4	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	51	4	1
10727	2-Methylphenol	95-48-7	N.D.	21	1
10727	4-Methylphenol	106-44-5	N.D.	21	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	15 J	4	1
10727	Pentachlorophenol	87-86-5	N.D.	41	1
10727	Phenanthrene	85-01-8	98	4	1
10727	Phenol	108-95-2	N.D.	21	1
10727	Pyrene	129-00-0	130	4	1

Herbicides	SW-846 8151A	ug/kg	ug/kg
10401 2,4,5-TP	93-72-1	N.D.	0.93

Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg
10738 Aldrin	309-00-2	N.D.	0.21
10738 Alpha BHC	319-84-6	N.D.	0.56
10738 Beta BHC	319-85-7	N.D.	1.2
10738 Gamma BHC - Lindane	58-89-9	4.4	0.21
10738 Alpha Chlordane	5103-71-9	N.D.	0.21
10738 p,p-DDD	72-54-8	N.D.	1.8
10738 p,p-DDE	72-55-9	3.7	0.41
10738 p,p-DDT	50-29-3	2.0 J	0.44
10738 Delta BHC	319-86-8	N.D.	0.56
10738 Dieldrin	60-57-1	1.4 J	0.41
10738 Endosulfan I	959-98-8	N.D.	0.27
10738 Endosulfan II	33213-65-9	0.62 J	0.41
10738 Endosulfan Sulfate	1031-07-8	N.D.	0.41
10738 Endrin	72-20-8	N.D.	1.0
10738 HCB	118-74-1	4.5	0.26
10738 Heptachlor	76-44-8	0.63 J	0.21

Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg
10736 PCB-1016	12674-11-2	N.D.	4.5

Sample Description: POC-TSC6 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850771
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:20 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS6 SDG#: TAP03-39*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs					
	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1221	11104-28-2	N.D.	5.8	1
10736	PCB-1232	11141-16-5	N.D.	10	1
10736	PCB-1242	53469-21-9	N.D.	4.1	1
10736	PCB-1248	12672-29-6	N.D.	4.1	1
10736	PCB-1254	11097-69-1	12 J	4.1	1
10736	PCB-1260	11096-82-5	8.4 J	6.1	1
Metals					
	SW-846 6010B		mg/kg	mg/kg	
06935	Arsenic	7440-38-2	5.94	0.409	1
06946	Barium	7440-39-3	124	0.0409	1
06947	Beryllium	7440-41-7	1.07	0.0831	1
06949	Cadmium	7440-43-9	0.460 J	0.0409	1
06951	Chromium	7440-47-3	29.7	0.109	1
06953	Copper	7440-50-8	23.5	0.223	1
06955	Lead	7439-92-1	34.6	0.583	1
06958	Manganese	7439-96-5	1,860	0.515	5
06961	Nickel	7440-02-0	25.4	0.136	1
06936	Selenium	7782-49-2	4.12	0.893	1
06966	Silver	7440-22-4	0.633	0.174	1
06972	Zinc	7440-66-6	105	0.248	1
	SW-846 6010B modified		mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	29.7	3.1	1
	SW-846 7471A		mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.117 J	0.0127	1
Wet Chemistry					
	SW-846 9012B		mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.21	1
03895	Total Cyanide (solid)	57-12-5	N.D.	0.22	1
	SW-846 7196A		mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	3.1	5
Reporting limits were raised due to interference from the sample matrix.					
Wet Chemistry					
	SM20 2540 G		%	%	
00111	Moisture	n.a.	20.2	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: POC-TSC6 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850771
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:20 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 11/19/2012 14:59

Brooklyn NY 11222

CTCS6 SDG#: TAP03-39*

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/09/2012 00:44	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123140018A	11/12/2012 20:06	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/14/2012 00:17	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 19:51	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	2	123140018A	11/10/2012 06:30	Karen L Beyer	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 06:01	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 11:29	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 11:29	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 06:01	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 11:29	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 11:29	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 06:01	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 11:17	Joanne M Gates	5
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 06:01	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 06:01	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 11:29	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 06:01	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:19	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201B	11/12/2012 07:32	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201B	11/09/2012 07:50	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201B	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201B	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	5

Sample Description: POC-TSC6 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850771
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:20 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 11/19/2012 14:59

CTCS6 SDG#: TAP03-39*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Volatiles by GC/MS Data

Case Narrative/Conformance Summary

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP03

GC/MS Volatiles

Fraction: Volatiles by GC/MS

Sample #	Client ID	Matrix		DF	Comments
		Liquid	Solid		
6850733	TCN-ST9		X	0.98; 0.99	
6850734	TCN-ST10		X	0.98	
6850735	TCN-ST11		X	0.96	
6850736	TCN-ST12		X	1.02	
6850739	TCN-ST13		X	1.02	
6850740	TCN-ST14		X	1	
6850742	TCN-ST15		X	1.04	
6850743	TCN-ST16		X	0.99	
6850745	TCN-ST17		X	1.03	
6850746	TCN-ST18		X	1	
6850748	TCN-ST19		X	1.01	
6850749	TCN-ST20		X	1.02	
6850751	TCN-ST21		X	0.97	
6850752	TCN-ST22		X	0.97	
6850754	TCN-ST23		X	0.95	
6850755	TCN-ST24		X	0.98	
6850757	POC-TS3		X	1.01	
6850758	POC-TS4		X	0.97	
6850760	POC-TS5		X	0.93	
6850761	POC-TS6		X	0.92	
6850762	POC-TS7		X	1; 1.05	
6850763	POC-TS8		X	1.05	
6850766	POC-TS9		X	0.99	
6850767	POC-TS10		X	0.93	
6850768	POC-TS11		X	1.01	
6850769	POC-TS12		X	0.93	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP03

GC/MS Volatiles

Fraction: Volatiles by GC/MS

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Method Blank

For noncompliant preparation/method blanks, corrective action is not required if the sample is ND or > 10 times the blank concentration, unless otherwise specified in the method or by the client.

MS/MSD

Please note that US EPA Methods for organic compounds do not require action by the laboratory based on out-of-specification MS/MSD results.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Narrative Reviewed and Approved 11/14/12 by
(Date)


Kathy J. Fair
Specialist

Sample Data

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST9

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850733

Sample wt/vol: 5.03 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s30.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.020	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.260	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST9

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850733

Sample wt/vol: 5.03 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s30.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/07/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.005	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST10

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850734

Sample wt/vol: 5.11 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s31.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 4 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.020	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.250	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST10

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850734

Sample wt/vol: 5.11 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s31.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 4 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----	1,2-Dichlorobenzene	0.005	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST11

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850735

Sample wt/vol: 5.23 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s32.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.020	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.250	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST11

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850735

Sample wt/vol: 5.23 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s32.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.005	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST12

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850736

Sample wt/vol: 4.91 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s33.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.021	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.260	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST12

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850736

Sample wt/vol: 4.91 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s33.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.005	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST13

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850739

Sample wt/vol: 4.92 (g/mL) g

Lab File ID: HP09953.i/12nov08a.b/bn08s04.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4	Vinyl Chloride	0.005	U
75-69-4	Trichlorofluoromethane	0.005	U
75-35-4	1,1-Dichloroethene	0.005	U
67-64-1	Acetone	0.021	U
75-09-2	Methylene Chloride	0.005	U
1634-04-4	Methyl Tertiary Butyl Ether	0.005	U
156-60-5	trans-1,2-Dichloroethene	0.005	U
75-34-3	1,1-Dichloroethane	0.005	U
78-93-3	2-Butanone	0.010	U
156-59-2	cis-1,2-Dichloroethene	0.005	U
67-66-3	Chloroform	0.005	U
71-55-6	1,1,1-Trichloroethane	0.005	U
56-23-5	Carbon Tetrachloride	0.005	U
71-43-2	Benzene	0.005	U
107-06-2	1,2-Dichloroethane	0.005	U
79-01-6	Trichloroethene	0.005	U
123-91-1	1,4-Dioxane	0.260	U
108-88-3	Toluene	0.005	U
127-18-4	Tetrachloroethene	0.005	U
108-90-7	Chlorobenzene	0.005	U
100-41-4	Ethylbenzene	0.005	U
1330-20-7	Xylene (Total)	0.005	U
103-65-1	n-Propylbenzene	0.005	U
108-67-8	1,3,5-Trimethylbenzene	0.005	U
98-06-6	tert-Butylbenzene	0.005	U
95-63-6	1,2,4-Trimethylbenzene	0.005	U
135-98-8	sec-Butylbenzene	0.005	U
541-73-1	1,3-Dichlorobenzene	0.005	U
106-46-7	1,4-Dichlorobenzene	0.005	U
104-51-8	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST13

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850739

Sample wt/vol: 4.92 (g/mL) g Lab File ID: HP09953.i/12nov08a.b/bn08s04.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----1,2-Dichlorobenzene	0.005	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST14

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850740

Sample wt/vol: 4.98 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s35.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.021	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.260	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST14

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850740

Sample wt/vol: 4.98 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s35.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.005	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST15

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850742

Sample wt/vol: 4.83 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s36.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.021	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.011	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.270	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST15

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850742

Sample wt/vol: 4.83 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s36.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.005	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST16

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850743

Sample wt/vol: 5.03 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s37.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.020	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.260	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST16

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850743

Sample wt/vol: 5.03 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s37.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.005	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST17

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850745

Sample wt/vol: 4.84 (g/mL) ~ g

Lab File ID: HP09953.i/12nov08a.b/bn08s07.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 4

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4	Vinyl Chloride	0.005	U
75-69-4	Trichlorofluoromethane	0.005	U
75-35-4	1,1-Dichloroethene	0.005	U
67-64-1	Acetone	0.022	U
75-09-2	Methylene Chloride	0.005	U
1634-04-4	Methyl Tertiary Butyl Ether	0.005	U
156-60-5	trans-1,2-Dichloroethene	0.005	U
75-34-3	1,1-Dichloroethane	0.005	U
78-93-3	2-Butanone	0.011	U
156-59-2	cis-1,2-Dichloroethene	0.005	U
67-66-3	Chloroform	0.005	U
71-55-6	1,1,1-Trichloroethane	0.005	U
56-23-5	Carbon Tetrachloride	0.005	U
71-43-2	Benzene	0.005	U
107-06-2	1,2-Dichloroethane	0.005	U
79-01-6	Trichloroethene	0.005	U
123-91-1	1,4-Dioxane	0.270	U
108-88-3	Toluene	0.005	U
127-18-4	Tetrachloroethene	0.005	U
108-90-7	Chlorobenzene	0.005	U
100-41-4	Ethylbenzene	0.005	U
1330-20-7	Xylene (Total)	0.005	U
103-65-1	n-Propylbenzene	0.005	U
108-67-8	1,3,5-Trimethylbenzene	0.005	U
98-06-6	tert-Butylbenzene	0.005	U
95-63-6	1,2,4-Trimethylbenzene	0.005	U
135-98-8	sec-Butylbenzene	0.005	U
541-73-1	1,3-Dichlorobenzene	0.005	U
106-46-7	1,4-Dichlorobenzene	0.005	U
104-51-8	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST17

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850745

Sample wt/vol: 4.84 (g/mL) g Lab File ID: HP09953.i/12nov08a.b/bn08s07.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 4 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----1,2-Dichlorobenzene	0.005	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST18

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850746

Sample wt/vol: 4.99 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s38.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.021	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.260	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST18

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850746

Sample wt/vol: 4.99 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s38.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.005	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST19

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850748

Sample wt/vol: 4.96 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s39.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.021	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.260	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST19

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850748

Sample wt/vol: 4.96 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s39.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.005	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST20

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850749

Sample wt/vol: 4.92 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s40.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 4

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.021	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.011	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.260	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST20

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850749

Sample wt/vol: 4.92 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s40.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 4

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(mg/L or mg/Kg) mg/Kg

Q

95-50-1-----	1,2-Dichlorobenzene	0.005	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST21

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850751

Sample wt/vol: 5.18 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s41.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.020	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.250	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST21

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850751

Sample wt/vol: 5.18 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s41.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.005	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST22

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850752

Sample wt/vol: 5.15 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s42.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.020	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.250	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST22

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850752

Sample wt/vol: 5.15 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s42.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.005	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST23

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850754

Sample wt/vol: 5.28 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s43.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.020	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.240	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST23

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850754

Sample wt/vol: 5.28 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s43.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.005	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST24

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850755

Sample wt/vol: 5.08 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s44.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.020	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.250	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST24

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850755

Sample wt/vol: 5.08 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s44.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.005	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS3

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850757

Sample wt/vol: 4.93 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s45.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 22 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.007	U
75-69-4-----	Trichlorofluoromethane	0.007	U
75-35-4-----	1,1-Dichloroethene	0.007	U
67-64-1-----	Acetone	0.026	U
75-09-2-----	Methylene Chloride	0.007	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.007	U
156-60-5-----	trans-1,2-Dichloroethene	0.007	U
75-34-3-----	1,1-Dichloroethane	0.007	U
78-93-3-----	2-Butanone	0.013	U
156-59-2-----	cis-1,2-Dichloroethene	0.007	U
67-66-3-----	Chloroform	0.007	U
71-55-6-----	1,1,1-Trichloroethane	0.007	U
56-23-5-----	Carbon Tetrachloride	0.007	U
71-43-2-----	Benzene	0.007	U
107-06-2-----	1,2-Dichloroethane	0.007	U
79-01-6-----	Trichloroethene	0.007	U
123-91-1-----	1,4-Dioxane	0.330	U
108-88-3-----	Toluene	0.007	U
127-18-4-----	Tetrachloroethene	0.007	U
108-90-7-----	Chlorobenzene	0.007	U
100-41-4-----	Ethylbenzene	0.007	U
1330-20-7-----	Xylene (Total)	0.007	U
103-65-1-----	n-Propylbenzene	0.007	U
108-67-8-----	1,3,5-Trimethylbenzene	0.007	U
98-06-6-----	tert-Butylbenzene	0.007	U
95-63-6-----	1,2,4-Trimethylbenzene	0.007	U
135-98-8-----	sec-Butylbenzene	0.007	U
541-73-1-----	1,3-Dichlorobenzene	0.007	U
106-46-7-----	1,4-Dichlorobenzene	0.007	U
104-51-8-----	n-Butylbenzene	0.007	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS3

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850757

Sample wt/vol: 4.93 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s45.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 22 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.007	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS4

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850758

Sample wt/vol: 5.14 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s46.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 22 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.006	U
75-69-4-----	Trichlorofluoromethane	0.006	U
75-35-4-----	1,1-Dichloroethene	0.006	U
67-64-1-----	Acetone	0.025	U
75-09-2-----	Methylene Chloride	0.006	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.006	U
156-60-5-----	trans-1,2-Dichloroethene	0.006	U
75-34-3-----	1,1-Dichloroethane	0.006	U
78-93-3-----	2-Butanone	0.012	U
156-59-2-----	cis-1,2-Dichloroethene	0.006	U
67-66-3-----	Chloroform	0.006	U
71-55-6-----	1,1,1-Trichloroethane	0.006	U
56-23-5-----	Carbon Tetrachloride	0.006	U
71-43-2-----	Benzene	0.006	U
107-06-2-----	1,2-Dichloroethane	0.006	U
79-01-6-----	Trichloroethene	0.006	U
123-91-1-----	1,4-Dioxane	0.310	U
108-88-3-----	Toluene	0.006	U
127-18-4-----	Tetrachloroethene	0.006	U
108-90-7-----	Chlorobenzene	0.006	U
100-41-4-----	Ethylbenzene	0.006	U
1330-20-7-----	Xylene (Total)	0.006	U
103-65-1-----	n-Propylbenzene	0.006	U
108-67-8-----	1,3,5-Trimethylbenzene	0.006	U
98-06-6-----	tert-Butylbenzene	0.006	U
95-63-6-----	1,2,4-Trimethylbenzene	0.006	U
135-98-8-----	sec-Butylbenzene	0.006	U
541-73-1-----	1,3-Dichlorobenzene	0.006	U
106-46-7-----	1,4-Dichlorobenzene	0.006	U
104-51-8-----	n-Butylbenzene	0.006	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS4

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850758

Sample wt/vol: 5.14 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s46.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 22 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----	1,2-Dichlorobenzene	0.006	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

OCTSS

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850760

Sample wt/vol: 5.39 (g/mL) g

Lab File ID: HP09953.i/12nov08a.b/bn08s05.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4	Vinyl Chloride	0.006	U
75-69-4	Trichlorofluoromethane	0.006	U
75-35-4	1,1-Dichloroethene	0.006	U
67-64-1	Acetone	0.024	U
75-09-2	Methylene Chloride	0.006	U
1634-04-4	Methyl Tertiary Butyl Ether	0.006	U
156-60-5	trans-1,2-Dichloroethene	0.006	U
75-34-3	1,1-Dichloroethane	0.006	U
78-93-3	2-Butanone	0.012	U
156-59-2	cis-1,2-Dichloroethene	0.006	U
67-66-3	Chloroform	0.006	U
71-55-6	1,1,1-Trichloroethane	0.006	U
56-23-5	Carbon Tetrachloride	0.006	U
71-43-2	Benzene	0.006	U
107-06-2	1,2-Dichloroethane	0.006	U
79-01-6	Trichloroethene	0.006	U
123-91-1	1,4-Dioxane	0.300	U
108-88-3	Toluene	0.006	U
127-18-4	Tetrachloroethene	0.006	U
108-90-7	Chlorobenzene	0.006	U
100-41-4	Ethylbenzene	0.006	U
1330-20-7	Xylene (Total)	0.006	U
103-65-1	n-Propylbenzene	0.006	U
108-67-8	1,3,5-Trimethylbenzene	0.006	U
98-06-6	tert-Butylbenzene	0.006	U
95-63-6	1,2,4-Trimethylbenzene	0.006	U
135-98-8	sec-Butylbenzene	0.006	U
541-73-1	1,3-Dichlorobenzene	0.006	U
106-46-7	1,4-Dichlorobenzene	0.006	U
104-51-8	n-Butylbenzene	0.006	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS5

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850760

Sample wt/vol: 5.39 (g/mL) g Lab File ID: HP09953.i/12nov08a.b/bn08s05.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 22 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----1,2-Dichlorobenzene	0.006	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS6

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850761

Sample wt/vol: 5.45 (g/mL) g

Lab File ID: HP09953.i/12nov08a.b/bn08s26.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 21

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4	Vinyl Chloride	0.006	U
75-69-4	Trichlorofluoromethane	0.006	U
75-35-4	1,1-Dichloroethene	0.006	U
67-64-1	Acetone	0.023	U
75-09-2	Methylene Chloride	0.006	U
1634-04-4	Methyl Tertiary Butyl Ether	0.006	U
156-60-5	trans-1,2-Dichloroethene	0.006	U
75-34-3	1,1-Dichloroethane	0.006	U
78-93-3	2-Butanone	0.012	U
156-59-2	cis-1,2-Dichloroethene	0.006	U
67-66-3	Chloroform	0.006	U
71-55-6	1,1,1-Trichloroethane	0.006	U
56-23-5	Carbon Tetrachloride	0.006	U
71-43-2	Benzene	0.006	U
107-06-2	1,2-Dichloroethane	0.006	U
79-01-6	Trichloroethene	0.006	U
123-91-1	1,4-Dioxane	0.290	U
108-88-3	Toluene	0.006	U
127-18-4	Tetrachloroethene	0.006	U
108-90-7	Chlorobenzene	0.006	U
100-41-4	Ethylbenzene	0.006	U
1330-20-7	Xylene (Total)	0.006	U
103-65-1	n-Propylbenzene	0.006	U
108-67-8	1,3,5-Trimethylbenzene	0.006	U
98-06-6	tert-Butylbenzene	0.006	U
95-63-6	1,2,4-Trimethylbenzene	0.006	U
135-98-8	sec-Butylbenzene	0.006	U
541-73-1	1,3-Dichlorobenzene	0.006	U
106-46-7	1,4-Dichlorobenzene	0.006	U
104-51-8	n-Butylbenzene	0.006	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS6

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850761

Sample wt/vol: 5.45 (g/mL) g Lab File ID: HP09953.i/12nov08a.b/bn08s26.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 21 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1	1,2-Dichlorobenzene	0.006	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS7

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850762

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s01.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.006	U
75-69-4-----	Trichlorofluoromethane	0.006	U
75-35-4-----	1,1-Dichloroethene	0.006	U
67-64-1-----	Acetone	0.026	U
75-09-2-----	Methylene Chloride	0.006	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.006	U
156-60-5-----	trans-1,2-Dichloroethene	0.006	U
75-34-3-----	1,1-Dichloroethane	0.006	U
78-93-3-----	2-Butanone	0.013	U
156-59-2-----	cis-1,2-Dichloroethene	0.006	U
67-66-3-----	Chloroform	0.006	U
71-55-6-----	1,1,1-Trichloroethane	0.006	U
56-23-5-----	Carbon Tetrachloride	0.006	U
71-43-2-----	Benzene	0.006	U
107-06-2-----	1,2-Dichloroethane	0.006	U
79-01-6-----	Trichloroethene	0.006	U
123-91-1-----	1,4-Dioxane	0.320	U
108-88-3-----	Toluene	0.006	U
127-18-4-----	Tetrachloroethene	0.006	U
108-90-7-----	Chlorobenzene	0.006	U
100-41-4-----	Ethylbenzene	0.006	U
1330-20-7-----	Xylene (Total)	0.006	U
103-65-1-----	n-Propylbenzene	0.006	U
108-67-8-----	1,3,5-Trimethylbenzene	0.006	U
98-06-6-----	tert-Butylbenzene	0.006	U
95-63-6-----	1,2,4-Trimethylbenzene	0.006	U
135-98-8-----	sec-Butylbenzene	0.006	U
541-73-1-----	1,3-Dichlorobenzene	0.006	U
106-46-7-----	1,4-Dichlorobenzene	0.006	U
104-51-8-----	n-Butylbenzene	0.006	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS7

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850762

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s01.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----	1,2-Dichlorobenzene	0.006	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS8

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850763

Sample wt/vol: 4.74 (g/mL) g Lab File ID: HP09685.i/12nov08a.b/an08s02.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 23 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.007	U
75-69-4-----	Trichlorofluoromethane	0.007	U
75-35-4-----	1,1-Dichloroethene	0.007	U
67-64-1-----	Acetone	0.027	U
75-09-2-----	Methylene Chloride	0.007	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.007	U
156-60-5-----	trans-1,2-Dichloroethene	0.007	U
75-34-3-----	1,1-Dichloroethane	0.007	U
78-93-3-----	2-Butanone	0.014	U
156-59-2-----	cis-1,2-Dichloroethene	0.007	U
67-66-3-----	Chloroform	0.007	U
71-55-6-----	1,1,1-Trichloroethane	0.007	U
56-23-5-----	Carbon Tetrachloride	0.007	U
71-43-2-----	Benzene	0.007	U
107-06-2-----	1,2-Dichloroethane	0.007	U
79-01-6-----	Trichloroethene	0.007	U
123-91-1-----	1,4-Dioxane	0.340	U
108-88-3-----	Toluene	0.007	U
127-18-4-----	Tetrachloroethene	0.007	U
108-90-7-----	Chlorobenzene	0.007	U
100-41-4-----	Ethylbenzene	0.007	U
1330-20-7-----	Xylene (Total)	0.007	U
103-65-1-----	n-Propylbenzene	0.007	U
108-67-8-----	1,3,5-Trimethylbenzene	0.007	U
98-06-6-----	tert-Butylbenzene	0.007	U
95-63-6-----	1,2,4-Trimethylbenzene	0.007	U
135-98-8-----	sec-Butylbenzene	0.007	U
541-73-1-----	1,3-Dichlorobenzene	0.007	U
106-46-7-----	1,4-Dichlorobenzene	0.007	U
104-51-8-----	n-Butylbenzene	0.007	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS8

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850763

Sample wt/vol: 4.74 (g/mL) g Lab File ID: HP09685.i/12nov08a.b/an08s02.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 23 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----1,2-Dichlorobenzene	0.007	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS9

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850766

Sample wt/vol: 5.06 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s03.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 23

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.006	U
75-69-4-----	Trichlorofluoromethane	0.006	U
75-35-4-----	1,1-Dichloroethene	0.006	U
67-64-1-----	Acetone	0.026	U
75-09-2-----	Methylene Chloride	0.006	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.006	U
156-60-5-----	trans-1,2-Dichloroethene	0.006	U
75-34-3-----	1,1-Dichloroethane	0.006	U
78-93-3-----	2-Butanone	0.013	U
156-59-2-----	cis-1,2-Dichloroethene	0.006	U
67-66-3-----	Chloroform	0.006	U
71-55-6-----	1,1,1-Trichloroethane	0.006	U
56-23-5-----	Carbon Tetrachloride	0.006	U
71-43-2-----	Benzene	0.006	U
107-06-2-----	1,2-Dichloroethane	0.006	U
79-01-6-----	Trichloroethene	0.006	U
123-91-1-----	1,4-Dioxane	0.320	U
108-88-3-----	Toluene	0.006	U
127-18-4-----	Tetrachloroethene	0.006	U
108-90-7-----	Chlorobenzene	0.006	U
100-41-4-----	Ethylbenzene	0.006	U
1330-20-7-----	Xylene (Total)	0.006	U
103-65-1-----	n-Propylbenzene	0.006	U
108-67-8-----	1,3,5-Trimethylbenzene	0.006	U
98-06-6-----	tert-Butylbenzene	0.006	U
95-63-6-----	1,2,4-Trimethylbenzene	0.006	U
135-98-8-----	sec-Butylbenzene	0.006	U
541-73-1-----	1,3-Dichlorobenzene	0.006	U
106-46-7-----	1,4-Dichlorobenzene	0.006	U
104-51-8-----	n-Butylbenzene	0.006	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS9

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850766

Sample wt/vol: 5.06 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s03.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 23

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----	1,2-Dichlorobenzene	0.006	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CTS10

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850767

Sample wt/vol: 5.40 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s22.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.006	U
75-69-4-----	Trichlorofluoromethane	0.006	U
75-35-4-----	1,1-Dichloroethene	0.006	U
67-64-1-----	Acetone	0.024	U
75-09-2-----	Methylene Chloride	0.006	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.006	U
156-60-5-----	trans-1,2-Dichloroethene	0.006	U
75-34-3-----	1,1-Dichloroethane	0.006	U
78-93-3-----	2-Butanone	0.012	U
156-59-2-----	cis-1,2-Dichloroethene	0.006	U
67-66-3-----	Chloroform	0.006	U
71-55-6-----	1,1,1-Trichloroethane	0.006	U
56-23-5-----	Carbon Tetrachloride	0.006	U
71-43-2-----	Benzene	0.006	U
107-06-2-----	1,2-Dichloroethane	0.006	U
79-01-6-----	Trichloroethene	0.006	U
123-91-1-----	1,4-Dioxane	0.300	U
108-88-3-----	Toluene	0.006	U
127-18-4-----	Tetrachloroethene	0.006	U
108-90-7-----	Chlorobenzene	0.006	U
100-41-4-----	Ethylbenzene	0.006	U
1330-20-7-----	Xylene (Total)	0.006	U
103-65-1-----	n-Propylbenzene	0.006	U
108-67-8-----	1,3,5-Trimethylbenzene	0.006	U
98-06-6-----	tert-Butylbenzene	0.006	U
95-63-6-----	1,2,4-Trimethylbenzene	0.006	U
135-98-8-----	sec-Butylbenzene	0.006	U
541-73-1-----	1,3-Dichlorobenzene	0.006	U
106-46-7-----	1,4-Dichlorobenzene	0.006	U
104-51-8-----	n-Butylbenzene	0.006	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CTS10

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850767

Sample wt/vol: 5.40 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s22.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(mg/L or mg/Kg) mg/Kg	Q
95-50-1-----	1,2-Dichlorobenzene	0.006	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CTS11

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850768

Sample wt/vol: 4.95 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s05.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.006	U
75-69-4-----	Trichlorofluoromethane	0.006	U
75-35-4-----	1,1-Dichloroethene	0.006	U
67-64-1-----	Acetone	0.026	U
75-09-2-----	Methylene Chloride	0.006	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.006	U
156-60-5-----	trans-1,2-Dichloroethene	0.006	U
75-34-3-----	1,1-Dichloroethane	0.006	U
78-93-3-----	2-Butanone	0.013	U
156-59-2-----	cis-1,2-Dichloroethene	0.006	U
67-66-3-----	Chloroform	0.006	U
71-55-6-----	1,1,1-Trichloroethane	0.006	U
56-23-5-----	Carbon Tetrachloride	0.006	U
71-43-2-----	Benzene	0.006	U
107-06-2-----	1,2-Dichloroethane	0.006	U
79-01-6-----	Trichloroethene	0.006	U
123-91-1-----	1,4-Dioxane	0.320	U
108-88-3-----	Toluene	0.006	U
127-18-4-----	Tetrachloroethene	0.006	U
108-90-7-----	Chlorobenzene	0.006	U
100-41-4-----	Ethylbenzene	0.006	U
1330-20-7-----	Xylene (Total)	0.006	U
103-65-1-----	n-Propylbenzene	0.006	U
108-67-8-----	1,3,5-Trimethylbenzene	0.006	U
98-06-6-----	tert-Butylbenzene	0.006	U
95-63-6-----	1,2,4-Trimethylbenzene	0.006	U
135-98-8-----	sec-Butylbenzene	0.006	U
541-73-1-----	1,3-Dichlorobenzene	0.006	U
106-46-7-----	1,4-Dichlorobenzene	0.006	U
104-51-8-----	n-Butylbenzene	0.006	U

EPA SAMPLE NO.

CTS11

Contract:

SDG No. :

Lab Sample ID: 6850768

Lab File ID: HP09685.i/12nov08a.b/an08s05.d

Date Received: 11/07/12

Date Analyzed: 11/08/12

Dilution Factor: 1.0

Q

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CTS12

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850769

Sample wt/vol: 5.40 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s23.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 21

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(mg/L or mg/Kg) mg/Kg	Q
75-01-4	Vinyl Chloride	0.006	U
75-69-4	Trichlorofluoromethane	0.006	U
75-35-4	1,1-Dichloroethene	0.006	U
67-64-1	Acetone	0.023	U
75-09-2	Methylene Chloride	0.006	U
1634-04-4	Methyl Tertiary Butyl Ether	0.006	U
156-60-5	trans-1,2-Dichloroethene	0.006	U
75-34-3	1,1-Dichloroethane	0.006	U
78-93-3	2-Butanone	0.012	U
156-59-2	cis-1,2-Dichloroethene	0.006	U
67-66-3	Chloroform	0.006	U
71-55-6	1,1,1-Trichloroethane	0.006	U
56-23-5	Carbon Tetrachloride	0.006	U
71-43-2	Benzene	0.006	U
107-06-2	1,2-Dichloroethane	0.006	U
79-01-6	Trichloroethene	0.006	U
123-91-1	1,4-Dioxane	0.290	U
108-88-3	Toluene	0.001	J
127-18-4	Tetrachloroethene	0.006	U
108-90-7	Chlorobenzene	0.006	U
100-41-4	Ethylbenzene	0.006	U
1330-20-7	Xylene (Total)	0.006	U
103-65-1	n-Propylbenzene	0.006	U
108-67-8	1,3,5-Trimethylbenzene	0.006	U
98-06-6	tert-Butylbenzene	0.006	U
95-63-6	1,2,4-Trimethylbenzene	0.006	U
135-98-8	sec-Butylbenzene	0.006	U
541-73-1	1,3-Dichlorobenzene	0.006	U
106-46-7	1,4-Dichlorobenzene	0.006	U
104-51-8	n-Butylbenzene	0.006	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CTS12

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850769

Sample wt/vol: 5.40 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s23.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 21

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----	1,2-Dichlorobenzene	0.006	U
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST9MS

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850733

Sample wt/vol: 5.09 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s50.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.017	B
75-69-4-----	Trichlorofluoromethane	0.021	
75-35-4-----	1,1-Dichloroethene	0.020	
67-64-1-----	Acetone	0.200	
75-09-2-----	Methylene Chloride	0.020	
1634-04-4-----	Methyl Tertiary Butyl Ether	0.020	
156-60-5-----	trans-1,2-Dichloroethene	0.020	
75-34-3-----	1,1-Dichloroethane	0.020	
78-93-3-----	2-Butanone	0.170	
156-59-2-----	cis-1,2-Dichloroethene	0.019	
67-66-3-----	Chloroform	0.019	
71-55-6-----	1,1,1-Trichloroethane	0.022	
56-23-5-----	Carbon Tetrachloride	0.020	
71-43-2-----	Benzene	0.019	
107-06-2-----	1,2-Dichloroethane	0.021	
79-01-6-----	Trichloroethene	0.022	
123-91-1-----	1,4-Dioxane	0.390	
108-88-3-----	Toluene	0.019	
127-18-4-----	Tetrachloroethene	0.031	
108-90-7-----	Chlorobenzene	0.018	
100-41-4-----	Ethylbenzene	0.018	
1330-20-7-----	Xylene (Total)	0.054	
103-65-1-----	n-Propylbenzene	0.016	
108-67-8-----	1,3,5-Trimethylbenzene	0.019	
98-06-6-----	tert-Butylbenzene	0.017	
95-63-6-----	1,2,4-Trimethylbenzene	0.019	
135-98-8-----	sec-Butylbenzene	0.019	
541-73-1-----	1,3-Dichlorobenzene	0.018	
106-46-7-----	1,4-Dichlorobenzene	0.018	
104-51-8-----	n-Butylbenzene	0.018	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST9MS

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850733

Sample wt/vol: 5.09 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s50.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.018	
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS7MS

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850762

Sample wt/vol: 4.77 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s21.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-71-8-----	Dichlorodifluoromethane	0.026	
74-87-3-----	Chloromethane	0.025	
75-01-4-----	Vinyl Chloride	0.025	
74-83-9-----	Bromomethane	0.025	
75-00-3-----	Chloroethane	0.025	
75-69-4-----	Trichlorofluoromethane	0.028	
64-17-5-----	Ethanol	2.000	
107-02-8-----	Acrolein	0.130	U
75-35-4-----	1,1-Dichloroethene	0.029	
67-64-1-----	Acetone	0.410	
76-13-1-----	Freon 113	0.028	
67-63-0-----	2-Propanol	0.170	
74-88-4-----	Methyl Iodide	0.025	
75-15-0-----	Carbon Disulfide	0.026	
79-20-9-----	Methyl Acetate	0.020	
107-05-1-----	Allyl Chloride	0.027	
75-09-2-----	Methylene Chloride	0.026	
75-65-0-----	t-Butyl alcohol	0.350	
107-13-1-----	Acrylonitrile	0.089	
1634-04-4-----	Methyl Tertiary Butyl Ether	0.022	
156-60-5-----	trans-1,2-Dichloroethene	0.027	
110-54-3-----	n-Hexane	0.021	
75-34-3-----	1,1-Dichloroethane	0.025	
108-20-3-----	di-Isopropyl ether	0.021	
126-99-8-----	2-Chloro-1,3-butadiene	0.025	
637-92-3-----	Ethyl t-butyl ether	0.022	
78-93-3-----	2-Butanone	0.210	
156-59-2-----	cis-1,2-Dichloroethene	0.026	
540-59-0-----	1,2-Dichloroethene (Total)	0.053	
594-20-7-----	2,2-Dichloropropane	0.027	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS7MS

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850762

Sample wt/vol: 4.77 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s21.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

107-12-0-----	Propionitrile	0.220	
126-98-7-----	Methacrylonitrile	0.130	
74-97-5-----	Bromochloromethane	0.027	
109-99-9-----	Tetrahydrofuran	0.160	
67-66-3-----	Chloroform	0.024	
71-55-6-----	1,1,1-Trichloroethane	0.025	
110-82-7-----	Cyclohexane	0.023	
563-58-6-----	1,1-Dichloropropene	0.025	
56-23-5-----	Carbon Tetrachloride	0.026	
78-83-1-----	Isobutyl Alcohol	0.750	
71-43-2-----	Benzene	0.026	
107-06-2-----	1,2-Dichloroethane	0.023	
994-05-8-----	t-Amyl methyl ether	0.021	
142-82-5-----	n-Heptane	0.015	
71-36-3-----	n-Butanol	1.400	
79-01-6-----	Trichloroethene	0.026	
108-87-2-----	Methylcyclohexane	0.026	
78-87-5-----	1,2-Dichloropropane	0.023	
80-62-6-----	Methyl Methacrylate	0.029	
123-91-1-----	1,4-Dioxane	1.000	
74-95-3-----	Dibromomethane	0.023	
75-27-4-----	Bromodichloromethane	0.023	
79-46-9-----	2-Nitropropane	0.025	
10061-01-5-----	cis-1,3-Dichloropropene	0.022	
108-10-1-----	4-Methyl-2-pentanone	0.091	
108-88-3-----	Toluene	0.028	
10061-02-6-----	trans-1,3-Dichloropropene	0.022	
97-63-2-----	Ethyl Methacrylate	0.005	J
79-00-5-----	1,1,2-Trichloroethane	0.025	
127-18-4-----	Tetrachloroethene	0.028	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: Lancaster Laboratories

Contract: _____

OCTS7MS

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850762

Sample wt/vol: 4.77 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s21.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

142-28-9	1,3-Dichloropropane	0.024	
591-78-6	2-Hexanone	0.120	
124-48-1	Dibromochloromethane	0.024	
106-93-4	1,2-Dibromoethane	0.024	
108-90-7	Chlorobenzene	0.026	
630-20-6	1,1,1,2-Tetrachloroethane	0.025	
100-41-4	Ethylbenzene	0.026	
179601-23-1	m+p-Xylene	0.052	
95-47-6	o-Xylene	0.025	
1330-20-7	Xylene (Total)	0.077	
100-42-5	Styrene	0.023	
75-25-2	Bromoform	0.020	
98-82-8	Isopropylbenzene	0.024	
108-94-1	Cyclohexanone	0.800	
79-34-5	1,1,2,2-Tetrachloroethane	0.027	
108-86-1	Bromobenzene	0.030	
110-57-6	trans-1,4-Dichloro-2-butene	0.110	
96-18-4	1,2,3-Trichloropropane	0.029	
103-65-1	n-Propylbenzene	0.031	
95-49-8	2-Chlorotoluene	0.030	
108-67-8	1,3,5-Trimethylbenzene	0.030	
106-43-4	4-Chlorotoluene	0.029	
98-06-6	tert-Butylbenzene	0.028	
76-01-7	Pentachloroethane	0.027	
95-63-6	1,2,4-Trimethylbenzene	0.028	
135-98-8	sec-Butylbenzene	0.027	
541-73-1	1,3-Dichlorobenzene	0.025	
99-87-6	p-Isopropyltoluene	0.026	
106-46-7	1,4-Dichlorobenzene	0.024	
526-73-8	1,2,3-Trimethylbenzene	0.028	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS7MS

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850762

Sample wt/vol: 4.77 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s21.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

100-44-7-----	Benzyl Chloride	0.020	
141-93-5-----	1,3-Diethylbenzene	0.027	
105-05-5-----	1,4-Diethylbenzene	0.026	
104-51-8-----	n-Butylbenzene	0.023	
95-50-1-----	1,2-Dichlorobenzene	0.023	
135-01-3-----	1,2-Diethylbenzene	0.026	
96-12-8-----	1,2-Dibromo-3-chloropropane	0.020	
108-70-3-----	1,3,5-Trichlorobenzene	0.017	
120-82-1-----	1,2,4-Trichlorobenzene	0.013	
87-68-3-----	Hexachlorobutadiene	0.015	
91-20-3-----	Naphthalene	0.012	
87-61-6-----	1,2,3-Trichlorobenzene	0.011	
91-57-6-----	2-Methylnaphthalene	0.006	J
25340-17-4-----	Diethylbenzene (total)	0.079	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSA25

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCSA25

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08101.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-71-8	Dichlorodifluoromethane	0.011	
74-87-3	Chloromethane	0.015	
75-01-4	Vinyl Chloride	0.015	
74-83-9	Bromomethane	0.016	
75-00-3	Chloroethane	0.016	
75-69-4	Trichlorofluoromethane	0.015	
64-17-5	Ethanol	0.890	
107-02-8	Acrolein	0.150	
75-35-4	1,1-Dichloroethene	0.018	
67-64-1	Acetone	0.220	
76-13-1	Freon 113	0.015	
67-63-0	2-Propanol	0.130	
74-88-4	Methyl Iodide	0.018	
75-15-0	Carbon Disulfide	0.016	
79-20-9	Methyl Acetate	0.018	
107-05-1	Allyl Chloride	0.018	
75-09-2	Methylene Chloride	0.019	
75-65-0	t-Butyl alcohol	0.210	
107-13-1	Acrylonitrile	0.075	
1634-04-4	Methyl Tertiary Butyl Ether	0.017	
156-60-5	trans-1,2-Dichloroethene	0.018	
110-54-3	n-Hexane	0.013	
75-34-3	1,1-Dichloroethane	0.018	
108-20-3	di-Isopropyl ether	0.016	
126-99-8	2-Chloro-1,3-butadiene	0.017	
637-92-3	Ethyl t-butyl ether	0.017	
78-93-3	2-Butanone	0.150	
156-59-2	cis-1,2-Dichloroethene	0.019	
540-59-0	1,2-Dichloroethene (Total)	0.038	
594-20-7	2,2-Dichloropropane	0.018	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSA25

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCSA25

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08101.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

107-12-0	Propionitrile	0.150	
126-98-7	Methacrylonitrile	0.130	
74-97-5	Bromochloromethane	0.020	
109-99-9	Tetrahydrofuran	0.100	
67-66-3	Chloroform	0.018	
71-55-6	1,1,1-Trichloroethane	0.017	
110-82-7	Cyclohexane	0.014	
563-58-6	1,1-Dichloropropene	0.017	
56-23-5	Carbon Tetrachloride	0.017	
78-83-1	Isobutyl Alcohol	0.440	
71-43-2	Benzene	0.018	
107-06-2	1,2-Dichloroethane	0.017	
994-05-8	t-Amyl methyl ether	0.017	
142-82-5	n-Heptane	0.013	
71-36-3	n-Butanol	0.880	
79-01-6	Trichloroethene	0.019	
108-87-2	Methylcyclohexane	0.017	
78-87-5	1,2-Dichloropropane	0.018	
80-62-6	Methyl Methacrylate	0.016	
123-91-1	1,4-Dioxane	0.500	
74-95-3	Dibromomethane	0.018	
75-27-4	Bromodichloromethane	0.018	
79-46-9	2-Nitropropane	0.016	
10061-01-5	cis-1,3-Dichloropropene	0.019	
108-10-1	4-Methyl-2-pentanone	0.075	
108-88-3	Toluene	0.019	
10061-02-6	trans-1,3-Dichloropropene	0.018	
97-63-2	Ethyl Methacrylate	0.017	
79-00-5	1,1,2-Trichloroethane	0.019	
127-18-4	Tetrachloroethene	0.019	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSA25

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCSA25

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08101.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

142-28-9	1,3-Dichloropropane	0.018	
591-78-6	2-Hexanone	0.085	
124-48-1	Dibromochloromethane	0.019	
106-93-4	1,2-Dibromoethane	0.018	
108-90-7	Chlorobenzene	0.019	
630-20-6	1,1,1,2-Tetrachloroethane	0.019	
100-41-4	Ethylbenzene	0.019	
179601-23-1	m+p-Xylene	0.039	
95-47-6	o-Xylene	0.019	
1330-20-7	Xylene (Total)	0.058	
100-42-5	Styrene	0.019	
75-25-2	Bromoform	0.018	
98-82-8	Isopropylbenzene	0.019	
108-94-1	Cyclohexanone	0.550	
79-34-5	1,1,2,2-Tetrachloroethane	0.019	
108-86-1	Bromobenzene	0.020	
110-57-6	trans-1,4-Dichloro-2-butene	0.090	
96-18-4	1,2,3-Trichloropropane	0.018	
103-65-1	n-Propylbenzene	0.020	
95-49-8	2-Chlorotoluene	0.020	
108-67-8	1,3,5-Trimethylbenzene	0.020	
106-43-4	4-Chlorotoluene	0.020	
98-06-6	tert-Butylbenzene	0.021	
76-01-7	Pentachloroethane	0.017	
95-63-6	1,2,4-Trimethylbenzene	0.020	
135-98-8	sec-Butylbenzene	0.020	
541-73-1	1,3-Dichlorobenzene	0.020	
99-87-6	p-Isopropyltoluene	0.020	
106-46-7	1,4-Dichlorobenzene	0.019	
526-73-8	1,2,3-Trimethylbenzene	0.019	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSA25

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCSA25

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08101.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

100-44-7	Benzyl Chloride	0.018	
141-93-5	1,3-Diethylbenzene	0.018	
105-05-5	1,4-Diethylbenzene	0.018	
104-51-8	n-Butylbenzene	0.019	
95-50-1	1,2-Dichlorobenzene	0.019	
135-01-3	1,2-Diethylbenzene	0.018	
96-12-8	1,2-Dibromo-3-chloropropane	0.016	
108-70-3	1,3,5-Trichlorobenzene	0.019	
120-82-1	1,2,4-Trichlorobenzene	0.020	
87-68-3	Hexachlorobutadiene	0.020	
91-20-3	Naphthalene	0.021	
87-61-6	1,2,3-Trichlorobenzene	0.020	
91-57-6	2-Methylnaphthalene	0.018	
25340-17-4	Diethylbenzene (total)	0.055	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDA25

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCDA25

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08102.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-71-8	Dichlorodifluoromethane	0.011	
74-87-3	Chloromethane	0.015	
75-01-4	Vinyl Chloride	0.015	
74-83-9	Bromomethane	0.017	
75-00-3	Chloroethane	0.016	
75-69-4	Trichlorofluoromethane	0.015	
64-17-5	Ethanol	0.900	
107-02-8	Acrolein	0.150	
75-35-4	1,1-Dichloroethene	0.018	
67-64-1	Acetone	0.230	
76-13-1	Freon 113	0.016	
67-63-0	2-Propanol	0.150	
74-88-4	Methyl Iodide	0.018	
75-15-0	Carbon Disulfide	0.017	
79-20-9	Methyl Acetate	0.018	
107-05-1	Allyl Chloride	0.018	
75-09-2	Methylene Chloride	0.019	
75-65-0	t-Butyl alcohol	0.210	
107-13-1	Acrylonitrile	0.078	
1634-04-4	Methyl Tertiary Butyl Ether	0.018	
156-60-5	trans-1,2-Dichloroethene	0.019	
110-54-3	n-Hexane	0.014	
75-34-3	1,1-Dichloroethane	0.018	
108-20-3	di-Isopropyl ether	0.016	
126-99-8	2-Chloro-1,3-butadiene	0.017	
637-92-3	Ethyl t-butyl ether	0.017	
78-93-3	2-Butanone	0.160	
156-59-2	cis-1,2-Dichloroethene	0.020	
540-59-0	1,2-Dichloroethene (Total)	0.038	
594-20-7	2,2-Dichloropropane	0.018	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDA25

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCDA25

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08102.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

107-12-0-----	Propionitrile	0.150	
126-98-7-----	Methacrylonitrile	0.130	
74-97-5-----	Bromochloromethane	0.020	
109-99-9-----	Tetrahydrofuran	0.100	
67-66-3-----	Chloroform	0.018	
71-55-6-----	1,1,1-Trichloroethane	0.018	
110-82-7-----	Cyclohexane	0.015	
563-58-6-----	1,1-Dichloropropene	0.017	
56-23-5-----	Carbon Tetrachloride	0.017	
78-83-1-----	Isobutyl Alcohol	0.450	
71-43-2-----	Benzene	0.019	
107-06-2-----	1,2-Dichloroethane	0.018	
994-05-8-----	t-Amyl methyl ether	0.017	
142-82-5-----	n-Heptane	0.014	
71-36-3-----	n-Butanol	0.900	
79-01-6-----	Trichloroethene	0.019	
108-87-2-----	Methylcyclohexane	0.018	
78-87-5-----	1,2-Dichloropropane	0.018	
80-62-6-----	Methyl Methacrylate	0.016	
123-91-1-----	1,4-Dioxane	0.490	
74-95-3-----	Dibromomethane	0.018	
75-27-4-----	Bromodichloromethane	0.018	
79-46-9-----	2-Nitropropane	0.016	
10061-01-5-----	cis-1,3-Dichloropropene	0.019	
108-10-1-----	4-Methyl-2-pentanone	0.078	
108-88-3-----	Toluene	0.019	
10061-02-6-----	trans-1,3-Dichloropropene	0.018	
97-63-2-----	Ethyl Methacrylate	0.017	
79-00-5-----	1,1,2-Trichloroethane	0.019	
127-18-4-----	Tetrachloroethene	0.019	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDA25

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCDA25

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08102.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

142-28-9-----	1,3-Dichloropropane	0.018	
591-78-6-----	2-Hexanone	0.088	
124-48-1-----	Dibromochloromethane	0.019	
106-93-4-----	1,2-Dibromoethane	0.019	
108-90-7-----	Chlorobenzene	0.019	
630-20-6-----	1,1,1,2-Tetrachloroethane	0.019	
100-41-4-----	Ethylbenzene	0.019	
179601-23-1----	m+p-Xylene	0.039	
95-47-6-----	o-Xylene	0.019	
1330-20-7-----	Xylene (Total)	0.058	
100-42-5-----	Styrene	0.019	
75-25-2-----	Bromoform	0.018	
98-82-8-----	Isopropylbenzene	0.020	
108-94-1-----	Cyclohexanone	0.560	
79-34-5-----	1,1,2,2-Tetrachloroethane	0.019	
108-86-1-----	Bromobenzene	0.020	
110-57-6-----	trans-1,4-Dichloro-2-butene	0.093	
96-18-4-----	1,2,3-Trichloropropane	0.018	
103-65-1-----	n-Propylbenzene	0.020	
95-49-8-----	2-Chlorotoluene	0.020	
108-67-8-----	1,3,5-Trimethylbenzene	0.020	
106-43-4-----	4-Chlorotoluene	0.020	
98-06-6-----	tert-Butylbenzene	0.021	
76-01-7-----	Pentachloroethane	0.017	
95-63-6-----	1,2,4-Trimethylbenzene	0.019	
135-98-8-----	sec-Butylbenzene	0.020	
541-73-1-----	1,3-Dichlorobenzene	0.020	
99-87-6-----	p-Isopropyltoluene	0.020	
106-46-7-----	1,4-Dichlorobenzene	0.019	
526-73-8-----	1,2,3-Trimethylbenzene	0.019	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDA25

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCDA25

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08102.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

100-44-7-----	Benzyl Chloride	0.018	
141-93-5-----	1,3-Diethylbenzene	0.019	
105-05-5-----	1,4-Diethylbenzene	0.018	
104-51-8-----	n-Butylbenzene	0.019	
95-50-1-----	1,2-Dichlorobenzene	0.020	
135-01-3-----	1,2-Diethylbenzene	0.018	
96-12-8-----	1,2-Dibromo-3-chloropropane	0.017	
108-70-3-----	1,3,5-Trichlorobenzene	0.019	
120-82-1-----	1,2,4-Trichlorobenzene	0.020	
87-68-3-----	Hexachlorobutadiene	0.019	
91-20-3-----	Naphthalene	0.020	
87-61-6-----	1,2,3-Trichlorobenzene	0.020	
91-57-6-----	2-Methylnaphthalene	0.018	
25340-17-4-----	Diethylbenzene (total)	0.055	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB84

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LCSB84

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07110.d

Level: (low/med) LOW Date Received: _____

Moisture: not dec. _____ Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-71-8-----	Dichlorodifluoromethane	0.019	
74-87-3-----	Chloromethane	0.020	
75-01-4-----	Vinyl Chloride	0.019	
74-83-9-----	Bromomethane	0.021	
75-00-3-----	Chloroethane	0.021	
75-69-4-----	Trichlorofluoromethane	0.022	
64-17-5-----	Ethanol	0.940	
107-02-8-----	Acrolein	0.160	
75-35-4-----	1,1-Dichloroethene	0.021	
67-64-1-----	Acetone	0.170	
76-13-1-----	Freon 113	0.021	
67-63-0-----	2-Propanol	0.140	
74-88-4-----	Methyl Iodide	0.020	
75-15-0-----	Carbon Disulfide	0.020	
79-20-9-----	Methyl Acetate	0.051	E
107-05-1-----	Allyl Chloride	0.022	
75-09-2-----	Methylene Chloride	0.024	B
75-65-0-----	t-Butyl alcohol	0.200	
107-13-1-----	Acrylonitrile	0.110	
1634-04-4-----	Methyl Tertiary Butyl Ether	0.023	
156-60-5-----	trans-1,2-Dichloroethene	0.021	
110-54-3-----	n-Hexane	0.018	
75-34-3-----	1,1-Dichloroethane	0.021	
108-20-3-----	di-Isopropyl ether	0.020	
126-99-8-----	2-Chloro-1,3-butadiene	0.022	
637-92-3-----	Ethyl t-butyl ether	0.021	
78-93-3-----	2-Butanone	0.160	
156-59-2-----	cis-1,2-Dichloroethene	0.020	
540-59-0-----	1,2-Dichloroethene (Total)	0.041	
594-20-7-----	2,2-Dichloropropane	0.022	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB84

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LCSB84

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07110.d

Level: (low/med) LOW Date Received: _____

Moisture: not dec. _____ Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

107-12-0-----	Propionitrile	0.140	
126-98-7-----	Methacrylonitrile	0.170	
74-97-5-----	Bromochloromethane	0.021	
109-99-9-----	Tetrahydrofuran	0.099	
67-66-3-----	Chloroform	0.021	
71-55-6-----	1,1,1-Trichloroethane	0.022	
110-82-7-----	Cyclohexane	0.019	
563-58-6-----	1,1-Dichloropropene	0.020	
56-23-5-----	Carbon Tetrachloride	0.020	
78-83-1-----	Isobutyl Alcohol	0.450	
71-43-2-----	Benzene	0.020	
107-06-2-----	1,2-Dichloroethane	0.023	
994-05-8-----	t-Amyl methyl ether	0.020	
142-82-5-----	n-Heptane	0.018	
71-36-3-----	n-Butanol	0.750	
79-01-6-----	Trichloroethene	0.020	
108-87-2-----	Methylcyclohexane	0.018	
78-87-5-----	1,2-Dichloropropane	0.020	
80-62-6-----	Methyl Methacrylate	0.019	
123-91-1-----	1,4-Dioxane	0.360	
74-95-3-----	Dibromomethane	0.021	
75-27-4-----	Bromodichloromethane	0.020	
79-46-9-----	2-Nitropropane	0.017	
110-75-8-----	2-Chloroethyl Vinyl Ether	0.072	
10061-01-5-----	cis-1,3-Dichloropropene	0.021	
108-10-1-----	4-Methyl-2-pentanone	0.099	
108-88-3-----	Toluene	0.020	
10061-02-6-----	trans-1,3-Dichloropropene	0.020	
97-63-2-----	Ethyl Methacrylate	0.019	
79-00-5-----	1,1,2-Trichloroethane	0.021	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB84

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LCSB84

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07110.d

Level: (low/med) LOW Date Received: _____

Moisture: not dec. _____ Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

127-18-4-----	Tetrachloroethene	0.021	
142-28-9-----	1,3-Dichloropropane	0.021	
591-78-6-----	2-Hexanone	0.099	
124-48-1-----	Dibromochloromethane	0.021	
106-93-4-----	1,2-Dibromoethane	0.021	
108-90-7-----	Chlorobenzene	0.020	
630-20-6-----	1,1,1,2-Tetrachloroethane	0.020	
100-41-4-----	Ethylbenzene	0.020	
179601-23-1-----	m+p-Xylene	0.039	
95-47-6-----	o-Xylene	0.019	
1330-20-7-----	Xylene (Total)	0.059	
100-42-5-----	Styrene	0.020	
75-25-2-----	Bromoform	0.019	
98-82-8-----	Isopropylbenzene	0.020	
108-94-1-----	Cyclohexanone	0.620	
79-34-5-----	1,1,2,2-Tetrachloroethane	0.021	
108-86-1-----	Bromobenzene	0.020	
110-57-6-----	trans-1,4-Dichloro-2-butene	0.120	
96-18-4-----	1,2,3-Trichloropropane	0.022	
103-65-1-----	n-Propylbenzene	0.017	
95-49-8-----	2-Chlorotoluene	0.020	
108-67-8-----	1,3,5-Trimethylbenzene	0.020	
106-43-4-----	4-Chlorotoluene	0.020	
98-06-6-----	tert-Butylbenzene	0.019	
76-01-7-----	Pentachloroethane	0.019	
95-63-6-----	1,2,4-Trimethylbenzene	0.021	
135-98-8-----	sec-Butylbenzene	0.020	
541-73-1-----	1,3-Dichlorobenzene	0.020	
99-87-6-----	p-Isopropyltoluene	0.020	
106-46-7-----	1,4-Dichlorobenzene	0.020	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB84

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LCSB84

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07110.d

Level: (low/med) LOW Date Received: _____

Moisture: not dec. _____ Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

526-73-8-----	1,2,3-Trimethylbenzene	0.021	
100-44-7-----	Benzyl Chloride	0.018	
141-93-5-----	1,3-Diethylbenzene	0.020	
105-05-5-----	1,4-Diethylbenzene	0.020	
104-51-8-----	n-Butylbenzene	0.020	
95-50-1-----	1,2-Dichlorobenzene	0.020	
135-01-3-----	1,2-Diethylbenzene	0.020	
96-12-8-----	1,2-Dibromo-3-chloropropane	0.021	
108-70-3-----	1,3,5-Trichlorobenzene	0.019	
120-82-1-----	1,2,4-Trichlorobenzene	0.020	
87-68-3-----	Hexachlorobutadiene	0.020	
91-20-3-----	Naphthalene	0.021	
87-61-6-----	1,2,3-Trichlorobenzene	0.020	
91-57-6-----	2-Methylnaphthalene	0.018	
25340-17-4-----	Diethylbenzene (total)	0.059	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDB84

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LCDB84

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07111.d

Level: (low/med) LOW Date Received: _____

Moisture: not dec. _____ Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-71-8-----	Dichlorodifluoromethane	0.019	
74-87-3-----	Chloromethane	0.020	
75-01-4-----	Vinyl Chloride	0.019	
74-83-9-----	Bromomethane	0.021	
75-00-3-----	Chloroethane	0.021	
75-69-4-----	Trichlorofluoromethane	0.021	
64-17-5-----	Ethanol	0.830	
107-02-8-----	Acrolein	0.150	
75-35-4-----	1,1-Dichloroethene	0.021	
67-64-1-----	Acetone	0.150	
76-13-1-----	Freon 113	0.021	
67-63-0-----	2-Propanol	0.130	
74-88-4-----	Methyl Iodide	0.020	
75-15-0-----	Carbon Disulfide	0.020	
79-20-9-----	Methyl Acetate	0.063	E
107-05-1-----	Allyl Chloride	0.021	
75-09-2-----	Methylene Chloride	0.023	B
75-65-0-----	t-Butyl alcohol	0.180	
107-13-1-----	Acrylonitrile	0.100	
1634-04-4-----	Methyl Tertiary Butyl Ether	0.022	
156-60-5-----	trans-1,2-Dichloroethene	0.020	
110-54-3-----	n-Hexane	0.018	
75-34-3-----	1,1-Dichloroethane	0.020	
108-20-3-----	di-Isopropyl ether	0.020	
126-99-8-----	2-Chloro-1,3-butadiene	0.021	
637-92-3-----	Ethyl t-butyl ether	0.020	
78-93-3-----	2-Butanone	0.150	
156-59-2-----	cis-1,2-Dichloroethene	0.020	
540-59-0-----	1,2-Dichloroethene (Total)	0.040	
594-20-7-----	2,2-Dichloropropane	0.022	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDB84

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LCDB84

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07111.d

Level: (low/med) LOW Date Received: _____

Moisture: not dec. _____ Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

107-12-0-----	Propionitrile	0.130	
126-98-7-----	Methacrylonitrile	0.150	
74-97-5-----	Bromochloromethane	0.020	
109-99-9-----	Tetrahydrofuran	0.091	
67-66-3-----	Chloroform	0.020	
71-55-6-----	1,1,1-Trichloroethane	0.022	
110-82-7-----	Cyclohexane	0.019	
563-58-6-----	1,1-Dichloropropene	0.019	
56-23-5-----	Carbon Tetrachloride	0.020	
78-83-1-----	Isobutyl Alcohol	0.400	
71-43-2-----	Benzene	0.020	
107-06-2-----	1,2-Dichloroethane	0.022	
994-05-8-----	t-Amyl methyl ether	0.020	
142-82-5-----	n-Heptane	0.019	
71-36-3-----	n-Butanol	0.680	
79-01-6-----	Trichloroethene	0.020	
108-87-2-----	Methylcyclohexane	0.018	
78-87-5-----	1,2-Dichloropropane	0.019	
80-62-6-----	Methyl Methacrylate	0.018	
123-91-1-----	1,4-Dioxane	0.320	
74-95-3-----	Dibromomethane	0.020	
75-27-4-----	Bromodichloromethane	0.020	
79-46-9-----	2-Nitropropane	0.016	
110-75-8-----	2-Chloroethyl Vinyl Ether	0.070	
10061-01-5-----	cis-1,3-Dichloropropene	0.021	
108-10-1-----	4-Methyl-2-pentanone	0.094	
108-88-3-----	Toluene	0.019	
10061-02-6-----	trans-1,3-Dichloropropene	0.020	
97-63-2-----	Ethyl Methacrylate	0.018	
79-00-5-----	1,1,2-Trichloroethane	0.020	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDB84

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LCDB84

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07111.d

Level: (low/med) LOW Date Received: _____

Moisture: not dec. _____ Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

127-18-4-----	Tetrachloroethene	0.021	
142-28-9-----	1,3-Dichloropropane	0.020	
591-78-6-----	2-Hexanone	0.091	
124-48-1-----	Dibromochloromethane	0.019	
106-93-4-----	1,2-Dibromoethane	0.020	
108-90-7-----	Chlorobenzene	0.019	
630-20-6-----	1,1,1,2-Tetrachloroethane	0.019	
100-41-4-----	Ethylbenzene	0.019	
179601-23-1----	m+p-Xylene	0.039	
95-47-6-----	o-Xylene	0.019	
1330-20-7-----	Xylene (Total)	0.058	
100-42-5-----	Styrene	0.019	
75-25-2-----	Bromoform	0.018	
98-82-8-----	Isopropylbenzene	0.019	
108-94-1-----	Cyclohexanone	0.590	
79-34-5-----	1,1,2,2-Tetrachloroethane	0.020	
108-86-1-----	Bromobenzene	0.020	
110-57-6-----	trans-1,4-Dichloro-2-butene	0.120	
96-18-4-----	1,2,3-Trichloropropane	0.020	
103-65-1-----	n-Propylbenzene	0.017	
95-49-8-----	2-Chlorotoluene	0.020	
108-67-8-----	1,3,5-Trimethylbenzene	0.020	
106-43-4-----	4-Chlorotoluene	0.019	
98-06-6-----	tert-Butylbenzene	0.019	
76-01-7-----	Pentachloroethane	0.018	
95-63-6-----	1,2,4-Trimethylbenzene	0.020	
135-98-8-----	sec-Butylbenzene	0.020	
541-73-1-----	1,3-Dichlorobenzene	0.020	
99-87-6-----	p-Isopropyltoluene	0.020	
106-46-7-----	1,4-Dichlorobenzene	0.020	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDB84

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LCDB84

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07111.d

Level: (low/med) LOW Date Received: _____

Moisture: not dec. _____ Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

526-73-8-----	1,2,3-Trimethylbenzene	0.021	
100-44-7-----	Benzyl Chloride	0.018	
141-93-5-----	1,3-Diethylbenzene	0.020	
105-05-5-----	1,4-Diethylbenzene	0.019	
104-51-8-----	n-Butylbenzene	0.020	
95-50-1-----	1,2-Dichlorobenzene	0.019	
135-01-3-----	1,2-Diethylbenzene	0.020	
96-12-8-----	1,2-Dibromo-3-chloropropane	0.019	
108-70-3-----	1,3,5-Trichlorobenzene	0.019	
120-82-1-----	1,2,4-Trichlorobenzene	0.020	
87-68-3-----	Hexachlorobutadiene	0.020	
91-20-3-----	Naphthalene	0.020	
87-61-6-----	1,2,3-Trichlorobenzene	0.020	
91-57-6-----	2-Methylnaphthalene	0.018	
25340-17-4-----	Diethylbenzene (total)	0.059	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB85

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCSB85

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09953.i/12nov08a.b/bn08s01.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-71-8	Dichlorodifluoromethane	0.017	
74-87-3	Chloromethane	0.018	
75-01-4	Vinyl Chloride	0.017	
74-83-9	Bromomethane	0.020	
75-00-3	Chloroethane	0.019	
75-69-4	Trichlorofluoromethane	0.021	
64-17-5	Ethanol	0.880	
107-02-8	Acrolein	0.150	
75-35-4	1,1-Dichloroethene	0.020	
67-64-1	Acetone	0.230	E
76-13-1	Freon 113	0.020	
67-63-0	2-Propanol	0.140	
74-88-4	Methyl Iodide	0.019	
75-15-0	Carbon Disulfide	0.018	
79-20-9	Methyl Acetate	0.026	
107-05-1	Allyl Chloride	0.021	
75-09-2	Methylene Chloride	0.021	
75-65-0	t-Butyl alcohol	0.200	
107-13-1	Acrylonitrile	0.110	
1634-04-4	Methyl Tertiary Butyl Ether	0.023	
156-60-5	trans-1,2-Dichloroethene	0.020	
110-54-3	n-Hexane	0.017	
75-34-3	1,1-Dichloroethane	0.020	
108-20-3	di-Isopropyl ether	0.019	
126-99-8	2-Chloro-1,3-butadiene	0.021	
637-92-3	Ethyl t-butyl ether	0.020	
78-93-3	2-Butanone	0.210	
156-59-2	cis-1,2-Dichloroethene	0.020	
540-59-0	1,2-Dichloroethene (Total)	0.040	
594-20-7	2,2-Dichloropropane	0.022	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB85

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCSB85

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09953.i/12nov08a.b/bn08s01.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

107-12-0	Propionitrile	0.130	
126-98-7	Methacrylonitrile	0.170	
74-97-5	Bromochloromethane	0.020	
109-99-9	Tetrahydrofuran	0.087	
67-66-3	Chloroform	0.020	
71-55-6	1,1,1-Trichloroethane	0.022	
110-82-7	Cyclohexane	0.018	
563-58-6	1,1-Dichloropropene	0.019	
56-23-5	Carbon Tetrachloride	0.020	
78-83-1	Isobutyl Alcohol	0.420	
71-43-2	Benzene	0.019	
107-06-2	1,2-Dichloroethane	0.023	
994-05-8	t-Amyl methyl ether	0.020	
142-82-5	n-Heptane	0.019	
71-36-3	n-Butanol	0.740	
79-01-6	Trichloroethene	0.019	
108-87-2	Methylcyclohexane	0.017	
78-87-5	1,2-Dichloropropane	0.019	
80-62-6	Methyl Methacrylate	0.019	
123-91-1	1,4-Dioxane	0.340	
74-95-3	Dibromomethane	0.021	
75-27-4	Bromodichloromethane	0.020	
79-46-9	2-Nitropropane	0.016	
110-75-8	2-Chloroethyl Vinyl Ether	0.072	
10061-01-5	cis-1,3-Dichloropropene	0.020	
108-10-1	4-Methyl-2-pentanone	0.100	
108-88-3	Toluene	0.019	
10061-02-6	trans-1,3-Dichloropropene	0.020	
97-63-2	Ethyl Methacrylate	0.020	
79-00-5	1,1,2-Trichloroethane	0.021	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB85

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCSB85

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09953.i/12nov08a.b/bn08s01.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

127-18-4	Tetrachloroethene	0.020	
142-28-9	1,3-Dichloropropane	0.021	
591-78-6	2-Hexanone	0.120	
124-48-1	Dibromochloromethane	0.020	
106-93-4	1,2-Dibromoethane	0.021	
108-90-7	Chlorobenzene	0.019	
630-20-6	1,1,1,2-Tetrachloroethane	0.019	
100-41-4	Ethylbenzene	0.019	
179601-23-1	m+p-Xylene	0.039	
95-47-6	o-Xylene	0.019	
1330-20-7	Xylene (Total)	0.057	
100-42-5	Styrene	0.019	
75-25-2	Bromoform	0.019	
98-82-8	Isopropylbenzene	0.019	
108-94-1	Cyclohexanone	0.620	
79-34-5	1,1,2,2-Tetrachloroethane	0.022	
108-86-1	Bromobenzene	0.019	
110-57-6	trans-1,4-Dichloro-2-butene	0.130	
96-18-4	1,2,3-Trichloropropane	0.022	
103-65-1	n-Propylbenzene	0.017	
95-49-8	2-Chlorotoluene	0.018	
108-67-8	1,3,5-Trimethylbenzene	0.020	
106-43-4	4-Chlorotoluene	0.019	
98-06-6	tert-Butylbenzene	0.018	
76-01-7	Pentachloroethane	0.019	
95-63-6	1,2,4-Trimethylbenzene	0.020	
135-98-8	sec-Butylbenzene	0.019	
541-73-1	1,3-Dichlorobenzene	0.019	
99-87-6	p-Isopropyltoluene	0.019	
106-46-7	1,4-Dichlorobenzene	0.019	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB85

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCSB85

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09953.i/12nov08a.b/bn08s01.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

526-73-8-----	1,2,3-Trimethylbenzene	0.020	
100-44-7-----	Benzyl Chloride	0.019	
141-93-5-----	1,3-Diethylbenzene	0.019	
105-05-5-----	1,4-Diethylbenzene	0.019	
104-51-8-----	n-Butylbenzene	0.019	
95-50-1-----	1,2-Dichlorobenzene	0.019	
135-01-3-----	1,2-Diethylbenzene	0.019	
96-12-8-----	1,2-Dibromo-3-chloropropane	0.022	
108-70-3-----	1,3,5-Trichlorobenzene	0.019	
120-82-1-----	1,2,4-Trichlorobenzene	0.019	
87-68-3-----	Hexachlorobutadiene	0.019	
91-20-3-----	Naphthalene	0.021	
87-61-6-----	1,2,3-Trichlorobenzene	0.020	
91-57-6-----	2-Methylnaphthalene	0.018	
25340-17-4-----	Diethylbenzene (total)	0.057	

Semivolatiles by GC/MS Data

Case Narrative/Conformance Summary

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP03

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

Sample #	Client ID	Matrix		DF	Comments
		Liquid	Solid		
6850737	TCN-STC5		X	1	
6850738	TCN-STC6		X	1	
6850741	TCN-STC7		X	1	
6850744	TCN-STC8		X	1	
6850747	TCN-STC9		X	1	
6850750	TCN-STC10		X	1	
6850753	TCN-STC11		X	1	
6850756	TCN-STC12		X	1	
6850759	POC-TSC2		X	1	
6850764	POC-TSC3		X	1	
6850765	POC-TSC4		X	1	
6850770	POC-TSC5		X	1	
6850771	POC-TSC6		X	1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

All QC is within specification.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP03

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Narrative Reviewed and Approved 11/12/12 by
(Date)


Lydia C. Steinke
Specialist

Sample Data

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSTC5

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850737

Sample wt/vol: 30.5 (g/mL) G Lab File ID: hk0394.d

Level: (low/med) LOW Date Received: 11/07/12

% Moisture: not dec: 4 dec: Date Extracted: 11/08/12

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/08/12

Injection Volume: 1 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol	34	U	
95-48-7-----	2-Methylphenol	34	U	
106-44-5-----	4-Methylphenol	34	U	
91-20-3-----	Naphthalene	18	U	
208-96-8-----	Acenaphthylene	18	U	
83-32-9-----	Acenaphthene	18	U	
132-64-9-----	Dibenzofuran	34	U	
86-73-7-----	Fluorene	18	U	
87-86-5-----	Pentachlorophenol	180	U	
85-01-8-----	Phenanthrene	18	U	
120-12-7-----	Anthracene	18	U	
206-44-0-----	Fluoranthene	18	U	
129-00-0-----	Pyrene	18	U	
56-55-3-----	Benzo(a)anthracene	18	U	
218-01-9-----	Chrysene	18	U	
205-99-2-----	Benzo(b)fluoranthene	18	U	
207-08-9-----	Benzo(k)fluoranthene	18	U	
50-32-8-----	Benzo(a)pyrene	18	U	
193-39-5-----	Indeno(1,2,3-cd)pyrene	18	U	
53-70-3-----	Dibenz(a,h)anthracene	18	U	
191-24-2-----	Benzo(g,h,i)perylene	18	U	

FORM I SV-1

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSTC6

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850738

Sample wt/vol: 30.5 (g/mL) G Lab File ID: hk0397.d

Level: (low/med) LOW Date Received: 11/07/12

% Moisture: not dec: 3 dec: Date Extracted: 11/08/12

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/08/12

Injection Volume: 1 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol	34	U	
95-48-7-----	2-Methylphenol	34	U	
106-44-5-----	4-Methylphenol	34	U	
91-20-3-----	Naphthalene	18	U	
208-96-8-----	Acenaphthylene	18	U	
83-32-9-----	Acenaphthene	18	U	
132-64-9-----	Dibenzofuran	34	U	
86-73-7-----	Fluorene	18	U	
87-86-5-----	Pentachlorophenol	180	U	
85-01-8-----	Phenanthrene	18	U	
120-12-7-----	Anthracene	18	U	
206-44-0-----	Fluoranthene	18	U	
129-00-0-----	Pyrene	18	U	
56-55-3-----	Benzo(a)anthracene	18	U	
218-01-9-----	Chrysene	18	U	
205-99-2-----	Benzo(b)fluoranthene	18	U	
207-08-9-----	Benzo(k)fluoranthene	18	U	
50-32-8-----	Benzo(a)pyrene	18	U	
193-39-5-----	Indeno(1,2,3-cd)pyrene	18	U	
53-70-3-----	Dibenz(a,h)anthracene	18	U	
191-24-2-----	Benzo(g,h,i)perylene	18	U	

FORM I SV-1

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSTC7

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850741

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: hk0398.d

Level: (low/med) LOW

Date Received: 11/07/12

% Moisture: not dec: 4 dec:

Date Extracted: 11/08/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/08/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol	34	U	
95-48-7-----	2-Methylphenol	34	U	
106-44-5-----	4-Methylphenol	34	U	
91-20-3-----	Naphthalene	18	U	
208-96-8-----	Acenaphthylene	18	U	
83-32-9-----	Acenaphthene	18	U	
132-64-9-----	Dibenzofuran	34	U	
86-73-7-----	Fluorene	18	U	
87-86-5-----	Pentachlorophenol	180	U	
85-01-8-----	Phenanthrene	18	U	
120-12-7-----	Anthracene	18	U	
206-44-0-----	Fluoranthene	18	U	
129-00-0-----	Pyrene	18	U	
56-55-3-----	Benzo(a)anthracene	18	U	
218-01-9-----	Chrysene	18	U	
205-99-2-----	Benzo(b)fluoranthene	18	U	
207-08-9-----	Benzo(k)fluoranthene	18	U	
50-32-8-----	Benzo(a)pyrene	18	U	
193-39-5-----	Indeno(1,2,3-cd)pyrene	18	U	
53-70-3-----	Dibenz(a,h)anthracene	18	U	
191-24-2-----	Benzo(g,h,i)perylene	18	U	

FORM I SV-1

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSTC8

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850744

Sample wt/vol: 30.5 (g/mL) G Lab File ID: hk0399.d

Level: (low/mcd) LOW Date Received: 11/07/12

% Moisture: not dec: 3 dec: Date Extracted: 11/08/12

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/08/12

Injection Volume: 1 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol	34	U	
95-48-7-----	2-Methylphenol	34	U	
106-44-5-----	4-Methylphenol	34	U	
91-20-3-----	Naphthalene	18	U	
208-96-8-----	Acenaphthylene	18	U	
83-32-9-----	Acenaphthene	18	U	
132-64-9-----	Dibenzofuran	34	U	
86-73-7-----	Fluorene	18	U	
87-86-5-----	Pentachlorophenol	180	U	
85-01-8-----	Phenanthrene	18	U	
120-12-7-----	Anthracene	18	U	
206-44-0-----	Fluoranthene	18	U	
129-00-0-----	Pyrene	18	U	
56-55-3-----	Benzo(a)anthracene	18	U	
218-01-9-----	Chrysene	18	U	
205-99-2-----	Benzo(b)fluoranthene	18	U	
207-08-9-----	Benzo(k)fluoranthene	18	U	
50-32-8-----	Benzo(a)pyrene	18	U	
193-39-5-----	Indeno(1,2,3-cd)pyrene	18	U	
53-70-3-----	Dibenz(a,h)anthracene	18	U	
191-24-2-----	Benzo(g,h,i)perylene	18	U	

FORM I SV-1

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSTC9

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850747

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: hk0400.d

Level: (low/med) LOW

Date Received: 11/07/12

% Moisture: not dec: 3 dec:

Date Extracted: 11/08/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/08/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol	34	U	
95-48-7-----	2-Methylphenol	34	U	
106-44-5-----	4-Methylphenol	34	U	
91-20-3-----	Naphthalene	18	U	
208-96-8-----	Acenaphthylene	18	U	
83-32-9-----	Acenaphthene	18	U	
132-64-9-----	Dibenzofuran	34	U	
86-73-7-----	Fluorene	18	U	
87-86-5-----	Pentachlorophenol	180	U	
85-01-8-----	Phenanthrene	18	U	
120-12-7-----	Anthracene	18	U	
206-44-0-----	Fluoranthene	18	U	
129-00-0-----	Pyrene	18	U	
56-55-3-----	Benzo(a)anthracene	18	U	
218-01-9-----	Chrysene	18	U	
205-99-2-----	Benzo(b)fluoranthene	18	U	
207-08-9-----	Benzo(k)fluoranthene	18	U	
50-32-8-----	Benzo(a)pyrene	18	U	
193-39-5-----	Indeno(1,2,3-cd)pyrene	18	U	
53-70-3-----	Dibenz(a,h)anthracene	18	U	
191-24-2-----	Benzo(g,h,i)perylene	18	U	

FORM I SV-1

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

STC10

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850750

Sample wt/vol: 30.5 (g/mL) G Lab File ID: hk0401.d

Level: (low/med) LOW Date Received: 11/07/12

% Moisture: not dec: 4 dec: Date Extracted: 11/08/12

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/08/12

Injection Volume: 1 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol	34	U	
95-48-7-----	2-Methylphenol	34	U	
106-44-5-----	4-Methylphenol	34	U	
91-20-3-----	Naphthalene	18	U	
208-96-8-----	Acenaphthylene	18	U	
83-32-9-----	Acenaphthene	18	U	
132-64-9-----	Dibenzofuran	34	U	
86-73-7-----	Fluorene	18	U	
87-86-5-----	Pentachlorophenol	180	U	
85-01-8-----	Phenanthrene	18	U	
120-12-7-----	Anthracene	18	U	
206-44-0-----	Fluoranthene	18	U	
129-00-0-----	Pyrene	18	U	
56-55-3-----	Benzo(a)anthracene	18	U	
218-01-9-----	Chrysene	18	U	
205-99-2-----	Benzo(b)fluoranthene	18	U	
207-08-9-----	Benzo(k)fluoranthene	18	U	
50-32-8-----	Benzo(a)pyrene	18	U	
193-39-5-----	Indeno(1,2,3-cd)pyrene	18	U	
53-70-3-----	Dibenz(a,h)anthracene	18	U	
191-24-2-----	Benzo(g,h,i)perylene	18	U	

FORM I SV-1

TAP03 0203

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

STC11

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850753

Sample wt/vol: 30.5 (g/mL) G Lab File ID: hk0402.d

Level: (low/med) LOW Date Received: 11/07/12

% Moisture: not dec: 3 dec: Date Extracted: 11/08/12

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/08/12

Injection Volume: 1 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol		34	U
95-48-7-----	2-Methylphenol		34	U
106-44-5-----	4-Methylphenol		34	U
91-20-3-----	Naphthalene		18	U
208-96-8-----	Acenaphthylene		18	U
83-32-9-----	Acenaphthene		18	U
132-64-9-----	Dibenzofuran		34	U
86-73-7-----	Fluorene		18	U
87-86-5-----	Pentachlorophenol		180	U
85-01-8-----	Phenanthrene		18	U
120-12-7-----	Anthracene		18	U
206-44-0-----	Fluoranthene		18	U
129-00-0-----	Pyrene		18	U
56-55-3-----	Benzo(a)anthracene		18	U
218-01-9-----	Chrysene		18	U
205-99-2-----	Benzo(b)fluoranthene		18	U
207-08-9-----	Benzo(k)fluoranthene		18	U
50-32-8-----	Benzo(a)pyrene		18	U
193-39-5-----	Indeno(1,2,3-cd)pyrene		18	U
53-70-3-----	Dibenz(a,h)anthracene		18	U
191-24-2-----	Benzo(g,h,i)perylene		18	U

FORM I SV-1

TAP03 0204

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

STC12

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850756

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: hk0403.d

Level: (low/med) LOW

Date Received: 11/07/12

% Moisture: not dec: 6 dec:

Date Extracted: 11/08/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/08/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol	35	U	
95-48-7-----	2-Methylphenol	35	U	
106-44-5-----	4-Methylphenol	35	U	
91-20-3-----	Naphthalene	18	U	
208-96-8-----	Acenaphthylene	18	U	
83-32-9-----	Acenaphthene	18	U	
132-64-9-----	Dibenzofuran	35	U	
86-73-7-----	Fluorene	18	U	
87-86-5-----	Pentachlorophenol	180	U	
85-01-8-----	Phenanthrene	18	U	
120-12-7-----	Anthracene	18	U	
206-44-0-----	Fluoranthene	18	U	
129-00-0-----	Pyrene	18	U	
56-55-3-----	Benzo(a)anthracene	18	U	
218-01-9-----	Chrysene	18	U	
205-99-2-----	Benzo(b)fluoranthene	18	U	
207-08-9-----	Benzo(k)fluoranthene	18	U	
50-32-8-----	Benzo(a)pyrene	18	U	
193-39-5-----	Indeno(1,2,3-cd)pyrene	18	U	
53-70-3-----	Dibenz(a,h)anthracene	18	U	
191-24-2-----	Benzo(g,h,i)perylene	18	U	

FORM I SV-1

TAP03 0205

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CTCS2

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850759

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: hk0404.d

Level: (low/med) LOW

Date Received: 11/07/12

% Moisture: not dec: 23 dec:

Date Extracted: 11/08/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/08/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol	43	U	
95-48-7-----	2-Methylphenol	43	U	
106-44-5-----	4-Methylphenol	41	J	
91-20-3-----	Naphthalene	9	J	
208-96-8-----	Acenaphthylene	5	J	
83-32-9-----	Acenaphthene	22	U	
132-64-9-----	Dibenzofuran	43	U	
86-73-7-----	Fluorene	4	J	
87-86-5-----	Pentachlorophenol	220	U	
85-01-8-----	Phenanthrene	48		
120-12-7-----	Anthracene	11	J	
206-44-0-----	Fluoranthene	80		
129-00-0-----	Pyrene	81		
56-55-3-----	Benzo(a)anthracene	40		
218-01-9-----	Chrysene	48		
205-99-2-----	Benzo(b)fluoranthene	63		
207-08-9-----	Benzo(k)fluoranthene	30		
50-32-8-----	Benzo(a)pyrene	48		
193-39-5-----	Indeno(1,2,3-cd)pyrene	30		
53-70-3-----	Dibenz(a,h)anthracene	12	J	
191-24-2-----	Benzo(g,h,i)perylene	35		

FORM I SV-1

TAP03 0206

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CTCS3

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850764

Sample wt/vol: 30.5 (g/mL) G Lab File ID: hk0405.d

Level: (low/med) LOW Date Received: 11/07/12

% Moisture: not dec: 23 dec: Date Extracted: 11/08/12

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/08/12

Injection Volume: 1 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol	43	U	
95-48-7-----	2-Methylphenol	43	U	
106-44-5-----	4-Methylphenol	25	J	
91-20-3-----	Naphthalene	14	J	
208-96-8-----	Acenaphthylene	9	J	
83-32-9-----	Acenaphthene	7	J	
132-64-9-----	Dibenzofuran	43	U	
86-73-7-----	Fluorene	9	J	
87-86-5-----	Pentachlorophenol	220	U	
85-01-8-----	Phenanthrene	100		
120-12-7-----	Anthracene	24		
206-44-0-----	Fluoranthene	140		
129-00-0-----	Pyrene	130		
56-55-3-----	Benzo(a)anthracene	70		
218-01-9-----	Chrysene	72		
205-99-2-----	Benzo(b)fluoranthene	100		
207-08-9-----	Benzo(k)fluoranthene	38		
50-32-8-----	Benzo(a)pyrene	71		
193-39-5-----	Indeno(1,2,3-cd)pyrene	43		
53-70-3-----	Dibenz(a,h)anthracene	15	J	
191-24-2-----	Benzo(g,h,i)perylene	53		

FORM I SV-1

TAP03 0207

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CTCS4

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850765

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: hk0406.d

Level: (low/med) LOW

Date Received: 11/07/12

% Moisture: not dec: 22 dec:

Date Extracted: 11/08/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/08/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol	42	U	
95-48-7-----	2-Methylphenol	42	U	
106-44-5-----	4-Methylphenol	35	J	
91-20-3-----	Naphthalene	15	J	
208-96-8-----	Acenaphthylene	7	J	
83-32-9-----	Acenaphthene	7	J	
132-64-9-----	Dibenzofuran	42	U	
86-73-7-----	Fluorene	8	J	
87-86-5-----	Pentachlorophenol	220	U	
85-01-8-----	Phenanthrene	81		
120-12-7-----	Anthracene	20	J	
206-44-0-----	Fluoranthene	130		
129-00-0-----	Pyrene	120		
56-55-3-----	Benzo(a)anthracene	66		
218-01-9-----	Chrysene	70		
205-99-2-----	Benzo(b)fluoranthene	100		
207-08-9-----	Benzo(k)fluoranthene	41		
50-32-8-----	Benzo(a)pyrene	74		
193-39-5-----	Indeno(1,2,3-cd)pyrene	45		
53-70-3-----	Dibenz(a,h)anthracene	17	J	
191-24-2-----	Benzo(g,h,i)perylene	54		

FORM I SV-1

TAP03 0208

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CTCS5

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850770

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: hk0407.d

Level: (low/med) LOW

Date Received: 11/07/12

% Moisture: not dec: 23 dec:

Date Extracted: 11/08/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/09/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol	43	U	
95-48-7-----	2-Methylphenol	43	U	
106-44-5-----	4-Methylphenol	43	U	
91-20-3-----	Naphthalene	11	J	
208-96-8-----	Acenaphthylene	7	J	
83-32-9-----	Acenaphthene	5	J	
132-64-9-----	Dibenzofuran	43	U	
86-73-7-----	Fluorene	5	J	
87-86-5-----	Pentachlorophenol	220	U	
85-01-8-----	Phenanthrene	57		
120-12-7-----	Anthracene	14	J	
206-44-0-----	Fluoranthene	94		
129-00-0-----	Pyrene	92		
56-55-3-----	Benzo(a)anthracene	51		
218-01-9-----	Chrysene	54		
205-99-2-----	Benzo(b)fluoranthene	78		
207-08-9-----	Benzo(k)fluoranthene	33		
50-32-8-----	Benzo(a)pyrene	57		
193-39-5-----	Indeno(1,2,3-cd)pyrene	36		
53-70-3-----	Dibenz(a,h)anthracene	12	J	
191-24-2-----	Benzo(g,h,i)perylene	43		

FORM I SV-1

TAP03 0200

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CTCS6

Lab Name: Lancaster Laboratories Contract: _____
Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____
Matrix: (soil/water) SOIL Lab Sample ID: 6850771
Sample wt/vol: 30.5 (g/mL) G Lab File ID: hk0408.d
Level: (low/med) LOW Date Received: 11/07/12
% Moisture: not dec: 20 dec: Date Extracted: 11/08/12
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/09/12
Injection Volume: 1 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: Extraction: Mic

CAS NO.	COMPOUND	CONCENTRATION UNITS:		
		(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol	41	U	
95-48-7-----	2-Methylphenol	41	U	
106-44-5-----	4-Methylphenol	41	U	
91-20-3-----	Naphthalene	15	J	
208-96-8-----	Acenaphthylene	7	J	
83-32-9-----	Acenaphthene	7	J	
132-64-9-----	Dibenzofuran	41	U	
86-73-7-----	Fluorene	8	J	
87-86-5-----	Pentachlorophenol	210	U	
85-01-8-----	Phenanthrene	97		
120-12-7-----	Anthracene	23		
206-44-0-----	Fluoranthene	140		
129-00-0-----	Pyrene	130		
56-55-3-----	Benzo(a)anthracene	65		
218-01-9-----	Chrysene	74		
205-99-2-----	Benzo(b)fluoranthene	100		
207-08-9-----	Benzo(k)fluoranthene	44		
50-32-8-----	Benzo(a)pyrene	74		
193-39-5-----	Indeno(1,2,3-cd)pyrene	51		
53-70-3-----	Dibenz(a,h)anthracene	23		
191-24-2-----	Benzo(g,h,i)perylene	68		

FORM I SV-1

Fraction: Semivolatiles by GC/MS

12312SLF026 / SBLKLF312					
Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Phenol	11/08/12	N.D.	ug/kg	17	33
2-Methylphenol	11/08/12	N.D.	ug/kg	17	33
4-Methylphenol	11/08/12	N.D.	ug/kg	17	33
Naphthalene	11/08/12	N.D.	ug/kg	3	17
Acenaphthylene	11/08/12	N.D.	ug/kg	3	17
Acenaphthene	11/08/12	N.D.	ug/kg	3	17
Dibenzofuran	11/08/12	N.D.	ug/kg	17	33
Fluorene	11/08/12	N.D.	ug/kg	3	17
Pentachlorophenol	11/08/12	N.D.	ug/kg	33	170
Phenanthrene	11/08/12	N.D.	ug/kg	3	17
Anthracene	11/08/12	N.D.	ug/kg	3	17
Fluoranthene	11/08/12	N.D.	ug/kg	3	17
Pyrene	11/08/12	N.D.	ug/kg	3	17
Benzo(a)anthracene	11/08/12	N.D.	ug/kg	3	17
Chrysene	11/08/12	N.D.	ug/kg	3	17
Benzo(b)fluoranthene	11/08/12	N.D.	ug/kg	3	17
Benzo(k)fluoranthene	11/08/12	N.D.	ug/kg	3	17
Benzo(a)pyrene	11/08/12	N.D.	ug/kg	3	17
Indeno(1,2,3-cd)pyrene	11/08/12	N.D.	ug/kg	3	17
Dibenz(a,h)anthracene	11/08/12	N.D.	ug/kg	3	17
Benzo(g,h,i)perylene	11/08/12	N.D.	ug/kg	3	17

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSTC5MS

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850737

Sample wt/vol: 30.5 (g/mL) G Lab File ID: hk0395.d

Level: (low/med) LOW Date Received: 11/07/12

% Moisture: not dec: 4 dec: Date Extracted: 11/08/12

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/08/12

Injection Volume: 1 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol	1500		
95-48-7-----	2-Methylphenol	1600		
106-44-5-----	4-Methylphenol	1500		
91-20-3-----	Naphthalene	1600		
208-96-8-----	Acenaphthylene	1800		
83-32-9-----	Acenaphthene	1600		
132-64-9-----	Dibenzofuran	1600		
86-73-7-----	Fluorene	1600		
87-86-5-----	Pentachlorophenol	1700		
85-01-8-----	Phenanthrene	1600		
120-12-7-----	Anthracene	1600		
206-44-0-----	Fluoranthene	1600		
129-00-0-----	Pyrene	1600		
56-55-3-----	Benzo(a)anthracene	1600		
218-01-9-----	Chrysene	1500		
205-99-2-----	Benzo(b)fluoranthene	1600		
207-08-9-----	Benzo(k)fluoranthene	1800		
50-32-8-----	Benzo(a)pyrene	1700		
193-39-5-----	Indeno(1,2,3-cd)pyrene	1600		
53-70-3-----	Dibenz(a,h)anthracene	1700		
191-24-2-----	Benzo(g,h,i)perylene	1600		

FORM I SV-1

TAP03 0212

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NSTC5MSD

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850737

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: hk0396.d

Level: (low/med) LOW

Date Received: 11/07/12

% Moisture: not dec: 4 dec:

Date Extracted: 11/08/12

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 11/08/12

Injection Volume: 1 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol		1500	
95-48-7-----	2-Methylphenol		1600	
106-44-5-----	4-Methylphenol		1500	
91-20-3-----	Naphthalene		1500	
208-96-8-----	Acenaphthylene		1700	
83-32-9-----	Acenaphthene		1600	
132-64-9-----	Dibenzofuran		1600	
86-73-7-----	Fluorene		1500	
87-86-5-----	Pentachlorophenol		1700	
85-01-8-----	Phenanthrene		1600	
120-12-7-----	Anthracene		1600	
206-44-0-----	Fluoranthene		1600	
129-00-0-----	Pyrene		1600	
56-55-3-----	Benzo(a)anthracene		1500	
218-01-9-----	Chrysene		1400	
205-99-2-----	Benzo(b)fluoranthene		1500	
207-08-9-----	Benzo(k)fluoranthene		1700	
50-32-8-----	Benzo(a)pyrene		1700	
193-39-5-----	Indeno(1,2,3-cd)pyrene		1600	
53-70-3-----	Dibenz(a,h)anthracene		1600	
191-24-2-----	Benzo(g,h,i)perylene		1600	

FORM I SV-1

TAP03 0213

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

312LFLCS8

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 312LFLCS

Sample wt/vol: 30.0 (g/mL) G Lab File ID: hk0393.d

Level: (low/med) LOW Date Received: _____

% Moisture: not dec: _____ dec: _____ Date Extracted: 11/08/12

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/08/12

Injection Volume: 1 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____ Extraction: Mic

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) LOQ	UG/KG	Q
108-95-2-----	Phenol		1500	
95-48-7-----	2-Methylphenol		1500	
106-44-5-----	4-Methylphenol		1500	
91-20-3-----	Naphthalene		1600	
208-96-8-----	Acenaphthylene		1700	
83-32-9-----	Acenaphthene		1600	
132-64-9-----	Dibenzofuran		1600	
86-73-7-----	Fluorene		1600	
87-86-5-----	Pentachlorophenol		1800	
85-01-8-----	Phenanthrene		1500	
120-12-7-----	Anthracene		1600	
206-44-0-----	Fluoranthene		1500	
129-00-0-----	Pyrene		1600	
56-55-3-----	Benzo(a)anthracene		1600	
218-01-9-----	Chrysene		1500	
205-99-2-----	Benzo(b)fluoranthene		1600	
207-08-9-----	Benzo(k)fluoranthene		1700	
50-32-8-----	Benzo(a)pyrene		1600	
193-39-5-----	Indeno(1,2,3-cd)pyrene		1600	
53-70-3-----	Dibenz(a,h)anthracene		1600	
191-24-2-----	Benzo(g,h,i)perylene		1600	

FORM I SV-1

TAP03 0214

Herbicides Data

Case Narrative/Conformance Summary

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP03

Pesticide Residue Analysis

Fraction: Herbicides

Sample #	Client ID	Matrix		DF	Comments
		Liquid	Solid		
6850737	TCN-STC5		X	1	
6850738	TCN-STC6		X	1	
6850741	TCN-STC7		X	1	
6850744	TCN-STC8		X	1	
6850747	TCN-STC9		X	1	
6850750	TCN-STC10		X	1	
6850753	TCN-STC11		X	1	
6850756	TCN-STC12		X	1	
6850759	POC-TSC2		X	1	
6850764	POC-TSC3		X	1	
6850765	POC-TSC4		X	1	
6850770	POC-TSC5		X	1	
6850771	POC-TSC6		X	1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

Sample numbers: 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-6850765, 6850770-6850771: Analysis: 10401
For dual column analyses in which the calibration (initial and/or continuing) response is outside the acceptance criteria on one column and within criteria on the second column affected analytes are reported from the compliant column. The sample raw data identifies the column used to report each analyte.

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP03

Pesticide Residue Analysis

Fraction: Herbicides

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

LCS/LCSD

Sample numbers: 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764, 6850770: Analysis: 10401

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is high and the target analyte(s) was not detected in the sample, the data is reported.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E = out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Narrative Reviewed and Approved

11/16/12 by
(Date)

Nancy E. Saunders
Nancy E. Saunders
Specialist

Sample Data

ORGANICS ANALYSIS DATA SHEET

NSTC5

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123120022ALab Code: Case No.: SAS No.: SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850737Sample wt/vol: 30.4 (g/ml) gLab File ID: 4H15306.036.RAW% Moisture: 3.6 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/9/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS	
		(UG/L or UG/KG) <u>ug/kg</u>	Q
93-72-1	2,4,5-TP	0.77	U

ORGANICS ANALYSIS DATA SHEET

NSTC6

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123120022ALab Code: Case No.: SAS No.: SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850738Sample wt/vol: 30.1 (g/ml) gLab File ID: 4H15306.039.RAW% Moisture: 3.3 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/9/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS	
		(UG/L or UG/KG) <u>ug/kg</u>	Q
93-72-1	2,4,5-TP	0.77	U

ORGANICS ANALYSIS DATA SHEET

NSTC7

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123120022ALab Code: Case No.: SAS No.: SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850741Sample wt/vol: 30 (g/ml) gLab File ID: 4H15306.040.RAW% Moisture: 4.2 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/9/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
93-72-1	2,4,5-TP	0.78	U

ORGANICS ANALYSIS DATA SHEET

NSTC8

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123120022ALab Code: Case No.: SAS No.: SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850744Sample wt/vol: 30.2 (g/ml) gLab File ID: 4H15306.041.RAW% Moisture: 3.2 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/9/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS	
		(UG/L or UG/KG) <u>ug/kg</u>	Q
93-72-1	2,4,5-TP	0.77	U

ORGANICS ANALYSIS DATA SHEET

NSTC9

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123120022A
Lab Code: Case No.: SAS No.: SDG No.: TAP03

Matrix: (soil/water) SOILLab Sample ID: 6850747Sample wt/vol: 30 (g/ml) gLab File ID: 4H15306.042.RAW% Moisture: 3.3 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/9/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS	
		(UG/L or UG/KG) <u>ug/kg</u>	Q
93-72-1	2,4,5-TP	0.78	U

ORGANICS ANALYSIS DATA SHEET

STC10

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123120022ALab Code: Case No.: SAS No.: SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850750Sample wt/vol: 30 (g/ml) gLab File ID: 4H15306.045.RAW% Moisture: 3.8 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/9/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS	
		(UG/L or UG/KG) <u>ug/kg</u>	Q
93-72-1	2,4,5-TP	0.78	U

ORGANICS ANALYSIS DATA SHEET

STC11

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123120022A
Lab Code: Case No.: SAS No.: SDG No.: TAP03

Matrix: (soil/water) SOILLab Sample ID: 6850753Sample wt/vol: 30 (g/ml) gLab File ID: 4H15306.046.RAW% Moisture: 3.2 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/9/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS	
		(UG/L or UG/KG) <u>ug/kg</u>	Q
93-72-1	2,4,5-TP	0.77	U

ORGANICS ANALYSIS DATA SHEET

STC12

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123120022A
Lab Code: Case No.: SAS No.: SDG No.: TAP03
Matrix: (soil/water) SOIL Lab Sample ID: 6850756
Sample wt/vol: 30 (g/ml) g Lab File ID: 4H15306.047.RAW
% Moisture: 5.8 Decanted: (Y/N) Date Received: 11/7/2012
Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 11/8/2012
Concentrated Extract Volume: 10000 (uL) Date Analyzed: 11/9/2012
Injection Volume: 2 (uL) Dilution Factor: 1
GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS	
		(UG/L or UG/KG) <u>ug/kg</u>	Q
93-72-1	2,4,5-TP	0.80	U

ORGANICS ANALYSIS DATA SHEET

CTCS2

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123120022A
Lab Code: Case No.: SAS No.: SDG No.: TAP03

Matrix: (soil/water) SOILLab Sample ID: 6850759Sample wt/vol: 30.3 (g/ml) gLab File ID: 4H15306.048.RAW% Moisture: 22.8 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/9/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS	
		(UG/L or UG/KG) <u>ug/kg</u>	Q
93-72-1	2,4,5-TP	0.96	U

ORGANICS ANALYSIS DATA SHEET

CTCS3

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123120022ALab Code: Case No.: SAS No.: SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850764Sample wt/vol: 30 (g/ml) gLab File ID: 4H15306.049.RAW% Moisture: 22.9 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/9/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS	
		(UG/L or UG/KG) <u>ug/kg</u>	Q
93-72-1	2,4,5-TP	0.97	U

ORGANICS ANALYSIS DATA SHEET

CTCS4

Lab Name: Lancaster Laboratories Contract:Batchnumber: 123140018A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850765Sample wt/vol: 30.1 (g/ml) gLab File ID: 5H15306.022.RAW% Moisture: 22.3

Decanted: (Y/N)

Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 11/10/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/12/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.

COMPOUND

(UG/L or UG/KG) ug/kg

Q

93-72-1

2,4,5-TP

0.96U

ORGANICS ANALYSIS DATA SHEET

CTCS5

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123120022A
Lab Code: Case No.: SAS No.: SDG No.: TAP03

Matrix: (soil/water) SOILLab Sample ID: 6850770Sample wt/vol: 30.2 (g/ml) gLab File ID: 4H15306.051.RAW% Moisture: 22.7 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/9/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS	
		(UG/L or UG/KG) <u>ug/kg</u>	Q
93-72-1	2,4,5-TP	0.96	U

ORGANICS ANALYSIS DATA SHEET

CTCS6

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123140018A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850771Sample wt/vol: 30.3 (g/ml) gLab File ID: 5H15306.025.RAW% Moisture: 20.2

Decanted: (Y/N)

Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 11/10/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/12/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS	
		(UG/L or UG/KG) <u>ug/kg</u>	Q
93-72-1	2,4,5-TP	0.93	U

ORGANICS ANALYSIS DATA SHEET

PBLK22312

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123120022A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water) SOILLab Sample ID: BLANKASample wt/vol: 30 (g/ml) gLab File ID: 4H15306.033.RAW

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/9/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
75-99-0	Dalapon	44	U
1918-00-9	Dicamba	4.0	U
93-65-2	Mcpp	750	U
94-74-6	Mcpa	760	U
120-36-5	2,4-DP	9.0	U
94-75-7	2,4-D	12	U
87-86-5	PCP	0.33	U
93-72-1	2,4,5-TP	0.75	U
93-76-5	2,4,5-T	0.82	U
94-82-6	2,4-DB	6.2	U
88-85-7	Dinoseb	8.0	U
1918-02-1	Picloram	50	U
70-30-4	Hexachlorophene	8.0	U

ORGANICS ANALYSIS DATA SHEET

LCS22312

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123120022A

Lab Code: Case No.: SAS No.: SDG No.:

Matrix: (soil/water) SOILLab Sample ID: LCSASample wt/vol: 30 (g/ml) gLab File ID: 4H15306.034.RAW

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/9/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
75-99-0	Dalapon	190	
1918-00-9	Dicamba	10	J
93-65-2	Mcpp	12000	
94-74-6	Mcpa	11000	
120-36-5	2,4-DP	110	
94-75-7	2,4-D	100	
87-86-5	PCP	34	
93-72-1	2,4,5-TP	11	
93-76-5	2,4,5-T	8.8	
94-82-6	2,4-DB	100	
88-85-7	Dinoseb	39	
1918-02-1	Picloram	140	

ORGANICS ANALYSIS DATA SHEET

PBLK18314

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123140018A

Lab Code: Case No.: SAS No.: SDG No.:

Matrix: (soil/water) SOILLab Sample ID: BLANKASample wt/vol: 30 (g/ml) gLab File ID: 5H15306.017.RAW

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 11/10/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/12/2012Injection Volume: 2 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) N pH:Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
75-99-0	Dalapon	44	U
1918-00-9	Dicamba	4.0	U
93-65-2	Mcpp	750	U
94-74-6	Mcpa	760	U
120-36-5	2,4-DP	9.0	U
94-75-7	2,4-D	12	U
87-86-5	PCP	0.33	U
93-72-1	2,4,5-TP	0.75	U
93-76-5	2,4,5-T	0.82	U
94-82-6	2,4-DB	6.2	U
88-85-7	Dinoseb	8.0	U
1918-02-1	Picloram	50	U
70-30-4	Hexachlorophene	8.0	U

ORGANICS ANALYSIS DATA SHEET

LCS18314

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123140018A

Lab Code: Case No.: SAS No.: SDG No.:

Matrix: (soil/water) SOILLab Sample ID: LCSASample wt/vol: 30 (g/ml) gLab File ID: 5H15306.018.RAW

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) SONCDate Extracted: 11/10/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/12/2012Injection Volume: 2 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
75-99-0	Dalapon	95	
1918-00-9	Dicamba	8.0	J
93-65-2	Mcpp	9100	
94-74-6	Mcpa	8400	
120-36-5	2,4-DP	100	
94-75-7	2,4-D	85	
87-86-5	PCP	27	
93-72-1	2,4,5-TP	9.0	
93-76-5	2,4,5-T	7.9	
94-82-6	2,4-DB	87	
88-85-7	Dinoseb	30	
1918-02-1	Picloram	140	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

LCS22312

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123120022A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Lab Sample ID: LCSADate(s) Analyzed: 11/9/201211/9/2012Instrument ID (1): H8456AInstrument ID (2): H8456BGC Column (1): ZB-XLBID: 0.32 (mm)GC Column (2): ZB-35ID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Dalapon	1	2.66	2.61	2.69	190	17.1
	2	2.72	2.68	2.76	160	
Dicamba	1	8.42	8.37	8.45	9.4	6.2
	2	8.60	8.55	8.65	10	
Mcpp	1	8.70	8.67	8.79	12000	29.7
	2	8.67	8.65	8.75	8900	
Mcpa	1	8.96	8.93	9.05	11000	9.5
	2	9.00	8.98	9.10	10000	
2,4-DP	1	9.33	9.27	9.37	110	0.0
	2	9.33	9.27	9.39	110	
2,4-D	1	9.63	9.56	9.68	100	4.1
	2	9.73	9.67	9.79	96	
PCP	1	10.37	10.31	10.43	34	3.0
	2	10.15	10.09	10.21	33	
2,4,5-TP	1	10.58	10.51	10.63	11	9.5
	2	10.50	10.44	10.56	10	
2,4,5-T	1	10.94	10.87	10.99	8.8	3.5
	2	10.95	10.89	11.01	8.5	
2,4-DB	1	11.48	11.41	11.53	99	1.0
	2	11.41	11.35	11.47	100	
Dinoseb	1	11.60	11.53	11.65	39	8.0
	2	11.25	11.19	11.31	36	
Picloram	1	12.23	12.19	12.25	140	7.4
	2	12.84	12.81	12.87	130	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

LCS18314

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123140018A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Lab Sample ID: LCSADate(s) Analyzed: 11/12/2012 11/12/2012Instrument ID (1): H8456AInstrument ID (2): H8456BGC Column (1): ZB-XLBID: 0.32 (mm)GC Column (2): ZB-35ID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Dalapon	1	2.65	2.61	2.69	95	2.1
	2	2.71	2.68	2.76	93	
Dicamba	1	8.41	8.37	8.45	7.6	5.1
	2	8.59	8.55	8.65	8.0	
Mcpp	1	8.69	8.67	8.79	9100	20.6
	2	8.65	8.65	8.75	7400	
Mcpa	1	8.95	8.93	9.05	8400	15.4
	2	8.99	8.98	9.10	7200	
2,4-DP	1	9.31	9.27	9.37	92	8.3
	2	9.32	9.27	9.39	100	
2,4-D	1	9.62	9.56	9.68	85	0.0
	2	9.72	9.67	9.79	85	
PCP	1	10.36	10.31	10.43	27	3.8
	2	10.13	10.09	10.21	26	
2,4,5-TP	1	10.57	10.51	10.63	9.0	5.7
	2	10.49	10.44	10.56	8.5	
2,4,5-T	1	10.93	10.87	10.99	7.9	9.3
	2	10.94	10.89	11.01	7.2	
2,4-DB	1	11.47	11.41	11.53	87	2.3
	2	11.40	11.35	11.47	85	
Dinoseb	1	11.59	11.53	11.65	30	10.5
	2	11.23	11.19	11.31	27	
Picloram	1	12.22	12.19	12.25	140	15.4
	2	12.82	12.81	12.87	120	

Pesticides Data

Case Narrative/Conformance Summary

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP03

Pesticide Residue Analysis

Fraction: Pesticides

Sample #	Client ID	Matrix			Comments
		Liquid	Solid	DF	
6850737	TCN-STC5		X	1	
6850738	TCN-STC6		X	1	
6850741	TCN-STC7		X	1	
6850744	TCN-STC8		X	1	
6850747	TCN-STC9		X	1	
6850750	TCN-STC10		X	1	
6850753	TCN-STC11		X	1	
6850756	TCN-STC12		X	1	
6850759	POC-TSC2		X	1	
6850764	POC-TSC3		X	1	
6850765	POC-TSC4		X	1	
6850770	POC-TSC5		X	1	
6850771	POC-TSC6		X	1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

Sample numbers: 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-6850765, 6850770-6850771: Analysis: 10738)

For dual column analyses in which the calibration (initial and/or continuing) response is outside the acceptance criteria on one column and within criteria on the second column affected analytes are reported from the compliant column. The sample raw data identifies the column used to report each analyte.

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP03

Pesticide Residue Analysis

Fraction: Pesticides

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

All QC is within specification.

SAMPLE ANALYSIS:

Sample numbers: 6850759, 6850764-6850765, 6850770-6850771: Analysis: 10738
Reporting limits were raised due to interference from the sample matrix.

No problems were encountered with the analysis of the samples.

Additional Comments

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Narrative Reviewed and Approved 11/21/12 by
(Date)

Nancy E. Saunders
Nancy E. Saunders
Specialist

Sample Data

ORGANICS ANALYSIS DATA SHEET

NSTC5

Lab Name: Lancaster Laboratories Contract:Batchnumber: 123130020A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850737Sample wt/vol: 30.3 (g/ml) gLab File ID: 4P16311.0032.RAW% Moisture: 3.6

Decanted: (Y/N)

Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/13/2012Injection Volume: 1 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) Y pH:Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
118-74-1	Hcb	0.22	U
319-84-6	alpha-BHC	0.17	U
58-89-9	gamma-BHC (Lindane)	0.17	U
319-85-7	beta-BHC	0.99	U
319-86-8	delta-BHC	0.46	U
76-44-8	Heptachlor	0.17	U
309-00-2	Aldrin	0.17	U
5103-71-9	alpha-Chlordane	0.17	U
72-55-9	4,4'-DDE	0.34	U
959-98-8	Endosulfan I	0.23	U
60-57-1	Dieldrin	0.34	U
72-20-8	Endrin	0.34	U
72-54-8	4,4'-DDD	0.34	U
33213-65-9	Endosulfan II	0.34	U
50-29-3	4,4'-DDT	0.36	U
1031-07-8	Endosulfan sulfate	0.34	U

ORGANICS ANALYSIS DATA SHEET

NSTC6

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123130020A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850738Sample wt/vol: 30.3 (g/ml) gLab File ID: 4P16311.0033.RAW% Moisture: 3.3

Decanted: (Y/N)

Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/13/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) Y pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
118-74-1	Hcb	0.22	U
319-84-6	alpha-BHC	0.17	U
58-89-9	gamma-BHC (Lindane)	0.17	U
319-85-7	beta-BHC	0.98	U
319-86-8	delta-BHC	0.46	U
76-44-8	Heptachlor	0.17	U
309-00-2	Aldrin	0.17	U
5103-71-9	alpha-Chlordane	0.17	U
72-55-9	4,4'-DDE	0.34	U
959-98-8	Endosulfan I	0.23	U
60-57-1	Dieldrin	0.34	U
72-20-8	Endrin	0.34	U
72-54-8	4,4'-DDD	0.34	U
33213-65-9	Endosulfan II	0.34	U
50-29-3	4,4'-DDT	0.36	U
1031-07-8	Endosulfan sulfate	0.34	U

ORGANICS ANALYSIS DATA SHEET

NSTC7

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123130020A
 Lab Code: Case No.: SAS No.: SDG No.: TAP03

Matrix: (soil/water) SOILLab Sample ID: 6850741Sample wt/vol: 30.2 (g/ml) gLab File ID: 4P16311.0036.RAW% Moisture: 4.2 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/13/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) Y pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
118-74-1	Hcb	0.22	U
319-84-6	alpha-BHC	0.18	U
58-89-9	gamma-BHC (Lindane)	0.18	U
319-85-7	beta-BHC	1.0	U
319-86-8	delta-BHC	0.47	U
76-44-8	Heptachlor	0.18	U
309-00-2	Aldrin	0.18	U
5103-71-9	alpha-Chlordane	0.18	U
72-55-9	4,4'-DDE	0.34	U
959-98-8	Endosulfan I	0.23	U
60-57-1	Dieldrin	0.34	U
72-20-8	Endrin	0.34	U
72-54-8	4,4'-DDD	0.34	U
33213-65-9	Endosulfan II	0.34	U
50-29-3	4,4'-DDT	0.36	U
1031-07-8	Endosulfan sulfate	0.34	U

ORGANICS ANALYSIS DATA SHEET

NSTC8

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123130020A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850744Sample wt/vol: 30.1 (g/ml) gLab File ID: 4P16311.0037.RAW% Moisture: 3.2

Decanted: (Y/N)

Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/13/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) Y pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
118-74-1	Hcb	0.22	U
319-84-6	alpha-BHC	0.18	U
58-89-9	gamma-BHC (Lindane)	0.18	U
319-85-7	beta-BHC	0.99	U
319-86-8	delta-BHC	0.46	U
76-44-8	Heptachlor	0.18	U
309-00-2	Aldrin	0.18	U
5103-71-9	alpha-Chlordane	0.18	U
72-55-9	4,4'-DDE	0.34	U
959-98-8	Endosulfan I	0.23	U
60-57-1	Dieldrin	0.34	U
72-20-8	Endrin	0.34	U
72-54-8	4,4'-DDD	0.34	U
33213-65-9	Endosulfan II	0.34	U
50-29-3	4,4'-DDT	0.36	U
1031-07-8	Endosulfan sulfate	0.34	U

ORGANICS ANALYSIS DATA SHEET

NSTC9

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123130020A
 Lab Code: Case No.: SAS No.: SDG No.: TAP03

Matrix: (soil/water) SOILLab Sample ID: 6850747Sample wt/vol: 30.4 (g/ml) gLab File ID: 4P16311.0038.RAW% Moisture: 3.3 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/13/2012Injection Volume: 1 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) Y pH:Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
118-74-1	Hcb	0.21	U
319-84-6	alpha-BHC	0.17	U
58-89-9	gamma-BHC (Lindane)	0.17	U
319-85-7	beta-BHC	0.98	U
319-86-8	delta-BHC	0.46	U
76-44-8	Heptachlor	0.17	U
309-00-2	Aldrin	0.17	U
5103-71-9	alpha-Chlordane	0.17	U
72-55-9	4,4'-DDE	0.34	U
959-98-8	Endosulfan I	0.22	U
60-57-1	Dieldrin	0.34	U
72-20-8	Endrin	0.34	U
72-54-8	4,4'-DDD	0.34	U
33213-65-9	Endosulfan II	0.34	U
50-29-3	4,4'-DDT	0.36	U
1031-07-8	Endosulfan sulfate	0.34	U

ORGANICS ANALYSIS DATA SHEET

STC10

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123130020A
 Lab Code: Case No.: SAS No.: SDG No.: TAP03

Matrix: (soil/water) SOILLab Sample ID: 6850750Sample wt/vol: 30.4 (g/ml) gLab File ID: 4P16311.0039.RAW% Moisture: 3.8 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/13/2012Injection Volume: 1 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) Y pH:Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
118-74-1	Hcb	0.22	U
319-84-6	alpha-BHC	0.17	U
58-89-9	gamma-BHC (Lindane)	0.17	U
319-85-7	beta-BHC	0.98	U
319-86-8	delta-BHC	0.46	U
76-44-8	Heptachlor	0.17	U
309-00-2	Aldrin	0.17	U
5103-71-9	alpha-Chlordane	0.17	U
72-55-9	4,4'-DDE	0.34	U
959-98-8	Endosulfan I	0.23	U
60-57-1	Dieldrin	0.34	U
72-20-8	Endrin	0.34	U
72-54-8	4,4'-DDD	0.34	U
33213-65-9	Endosulfan II	0.34	U
50-29-3	4,4'-DDT	0.36	U
1031-07-8	Endosulfan sulfate	0.34	U

ORGANICS ANALYSIS DATA SHEET

STC11

Lab Name: Lancaster Laboratories Contract:Batchnumber: 123130020A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850753Sample wt/vol: 30.5 (g/ml) gLab File ID: 4P16311.0040.RAW% Moisture: 3.2 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/13/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) Y pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
118-74-1	Hcb	0.21	U
319-84-6	alpha-BHC	0.17	U
58-89-9	gamma-BHC (Lindane)	0.17	U
319-85-7	beta-BHC	0.98	U
319-86-8	delta-BHC	0.46	U
76-44-8	Heptachlor	0.17	U
309-00-2	Aldrin	0.17	U
5103-71-9	alpha-Chlordane	0.17	U
72-55-9	4,4'-DDE	0.34	U
959-98-8	Endosulfan I	0.22	U
60-57-1	Dieldrin	0.34	U
72-20-8	Endrin	0.34	U
72-54-8	4,4'-DDD	0.34	U
33213-65-9	Endosulfan II	0.34	U
50-29-3	4,4'-DDT	0.36	U
1031-07-8	Endosulfan sulfate	0.34	U

ORGANICS ANALYSIS DATA SHEET

STC12

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123130020A
 Lab Code: Case No.: SAS No.: SDG No.: TAP03

Matrix: (soil/water) SOILLab Sample ID: 6850756Sample wt/vol: 30.5 (g/ml) gLab File ID: 4P16311.0041.RAW% Moisture: 5.8 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/13/2012Injection Volume: 1 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) Y pH:Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
118-74-1	Hcb	0.22	U
319-84-6	alpha-BHC	0.18	U
58-89-9	gamma-BHC (Lindane)	0.18	U
319-85-7	beta-BHC	1.0	U
319-86-8	delta-BHC	0.47	U
76-44-8	Heptachlor	0.18	U
309-00-2	Aldrin	0.18	U
5103-71-9	alpha-Chlordane	0.18	U
72-55-9	4,4'-DDE	0.34	U
959-98-8	Endosulfan I	0.23	U
60-57-1	Dieldrin	0.34	U
72-20-8	Endrin	0.34	U
72-54-8	4,4'-DDD	0.34	U
33213-65-9	Endosulfan II	0.34	U
50-29-3	4,4'-DDT	0.37	U
1031-07-8	Endosulfan sulfate	0.34	U

ORGANICS ANALYSIS DATA SHEET

CTCS2

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123130020A
 Lab Code: Case No.: SAS No.: SDG No.: TAP03

Matrix: (soil/water) SOILLab Sample ID: 6850759Sample wt/vol: 30.4 (g/ml) gLab File ID: 4P16311.0042.RAW% Moisture: 22.8 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/13/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) Y pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
118-74-1	Hcb	1.5	P
319-84-6	alpha-BHC	0.81	U
58-89-9	gamma-BHC (Lindane)	0.70	U
319-85-7	beta-BHC	1.2	U
319-86-8	delta-BHC	0.58	U
76-44-8	Heptachlor	0.39	U
309-00-2	Aldrin	0.42	J
5103-71-9	alpha-Chlordane	1.4	U
72-55-9	4,4'-DDE	2.5	
959-98-8	Endosulfan I	0.31	U
60-57-1	Dieldrin	1.9	J
72-20-8	Endrin	0.89	U
72-54-8	4,4'-DDD	0.98	U
33213-65-9	Endosulfan II	0.42	U
50-29-3	4,4'-DDT	2.4	
1031-07-8	Endosulfan sulfate	0.42	U

ORGANICS ANALYSIS DATA SHEET

CTCS3

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123130020A
 Lab Code: Case No.: SAS No.: SDG No.: TAP03

Matrix: (soil/water) SOILLab Sample ID: 6850764Sample wt/vol: 30.1 (g/ml) gLab File ID: 4P16311.0043.RAW% Moisture: 22.9 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/13/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) Y pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
118-74-1	Hcb	0.80	JP
319-84-6	alpha-BHC	0.27	U
58-89-9	gamma-BHC (Lindane)	0.22	U
319-85-7	beta-BHC	1.2	U
319-86-8	delta-BHC	0.58	U
76-44-8	Heptachlor	0.36	U
309-00-2	Aldrin	0.22	U
5103-71-9	alpha-Chlordane	0.89	U
72-55-9	4,4'-DDE	2.8	
959-98-8	Endosulfan I	0.28	U
60-57-1	Dieldrin	1.2	J
72-20-8	Endrin	1.4	U
72-54-8	4,4'-DDD	1.2	U
33213-65-9	Endosulfan II	0.49	J
50-29-3	4,4'-DDT	2.4	
1031-07-8	Endosulfan sulfate	0.43	U

ORGANICS ANALYSIS DATA SHEET

CTCS4

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123130020A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850765Sample wt/vol: 30.1 (g/ml) gLab File ID: 4P16311.0044.RAW% Moisture: 22.3

Decanted: (Y/N)

Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/13/2012Injection Volume: 1 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) Y pH:Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
118-74-1	Hcb	1.5	P
319-84-6	alpha-BHC	0.22	U
58-89-9	gamma-BHC (Lindane)	0.22	U
319-85-7	beta-BHC	1.2	U
319-86-8	delta-BHC	0.58	U
76-44-8	Heptachlor	0.75	U
309-00-2	Aldrin	0.30	JP
5103-71-9	alpha-Chlordane	2.2	U
72-55-9	4,4'-DDE	2.2	
959-98-8	Endosulfan I	0.28	U
60-57-1	Dieldrin	3.1	U
72-20-8	Endrin	1.1	U
72-54-8	4,4'-DDD	2.1	U
33213-65-9	Endosulfan II	0.83	J
50-29-3	4,4'-DDT	3.5	
1031-07-8	Endosulfan sulfate	0.42	U

ORGANICS ANALYSIS DATA SHEET

CTCS5

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123130020A
 Lab Code: Case No.: SAS No.: SDG No.: TAP03

Matrix: (soil/water) SOILLab Sample ID: 6850770Sample wt/vol: 30.4 (g/ml) gLab File ID: 4P16311.0045.RAW% Moisture: 22.7 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/14/2012Injection Volume: 1 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) Y pH:Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
118-74-1	Hcb	3.1	P
319-84-6	alpha-BHC	0.92	JP
58-89-9	gamma-BHC (Lindane)	0.97	U
319-85-7	beta-BHC	1.2	U
319-86-8	delta-BHC	0.57	U
76-44-8	Heptachlor	0.41	U
309-00-2	Aldrin	0.27	U
5103-71-9	alpha-Chlordane	0.22	U
72-55-9	4,4'-DDE	3.7	
959-98-8	Endosulfan I	0.64	J
60-57-1	Dieldrin	2.1	J
72-20-8	Endrin	1.0	U
72-54-8	4,4'-DDD	2.3	U
33213-65-9	Endosulfan II	0.60	J
50-29-3	4,4'-DDT	2.9	
1031-07-8	Endosulfan sulfate	0.42	U

ORGANICS ANALYSIS DATA SHEET

CTCS6

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123130020A
 Lab Code: Case No.: SAS No.: SDG No.: TAP03

Matrix: (soil/water) SOILLab Sample ID: 6850771Sample wt/vol: 30.2 (g/ml) gLab File ID: 4P16311.0046.RAW% Moisture: 20.2 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/14/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) Y pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
118-74-1	Hcb	4.5	
319-84-6	alpha-BHC	0.56	U
58-89-9	gamma-BHC (Lindane)	4.4	
319-85-7	beta-BHC	1.2	U
319-86-8	delta-BHC	0.56	U
76-44-8	Heptachlor	0.63	JP
309-00-2	Aldrin	0.21	U
5103-71-9	alpha-Chlordane	0.21	U
72-55-9	4,4'-DDE	3.7	
959-98-8	Endosulfan I	0.27	U
60-57-1	Dieldrin	1.4	J
72-20-8	Endrin	1.0	U
72-54-8	4,4'-DDD	1.8	U
33213-65-9	Endosulfan II	0.62	J
50-29-3	4,4'-DDT	2.0	J
1031-07-8	Endosulfan sulfate	0.41	U

ORGANICS ANALYSIS DATA SHEET

PBLK20313

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123130020A
 Lab Code: Case No.: SAS No.: SDG No.:

Matrix: (soil/water) SOILLab Sample ID: BLANKASample wt/vol: 30 (g/ml) gLab File ID: 4P16311.0030.RAW

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/13/2012Injection Volume: 1 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) Y pH:Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
118-74-1	Hcb	0.21	U
319-84-6	alpha-BHC	0.17	U
58-89-9	gamma-BHC (Lindane)	0.17	U
319-85-7	beta-BHC	0.96	U
319-86-8	delta-BHC	0.45	U
76-44-8	Heptachlor	0.17	U
309-00-2	Aldrin	0.17	U
297-78-9	Telodrin	0.40	U
3424-82-6	o,p-DDE	0.33	U
1024-57-3	Heptachlor epoxide	0.17	U
5103-74-2	gamma-Chlordane	0.17	U
5103-71-9	alpha-Chlordane	0.17	U
72-55-9	4,4'-DDE	0.33	U
959-98-8	Endosulfan I	0.22	U
53-19-0	o,p-DDD	0.33	U
60-57-1	Dieldrin	0.33	U
789-02-6	o,p-DDT	0.33	U
72-20-8	Endrin	0.33	U
72-54-8	4,4'-DDD	0.33	U
143-50-0	Kepone	2.3	U
33213-65-9	Endosulfan II	0.33	U
50-29-3	4,4'-DDT	0.35	U
7421-93-4	Endrin aldehyde	0.33	U
72-43-5	Methoxychlor	1.7	U
2385-85-5	Mirex	0.35	U
1031-07-8	Endosulfan sulfate	0.33	U
53494-70-5	Endrin ketone	0.60	U
57-74-9	Chlordane (Technical)	4.0	U
8001-35-2	Toxaphene	12	U

ORGANICS ANALYSIS DATA SHEET

LCS20313

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123130020A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water) SOILLab Sample ID: LCSASample wt/vol: 30 (g/ml) gLab File ID: 4P16311.0031.RAW

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/13/2012Injection Volume: 1 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) Y pH:Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
319-84-6	alpha-BHC	3.5	
58-89-9	gamma-BHC (Lindane)	3.5	
319-85-7	beta-BHC	3.5	
319-86-8	delta-BHC	3.4	
76-44-8	Heptachlor	3.2	
309-00-2	Aldrin	3.1	
1024-57-3	Heptachlor epoxide	3.2	
5103-74-2	gamma-Chlordane	3.4	
5103-71-9	alpha-Chlordane	3.1	
72-55-9	4,4'-DDE	6.4	
959-98-8	Endosulfan I	3.0	
60-57-1	Dieldrin	6.6	
72-20-8	Endrin	6.3	
72-54-8	4,4'-DDD	6.6	
33213-65-9	Endosulfan II	6.2	
50-29-3	4,4'-DDT	6.3	
7421-93-4	Endrin aldehyde	6.1	
72-43-5	Methoxychlor	33	
1031-07-8	Endosulfan sulfate	6.7	
53494-70-5	Endrin ketone	6.5	

ORGANICS ANALYSIS DATA SHEET

NSTC6MS

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123130020A
 Lab Code: Case No.: SAS No.: SDG No.: TAP03

Matrix: (soil/water) SOILLab Sample ID: 6850738Sample wt/vol: 30 (g/ml) gLab File ID: 4P16311.0034.RAW% Moisture: 3.3 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/13/2012Injection Volume: 1 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) Y pH:Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
319-84-6	alpha-BHC	3.2	
58-89-9	gamma-BHC (Lindane)	3.1	
319-85-7	beta-BHC	3.0	
319-86-8	delta-BHC	2.7	
76-44-8	Heptachlor	3.0	
309-00-2	Aldrin	2.9	
1024-57-3	Heptachlor epoxide	3.0	
5103-74-2	gamma-Chlordane	3.0	
5103-71-9	alpha-Chlordane	3.0	
72-55-9	4,4'-DDE	6.1	
959-98-8	Endosulfan I	2.7	
60-57-1	Dieldrin	6.1	
72-20-8	Endrin	5.8	
72-54-8	4,4'-DDD	6.2	
33213-65-9	Endosulfan II	5.4	
50-29-3	4,4'-DDT	6.2	
7421-93-4	Endrin aldehyde	5.6	
72-43-5	Methoxychlor	32	
1031-07-8	Endosulfan sulfate	6.3	
53494-70-5	Endrin ketone	6.3	

ORGANICS ANALYSIS DATA SHEET

NSTC6MSD

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123130020A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850738Sample wt/vol: 30.2 (g/ml) gLab File ID: 4P16311.0035.RAW% Moisture: 3.3

Decanted: (Y/N)

Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) MICRODate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/13/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) Y pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
319-84-6	alpha-BHC	3.5	
58-89-9	gamma-BHC (Lindane)	3.4	
319-85-7	beta-BHC	3.3	
319-86-8	delta-BHC	2.8	
76-44-8	Heptachlor	3.3	
309-00-2	Aldrin	3.2	
1024-57-3	Heptachlor epoxide	3.4	
5103-74-2	gamma-Chlordane	3.3	
5103-71-9	alpha-Chlordane	3.3	
72-55-9	4,4'-DDE	6.7	
959-98-8	Endosulfan I	3.1	
60-57-1	Dieldrin	6.8	
72-20-8	Endrin	6.4	
72-54-8	4,4'-DDD	6.8	
33213-65-9	Endosulfan II	6.2	
50-29-3	4,4'-DDT	6.7	
7421-93-4	Endrin aldehyde	6.1	
72-43-5	Methoxychlor	35	
1031-07-8	Endosulfan sulfate	6.9	
53494-70-5	Endrin ketone	6.8	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

CTCS2

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123130020A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Lab Sample ID: 6850759Date(s) Analyzed: 11/13/2012 11/13/2012Instrument ID (1): H5262AInstrument ID (2): H5262BGC Column (1): RTX-CLPID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Hcb	1	3.14	3.09	3.15	1.5	63.6
	2	3.15	3.11	3.17	2.9	
alpha-BHC	1	3.28	3.23	3.29	0.81	38.8
	2	3.28	3.22	3.28	1.2	
Aldrin	1	4.11	4.11	4.17	0.42	10.0
	2	4.11	4.10	4.16	0.38	
4,4'-DDE	1	4.82	4.80	4.86	2.5	4.1
	2	4.91	4.89	4.95	2.4	
Dieldrin	1	5.07	5.03	5.09	1.9	23.5
	2	5.04	5.02	5.08	1.5	
4,4'-DDT	1	5.47	5.45	5.51	2.8	15.4
	2	5.57	5.55	5.61	2.4	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

CTCS3

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123130020A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Lab Sample ID: 6850764Date(s) Analyzed: 11/13/2012 11/13/2012Instrument ID (1): H5262AInstrument ID (2): H5262BGC Column (1): RTX-CLPID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Hcb	1	3.14	3.09	3.15	0.80	47.6
	2	3.15	3.11	3.17	1.3	
4,4'-DDE	1	4.82	4.80	4.86	2.4	15.4
	2	4.91	4.89	4.95	2.8	
Dieldrin	1	5.08	5.03	5.09	1.2	0.0
	2	5.04	5.02	5.08	1.2	
Endosulfan II	1	5.41	5.37	5.43	0.49	2.0
	2	5.43	5.40	5.46	0.50	
4,4'-DDT	1	5.47	5.45	5.51	1.8	28.6
	2	5.57	5.55	5.61	2.4	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

CTCS4

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123130020A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Lab Sample ID: 6850765Date(s) Analyzed: 11/13/2012 11/13/2012Instrument ID (1): H5262AInstrument ID (2): H5262BGC Column (1): RTX-CLPID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Hcb	1	3.14	3.09	3.15	1.5	60.5
	2	3.15	3.11	3.17	2.8	
Aldrin	1	4.11	4.11	4.17	0.30	89.9
	2	4.10	4.10	4.16	0.79	
4,4'-DDE	1	4.82	4.80	4.86	2.1	4.7
	2	4.91	4.89	4.95	2.2	
Endosulfan II	1	5.41	5.37	5.43	0.83	4.9
	2	5.42	5.40	5.46	0.79	
4,4'-DDT	1	5.47	5.45	5.51	3.9	10.8
	2	5.57	5.55	5.61	3.5	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

CTCS5

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123130020A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Lab Sample ID: 6850770Date(s) Analyzed: 11/14/2012 11/14/2012Instrument ID (1): H5262AInstrument ID (2): H5262BGC Column (1): RTX-CLPID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Hcb	1	3.14	3.09	3.15	3.1	60.7
	2	3.15	3.11	3.17	5.8	
alpha-BHC	1	3.28	3.23	3.29	0.92	74.0
	2	3.27	3.22	3.28	2.0	
4,4'-DDE	1	4.82	4.80	4.86	3.5	5.6
	2	4.91	4.89	4.95	3.7	
Endosulfan I	1	4.90	4.86	4.92	0.64	3.2
	2	4.84	4.82	4.88	0.62	
Dieldrin	1	5.07	5.03	5.09	1.7	21.1
	2	5.04	5.02	5.08	2.1	
Endosulfan II	1	5.41	5.37	5.43	0.60	20.9
	2	5.43	5.40	5.46	0.74	
4,4'-DDT	1	5.47	5.45	5.51	2.9	0.0
	2	5.57	5.55	5.61	2.9	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

CTCS6

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123130020A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Lab Sample ID: 6850771Date(s) Analyzed: 11/14/2012 11/14/2012Instrument ID (1): H5262AInstrument ID (2): H5262BGC Column (1): RTX-CLPID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Hcb	1	3.15	3.09	3.15	4.5	27.8
	2	3.15	3.11	3.17	3.4	
gamma-BHC (Lindane)	1	3.55	3.49	3.55	4.4	22.8
	2	3.52	3.51	3.57	3.5	
Heptachlor	1	3.90	3.87	3.93	2.2	111.0
	2	3.82	3.80	3.86	0.63	
4,4'-DDE	1	4.82	4.80	4.86	3.7	2.7
	2	4.91	4.89	4.95	3.6	
Dieldrin	1	5.08	5.03	5.09	1.4	0.0
	2	5.04	5.02	5.08	1.4	
Endosulfan II	1	5.41	5.37	5.43	0.62	15.7
	2	5.43	5.40	5.46	0.53	
4,4'-DDT	1	5.47	5.45	5.51	2.6	26.1
	2	5.57	5.55	5.61	2.0	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

LCS20313

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123130020A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Lab Sample ID: LCSADate(s) Analyzed: 11/13/2012 11/13/2012Instrument ID (1): H5262AInstrument ID (2): H5262BGC Column (1): RTX-CLPID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
alpha-BHC	1	3.25	3.23	3.29	3.5	5.9
	2	3.24	3.22	3.28	3.3	
gamma-BHC (Lindane)	1	3.51	3.49	3.55	3.5	5.9
	2	3.53	3.51	3.57	3.3	
beta-BHC	1	3.57	3.55	3.61	3.5	12.1
	2	3.60	3.57	3.63	3.1	
delta-BHC	1	3.72	3.70	3.76	3.4	3.0
	2	3.88	3.86	3.91	3.3	
Heptachlor	1	3.89	3.87	3.93	3.2	3.2
	2	3.82	3.80	3.86	3.1	
Aldrin	1	4.13	4.11	4.17	3.1	0.0
	2	4.12	4.10	4.16	3.1	
Heptachlor epoxide	1	4.58	4.56	4.62	3.2	6.5
	2	4.55	4.53	4.59	3.0	
gamma-Chlordane	1	4.67	4.65	4.72	3.4	2.9
	2	4.69	4.67	4.73	3.5	
alpha-Chlordane	1	4.77	4.75	4.81	3.1	0.0
	2	4.79	4.77	4.83	3.1	
4,4'-DDE	1	4.82	4.80	4.86	6.4	1.6
	2	4.91	4.89	4.95	6.3	
Endosulfan I	1	4.88	4.86	4.92	3.0	6.9
	2	4.84	4.82	4.88	2.8	
Dieldrin	1	5.05	5.03	5.09	6.6	3.1
	2	5.04	5.02	5.08	6.4	
Endrin	1	5.23	5.21	5.27	6.3	8.3
	2	5.26	5.25	5.31	5.8	
4,4'-DDD	1	5.26	5.24	5.30	6.6	4.7
	2	5.33	5.31	5.37	6.3	
Endosulfan II	1	5.39	5.37	5.43	6.2	13.8
	2	5.42	5.40	5.46	5.4	
4,4'-DDT	1	5.47	5.45	5.51	6.8	7.6
	2	5.57	5.55	5.61	6.3	
Endrin aldehyde	1	5.70	5.68	5.74	6.1	14.0
	2	5.67	5.65	5.71	5.3	
Methoxychlor	1	5.82	5.80	5.86	33	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

LCS20313

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123130020A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Lab Sample ID: LCSADate(s) Analyzed: 11/13/2012 11/13/2012Instrument ID (1): H5262AInstrument ID (2): H5262BGC Column (1): RTX-CLPID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Methoxychlor	2	6.07	6.06	6.12	32	3.1
Endosulfan sulfate	1	6.03	6.01	6.07	6.7	14.4
	2	5.87	5.85	5.91	5.8	
Endrin ketone	1	6.24	6.23	6.29	6.5	8.0
	2	6.28	6.26	6.32	6.0	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

NSTC6MS

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123130020A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Lab Sample ID: 6850738Date(s) Analyzed: 11/13/2012 11/13/2012Instrument ID (1): H5262AInstrument ID (2): H5262BGC Column (1): RTX-CLPID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
alpha-BHC	1	3.25	3.23	3.29	3.2	6.5
	2	3.24	3.22	3.28	3.0	
gamma-BHC (Lindane)	1	3.51	3.49	3.55	2.9	6.7
	2	3.53	3.51	3.57	3.1	
beta-BHC	1	3.58	3.55	3.61	2.9	3.4
	2	3.60	3.57	3.63	3.0	
delta-BHC	1	3.72	3.70	3.76	2.7	0.0
	2	3.88	3.86	3.91	2.7	
Heptachlor	1	3.89	3.87	3.93	3.0	6.9
	2	3.82	3.80	3.86	2.8	
Aldrin	1	4.13	4.11	4.17	2.9	0.0
	2	4.12	4.10	4.16	2.9	
Heptachlor epoxide	1		4.56	4.62	3.0	3.4
	2	4.55	4.53	4.59	2.9	
gamma-Chlordane	1	4.68	4.65	4.72	3.0	18.2
	2		4.67	4.73	3.6	
alpha-Chlordane	1	4.77	4.75	4.81	3.0	3.4
	2	4.80	4.77	4.83	2.9	
4,4'-DDE	1	4.82	4.80	4.86	6.1	5.0
	2	4.91	4.89	4.95	5.8	
Endosulfan I	1	4.88	4.86	4.92	2.7	7.7
	2	4.84	4.82	4.88	2.5	
Dieldrin	1	5.05	5.03	5.09	6.1	3.3
	2	5.04	5.02	5.08	5.9	
Endrin	1	5.23	5.21	5.27	5.8	3.5
	2	5.27	5.25	5.31	5.6	
4,4'-DDD	1	5.26	5.24	5.30	6.1	1.6
	2	5.33	5.31	5.37	6.2	
Endosulfan II	1	5.39	5.37	5.43	5.4	5.7
	2	5.42	5.40	5.46	5.1	
4,4'-DDT	1	5.47	5.45	5.51	6.4	3.2
	2	5.57	5.55	5.61	6.2	
Endrin aldehyde	1	5.70	5.68	5.74	5.6	7.4
	2	5.67	5.65	5.71	5.2	
Methoxychlor	1	5.82	5.80	5.86	32	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

NSTC6MS

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123130020A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Lab Sample ID: 6850738Date(s) Analyzed: 11/13/2012 11/13/2012Instrument ID (1): H5262AInstrument ID (2): H5262BGC Column (1): RTX-CLPID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Methoxychlor	2	6.08	6.06	6.12	31	3.2
Endosulfan sulfate	1	6.03	6.01	6.07	6.3	13.6
	2	5.87	5.85	5.91	5.5	
Endrin ketone	1	6.25	6.23	6.29	6.3	11.8
	2		6.26	6.32	5.6	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

NSTC6MSD

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123130020A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Lab Sample ID: 6850738Date(s) Analyzed: 11/13/2012 11/13/2012Instrument ID (1): H5262AInstrument ID (2): H5262BGC Column (1): RTX-CLPID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
alpha-BHC	1	3.25	3.23	3.29	3.5	5.9
	2	3.24	3.22	3.28	3.3	
gamma-BHC (Lindane)	1	3.51	3.49	3.55	3.2	6.1
	2	3.53	3.51	3.57	3.4	
beta-BHC	1	3.58	3.55	3.61	3.1	6.3
	2	3.60	3.57	3.63	3.3	
delta-BHC	1	3.72	3.70	3.76	2.8	0.0
	2	3.88	3.86	3.91	2.8	
Heptachlor	1	3.89	3.87	3.93	3.3	6.3
	2	3.83	3.80	3.86	3.1	
Aldrin	1	4.13	4.11	4.17	3.2	0.0
	2	4.12	4.10	4.16	3.2	
Heptachlor epoxide	1		4.56	4.62	3.4	6.1
	2	4.55	4.53	4.59	3.2	
gamma-Chlordane	1	4.68	4.65	4.72	3.3	14.1
	2		4.67	4.73	3.8	
alpha-Chlordane	1	4.77	4.75	4.81	3.3	3.1
	2	4.80	4.77	4.83	3.2	
4,4'-DDE	1	4.82	4.80	4.86	6.7	3.0
	2	4.91	4.89	4.95	6.5	
Endosulfan I	1	4.88	4.86	4.92	3.1	10.2
	2	4.84	4.82	4.88	2.8	
Dieldrin	1	5.05	5.03	5.09	6.8	3.0
	2	5.04	5.02	5.08	6.6	
Endrin	1	5.23	5.21	5.27	6.4	4.8
	2	5.27	5.25	5.31	6.1	
4,4'-DDD	1	5.26	5.24	5.30	6.7	1.5
	2	5.33	5.31	5.37	6.8	
Endosulfan II	1	5.39	5.37	5.43	6.2	8.4
	2	5.42	5.40	5.46	5.7	
4,4'-DDT	1	5.47	5.45	5.51	6.9	2.9
	2	5.57	5.55	5.61	6.7	
Endrin aldehyde	1	5.70	5.68	5.74	6.1	6.8
	2	5.67	5.65	5.71	5.7	
Methoxychlor	1	5.82	5.80	5.86	35	

IDENTIFICATION SUMMARY

SAMPLE CODE NO.

NSTC6MSD

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123130020A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Lab Sample ID: 6850738Date(s) Analyzed: 11/13/2012 11/13/2012Instrument ID (1): H5262AInstrument ID (2): H5262BGC Column (1): RTX-CLPID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	COL	RT	FROM	TO	CONCENTRATION	%D
Methoxychlor	2	6.08	6.06	6.12	34	2.9
Endosulfan sulfate	1	6.03	6.01	6.07	6.9	12.3
	2	5.87	5.85	5.91	6.1	
Endrin ketone	1	6.25	6.23	6.29	6.8	7.6
	2		6.26	6.32	6.3	

Polychlorinated Biphenyls (PCBs) Data

Case Narrative/Conformance Summary

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP03

Pesticide Residue Analysis

Fraction: Polychlorinated Biphenyls (PCBs)

Sample #	Client ID	Matrix			Comments
		Liquid	Solid	DF	
6850737	TCN-STC5		X	1	
6850738	TCN-STC6		X	1	
6850741	TCN-STC7		X	1	
6850744	TCN-STC8		X	1	
6850747	TCN-STC9		X	1	
6850750	TCN-STC10		X	1	
6850753	TCN-STC11		X	1	
6850756	TCN-STC12		X	1	
6850759	POC-TSC2		X	1	
6850764	POC-TSC3		X	1	
6850765	POC-TSC4		X	1	
6850770	POC-TSC5		X	1	
6850771	POC-TSC6		X	1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

Sample numbers: 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-6850765, 6850770-6850771: Analysis: 10736
For dual column analyses in which the calibration (initial and/or continuing) response is outside the acceptance criteria on one column and within criteria on the second column affected analytes are reported from the compliant column. The sample raw data identifies the column used to report each analyte.

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP03

Pesticide Residue Analysis

Fraction: Polychlorinated Biphenyls (PCBs)

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

All QC is within specification.

SAMPLE ANALYSIS:

Sample number: 6850764: Analysis: 10736

Reporting limits were raised due to interference from the sample matrix.

No problems were encountered with the analysis of the samples.

Additional Comments

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Narrative Reviewed and Approved 11/13/12 by
(Date)

Nancy E. Saunders
Nancy E. Saunders
Specialist

Sample Data

ORGANICS ANALYSIS DATA SHEET

NSTC5

Lab Name: Lancaster Laboratories Contract:Batchnumber: 123120023A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850737Sample wt/vol: 30 (g/ml) gLab File ID: 5P7305.009.RAW% Moisture: 3.6 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SEPFDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/8/2012Injection Volume: 1 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) N pH:Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.

COMPOUND

(UG/L or UG/KG) ug/kg

Q

12674-11-2	Aroclor-1016	3.7	U
11104-28-2	Aroclor-1221	4.8	U
11141-16-5	Aroclor-1232	8.3	U
53469-21-9	Aroclor-1242	3.4	U
12672-29-6	Aroclor-1248	3.4	U
11097-69-1	Aroclor-1254	3.4	U
11096-82-5	Aroclor-1260	5.1	U

ORGANICS ANALYSIS DATA SHEET

NSTC6

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123120023A
Lab Code: Case No.: SAS No.: SDG No.: TAP03

Matrix: (soil/water) SOILLab Sample ID: 6850738Sample wt/vol: 30 (g/ml) gLab File ID: 5P7305.012.RAW% Moisture: 3.3 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SEPFDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/8/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	3.7	U
11104-28-2	Aroclor-1221	4.8	U
11141-16-5	Aroclor-1232	8.3	U
53469-21-9	Aroclor-1242	3.4	U
12672-29-6	Aroclor-1248	3.4	U
11097-69-1	Aroclor-1254	3.4	U
11096-82-5	Aroclor-1260	5.1	U

ORGANICS ANALYSIS DATA SHEET

NSTC7

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123120023A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850741Sample wt/vol: 30 (g/ml) gLab File ID: 5P7305.013.RAW% Moisture: 4.2

Decanted: (Y/N)

Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SEPFDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/8/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.

COMPOUND

(UG/L or UG/KG) ug/kg

Q

12674-11-2	Aroclor-1016	3.8	U
11104-28-2	Aroclor-1221	4.8	U
11141-16-5	Aroclor-1232	8.4	U
53469-21-9	Aroclor-1242	3.4	U
12672-29-6	Aroclor-1248	3.4	U
11097-69-1	Aroclor-1254	3.4	U
11096-82-5	Aroclor-1260	5.1	U

ORGANICS ANALYSIS DATA SHEET

NSTC8

Lab Name: Lancaster Laboratories Contract:Batchnumber: 123120023A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850744Sample wt/vol: 30 (g/ml) gLab File ID: 5P7305.014.RAW% Moisture: 3.2 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SEPFDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/8/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	3.7	U
11104-28-2	Aroclor-1221	4.8	U
11141-16-5	Aroclor-1232	8.3	U
53469-21-9	Aroclor-1242	3.4	U
12672-29-6	Aroclor-1248	3.4	U
11097-69-1	Aroclor-1254	3.4	U
11096-82-5	Aroclor-1260	5.1	U

ORGANICS ANALYSIS DATA SHEET

NSTC9

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123120023A
 Lab Code: Case No.: SAS No.: SDG No.: TAP03

Matrix: (soil/water) SOILLab Sample ID: 6850747Sample wt/vol: 30 (g/ml) gLab File ID: 5P7305.015.RAW% Moisture: 3.3 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SEPFDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/8/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	3.7	U
11104-28-2	Aroclor-1221	4.8	U
11141-16-5	Aroclor-1232	8.3	U
53469-21-9	Aroclor-1242	3.4	U
12672-29-6	Aroclor-1248	3.4	U
11097-69-1	Aroclor-1254	3.4	U
11096-82-5	Aroclor-1260	5.1	U

ORGANICS ANALYSIS DATA SHEET

STC10

Lab Name: Lancaster Laboratories Contract:Batchnumber: 123120023A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850750Sample wt/vol: 30 (g/ml) gLab File ID: 5P7305.016.RAW% Moisture: 3.8 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SEPFDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/8/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	3.7	U
11104-28-2	Aroclor-1221	4.8	U
11141-16-5	Aroclor-1232	8.3	U
53469-21-9	Aroclor-1242	3.4	U
12672-29-6	Aroclor-1248	3.4	U
11097-69-1	Aroclor-1254	3.4	U
11096-82-5	Aroclor-1260	5.1	U

ORGANICS ANALYSIS DATA SHEET

STC11

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123120023A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850753Sample wt/vol: 30 (g/ml) gLab File ID: 5P7305.017.RAW% Moisture: 3.2

Decanted: (Y/N)

Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SEPFDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/8/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.

COMPOUND

(UG/L or UG/KG) ug/kg

Q

12674-11-2	Aroclor-1016	3.7	U
11104-28-2	Aroclor-1221	4.8	U
11141-16-5	Aroclor-1232	8.3	U
53469-21-9	Aroclor-1242	3.4	U
12672-29-6	Aroclor-1248	3.4	U
11097-69-1	Aroclor-1254	3.4	U
11096-82-5	Aroclor-1260	5.1	U

ORGANICS ANALYSIS DATA SHEET

STC12

Lab Name: Lancaster Laboratories Contract:Batchnumber: 123120023A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850756Sample wt/vol: 30 (g/ml) gLab File ID: 5P7305.018.RAW% Moisture: 5.8 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SEPFDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/8/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	3.8	U
11104-28-2	Aroclor-1221	4.9	U
11141-16-5	Aroclor-1232	8.5	U
53469-21-9	Aroclor-1242	3.5	U
12672-29-6	Aroclor-1248	3.5	U
11097-69-1	Aroclor-1254	3.5	U
11096-82-5	Aroclor-1260	5.2	U

ORGANICS ANALYSIS DATA SHEET

CTCS2

Lab Name: Lancaster Laboratories Contract:Batchnumber: 123120023A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850759Sample wt/vol: 30 (g/ml) gLab File ID: 5P7305.019.RAW% Moisture: 22.8

Decanted: (Y/N)

Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SEPFDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/8/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	4.7	U
11104-28-2	Aroclor-1221	6.0	U
11141-16-5	Aroclor-1232	10	U
53469-21-9	Aroclor-1242	4.3	U
12672-29-6	Aroclor-1248	4.3	U
11097-69-1	Aroclor-1254	26	
11096-82-5	Aroclor-1260	29	

ORGANICS ANALYSIS DATA SHEET

CTCS3

Lab Name: Lancaster Laboratories Contract:Batchnumber: 123120023A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850764Sample wt/vol: 30 (g/ml) gLab File ID: 5P7305.020.RAW% Moisture: 22.9

Decanted: (Y/N)

Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SEPFDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/8/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	4.7	U
11104-28-2	Aroclor-1221	6.0	U
11141-16-5	Aroclor-1232	10	U
53469-21-9	Aroclor-1242	4.3	U
12672-29-6	Aroclor-1248	4.3	U
11097-69-1	Aroclor-1254	10	U
11096-82-5	Aroclor-1260	6.4	U

ORGANICS ANALYSIS DATA SHEET

NSTC5MS

Lab Name: Lancaster Laboratories Contract:Batchnumber: 123120023A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850737Sample wt/vol: 30 (g/ml) gLab File ID: 5P7305.010.RAW% Moisture: 3.6

Decanted: (Y/N)

Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SEPFDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/8/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	170	
11096-82-5	Aroclor-1260	180	
1336-36-3	Total PCBs	340	P

ORGANICS ANALYSIS DATA SHEET

NSTC5MSD

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123120023A
 Lab Code: Case No.: SAS No.: SDG No.: TAP03

Matrix: (soil/water) SOILLab Sample ID: 6850737Sample wt/vol: 30 (g/ml) gLab File ID: 5P7305.011.RAW% Moisture: 3.6 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SEPFDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/8/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	160	
11096-82-5	Aroclor-1260	170	
1336-36-3	Total PCBs	340	P

ORGANICS ANALYSIS DATA SHEET

CTCS4

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123120023A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850765Sample wt/vol: 30 (g/ml) gLab File ID: 5P7305.021.RAW% Moisture: 22.3

Decanted: (Y/N)

Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SEPFDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/8/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	4.6	U
11104-28-2	Aroclor-1221	5.9	U
11141-16-5	Aroclor-1232	10	U
53469-21-9	Aroclor-1242	4.2	U
12672-29-6	Aroclor-1248	4.2	U
11097-69-1	Aroclor-1254	7.5	J
11096-82-5	Aroclor-1260	7.0	J

ORGANICS ANALYSIS DATA SHEET

CTCS5

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123120023A
 Lab Code: Case No.: SAS No.: SDG No.: TAP03
 Matrix: (soil/water) SOIL Lab Sample ID: 6850770
 Sample wt/vol: 30 (g/ml) g Lab File ID: 5P7305.022.RAW
 % Moisture: 22.7 Decanted: (Y/N) Date Received: 11/7/2012
 Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/8/2012
 Concentrated Extract Volume: 10000 (uL) Date Analyzed: 11/8/2012
 Injection Volume: 1 (uL) Dilution Factor: 1
 GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	4.7	U
11104-28-2	Aroclor-1221	6.0	U
11141-16-5	Aroclor-1232	10	U
53469-21-9	Aroclor-1242	4.3	U
12672-29-6	Aroclor-1248	4.3	U
11097-69-1	Aroclor-1254	8.4	J
11096-82-5	Aroclor-1260	6.9	J

ORGANICS ANALYSIS DATA SHEET

CTCS6

Lab Name: Lancaster Laboratories Contract:Batchnumber: 123120023A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Matrix: (soil/water) SOILLab Sample ID: 6850771Sample wt/vol: 30 (g/ml) gLab File ID: 5P7305.023.RAW% Moisture: 20.2 Decanted: (Y/N)Date Received: 11/7/2012Extraction: (SepF/Cont/Sonc) SEPFDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/8/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	4.5	U
11104-28-2	Aroclor-1221	5.8	U
11141-16-5	Aroclor-1232	10	U
53469-21-9	Aroclor-1242	4.1	U
12672-29-6	Aroclor-1248	4.1	U
11097-69-1	Aroclor-1254	12	U
11096-82-5	Aroclor-1260	8.4	U

ORGANICS ANALYSIS DATA SHEET

PBLK23312

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123120023A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Matrix: (soil/water) SOILLab Sample ID: BLANKASample wt/vol: 30 (g/ml) gLab File ID: 5P7305.007.RAW

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) SEPFDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/8/2012Injection Volume: 1 (uL)Dilution Factor: 1GPC Cleanup: (Y/N) N pH:Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	3.6	U
11104-28-2	Aroclor-1221	4.6	U
11141-16-5	Aroclor-1232	8.0	U
53469-21-9	Aroclor-1242	3.3	U
12672-29-6	Aroclor-1248	3.3	U
11097-69-1	Aroclor-1254	3.3	U
11096-82-5	Aroclor-1260	4.9	U
37324-23-5	Aroclor-1262	3.3	U
11100-14-4	Aroclor-1268	3.3	U
1336-36-3	Total PCBs	3.3	U

ORGANICS ANALYSIS DATA SHEET

LCS23312

Lab Name: Lancaster Laboratories Contract: Batchnumber: 123120023A

Lab Code: Case No.: SAS No.: SDG No.:

Matrix: (soil/water) SOILLab Sample ID: LCSASample wt/vol: 30 (g/ml) gLab File ID: 5P7305.008.RAW

% Moisture: Decanted: (Y/N)

Date Received:

Extraction: (SepF/Cont/Sonc) SEPFDate Extracted: 11/8/2012Concentrated Extract Volume: 10000 (uL)Date Analyzed: 11/8/2012Injection Volume: 1 (uL)Dilution Factor: 1

GPC Cleanup: (Y/N) N pH:

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS

CAS NO.	COMPOUND	(UG/L or UG/KG) <u>ug/kg</u>	Q
12674-11-2	Aroclor-1016	170	
11096-82-5	Aroclor-1260	180	
1336-36-3	Total PCBs	350	P

IDENTIFICATION SUMMARY FOR MULTICOMPONENT ANALYTES

CTCS2

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123120023A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Lab Sample ID: 6850759Date(s) Analyzed: 11/8/201211/8/2012Instrument ID (1): H5088AInstrument ID (2): H5088BGC Column (1): RTXCLPIID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	PEAK	RT	RT WINDOW		CONCENTRATION	MEAN	
			FROM	TO		CONCENTRATION	%D
Aroclor-1254 COLUMN 1	1	5.84	5.81	5.87	16	26	16.7
	2	6.04	6.01	6.07	19		
	4	6.36	6.33	6.39	25		
Aroclor-1254 COLUMN 2	1	5.77	5.74	5.80	16	22	16.7
	2	5.91	5.88	5.94	20		
	3	6.20	6.17	6.23	14		
Aroclor-1260 COLUMN 1	4	7.07	7.05	7.11	17	24	18.9
	5	7.28	7.26	7.32	21		
	6	7.62	7.60	7.66	17		
Aroclor-1260 COLUMN 2	3	6.71	6.69	6.75	17	29	18.9
	5	7.39	7.37	7.43	17		
	6	7.79	7.77	7.83	32		

IDENTIFICATION SUMMARY FOR MULTICOMPONENT ANALYTES

SAMPLE CODE NO.

CTCS4

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123120023A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Lab Sample ID: 6850765Date(s) Analyzed: 11/8/201211/8/2012Instrument ID (1): H5088AInstrument ID (2): H5088BGC Column (1): RTXCLPIID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	PEAK	RT	RT WINDOW		CONCENTRATION	MEAN CONCENTRATION	%D
			FROM	TO			
Aroclor-1254 COLUMN 1	1	5.84	5.81	5.87	5.2	7.5	
	2	6.04	6.01	6.07	5.7		
	4	6.36	6.33	6.39	6.5		
Aroclor-1254 COLUMN 2	1	5.78	5.74	5.80	6.5	6.0	22.2
	2	5.91	5.88	5.94	3.0		
	4	6.28	6.25	6.31	4.4		
Aroclor-1260 COLUMN 1	4	7.07	7.05	7.11	4.0	8.6	
	5	7.28	7.26	7.32	11		
	6	7.62	7.60	7.66	5.2		
Aroclor-1260 COLUMN 2	3	6.71	6.69	6.75	4.8	7.0	20.5
	5	7.39	7.37	7.43	5.7		
	6	7.79	7.77	7.83	5.8		

IDENTIFICATION SUMMARY FOR MULTICOMPONENT ANALYTES

CTCS5

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123120023A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Lab Sample ID: 6850770Date(s) Analyzed: 11/8/201211/8/2012Instrument ID (1): H5088AInstrument ID (2): H5088BGC Column (1): RTXCLPIID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	PEAK	RT	RT WINDOW		CONCENTRATION	MEAN CONCENTRATION	%D
			FROM	TO			
Aroclor-1254 COLUMN 1	1	5.84	5.81	5.87	4.5	8.4	
	2	6.04	6.01	6.07	6.8		
	4	6.36	6.33	6.39	8.1		
Aroclor-1254 COLUMN 2	1	5.79	5.74	5.80	7.6	7.9	6.1
	2	5.91	5.88	5.94	4.2		
	4	6.28	6.25	6.31	6.5		
Aroclor-1260 COLUMN 1	3	7.02	6.97	7.03	6.3	6.5	
	4	7.07	7.05	7.11	4.0		
	6	7.62	7.60	7.66	4.9		
Aroclor-1260 COLUMN 2	3	6.71	6.69	6.75	4.9	6.9	6.0
	5	7.39	7.37	7.43	5.6		
	6	7.79	7.77	7.83	5.5		

IDENTIFICATION SUMMARY FOR MULTICOMPONENT ANALYTES

SAMPLE CODE NO.

CTCS6

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123120023A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Lab Sample ID: 6850771Date(s) Analyzed: 11/8/201211/8/2012Instrument ID (1): H5088AInstrument ID (2): H5088BGC Column (1): RTXCLPIID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	PEAK	RT	RT WINDOW		CONCENTRATION	MEAN CONCENTRATION	%D
			FROM	TO			
Aroclor-1254 COLUMN 1	1	5.84	5.81	5.87	6.7	12	
	2	6.04	6.01	6.07	9.9		
	4	6.36	6.33	6.39	11		
Aroclor-1254 COLUMN 2	1	5.77	5.74	5.80	7.5	9.1	27.5
	2	5.90	5.88	5.94	6.3		
	4	6.28	6.25	6.31	7.9		
Aroclor-1260 COLUMN 1	4	7.07	7.05	7.11	4.3	8.8	
	5	7.28	7.26	7.32	11		
	6	7.62	7.60	7.66	5.8		
Aroclor-1260 COLUMN 2	3	6.71	6.69	6.75	6.6	8.4	4.7
	5	7.39	7.37	7.43	7.1		
	6	7.79	7.77	7.83	6.5		

IDENTIFICATION SUMMARY FOR MULTICOMPONENT ANALYTES

SAMPLE CODE NO.

LCS23312

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123120023A

Lab Code:

Case No.:

SAS No.:

SDG No.:

Lab Sample ID: LCSADate(s) Analyzed: 11/8/201211/8/2012Instrument ID (1): H5088AInstrument ID (2): H5088BGC Column (1): RTXCLPIID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	PEAK	RT	RT WINDOW		CONCENTRATION	MEAN CONCENTRATION	%D	
			FROM	TO				
Aroclor-1016	1	4.38	4.35	4.41	170	170	6.1	
COLUMN 1	2	4.85	4.82	4.88	160			
	3	5.10	5.08	5.14	170			
	4	5.24	5.22	5.28	170			
	5	5.33	5.31	5.37	170			
	6	5.63	5.60	5.66	180			
Aroclor-1016	1	4.33	4.31	4.37	170			160
COLUMN 2	2	4.64	4.61	4.67	160			
	3	4.81	4.78	4.84	170			
	4	5.03	5.01	5.07	160			
	5	5.09	5.06	5.12	160			
	6	5.28	5.26	5.32	170			
Aroclor-1260	1	6.51	6.48	6.54	170	180	0.0	
COLUMN 1	2	6.75	6.72	6.78	170			
	3	7.00	6.97	7.03	170			
	4	7.07	7.05	7.11	180			
	5	7.29	7.26	7.32	190			
	6	7.62	7.60	7.66	200			
Aroclor-1260	1	6.40	6.37	6.43	170			180
COLUMN 2	2	6.57	6.54	6.60	170			
	3	6.71	6.69	6.75	170			
	4	6.87	6.85	6.91	170			
	5	7.40	7.37	7.43	190			
	6	7.79	7.77	7.83	190			

IDENTIFICATION SUMMARY FOR MULTICOMPONENT ANALYTES

NSTC5MS

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123120023A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Lab Sample ID: 6850737Date(s) Analyzed: 11/8/201211/8/2012Instrument ID (1): H5088AInstrument ID (2): H5088BGC Column (1): RTXCLPIID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	PEAK	RT	RT WINDOW		CONCENTRATION	MEAN CONCENTRATION	%D
			FROM	TO			
Aroclor-1016 COLUMN 1	1	4.38	4.35	4.41	160	170	
	2	4.85	4.82	4.88	160		
	3	5.10	5.08	5.14	160		
	4	5.24	5.22	5.28	160		
	5	5.33	5.31	5.37	160		
	6	5.63	5.60	5.66	170		
Aroclor-1016 COLUMN 2	1	4.33	4.31	4.37	160	160	6.1
	2	4.63	4.61	4.67	160		
	3	4.81	4.78	4.84	160		
	4	5.03	5.01	5.07	160		
	5	5.09	5.06	5.12	150		
	6	5.28	5.26	5.32	160		
Aroclor-1260 COLUMN 1	1	6.51	6.48	6.54	160	180	
	2	6.75	6.72	6.78	160		
	3	7.00	6.97	7.03	160		
	4	7.07	7.05	7.11	170		
	5	7.28	7.26	7.32	180		
	6	7.62	7.60	7.66	190		
Aroclor-1260 COLUMN 2	1	6.40	6.37	6.43	160	180	0.0
	2	6.57	6.54	6.60	160		
	3	6.71	6.69	6.75	170		
	4	6.87	6.85	6.91	170		
	5	7.39	7.37	7.43	180		
	6	7.79	7.77	7.83	180		

IDENTIFICATION SUMMARY FOR MULTICOMPONENT ANALYTES

NSTC5MSD

Lab Name: Lancaster Laboratories

Contract:

Batchnumber: 123120023A

Lab Code:

Case No.:

SAS No.:

SDG No.: TAP03Lab Sample ID: 6850737Date(s) Analyzed: 11/8/201211/8/2012Instrument ID (1): H5088AInstrument ID (2): H5088BGC Column (1): RTXCLPIID: 0.32 (mm)GC Column (2): RTXCLPIIID: 0.32 (mm)

ANALYTE	PEAK	RT	RT WINDOW		CONCENTRATION	MEAN CONCENTRATION	%D
			FROM	TO			
Aroclor-1016 COLUMN 1	1	4.38	4.35	4.41	160	160	0.0
	2	4.85	4.82	4.88	150		
	3	5.10	5.08	5.14	160		
	4	5.24	5.22	5.28	160		
	5	5.33	5.31	5.37	160		
	6	5.63	5.60	5.66	160		
	1	4.33	4.31	4.37	160		
	2	4.63	4.61	4.67	160		
	3	4.81	4.78	4.84	160		
	4	5.03	5.01	5.07	160		
	5	5.09	5.06	5.12	150		
	6	5.28	5.26	5.32	160		
Aroclor-1260 COLUMN 1	1	6.51	6.48	6.54	150	170	0.0
	2	6.75	6.72	6.78	160		
	3	6.99	6.97	7.03	170		
	4	7.07	7.05	7.11	170		
	5	7.28	7.26	7.32	180		
	6	7.62	7.60	7.66	190		
	1	6.40	6.37	6.43	160		
	2	6.57	6.54	6.60	160		
	3	6.71	6.69	6.75	160		
	4	6.87	6.85	6.91	160		
	5	7.39	7.37	7.43	180		
	6	7.79	7.77	7.83	180		

Metals in Solid Data

Case Narrative/Conformance Summary

Case Narrative/Conformance SummaryCLIENT: ExxonMobil Refining & Supply
SDG: TAP03**ICP Metals**

Fraction: Metals in Solid

Sample #	Client ID	Matrix		Comments
		Liquid	Solid	
6850737	TCN-STC5		X	
6850738	TCN-STC6		X	
6850741	TCN-STC7		X	
6850744	TCN-STC8		X	
6850747	TCN-STC9		X	
6850750	TCN-STC10		X	
6850753	TCN-STC11		X	
6850756	TCN-STC12		X	
6850759	POC-TSC2		X	
6850764	POC-TSC3		X	
6850765	POC-TSC4		X	
6850770	POC-TSC5		X	
6850771	POC-TSC6		X	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:**MS/MSD**

Method defined actions are taken for any failed matrix QC.

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP03

ICP Metals

Fraction: Metals in Solid

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

The final concentration (mg/Kg) is obtained using the following calculation:

$$\text{Instrument reading (mg/l)} \times \frac{\text{dilution factor}}{\text{initial weight}} \times \frac{\text{final volume}}{100} \div \frac{\% \text{ solids}}{100}$$

Abbreviation Key

BKG - Background	AF - Cold Vapor Atomic Fluorescence
DUP - Duplicate	U - Below MDL
MS - Matrix Spike	B - Below LOQ
MSD - Matrix Spike Dup	N - Matrix Spike out of specifications
B - Blank	* - Duplicate out of specifications
Q - Laboratory Control Sample	E - Matrix Effects exist as proven by Serial Dilution or Spiked Dilution
Y - Laboratory Control Sample Duplicate	A - Post Digestion Spike
P - ICP Atomic Emission Spectrometer	L - Serial Dilution
MS - ICP Mass Spectrometry	R - Internal Standard Relative Intensity OOS
CV - Cold Vapor	NR - Not Required

Narrative Reviewed and Approved 11.15.12 by
(Date)


Betty L. Umble
Specialist

QUALITY CONTROL REFERENCE LIST

SDG No.: TAP03

Matrix: SOIL

<u>Analyte</u>	<u>Batch ID</u>	<u>Lab Sample ID</u>
Arsenic	P31208A	6850737BKG
Barium		6850737MS
Beryllium		6850737MSD
Cadmium		6850737DUP
Chromium		6850738
Copper		6850741
Lead		6850744
Manganese		6850747
Nickel		6850750
Selenium		6850753
Silver		6850756
Zinc		6850759
		6850764
		6850765
		6850770
		6850771
		P31208AB
		P31208AQ

LEGEND:

BKG = Background

DUP = Duplicate

MS = Matrix Spike

MSD = Matrix Spike Duplicate

B = Blank

Q = Laboratory Control Sample

Y = Laboratory Control Sample Duplicate

QUALITY CONTROL REFERENCE LIST

SDG No.: TAP03

Matrix: SOIL

<u>Analyte</u>	<u>Batch ID</u>	<u>Lab Sample ID</u>
Mercury	P31311A	*48628BKG
		*48628MS
		*48628MSD
		*48628DUP
		6850737
		6850738
		6850741
		6850744
		6850747
		6850750
		6850753
		6850756
		6850759
		6850764
		6850765
		6850770
		6850771
		P31311AB
		P31311AQ

LEGEND:

BKG = Background

DUP = Duplicate

MS = Matrix Spike

MSD = Matrix Spike Duplicate

B = Blank

Q = Laboratory Control Sample

Y = Laboratory Control Sample Duplicate

Sample Data

QUALITY ASSURANCE SUMMARY

FORM 1

INORGANIC ANALYSIS DATA SHEET

SDG No.: TAP03

Matrix: SOIL

Level (low/med): LOW

Lab Sample ID: 6850737, 6850737BKG

% Solids: 96.4

Concentration.Units: MG/KG

Date Received: 11/07/2012

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	0.34	U		P
7440-39-3	Barium	16.4			P
7440-41-7	Beryllium	0.068	U		P
7440-43-9	Cadmium	0.056	B		P
7440-47-3	Chromium	4.5			P
7440-50-8	Copper	131			P
7439-92-1	Lead	2.6			P
7439-96-5	Manganese	251			P
7439-97-6	Mercury	0.011	U		CV
7440-02-0	Nickel	16.0			P
7782-49-2	Selenium	2.5			P
7440-22-4	Silver	0.27	B		P
7440-66-6	Zinc	48.7			P

Comments:

METHODS:

P = ICP Atomic Emission Spectrometer
 MS = ICP Mass Spectrometry
 CV = Cold Vapor
 AF = Cold Vapor Atomic Fluorescence
 NR = Not Required

CONCENTRATION QUALIFIERS:

U = Below MDL,
 B = Below LOQ



Lancaster
Laboratories

QUALITY ASSURANCE SUMMARY

FORM 1

INORGANIC ANALYSIS DATA SHEET

SDG No.: TAP03

Matrix: SOIL

Level (low/med): LOW

Lab Sample ID: 6850738

% Solids: 96.7

Concentration Units: MG/KG

Date Received: 11/07/2012

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	0.33	U		P
7440-39-3	Barium	18.0			P
7440-41-7	Beryllium	0.068	U		P
7440-43-9	Cadmium	0.033	U		P
7440-47-3	Chromium	5.3			P
7440-50-8	Copper	130			P
7439-92-1	Lead	1.4	B		P
7439-96-5	Manganese	272			P
7439-97-6	Mercury	0.011	U		CV
7440-02-0	Nickel	16.7			P
7782-49-2	Selenium	2.6			P
7440-22-4	Silver	0.38	B		P
7440-66-6	Zinc	53.4			P

Comments:

METHODS:

P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence
NR = Not Required

CONCENTRATION QUALIFIERS:

U = Below MDL,
B = Below LOQ



Lancaster
Laboratories

QUALITY ASSURANCE SUMMARY

FORM 1

INORGANIC ANALYSIS DATA SHEET

SDG No.: TAP03

Matrix: SOIL

Level (low/med): LOW

Lab Sample ID: 6850741

% Solids: 95.8

Concentration Units: MG/KG

Date Received: 11/07/2012

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	0.33	U		P
7440-39-3	Barium	16.5			P
7440-41-7	Beryllium	0.067	U		P
7440-43-9	Cadmium	0.095	B		P
7440-47-3	Chromium	4.3			P
7440-50-8	Copper	161			P
7439-92-1	Lead	3.1			P
7439-96-5	Manganese	249			P
7439-97-6	Mercury	0.010	U		CV
7440-02-0	Nickel	16.6			P
7782-49-2	Selenium	2.7			P
7440-22-4	Silver	0.40	B		P
7440-66-6	Zinc	55.0			P

Comments:

METHODS:

P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence
NR = Not Required

CONCENTRATION QUALIFIERS:

U = Below MDL,
B = Below LOQ



Lancaster
Laboratories

QUALITY ASSURANCE SUMMARY

FORM 1

INORGANIC ANALYSIS DATA SHEET

SDG No.: TAP03

Matrix: SOIL

Level (low/med): LOW

Lab Sample ID: 6850744

% Solids: 96.8

Concentration Units: MG/KG

Date Received: 11/07/2012

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	1.3	B		P
7440-39-3	Barium	16.5			P
7440-41-7	Beryllium	0.068	U		P
7440-43-9	Cadmium	0.033	U		P
7440-47-3	Chromium	4.9			P
7440-50-8	Copper	145			P
7439-92-1	Lead	2.9			P
7439-96-5	Manganese	250			P
7439-97-6	Mercury	0.010	U		CV
7440-02-0	Nickel	16.9			P
7782-49-2	Selenium	3.2			P
7440-22-4	Silver	0.34	B		P
7440-66-6	Zinc	52.5			P

Comments:

METHODS:

P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence
NR = Not Required

CONCENTRATION QUALIFIERS:

U = Below MDL,
B = Below LOQ



Lancaster
Laboratories

QUALITY ASSURANCE SUMMARY

FORM 1

INORGANIC ANALYSIS DATA SHEET

SDG No.: TAP03

Matrix: SOIL

Level (low/med): LOW

Lab Sample ID: 6850747

% Solids: 96.7

Concentration Units: MG/KG

Date Received: 11/07/2012

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	0.34	U		P
7440-39-3	Barium	17.2			P
7440-41-7	Beryllium	0.069	U		P
7440-43-9	Cadmium	0.034	U		P
7440-47-3	Chromium	4.2			P
7440-50-8	Copper	141			P
7439-92-1	Lead	2.5			P
7439-96-5	Manganese	250			P
7439-97-6	Mercury	0.010	U		CV
7440-02-0	Nickel	16.2			P
7782-49-2	Selenium	2.9			P
7440-22-4	Silver	0.34	B		P
7440-66-6	Zinc	52.5			P

Comments:

METHODS:

P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence
NR = Not Required

CONCENTRATION QUALIFIERS:

U = Below MDL,
B = Below LOQ



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Laboratories

QUALITY ASSURANCE SUMMARY

FORM 1

INORGANIC ANALYSIS DATA SHEET

SDG No.: TAP03

Matrix: SOIL

Level (low/med): LOW

Lab Sample ID: 6850750

% Solids: 96.2

Concentration Units: MG/KG

Date Received: 11/07/2012

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	0.33	U		P
7440-39-3	Barium	16.9			P
7440-41-7	Beryllium	0.068	U		P
7440-43-9	Cadmium	0.089	B		P
7440-47-3	Chromium	4.1			P
7440-50-8	Copper	136			P
7439-92-1	Lead	2.1			P
7439-96-5	Manganese	261			P
7439-97-6	Mercury	0.011	U		CV
7440-02-0	Nickel	16.1			P
7782-49-2	Selenium	2.7			P
7440-22-4	Silver	0.48	B		P
7440-66-6	Zinc	56.4			P

Comments:

METHODS:

P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence
NR = Not Required

CONCENTRATION QUALIFIERS:

U = Below MDL,
B = Below LOQ



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Laboratories

QUALITY ASSURANCE SUMMARY

FORM 1

INORGANIC ANALYSIS DATA SHEET

SDG No.: TAP03

Matrix: SOIL

Level (low/med): LOW

Lab Sample ID: 6850753

% Solids: 96.8

Concentration Units: MG/KG

Date Received: 11/07/2012

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	0.33	U		P
7440-39-3	Barium	17.4			P
7440-41-7	Beryllium	0.067	U		P
7440-43-9	Cadmium	0.11	B		P
7440-47-3	Chromium	3.8			P
7440-50-8	Copper	138			P
7439-92-1	Lead	2.2			P
7439-96-5	Manganese	256			P
7439-97-6	Mercury	0.011	U		CV
7440-02-0	Nickel	16.5			P
7782-49-2	Selenium	3.0			P
7440-22-4	Silver	0.44	B		P
7440-66-6	Zinc	52.2			P

Comments:

METHODS:

P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence
NR = Not Required

CONCENTRATION QUALIFIERS:

U = Below MDL,
B = Below LOQ



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QUALITY ASSURANCE SUMMARY

FORM 1

INORGANIC ANALYSIS DATA SHEET

SDG No.: TAP03

Matrix: SOIL

Level (low/med): LOW

Lab Sample ID: 6850756

% Solids: 94.2

Concentration Units: MG/KG

Date Received: 11/07/2012

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	0.35	U		P
7440-39-3	Barium	13.7			P
7440-41-7	Beryllium	0.071	U		P
7440-43-9	Cadmium	0.089	B		P
7440-47-3	Chromium	3.3			P
7440-50-8	Copper	132			P
7439-92-1	Lead	3.0			P
7439-96-5	Manganese	227			P
7439-97-6	Mercury	0.011	U		CV
7440-02-0	Nickel	14.7			P
7782-49-2	Selenium	2.4			P
7440-22-4	Silver	0.31	B		P
7440-66-6	Zinc	56.5			P

Comments:

METHODS:

P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence
NR = Not Required

CONCENTRATION QUALIFIERS:

U = Below MDL,
B = Below LOQ



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Laboratories

QUALITY ASSURANCE SUMMARY

FORM 1

INORGANIC ANALYSIS DATA SHEET

SDG No.: TAP03

Matrix: SOIL

Level (low/med): LOW

Lab Sample ID: 6850759

% Solids: 77.2

Concentration Units: MG/KG

Date Received: 11/07/2012

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	4.6			P
7440-39-3	Barium	153			P
7440-41-7	Beryllium	1.1			P
7440-43-9	Cadmium	0.18	B		P
7440-47-3	Chromium	26.5			P
7440-50-8	Copper	25.4			P
7439-92-1	Lead	30.0			P
7439-96-5	Manganese	825			P
7439-97-6	Mercury	0.061	B		CV
7440-02-0	Nickel	22.4			P
7782-49-2	Selenium	2.9			P
7440-22-4	Silver	0.42	B		P
7440-66-6	Zinc	91.0			P

Comments:

METHODS:

P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence
NR = Not Required

CONCENTRATION QUALIFIERS:

U = Below MDL,
B = Below LOQ



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QUALITY ASSURANCE SUMMARY

FORM 1

INORGANIC ANALYSIS DATA SHEET

SDG No.: TAP03

Matrix: SOIL

Level (low/med): LOW

Lab Sample ID: 6850764

% Solids: 77.1

Concentration Units: MG/KG

Date Received: 11/07/2012

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	5.2			P
7440-39-3	Barium	143			P
7440-41-7	Beryllium	1.1			P
7440-43-9	Cadmium	0.29	B		P
7440-47-3	Chromium	27.4			P
7440-50-8	Copper	20.4			P
7439-92-1	Lead	33.6			P
7439-96-5	Manganese	1070			P
7439-97-6	Mercury	0.069	B		CV
7440-02-0	Nickel	28.5			P
7782-49-2	Selenium	3.4			P
7440-22-4	Silver	0.45	B		P
7440-66-6	Zinc	108			P

Comments:

METHODS:

P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence
NR = Not Required

CONCENTRATION QUALIFIERS:

U = Below MDL,
B = Below LOQ



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QUALITY ASSURANCE SUMMARY

FORM 1

INORGANIC ANALYSIS DATA SHEET

SDG No.: TAP03

Matrix: SOIL

Level (low/med): LOW

Lab Sample ID: 6850765

% Solids: 77.7

Concentration Units: MG/KG

Date Received: 11/07/2012

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	7.4			P
7440-39-3	Barium	142			P
7440-41-7	Beryllium	1.1			P
7440-43-9	Cadmium	0.19	B		P
7440-47-3	Chromium	26.9			P
7440-50-8	Copper	17.4			P
7439-92-1	Lead	30.5			P
7439-96-5	Manganese	567			P
7439-97-6	Mercury	0.069	B		CV
7440-02-0	Nickel	23.2			P
7782-49-2	Selenium	3.0			P
7440-22-4	Silver	0.33	B		P
7440-66-6	Zinc	91.6			P

Comments:

METHODS:

P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence
NR = Not Required

CONCENTRATION QUALIFIERS:

U = Below MDL,
B = Below LOQ

QUALITY ASSURANCE SUMMARY

FORM 1

INORGANIC ANALYSIS DATA SHEET

SDG No.: TAP03

Matrix: SOIL Level (low/med): LOW

Lab Sample ID: 6850770
Concentration Units: MG/KG

% Solids: 77.3
Date Received: 11/07/2012

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	6.6			P
7440-39-3	Barium	164			P
7440-41-7	Beryllium	1.3			P
7440-43-9	Cadmium	0.16	B		P
7440-47-3	Chromium	29.2			P
7440-50-8	Copper	23.2			P
7439-92-1	Lead	24.2			P
7439-96-5	Manganese	649			P
7439-97-6	Mercury	0.055	B		CV
7440-02-0	Nickel	24.3			P
7782-49-2	Selenium	3.5			P
7440-22-4	Silver	0.51	B		P
7440-66-6	Zinc	92.6			P

Comments:

METHODS:

P = ICP Atomic Emission Spectrometer
MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence
NR = Not Required

CONCENTRATION QUALIFIERS:

U = Below MDL,
B = Below LOQ



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Laboratories

QUALITY ASSURANCE SUMMARY

FORM 1

INORGANIC ANALYSIS DATA SHEET

SDG No.: TAP03

Matrix: SOIL

Level (low/med): LOW

Lab Sample ID: 6850771

% Solids: 79.8

Concentration Units: MG/KG

Date Received: 11/07/2012

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	5.9			P
7440-39-3	Barium	124			P
7440-41-7	Beryllium	1.1			P
7440-43-9	Cadmium	0.46	B		P
7440-47-3	Chromium	29.7			P
7440-50-8	Copper	23.5			P
7439-92-1	Lead	34.6			P
7439-96-5	Manganese	1860			P
7439-97-6	Mercury	0.12	B		CV
7440-02-0	Nickel	25.4			P
7782-49-2	Selenium	4.1			P
7440-22-4	Silver	0.63			P
7440-66-6	Zinc	105			P

Comments:

METHODS:

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MS = ICP Mass Spectrometry
CV = Cold Vapor
AF = Cold Vapor Atomic Fluorescence
NR = Not Required

CONCENTRATION QUALIFIERS:

U = Below MDL,
B = Below LOQ

Instrumental Wet Chemistry Data

Case Narrative/Conformance Summary

Instrumental Water Quality

Sample #	Matrix		Comments
	Liquid	Solid	
6850737		X	
6850738		X	
6850741		X	
6850744		X	
6850747		X	
6850750		X	
6850753		X	
6850756		X	
6850759		X	
6850764		X	
6850765		X	
6850770		X	
6850771		X	

ANALYSIS:

There were no dilutions performed for analyses associated with samples in this SDG.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Method defined actions are taken for any failed matrix QC.

DATA INTERPRETATION:

Due to the limitations of the data package software, form I's are not available for the Instrumental Analysis data. Please refer to the analysis reports for this information.

Abbreviation Key

U = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
R = Matrix Spike (MS)	MDL = Method Detection Limit
M = Matrix Spike Duplicate (MSD)	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	NA = Not Applicable
HS = High Spike	ME = Method
LS = Low Spike	CO = Colorimetric
SS = Soluble Spike	G = Gravimetric
IS = Insoluble Spike	IR = Infrared Spectrophotometry
ISD = Insoluble Spike Duplicate	MTR = Meter
PDS = Post Digestion Spike	OD = Oven Dried
* = Out of Specification	TI = Titration
V = Visual	TOC = Total Organic Carbon
AK = Alpkem	IC = Ion Chromatography
TC = Total Carbon	RA = Rapid Analyzer



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CLIENT: ExxonMobil Refining & Supply
SDG: TAP03

Narrative Reviewed and Approved by:

Patricia Weirich

Patricia Weirich
Senior Administrator

Date

11/13/12

Dana Kauffman
Manager of Data Deliverables

Wet Chemistry Data

Case Narrative/Conformance Summary

Miscellaneous Wet Chemistry

Sample #	Matrix		Comments
	Liquid	Solid	
6850737		X	
6850738		X	
6850741		X	
6850744		X	
6850747		X	
6850750		X	
6850753		X	
6850756		X	
6850759		X	
6850764		X	
6850765		X	
6850770		X	
6850771		X	

ANALYSIS:

Dilutions are listed in the table below:

Samples	Hexavalent Chromium (SOLIDS)
6850738	IS/ DF25, PDS/ DF4
6850759	DF5
LCS-IS	DF25

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Method defined actions are taken for any failed matrix QC.

DATA INTERPRETATION:

Due to the limitations of the data package software, form I's are not available for the Instrumental Analysis data. Please refer to the analysis reports for this information.

Abbreviation Key

U = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
R = Matrix Spike (MS)	MDL = Method Detection Limit
M = Matrix Spike Duplicate (MSD)	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	NA = Not Applicable
HS = High Spike	ME = Method
LS = Low Spike	CO = Colorimetric
SS = Soluble Spike	G = Gravimetric
IS = Insoluble Spike	IR = Infrared Spectrophotometry
ISD = Insoluble Spike Duplicate	MTR = Meter
PDS = Post Digestion Spike	OD = Oven Dried
* = Out of Specification	TI = Titration



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CLIENT: ExxonMobil Refining & Supply
SDG: TAP03

V = Visual	TOC = Total Organic Carbon
AK = Alpkem	IC = Ion Chromatography
TC = Total Carbon	RA = Rapid Analyzer

Narrative Reviewed and Approved by:

Patricia Weirich
Senior Administrator

Date 11-13-12

Dana Kauffman
Manager of Data Deliverables

Moisture Data

MOISTURE

SAMPLE NUMBERS:

<u>Sample #</u>	<u>Sample Code</u>
6850733	CNST9
6850734	NST10
6850735	NST11
6850736	NST12
6850737	NSTC5
6850738	NSTC6
6850739	NST13
6850740	NST14
6850741	NSTC7
6850742	NST15
6850743	NST16
6850744	NSTC8
6850745	NST17
6850746	NST18
6850747	NSTC9
6850748	NST19
6850749	NST20
6850750	STC10
6850751	NST21
6850752	NST22
6850753	STC11
6850754	NST23
6850755	NST24
6850756	STC12
6850757	OCTS3
6850758	OCTS4
6850759	CTCS2
6850760	OCTS5
6850761	OCTS6
6850762	OCTS7
6850763	OCTS8
6850764	CTCS3
6850765	CTCS4
6850766	OCTS9
6850767	CTS10
6850768	CTS11
6850769	CTS12
6850770	CTCS5
6850771	CTCS6

COMMENTS:

The moisture value calculation is:

$$\% \text{ moisture} = \frac{A - B}{C} \times 100$$

Where: A = weight of sample and container before drying
B = weight of sample and container after drying
C = weight of sample before drying

MOISTURE

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>LCS</u> <u>%REC</u>	<u>LCSD</u> <u>%REC</u>	<u>LCS/LCSD</u> <u>Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 12312820001A Moisture	100		99-101		
Batch number: 12312820001B Moisture	100		99-101		
Batch number: 12312820002B Moisture	100		99-101		

Sample Matrix Quality Control

<u>Analysis Name</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 12312820001A Moisture	3.6	3.5	1	13
Batch number: 12312820001B Moisture	4.2	4.2	1	13
Batch number: 12312820002B Moisture	20.7	23.1	11	13

* - Outside of specification

(1) - The result for one or both determinations was less than five times the LOQ.

MOISTURE

Moisture Data Report

Batch #: 12312820001

Sample ID	Batch ID	Analysis#	Tare Wt	Sample Wt	Dry Wt	%Moisture	Analysis Date (Emp#)	Verified Date (Emp#)
LCS 89.5% Std.			1.0996	5.0183	1.6369	89.29	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850733	A	00111	1.1050	8.9000	9.7617	2.73	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850734	A	00111	1.0805	8.1855	8.9753	3.55	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850735	A	00111	1.0516	7.7285	8.5212	3.35	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850736	A	00111	1.0980	8.2480	9.1128	2.83	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850737BKG	A	00111	1.0836	8.5133	9.2946	3.55	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850737DUP	A	00111	1.0779	8.8916	9.6562	3.52	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850738	A	00111	1.1293	8.1896	9.0495	3.29	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850739	A	00111	1.1214	8.8640	9.6921	3.31	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850740	A	00111	1.0855	8.1906	9.0346	2.95	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850741BKG	B	00111	1.1354	8.0211	8.8157	4.25	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850741DUP	B	00111	1.0643	8.5908	9.2948	4.19	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850742	B	00111	1.0777	7.1496	7.9923	3.29	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850743	B	00111	1.1058	8.4453	9.3175	2.77	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850744	B	00111	1.1027	7.8774	8.7316	3.15	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850745	B	00111	1.1103	8.1868	9.0053	3.56	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850746	B	00111	1.1285	9.7120	10.5503	2.99	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850747	B	00111	1.0982	9.7362	10.5116	3.32	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850748	B	00111	1.1326	8.9538	9.8137	3.05	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850749	B	00111	1.0924	7.4866	8.3013	3.71	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850750	B	00111	1.0909	9.8852	10.6009	3.80	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850751	B	00111	1.0902	8.3883	9.2156	3.13	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850752	B	00111	1.1148	9.2944	10.1251	3.06	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)

Batch #: 12312820002

Sample ID	Batch ID	Analysis#	Tare Wt	Sample Wt	Dry Wt	%Moisture	Analysis Date (Emp#)	Verified Date (Emp#)
LCS 89.5% Std.			1.0904	5.0104	1.6236	89.36	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850753	B	00111	1.0788	7.3316	8.1730	3.24	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850754	B	00111	1.1023	9.1493	9.9798	2.97	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850755	B	00111	1.0685	7.8412	8.6677	3.09	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850756	B	00111	1.1305	9.1829	9.7833	5.77	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850757	B	00111	1.1010	7.1631	6.6752	22.18	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850758	B	00111	1.1295	7.0503	6.6142	22.21	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850759	B	00111	1.0890	8.5264	7.6738	22.77	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850760	B	00111	1.0930	8.4640	7.6968	21.98	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850761BKG	B	00111	1.0810	7.4543	6.9905	20.72	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850761DUP	B	00111	1.0737	7.5616	6.8899	23.08	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850762	B	00111	1.1032	7.6521	7.0380	22.44	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850763	B	00111	1.0748	8.6001	7.7260	22.66	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850764	B	00111	1.0987	9.3733	8.3265	22.89	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850765	B	00111	1.0868	7.4214	6.8537	22.29	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850766	B	00111	1.0804	7.0056	6.5094	22.50	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850767	B	00111	1.0879	9.8806	8.8295	21.65	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850768	B	00111	1.1039	7.5776	6.9842	22.40	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850769	B	00111	1.0882	9.4439	8.5252	21.25	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850770	B	00111	1.1151	7.4592	6.8841	22.66	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)
6850771	B	00111	1.1075	8.5622	7.9386	20.22	11/ 7/12 (1201/SWF)	11/ 8/12 (0236/CW)

NYSDEC ASP Category B Data Package

Prepared for:

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Project: Tappan Terminal
Soil Samples
Collected on 11/06/12

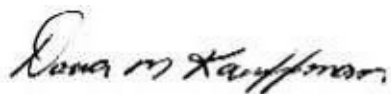
SDG# TAP03

GROUP	SAMPLE NUMBERS
1347278	6850733-6850771

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-08A-TX
AZ Cert. # AZ0780

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client.

Authorized by:



Date: 06/06/2013

Dana M. Kauffman
Manager

Any questions or concerns you might have regarding this data package should be directed to your client representative, Barbara Weyandt at Ext. 1576.

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SDG# TAP03

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SDG# TAP03

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Sample Reference List for SDG Number TAP03
with a Data Package Type of NYSDEC B
10629 - ExxonMobil Refining & Supply
Project: Tappan Terminal

Lab Sample Number	Lab Sample Code	Client Sample Description
6850733	CNST9	TCN-ST9 Grab Soil S2010L4632
6850734	NST10	TCN-ST10 Grab Soil S2010L4632
6850735	NST11	TCN-ST11 Grab Soil S2010L4632
6850736	NST12	TCN-ST12 Grab Soil S2010L4632
6850737	NSTC5	TCN-STC5 Composite Soil S2010L4632
6850738	NSTC6	TCN-STC6 Composite Soil S2010L4632
6850739	NST13	TCN-ST13 Grab Soil S2010L4632
6850740	NST14	TCN-ST14 Grab Soil S2010L4632
6850741	NSTC7	TCN-STC7 Composite Soil S2010L4632
6850742	NST15	TCN-ST15 Grab Soil S2010L4632
6850743	NST16	TCN-ST16 Grab Soil S2010L4632
6850744	NSTC8	TCN-STC8 Composite Soil S2010L4632
6850745	NST17	TCN-ST17 Grab Soil S2010L4632
6850746	NST18	TCN-ST18 Grab Soil S2010L4632
6850747	NSTC9	TCN-STC9 Composite Soil S2010L4632
6850748	NST19	TCN-ST19 Grab Soil S2010L4632
6850749	NST20	TCN-ST20 Grab Soil S2010L4632
6850750	STC10	TCN-STC10 Composite Soil S2010L4632
6850751	NST21	TCN-ST21 Grab Soil S2010L4632
6850752	NST22	TCN-ST22 Grab Soil S2010L4632
6850753	STC11	TCN-STC11 Composite Soil S2010L4632
6850754	NST23	TCN-ST23 Grab Soil S2010L4632
6850755	NST24	TCN-ST24 Grab Soil S2010L4632
6850756	STC12	TCN-STC12 Composite Soil S2010L4632
6850757	OCTS3	POC-TS3 Grab Soil S2010L4632
6850758	OCTS4	POC-TS4 Grab Soil S2010L4632
6850759	CTCS2	POC-TSC2 Composite Soil S2010L4632
6850760	OCTS5	POC-TS5 Grab Soil S2010L4632
6850761	OCTS6	POC-TS6 Grab Soil S2010L4632
6850762	OCTS7	POC-TS7 Grab Soil S2010L4632
6850763	OCTS8	POC-TS8 Grab Soil S2010L4632
6850764	CTCS3	POC-TSC3 Composite Soil S2010L4632
6850765	CTCS4	POC-TSC4 Composite Soil S2010L4632
6850766	OCTS9	POC-TS9 Grab Soil S2010L4632
6850767	CTS10	POC-TS10 Grab Soil S2010L4632
6850768	CTS11	POC-TS11 Grab Soil S2010L4632
6850769	CTS12	POC-TS12 Grab Soil S2010L4632
6850770	CTCS5	POC-TSC5 Composite Soil S2010L4632
6850771	CTCS6	POC-TSC6 Composite Soil S2010L4632

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 · 717-656-2300 Fax: 717-656-2681 · www.lancasterlabs.com

10237 8260 Ext. Soil Master w/GRO

The soil sample is purged and the volatile compounds are collected on a sorbent trap that is subsequently desorbed onto the GC/MS system for chromatographic and mass spectral analysis.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8260B, December 1996

00159 Mercury

The solution resulting from the mercury digestion is analyzed by Cold Vapor AA.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 7471A, September 1994

02829 Trivalent Chromium soils

Calculation performed by subtracting hexavalent chromium from total chromium.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 6010B Modified, December 1996.

05711 SW SW846 Hg Digest

The sample is heated at 95 c with nitric acid, sulfuric acid, potassium persulfate, and potassium permanganate. Excess potassium permanganate is reduced with sodium chloride/hydroxylamine hydrochloride. Mercuric ions are reduced to mercury metal using stannous chloride.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 7471A Modified, September 1994.

06935 Arsenic
06946 Barium
06947 Beryllium
06949 Cadmium
06951 Chromium
06953 Copper
06955 Lead
06958 Manganese
06961 Nickel
06936 Selenium
06966 Silver
06972 Zinc

The solution resulting from the metals digestion is analyzed by Trace ICP.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 6010B, December 1996.

05708 SW SW846 ICP/ICP MS Digest

The sample is digested with nitric acid, hydrochloric acid and hydrogen peroxide.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 3050B, December 1996

10738 Pesticides in Soil (microwave)

The sample is solvent extracted and exchanged to hexane. Florisil cleanup is performed to reduce potential matrix interferences. The extract is analyzed using gas chromatography on two capillary columns (primary and confirmation) with electron capture detectors.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8081A, December 1996.

10401 Herbicide soils 8151A Master

The sample is acidified and solvent extracted. The extract is then hydrolyzed, solvent washed, and acidified for final extraction. The chlorophenoxy acids, phenols and related target compounds are converted to the methyl esters using diazomethane. Florisil cleanup is performed to reduce potential matrix interferences.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8151A, December 1996.

04181 Herbicide Soil Extraction

The sample is acidified and solvent extracted. The extract is then hydrolyzed, solvent washed, and acidified for final extraction. The chlorophenoxy acids, phenols and related target compounds are converted to the methyl esters using diazomethane. Florisil cleanup is performed to reduce potential matrix interferences.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Methods 3550B & 8151A, December 1996.

10736 PCBs in Soil (microwave)

The sample is solvent-extracted and exchanged to hexane. Sulfuric acid and Florisil cleanups are performed to reduce potential matrix interferences. The extract is analyzed using gas chromatography on two capillary columns (primary and confirmation) with electron capture detectors.

Reference: Test Methods for Evaluating Solid Waste, SW-846 Method 8082, December 1996.

10497 PCB Microwave Soil Extraction**10809 BNA Soil Microwave**

The sample aliquot is extracted using microwave extraction with 1:1 methylene chloride and acetone. The extract is concentrated prior to analysis.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 3546, Revision 0, February 2007.

10496 PPL Pest. Microwave Extraction

The sample aliquot is extracted using microwave extraction with 1:1 hexane and acetone. The extract is concentrated prior to analysis.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 3546, Revision 0, February 2007.

10727 TCL 8270 (microwave)

The sample extract is analyzed by capillary column Gas Chromatography/Mass Spectrometry.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 8270C, December 1996

05895 Total Cyanide (solid)

During the distillation step, complex cyanides are converted to hydrogen cyanide which readily reacts with chloramine T. Simple cyanides are converted to cyanogen chloride by reaction with chloramine T. This reacts with pyridine and barbituric acid to give a red colored complex determined colorimetrically.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 9012B, August 2002.

05896 Cyanide Solid Distillation

The sample is acidified and distilled. Cyanide is released as hydrogen cyanide and is absorbed in a sodium hydroxide solution.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 9012B, August 2002.

05898 Amenable Cyanide (solid)**05897 Amenable Cyanide Solid Distill**

A portion of the sample is pretreated with chlorine to release the dissociable cyanide. Both treated and untreated portions of the sample are acidified and distilled. Cyanide is released as hydrogen cyanide and is absorbed in a sodium hydroxide solution. The amenable cyanide is calculated as the difference between the untreated and chlorine treated portions.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 9012B, August 2002.

00425 Hexavalent Chromium (SOLIDS)

The filtrate from method #7825 is analyzed colorimetrically using diphenylcarbazide to produce a red-violet color. The absorbance is read at 540 nm and compared to a standard curve.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 7196A, July 1992.

07825 Hexavalent Cr (Extraction)

The sample is digested using a 3% sodium carbonate - 2% sodium hydroxide solution and then filtered through a 0.45 micron filter.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 3060A, December 1996

00111 Moisture

A well-mixed sample is placed in a tared container and dried to a constant weight in an oven at 103-105C. The increase in weight is the total solids.

Reference: Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998, Method 2540 G

00374 GC/MS - Bulk Soil Prep

Samples are field collected in glass containers, and preserved within 48 hours. An aliquot of the soil sample is prepared in reagent water and is purged at 40oC with helium.

Reference: Test Methods for Evaluating Solid Waste, SW-846, Method 5035A Modified, July 2002.

06646 GC/MS HL Bulk Sample Prep

Samples are field collected in glass containers, and preserved within 48 hours. An aliquot of the methanolic extract of the sample is diluted in reagent water and purged at ambient temperature with helium.

Reference: Test Methods for Evaluating Solid Waste, SW-846, Method 5035A Modified, July 2002.

Analysis Reports / Field Chain of Custody

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

June 03, 2013

Project: Tappan Terminal

Submittal Date: 11/07/2012

Group Number: 1347278

SDG: TAP03

PO Number: 4410017954

Release Number: TRIFILETTI

State of Sample Origin: NY

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
TCN-ST9 Grab Soil	6850733
TCN-ST10 Grab Soil	6850734
TCN-ST11 Grab Soil	6850735
TCN-ST12 Grab Soil	6850736
TCN-STC5 Composite Soil	6850737
TCN-STC6 Composite Soil	6850738
TCN-ST13 Grab Soil	6850739
TCN-ST14 Grab Soil	6850740
TCN-STC7 Composite Soil	6850741
TCN-ST15 Grab Soil	6850742
TCN-ST16 Grab Soil	6850743
TCN-STC8 Composite Soil	6850744
TCN-ST17 Grab Soil	6850745
TCN-ST18 Grab Soil	6850746
TCN-STC9 Composite Soil	6850747
TCN-ST19 Grab Soil	6850748
TCN-ST20 Grab Soil	6850749
TCN-STC10 Composite Soil	6850750
TCN-ST21 Grab Soil	6850751
TCN-ST22 Grab Soil	6850752
TCN-STC11 Composite Soil	6850753
TCN-ST23 Grab Soil	6850754
TCN-ST24 Grab Soil	6850755
TCN-STC12 Composite Soil	6850756
POC-TS3 Grab Soil	6850757
POC-TS4 Grab Soil	6850758
POC-TSC2 Composite Soil	6850759
POC-TS5 Grab Soil	6850760
POC-TS6 Grab Soil	6850761
POC-TS7 Grab Soil	6850762

POC-TS8 Grab Soil	6850763
POC-TSC3 Composite Soil	6850764
POC-TSC4 Composite Soil	6850765
POC-TS9 Grab Soil	6850766
POC-TS10 Grab Soil	6850767
POC-TS11 Grab Soil	6850768
POC-TS12 Grab Soil	6850769
POC-TSC5 Composite Soil	6850770
POC-TSC6 Composite Soil	6850771

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Roux Associates	Attn: Tracy Bispham
1 COPY TO	Data Package Group	
ELECTRONIC COPY TO	Exxon Mobil: Woodard & Curran	Attn: Anne Proctor

Respectfully Submitted,



Barbara A. Weyandt
Specialist

(717) 556-7264

Project Name: Tappan Terminal
LLI Group #: 1347278

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:**SW-846 8260B, GC/MS Volatiles**

Batch #: A123131AA (Sample number(s): 6850762-6850763, 6850766-6850769 UNSPK: 6850762)

The recovery(ies) for the following analyte(s) in the MS was outside the acceptance window: Acetone

Batch #: B123122AA (Sample number(s): 6850733-6850736, 6850740, 6850742-6850743, 6850746, 6850748-6850749, 6850751-6850752, 6850754-6850755, 6850757-6850758 UNSPK: 6850733)

The recovery(ies) for the following analyte(s) in the MS was outside the acceptance window: Tetrachloroethene

SW-846 8081A, Pesticides/PCBs

Sample #s: 6850759, 6850764, 6850765, 6850770, 6850771

Reporting limits were raised due to interference from the sample matrix.

SW-846 8082, Pesticides/PCBs

Sample #s: 6850764

Reporting limits were raised due to interference from the sample matrix.

SW-846 8151A, Herbicides

Batch #: 123120022A (Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764, 6850770 UNSPK: 6850737)

The recovery(ies) for the following analyte(s) in the LCS exceeded the acceptance window indicating a positive bias: 2,4,5-TP

SW-846 6010B, Metals

Batch #: 123125708001 (Sample number(s): 6850737-6850738, 6850741, 6850744,
6850747, 6850750, 6850753, 6850756, 6850759, 6850764-6850765, 6850770-6850771
UNSPK: 6850737 BKG: 6850737)

The recovery(ies) for the following analyte(s) in the MS and/or MSD was
outside the acceptance window: Manganese, Copper

The duplicate RPD for the following analyte(s) exceeded the acceptance window:
Silver

SW-846 7196A, Wet Chemistry

Sample #s: 6850759, 6850764, 6850765, 6850770, 6850771

Reporting limits were raised due to interference from the sample matrix.

REVISED

Sample Description: TCN-ST9 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850733
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:00 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CNST9 SDG#: TAP03-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.99
10237	Benzene	71-43-2	N.D.	0.0005	0.99
10237	2-Butanone	78-93-3	N.D.	0.004	0.99
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.99
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.99
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.99
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.99
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.99
10237	Chloroform	67-66-3	N.D.	0.001	0.99
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.99
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.99
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.99
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.99
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.99
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.99
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.99
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.99
10237	1,4-Dioxane	123-91-1	N.D.	0.072	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.99
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.99
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.99
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.99
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.99
10237	Trichloroethene	79-01-6	N.D.	0.001	0.99
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.99
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.99
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.99
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.99

Wet Chemistry **SM20 2540 G** % %
00111 Moisture n.a. 2.7 0.50 1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

REVISED

Sample Description: TCN-ST9 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850733
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:00 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CNST9 SDG#: TAP03-01

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/07/2012 23:51	Andrea E Lando	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:01	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

REVISED

Sample Description: TCN-ST10 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850734
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:05 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST10 SDG#: TAP03-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.98
10237	Benzene	71-43-2	N.D.	0.0005	0.98
10237	2-Butanone	78-93-3	N.D.	0.004	0.98
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.98
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.98
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.98
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.98
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.98
10237	Chloroform	67-66-3	N.D.	0.001	0.98
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.98
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.98
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.98
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.98
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.98
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.98
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.98
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.98
10237	1,4-Dioxane	123-91-1	N.D.	0.071	0.98
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.98
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.98
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.98
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.98
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.98
10237	Toluene	108-88-3	N.D.	0.001	0.98
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.98
10237	Trichloroethene	79-01-6	N.D.	0.001	0.98
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.98
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.98
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.98
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.98
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.98

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.6	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

REVISED

Sample Description: TCN-ST10 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850734
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:05 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 06/03/2013 14:00

Brooklyn NY 11222

NST10 SDG#: TAP03-02

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 00:14	Andrea E Lando	0.98
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:02	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

REVISED

Sample Description: TCN-ST11 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850735
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:10 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST11 SDG#: TAP03-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.96
10237	Benzene	71-43-2	N.D.	0.0005	0.96
10237	2-Butanone	78-93-3	N.D.	0.004	0.96
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.96
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.96
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.96
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.96
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.96
10237	Chloroform	67-66-3	N.D.	0.001	0.96
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.96
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.96
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.96
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.96
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.96
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.96
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.96
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.96
10237	1,4-Dioxane	123-91-1	N.D.	0.069	0.96
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.96
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.96
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.96
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.96
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.96
10237	Toluene	108-88-3	N.D.	0.001	0.96
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.96
10237	Trichloroethene	79-01-6	N.D.	0.001	0.96
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.96
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.96
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.96
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.96
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.96

Wet Chemistry **SM20 2540 G** %
 00111 Moisture n.a. 3.3 0.50 1
 "Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

REVISED

Sample Description: TCN-ST11 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850735
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:10 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST11 SDG#: TAP03-03

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 00:36	Andrea E Lando	0.96
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:04	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

REVISED

Sample Description: TCN-ST12 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850736
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:15 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST12 SDG#: TAP03-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1.02
10237	Benzene	71-43-2	N.D.	0.0005	1.02
10237	2-Butanone	78-93-3	N.D.	0.004	1.02
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.02
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.02
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.02
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.02
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.02
10237	Chloroform	67-66-3	N.D.	0.001	1.02
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.02
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.02
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.02
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.02
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.02
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.02
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.02
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.02
10237	1,4-Dioxane	123-91-1	N.D.	0.073	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.02
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.02
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.02
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.02
10237	Toluene	108-88-3	N.D.	0.001	1.02
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.02
10237	Trichloroethene	79-01-6	N.D.	0.001	1.02
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.02
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.02
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.02
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.02

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	2.8	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

REVISED

Sample Description: TCN-ST12 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850736
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:15 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 06/03/2013 14:00

Brooklyn NY 11222

NST12 SDG#: TAP03-04

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 00:59	Andrea E Lando	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:06	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

REVISED

Sample Description: TCN-STC5 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850737
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:20 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20
Reported: 06/03/2013 14:00

NSTC5 SDG#: TAP03-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	Acenaphthene	83-32-9	N.D.	3	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	34	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides SW-846 8151A					
10401	2,4,5-TP	93-72-1	N.D.	0.77	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.17	1
10738	Alpha BHC	319-84-6	N.D.	0.17	1
10738	Beta BHC	319-85-7	N.D.	0.99	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.17	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.17	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.36	1
10738	Delta BHC	319-86-8	N.D.	0.46	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.17	1
Pesticides/PCBs SW-846 8082					
10736	PCB-1016	12674-11-2	N.D.	3.7	1
10736	PCB-1221	11104-28-2	N.D.	4.8	1

REVISED

Sample Description: TCN-STC5 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850737
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:20 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20
Reported: 06/03/2013 14:00

NSTC5 SDG#: TAP03-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.3	1
10736	PCB-1242	53469-21-9	N.D.	3.4	1
10736	PCB-1248	12672-29-6	N.D.	3.4	1
10736	PCB-1254	11097-69-1	N.D.	3.4	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	N.D.	0.336	1
06946	Barium	7440-39-3	16.4	0.0336	1
06947	Beryllium	7440-41-7	N.D.	0.0681	1
06949	Cadmium	7440-43-9	0.0559 J	0.0336	1
06951	Chromium	7440-47-3	4.47	0.0895	1
06953	Copper	7440-50-8	131	0.183	1
06955	Lead	7439-92-1	2.62	0.478	1
06958	Manganese	7439-96-5	251	0.0844	1
06961	Nickel	7440-02-0	16.0	0.112	1
06936	Selenium	7782-49-2	2.53	0.732	1
06966	Silver	7440-22-4	0.275 J	0.142	1
06972	Zinc	7440-66-6	48.7	0.203	1
		SW-846 6010B modified	mg/kg	mg/kg	
002829	Trivalent Chromium soils	16065-83-1	4.5	0.52	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0107	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.17	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.19	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.52	1
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	3.6	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC5 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850737
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:20 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NSTC5 SDG#: TAP03-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 19:28	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 02:03	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 20:58	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 16:26	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 04:43	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 09:59	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 09:59	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 04:43	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 09:59	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 09:59	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 04:43	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 09:59	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 04:43	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 04:43	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 09:59	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 04:43	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 12:46	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:11	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:29	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

REVISED

Sample Description: TCN-STC6 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850738
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:25 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20
Reported: 06/03/2013 14:00

NSTC6 SDG#: TAP03-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	Acenaphthene	83-32-9	N.D.	3 ug/kg	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	34	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides SW-846 8151A					
10401	2,4,5-TP	93-72-1	N.D.	0.77 ug/kg	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.17 ug/kg	1
10738	Alpha BHC	319-84-6	N.D.	0.17	1
10738	Beta BHC	319-85-7	N.D.	0.98	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.17	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.17	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.36	1
10738	Delta BHC	319-86-8	N.D.	0.46	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.17	1
Pesticides/PCBs SW-846 8082					
10736	PCB-1016	12674-11-2	N.D.	3.7 ug/kg	1
10736	PCB-1221	11104-28-2	N.D.	4.8	1

REVISED

Sample Description: TCN-STC6 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850738
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:25 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20
Reported: 06/03/2013 14:00

NSTC6 SDG#: TAP03-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.3	1
10736	PCB-1242	53469-21-9	N.D.	3.4	1
10736	PCB-1248	12672-29-6	N.D.	3.4	1
10736	PCB-1254	11097-69-1	N.D.	3.4	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	N.D.	0.335	1
06946	Barium	7440-39-3	18.0	0.0335	1
06947	Beryllium	7440-41-7	N.D.	0.0679	1
06949	Cadmium	7440-43-9	N.D.	0.0335	1
06951	Chromium	7440-47-3	5.33	0.0892	1
06953	Copper	7440-50-8	130	0.182	1
06955	Lead	7439-92-1	1.42 J	0.477	1
06958	Manganese	7439-96-5	272	0.0841	1
06961	Nickel	7440-02-0	16.7	0.112	1
06936	Selenium	7782-49-2	2.60	0.730	1
06966	Silver	7440-22-4	0.384 J	0.142	1
06972	Zinc	7440-66-6	53.4	0.203	1
		SW-846 6010B modified	mg/kg	mg/kg	
002829	Trivalent Chromium soils	16065-83-1	5.3	0.52	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0106	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.19	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.52	1
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	3.3	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC6 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850738
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:25 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NSTC6 SDG#: TAP03-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 20:36	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 03:25	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 21:12	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 17:10	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:08	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 10:24	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 10:24	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:08	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 10:24	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 10:24	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:08	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 10:24	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:08	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:08	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 10:24	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:08	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 12:52	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:15	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:33	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

REVISED

Sample Description: TCN-ST13 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850739
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:30 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST13 SDG#: TAP03-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1.02
10237	Benzene	71-43-2	N.D.	0.0005	1.02
10237	2-Butanone	78-93-3	N.D.	0.004	1.02
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.02
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.02
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.02
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.02
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.02
10237	Chloroform	67-66-3	N.D.	0.001	1.02
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.02
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.02
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.02
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.02
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.02
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.02
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.02
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.02
10237	1,4-Dioxane	123-91-1	N.D.	0.074	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.02
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.02
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.02
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.02
10237	Toluene	108-88-3	N.D.	0.001	1.02
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.02
10237	Trichloroethene	79-01-6	N.D.	0.001	1.02
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.02
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.02
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.02
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.02

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.3	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

REVISED

Sample Description: TCN-ST13 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850739
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:30 by JC

ExxonMobil Refining & Supply

Submitted: 11/07/2012 09:20

Global Remed.-Major Projects

Reported: 06/03/2013 14:00

38 Varick Street

Brooklyn NY 11222

NST13 SDG#: TAP03-07

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123131AA	11/08/2012 12:37	Angela D Sneeringer	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:08	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

REVISED

Sample Description: TCN-ST14 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850740
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:35 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST14 SDG#: TAP03-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1
10237	Benzene	71-43-2	N.D.	0.0005	1
10237	2-Butanone	78-93-3	N.D.	0.004	1
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1
10237	Chlorobenzene	108-90-7	N.D.	0.001	1
10237	Chloroform	67-66-3	N.D.	0.001	1
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1
10237	1,4-Dioxane	123-91-1	N.D.	0.072	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1
10237	Methylene Chloride	75-09-2	N.D.	0.002	1
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1
10237	Toluene	108-88-3	N.D.	0.001	1
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1
10237	Trichloroethene	79-01-6	N.D.	0.001	1
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1

Wet Chemistry **SM20 2540 G** % %
 00111 Moisture n.a. 2.9 0.50 1
 "Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

REVISED

Sample Description: TCN-ST14 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850740
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:35 by JC

ExxonMobil Refining & Supply

Submitted: 11/07/2012 09:20

Global Remed.-Major Projects

Reported: 06/03/2013 14:00

38 Varick Street

Brooklyn NY 11222

NST14 SDG#: TAP03-08

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 02:07	Andrea E Lando	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:10	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001A	11/07/2012 19:21	Scott W Freisher	1

REVISED

Sample Description: TCN-STC7 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850741
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:40 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NSTC7 SDG#: TAP03-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	Acenaphthene	83-32-9	N.D.	3 ug/kg	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	34	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides SW-846 8151A					
10401	2,4,5-TP	93-72-1	N.D.	0.78 ug/kg	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.18 ug/kg	1
10738	Alpha BHC	319-84-6	N.D.	0.18	1
10738	Beta BHC	319-85-7	N.D.	1.0	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.18	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.18	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.36	1
10738	Delta BHC	319-86-8	N.D.	0.47	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.18	1
Pesticides/PCBs SW-846 8082					
10736	PCB-1016	12674-11-2	N.D.	3.8 ug/kg	1
10736	PCB-1221	11104-28-2	N.D.	4.8	1

REVISED

Sample Description: TCN-STC7 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850741
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:40 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NSTC7 SDG#: TAP03-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.4	1
10736	PCB-1242	53469-21-9	N.D.	3.4	1
10736	PCB-1248	12672-29-6	N.D.	3.4	1
10736	PCB-1254	11097-69-1	N.D.	3.4	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	N.D.	0.331	1
06946	Barium	7440-39-3	16.5	0.0331	1
06947	Beryllium	7440-41-7	N.D.	0.0672	1
06949	Cadmium	7440-43-9	0.0954 J	0.0331	1
06951	Chromium	7440-47-3	4.28	0.0883	1
06953	Copper	7440-50-8	161	0.181	1
06955	Lead	7439-92-1	3.07	0.472	1
06958	Manganese	7439-96-5	249	0.0833	1
06961	Nickel	7440-02-0	16.6	0.110	1
06936	Selenium	7782-49-2	2.68	0.723	1
06966	Silver	7440-22-4	0.398 J	0.141	1
06972	Zinc	7440-66-6	55.0	0.201	1
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	4.3	0.52	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0102	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.18	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.52	1
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	4.2	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC7 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850741
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:40 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NSTC7 SDG#: TAP03-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 20:58	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 03:53	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 21:55	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 17:24	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:12	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 10:28	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 10:28	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:12	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 10:28	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 10:28	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:12	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 10:28	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:12	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:12	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 10:28	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:12	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 12:54	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:16	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:34	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

REVISED

Sample Description: TCN-ST15 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850742
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:50 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST15 SDG#: TAP03-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1.04
10237	Benzene	71-43-2	N.D.	0.0005	1.04
10237	2-Butanone	78-93-3	N.D.	0.004	1.04
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.04
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.04
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.04
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.04
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.04
10237	Chloroform	67-66-3	N.D.	0.001	1.04
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.04
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.04
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.04
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.04
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.04
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.04
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.04
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.04
10237	1,4-Dioxane	123-91-1	N.D.	0.075	1.04
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.04
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.04
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.04
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.04
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.04
10237	Toluene	108-88-3	N.D.	0.001	1.04
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.04
10237	Trichloroethene	79-01-6	N.D.	0.001	1.04
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.04
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.04
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.04
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.04
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.04

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.3	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

REVISED

Sample Description: TCN-ST15 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850742
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:50 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST15 SDG#: TAP03-10

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 02:30	Andrea E Lando	1.04
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:14	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

REVISED

Sample Description: TCN-ST16 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850743
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:55 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST16 SDG#: TAP03-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.99
10237	Benzene	71-43-2	N.D.	0.0005	0.99
10237	2-Butanone	78-93-3	N.D.	0.004	0.99
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.99
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.99
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.99
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.99
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.99
10237	Chloroform	67-66-3	N.D.	0.001	0.99
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.99
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.99
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.99
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.99
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.99
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.99
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.99
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.99
10237	1,4-Dioxane	123-91-1	N.D.	0.072	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.99
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.99
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.99
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.99
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.99
10237	Trichloroethene	79-01-6	N.D.	0.001	0.99
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.99
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.99
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.99
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.99

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	2.8	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

REVISED

Sample Description: TCN-ST16 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850743
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:55 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST16 SDG#: TAP03-11

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 02:53	Andrea E Lando	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:16	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

REVISED

Sample Description: TCN-STC8 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850744
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:45 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NSTC8 SDG#: TAP03-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	Acenaphthene	83-32-9	N.D.	3 ug/kg	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	34	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides SW-846 8151A					
10401	2,4,5-TP	93-72-1	N.D.	0.77 ug/kg	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.18 ug/kg	1
10738	Alpha BHC	319-84-6	N.D.	0.18	1
10738	Beta BHC	319-85-7	N.D.	0.99	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.18	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.18	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.36	1
10738	Delta BHC	319-86-8	N.D.	0.46	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.18	1
Pesticides/PCBs SW-846 8082					
10736	PCB-1016	12674-11-2	N.D.	3.7 ug/kg	1
10736	PCB-1221	11104-28-2	N.D.	4.8	1

REVISED

Sample Description: TCN-STC8 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850744
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:45 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20
Reported: 06/03/2013 14:00

NSTC8 SDG#: TAP03-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.3	1
10736	PCB-1242	53469-21-9	N.D.	3.4	1
10736	PCB-1248	12672-29-6	N.D.	3.4	1
10736	PCB-1254	11097-69-1	N.D.	3.4	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	1.27 J	0.334	1
06946	Barium	7440-39-3	16.5	0.0334	1
06947	Beryllium	7440-41-7	N.D.	0.0679	1
06949	Cadmium	7440-43-9	N.D.	0.0334	1
06951	Chromium	7440-47-3	4.92	0.0891	1
06953	Copper	7440-50-8	145	0.182	1
06955	Lead	7439-92-1	2.90	0.476	1
06958	Manganese	7439-96-5	250	0.0841	1
06961	Nickel	7440-02-0	16.9	0.111	1
06936	Selenium	7782-49-2	3.24	0.729	1
06966	Silver	7440-22-4	0.342 J	0.142	1
06972	Zinc	7440-66-6	52.5	0.203	1
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	4.9	0.52	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0105	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.19	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.52	1
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	3.2	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC8 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850744
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 12:45 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NSTC8 SDG#: TAP03-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 21:21	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 04:20	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 22:09	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 17:39	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:24	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 10:40	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 10:40	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:24	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 10:40	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 10:40	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:24	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 10:40	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:24	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:24	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 10:40	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:24	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 12:56	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:17	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:35	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

REVISED

Sample Description: TCN-ST17 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850745
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:15 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST17 SDG#: TAP03-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	1.03
10237	Benzene	71-43-2	N.D.	0.0005	1.03
10237	2-Butanone	78-93-3	N.D.	0.004	1.03
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.03
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.03
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.03
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.03
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.03
10237	Chloroform	67-66-3	N.D.	0.001	1.03
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.03
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.03
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.03
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.03
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.03
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.03
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.03
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.03
10237	1,4-Dioxane	123-91-1	N.D.	0.075	1.03
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.03
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.03
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.03
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.03
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.03
10237	Toluene	108-88-3	N.D.	0.001	1.03
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.03
10237	Trichloroethene	79-01-6	N.D.	0.001	1.03
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.03
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.03
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.03
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.03
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.03

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.6	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

REVISED

Sample Description: TCN-ST17 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850745
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:15 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST17 SDG#: TAP03-13

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123131AA	11/08/2012 13:54	Angela D Sneeringer	1.03
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:18	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

REVISED

Sample Description: TCN-ST18 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850746
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:20 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST18 SDG#: TAP03-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1
10237	Benzene	71-43-2	N.D.	0.0005	1
10237	2-Butanone	78-93-3	N.D.	0.004	1
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1
10237	Chlorobenzene	108-90-7	N.D.	0.001	1
10237	Chloroform	67-66-3	N.D.	0.001	1
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1
10237	1,4-Dioxane	123-91-1	N.D.	0.072	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1
10237	Methylene Chloride	75-09-2	N.D.	0.002	1
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1
10237	Toluene	108-88-3	N.D.	0.001	1
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1
10237	Trichloroethene	79-01-6	N.D.	0.001	1
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.0	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

REVISED

Sample Description: TCN-ST18 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850746
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:20 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST18 SDG#: TAP03-14

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 03:15	Andrea E Lando	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:20	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

REVISED

Sample Description: TCN-STC9 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850747
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:25 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NSTC9 SDG#: TAP03-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	Acenaphthene	83-32-9	N.D.	3 ug/kg	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	34	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides SW-846 8151A					
10401	2,4,5-TP	93-72-1	N.D.	0.78 ug/kg	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.17 ug/kg	1
10738	Alpha BHC	319-84-6	N.D.	0.17	1
10738	Beta BHC	319-85-7	N.D.	0.98	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.17	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.17	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.36	1
10738	Delta BHC	319-86-8	N.D.	0.46	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.22	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.21	1
10738	Heptachlor	76-44-8	N.D.	0.17	1
Pesticides/PCBs SW-846 8082					
10736	PCB-1016	12674-11-2	N.D.	3.7 ug/kg	1
10736	PCB-1221	11104-28-2	N.D.	4.8	1

REVISED

Sample Description: TCN-STC9 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850747
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:25 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20
Reported: 06/03/2013 14:00

NSTC9 SDG#: TAP03-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.3	1
10736	PCB-1242	53469-21-9	N.D.	3.4	1
10736	PCB-1248	12672-29-6	N.D.	3.4	1
10736	PCB-1254	11097-69-1	N.D.	3.4	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	N.D.	0.338	1
06946	Barium	7440-39-3	17.2	0.0338	1
06947	Beryllium	7440-41-7	N.D.	0.0686	1
06949	Cadmium	7440-43-9	N.D.	0.0338	1
06951	Chromium	7440-47-3	4.24	0.0901	1
06953	Copper	7440-50-8	141	0.184	1
06955	Lead	7439-92-1	2.49	0.481	1
06958	Manganese	7439-96-5	250	0.0850	1
06961	Nickel	7440-02-0	16.2	0.113	1
06936	Selenium	7782-49-2	2.94	0.737	1
06966	Silver	7440-22-4	0.340 J	0.143	1
06972	Zinc	7440-66-6	52.5	0.205	1
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	4.2	0.52	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0104	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.18	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.52	1
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	3.3	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC9 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850747
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:25 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NSTC9 SDG#: TAP03-15

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 21:43	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 04:48	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 22:23	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 17:54	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:28	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 10:44	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 10:44	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:28	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 10:44	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 10:44	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:28	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 10:44	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:28	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:28	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 10:44	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:28	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 12:58	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:18	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:36	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

REVISED

Sample Description: TCN-ST19 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850748
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:25 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST19 SDG#: TAP03-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1.01
10237	Benzene	71-43-2	N.D.	0.0005	1.01
10237	2-Butanone	78-93-3	N.D.	0.004	1.01
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.01
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.01
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.01
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.01
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.01
10237	Chloroform	67-66-3	N.D.	0.001	1.01
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.01
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.01
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.01
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.01
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.01
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.01
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.01
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.01
10237	1,4-Dioxane	123-91-1	N.D.	0.073	1.01
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.01
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.01
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.01
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.01
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.01
10237	Toluene	108-88-3	N.D.	0.001	1.01
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.01
10237	Trichloroethene	79-01-6	N.D.	0.001	1.01
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.01
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.01
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.01
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.01
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.01

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.0	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

REVISED

Sample Description: TCN-ST19 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850748
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:25 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST19 SDG#: TAP03-16

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 05:45	Andrea E Lando	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:22	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

REVISED

Sample Description: TCN-ST20 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850749
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:30 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST20 SDG#: TAP03-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	1.02
10237	Benzene	71-43-2	N.D.	0.0005	1.02
10237	2-Butanone	78-93-3	N.D.	0.004	1.02
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.02
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.02
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.02
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.02
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.02
10237	Chloroform	67-66-3	N.D.	0.001	1.02
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.02
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.02
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.02
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.02
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.02
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.02
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.02
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.02
10237	1,4-Dioxane	123-91-1	N.D.	0.074	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.02
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.02
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.02
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.02
10237	Toluene	108-88-3	N.D.	0.001	1.02
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.02
10237	Trichloroethene	79-01-6	N.D.	0.001	1.02
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.02
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.02
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.02
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.02

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.7	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

REVISED

Sample Description: TCN-ST20 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850749
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:30 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST20 SDG#: TAP03-17

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 06:08	Andrea E Lando	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229318	11/07/2012 12:24	Stephanie A Sanchez	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229318	11/07/2012 12:23	Stephanie A Sanchez	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

REVISED

Sample Description: TCN-STC10 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850750
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:35 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

STC10 SDG#: TAP03-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	Acenaphthene	83-32-9	N.D.	3 ug/kg	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	34	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides SW-846 8151A					
10401	2,4,5-TP	93-72-1	N.D.	0.78 ug/kg	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.17 ug/kg	1
10738	Alpha BHC	319-84-6	N.D.	0.17	1
10738	Beta BHC	319-85-7	N.D.	0.98	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.17	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.17	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.36	1
10738	Delta BHC	319-86-8	N.D.	0.46	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.17	1
Pesticides/PCBs SW-846 8082					
10736	PCB-1016	12674-11-2	N.D.	3.7 ug/kg	1
10736	PCB-1221	11104-28-2	N.D.	4.8	1

REVISED

Sample Description: TCN-STC10 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850750
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:35 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

STC10 SDG#: TAP03-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.3	1
10736	PCB-1242	53469-21-9	N.D.	3.4	1
10736	PCB-1248	12672-29-6	N.D.	3.4	1
10736	PCB-1254	11097-69-1	N.D.	3.4	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	N.D.	0.333	1
06946	Barium	7440-39-3	16.9	0.0333	1
06947	Beryllium	7440-41-7	N.D.	0.0676	1
06949	Cadmium	7440-43-9	0.0888 J	0.0333	1
06951	Chromium	7440-47-3	4.09	0.0888	1
06953	Copper	7440-50-8	136	0.182	1
06955	Lead	7439-92-1	2.13	0.474	1
06958	Manganese	7439-96-5	261	0.0838	1
06961	Nickel	7440-02-0	16.1	0.111	1
06936	Selenium	7782-49-2	2.67	0.727	1
06966	Silver	7440-22-4	0.477 J	0.141	1
06972	Zinc	7440-66-6	56.4	0.202	1
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	4.1	0.52	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0106	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.18	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.52	1
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	3.8	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC10 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850750
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:35 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20
Reported: 06/03/2013 14:00

STC10 SDG#: TAP03-18

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 22:06	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 06:10	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 22:37	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 18:09	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:32	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 10:48	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 10:48	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:32	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 10:48	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 10:48	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:32	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 10:48	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:32	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:32	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 10:48	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:32	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:00	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:20	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:40	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

REVISED

Sample Description: TCN-ST21 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850751
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:40 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST21 SDG#: TAP03-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.97
10237	Benzene	71-43-2	N.D.	0.0005	0.97
10237	2-Butanone	78-93-3	N.D.	0.004	0.97
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.97
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.97
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.97
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.97
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.97
10237	Chloroform	67-66-3	N.D.	0.001	0.97
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.97
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.97
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.97
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.97
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.97
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.97
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.97
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.97
10237	1,4-Dioxane	123-91-1	N.D.	0.070	0.97
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.97
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.97
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.97
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.97
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.97
10237	Toluene	108-88-3	N.D.	0.001	0.97
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.97
10237	Trichloroethene	79-01-6	N.D.	0.001	0.97
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.97
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.97
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.97
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.97
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.97

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.1	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

REVISED

Sample Description: TCN-ST21 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850751
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:40 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST21 SDG#: TAP03-19

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 06:30	Andrea E Lando	0.97
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:46	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

REVISED

Sample Description: TCN-ST22 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850752
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:45 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST22 SDG#: TAP03-20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.97
10237	Benzene	71-43-2	N.D.	0.0005	0.97
10237	2-Butanone	78-93-3	N.D.	0.004	0.97
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.97
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.97
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.97
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.97
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.97
10237	Chloroform	67-66-3	N.D.	0.001	0.97
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.97
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.97
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.97
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.97
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.97
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.97
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.97
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.97
10237	1,4-Dioxane	123-91-1	N.D.	0.070	0.97
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.97
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.97
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.97
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.97
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.97
10237	Toluene	108-88-3	N.D.	0.001	0.97
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.97
10237	Trichloroethene	79-01-6	N.D.	0.001	0.97
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.97
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.97
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.97
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.97
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.97

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.1	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

REVISED

Sample Description: TCN-ST22 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850752
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:45 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST22 SDG#: TAP03-20

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 06:53	Andrea E Lando	0.97
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:53	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820001B	11/07/2012 19:21	Scott W Freisher	1

REVISED

Sample Description: TCN-STC11 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850753
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 15:00 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

STC11 SDG#: TAP03-21

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	Acenaphthene	83-32-9	N.D.	3	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	34	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides SW-846 8151A					
10401	2,4,5-TP	93-72-1	N.D.	0.77	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.17	1
10738	Alpha BHC	319-84-6	N.D.	0.17	1
10738	Beta BHC	319-85-7	N.D.	0.98	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.17	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.17	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.36	1
10738	Delta BHC	319-86-8	N.D.	0.46	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.22	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.21	1
10738	Heptachlor	76-44-8	N.D.	0.17	1
Pesticides/PCBs SW-846 8082					
10736	PCB-1016	12674-11-2	N.D.	3.7	1
10736	PCB-1221	11104-28-2	N.D.	4.8	1

REVISED

Sample Description: TCN-STC11 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850753
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 15:00 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20
Reported: 06/03/2013 14:00

STC11 SDG#: TAP03-21

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.3	1
10736	PCB-1242	53469-21-9	N.D.	3.4	1
10736	PCB-1248	12672-29-6	N.D.	3.4	1
10736	PCB-1254	11097-69-1	N.D.	3.4	1
10736	PCB-1260	11096-82-5	N.D.	5.1	1
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	N.D.	0.331	1
06946	Barium	7440-39-3	17.4	0.0331	1
06947	Beryllium	7440-41-7	N.D.	0.0672	1
06949	Cadmium	7440-43-9	0.114 J	0.0331	1
06951	Chromium	7440-47-3	3.83	0.0883	1
06953	Copper	7440-50-8	138	0.181	1
06955	Lead	7439-92-1	2.19	0.471	1
06958	Manganese	7439-96-5	256	0.0832	1
06961	Nickel	7440-02-0	16.5	0.110	1
06936	Selenium	7782-49-2	3.03	0.722	1
06966	Silver	7440-22-4	0.435 J	0.140	1
06972	Zinc	7440-66-6	52.2	0.201	1
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	3.8	0.52	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0106	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.17	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.52	1
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	3.2	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC11 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850753
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 15:00 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

STC11 SDG#: TAP03-21

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 22:28	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 06:38	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 22:52	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 18:23	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:36	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 10:53	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 10:53	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:36	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 10:53	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 10:53	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:36	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 10:53	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:36	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:36	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 10:53	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:36	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:02	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:23	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:41	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

REVISED

Sample Description: TCN-ST23 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850754
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:50 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST23 SDG#: TAP03-22

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.95
10237	Benzene	71-43-2	N.D.	0.0005	0.95
10237	2-Butanone	78-93-3	N.D.	0.004	0.95
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.95
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.95
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.95
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.95
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.95
10237	Chloroform	67-66-3	N.D.	0.001	0.95
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.95
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.95
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.95
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.95
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.95
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.95
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.95
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.95
10237	1,4-Dioxane	123-91-1	N.D.	0.068	0.95
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.95
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.95
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.95
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.95
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.95
10237	Toluene	108-88-3	N.D.	0.001	0.95
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.95
10237	Trichloroethene	79-01-6	N.D.	0.001	0.95
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.95
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.95
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.95
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.95
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.95

Wet Chemistry **SM20 2540 G** %
 00111 Moisture n.a. 3.0 0.50 1
 "Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

REVISED

Sample Description: TCN-ST23 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850754
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:50 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST23 SDG#: TAP03-22

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 07:16	Andrea E Lando	0.95
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:54	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

REVISED

Sample Description: TCN-ST24 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850755
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:55 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST24 SDG#: TAP03-23

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.007	0.98
10237	Benzene	71-43-2	N.D.	0.0005	0.98
10237	2-Butanone	78-93-3	N.D.	0.004	0.98
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.98
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.98
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.98
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.98
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.98
10237	Chloroform	67-66-3	N.D.	0.001	0.98
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.98
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.98
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.98
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.98
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.98
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.98
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.98
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.98
10237	1,4-Dioxane	123-91-1	N.D.	0.071	0.98
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.98
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.98
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.98
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.98
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.98
10237	Toluene	108-88-3	N.D.	0.001	0.98
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.98
10237	Trichloroethene	79-01-6	N.D.	0.001	0.98
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.98
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.98
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.98
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.98
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.98

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	3.1	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

REVISED

Sample Description: TCN-ST24 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850755
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:55 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

NST24 SDG#: TAP03-23

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 07:38	Andrea E Lando	0.98
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:56	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

REVISED

Sample Description: TCN-STC12 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850756
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 15:05 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

STC12 SDG#: TAP03-24

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
10727	Acenaphthene	83-32-9	N.D.	3 ug/kg	1
10727	Acenaphthylene	208-96-8	N.D.	3	1
10727	Anthracene	120-12-7	N.D.	3	1
10727	Benzo(a)anthracene	56-55-3	N.D.	3	1
10727	Benzo(a)pyrene	50-32-8	N.D.	3	1
10727	Benzo(b)fluoranthene	205-99-2	N.D.	3	1
10727	Benzo(g,h,i)perylene	191-24-2	N.D.	3	1
10727	Benzo(k)fluoranthene	207-08-9	N.D.	3	1
10727	Chrysene	218-01-9	N.D.	3	1
10727	Dibenz(a,h)anthracene	53-70-3	N.D.	3	1
10727	Dibenzofuran	132-64-9	N.D.	17	1
10727	Fluoranthene	206-44-0	N.D.	3	1
10727	Fluorene	86-73-7	N.D.	3	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	3	1
10727	2-Methylphenol	95-48-7	N.D.	17	1
10727	4-Methylphenol	106-44-5	N.D.	17	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	N.D.	3	1
10727	Pentachlorophenol	87-86-5	N.D.	35	1
10727	Phenanthrene	85-01-8	N.D.	3	1
10727	Phenol	108-95-2	N.D.	17	1
10727	Pyrene	129-00-0	N.D.	3	1
Herbicides SW-846 8151A					
10401	2,4,5-TP	93-72-1	N.D.	0.80 ug/kg	1
Pesticides/PCBs SW-846 8081A					
10738	Aldrin	309-00-2	N.D.	0.18 ug/kg	1
10738	Alpha BHC	319-84-6	N.D.	0.18	1
10738	Beta BHC	319-85-7	N.D.	1.0	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.18	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.18	1
10738	p,p-DDD	72-54-8	N.D.	0.34	1
10738	p,p-DDE	72-55-9	N.D.	0.34	1
10738	p,p-DDT	50-29-3	N.D.	0.37	1
10738	Delta BHC	319-86-8	N.D.	0.47	1
10738	Dieldrin	60-57-1	N.D.	0.34	1
10738	Endosulfan I	959-98-8	N.D.	0.23	1
10738	Endosulfan II	33213-65-9	N.D.	0.34	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.34	1
10738	Endrin	72-20-8	N.D.	0.34	1
10738	HCB	118-74-1	N.D.	0.22	1
10738	Heptachlor	76-44-8	N.D.	0.18	1
Pesticides/PCBs SW-846 8082					
10736	PCB-1016	12674-11-2	N.D.	3.8 ug/kg	1
10736	PCB-1221	11104-28-2	N.D.	4.9	1

REVISED

Sample Description: TCN-STC12 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850756
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 15:05 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

STC12 SDG#: TAP03-24

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1232	11141-16-5	N.D.	8.5	1
10736	PCB-1242	53469-21-9	N.D.	3.5	1
10736	PCB-1248	12672-29-6	N.D.	3.5	1
10736	PCB-1254	11097-69-1	N.D.	3.5	1
10736	PCB-1260	11096-82-5	N.D.	5.2	1
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	N.D.	0.350	1
06946	Barium	7440-39-3	13.7	0.0350	1
06947	Beryllium	7440-41-7	N.D.	0.0711	1
06949	Cadmium	7440-43-9	0.0892 J	0.0350	1
06951	Chromium	7440-47-3	3.33	0.0934	1
06953	Copper	7440-50-8	132	0.191	1
06955	Lead	7439-92-1	3.00	0.499	1
06958	Manganese	7439-96-5	227	0.0881	1
06961	Nickel	7440-02-0	14.7	0.117	1
06936	Selenium	7782-49-2	2.37	0.764	1
06966	Silver	7440-22-4	0.314 J	0.149	1
06972	Zinc	7440-66-6	56.5	0.212	1
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	3.3	0.53	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	N.D.	0.0108	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.18	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.18	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	0.53	1
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	5.8	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Sample Description: TCN-STC12 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850756
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 15:05 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

STC12 SDG#: TAP03-24

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 22:50	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 07:05	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 23:06	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 18:38	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:40	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 10:57	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 10:57	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:40	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 10:57	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 10:57	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:40	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 10:57	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:40	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:40	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 10:57	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:40	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:04	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:24	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:42	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	1
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

REVISED

Sample Description: POC-TS3 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850757
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:10 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20
 Reported: 06/03/2013 14:00

OCTS3 SDG#: TAP03-25

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.009	1.01
10237	Benzene	71-43-2	N.D.	0.0007	1.01
10237	2-Butanone	78-93-3	N.D.	0.005	1.01
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.01
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.01
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.01
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.01
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.01
10237	Chloroform	67-66-3	N.D.	0.001	1.01
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.01
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.01
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.01
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.01
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.01
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.01
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.01
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.01
10237	1,4-Dioxane	123-91-1	N.D.	0.091	1.01
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.01
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0007	1.01
10237	Methylene Chloride	75-09-2	N.D.	0.003	1.01
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.01
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.01
10237	Toluene	108-88-3	N.D.	0.001	1.01
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.01
10237	Trichloroethene	79-01-6	N.D.	0.001	1.01
10237	Trichlorofluoromethane	75-69-4	N.D.	0.003	1.01
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.01
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.01
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.01
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.01

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	22.2	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

REVISED

Sample Description: POC-TS3 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850757
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:10 by JC

ExxonMobil Refining & Supply

Global Remed.-Major Projects

Submitted: 11/07/2012 09:20

38 Varick Street

Reported: 06/03/2013 14:00

Brooklyn NY 11222

OCTS3 SDG#: TAP03-25

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 08:01	Andrea E Lando	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

REVISED

Sample Description: POC-TS4 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850758
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:05 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

OCTS4 SDG#: TAP03-26

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.009	0.97
10237	Benzene	71-43-2	N.D.	0.0006	0.97
10237	2-Butanone	78-93-3	N.D.	0.005	0.97
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.97
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.97
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.97
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.97
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.97
10237	Chloroform	67-66-3	N.D.	0.001	0.97
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.97
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.97
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.97
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.97
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.97
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.97
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.97
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.97
10237	1,4-Dioxane	123-91-1	N.D.	0.088	0.97
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.97
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	0.97
10237	Methylene Chloride	75-09-2	N.D.	0.003	0.97
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.97
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.97
10237	Toluene	108-88-3	N.D.	0.001	0.97
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.97
10237	Trichloroethene	79-01-6	N.D.	0.001	0.97
10237	Trichlorofluoromethane	75-69-4	N.D.	0.003	0.97
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.97
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.97
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.97
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.97

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	22.2	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

REVISED

Sample Description: POC-TS4 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850758
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:05 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

OCTS4 SDG#: TAP03-26

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123122AA	11/08/2012 08:24	Andrea E Lando	0.97
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:44	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

REVISED

Sample Description: POC-TSC2 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850759
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:00 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20
 Reported: 06/03/2013 14:00

CTCS2 SDG#: TAP03-27

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
			ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	N.D.	4	1
10727	Acenaphthylene	208-96-8	5 J	4	1
10727	Anthracene	120-12-7	11 J	4	1
10727	Benzo(a)anthracene	56-55-3	40	4	1
10727	Benzo(a)pyrene	50-32-8	48	4	1
10727	Benzo(b)fluoranthene	205-99-2	63	4	1
10727	Benzo(g,h,i)perylene	191-24-2	35	4	1
10727	Benzo(k)fluoranthene	207-08-9	30	4	1
10727	Chrysene	218-01-9	48	4	1
10727	Dibenz(a,h)anthracene	53-70-3	12 J	4	1
10727	Dibenzofuran	132-64-9	N.D.	21	1
10727	Fluoranthene	206-44-0	80	4	1
10727	Fluorene	86-73-7	4 J	4	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	30	4	1
10727	2-Methylphenol	95-48-7	N.D.	21	1
10727	4-Methylphenol	106-44-5	41 J	21	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	9 J	4	1
10727	Pentachlorophenol	87-86-5	N.D.	42	1
10727	Phenanthrene	85-01-8	48	4	1
10727	Phenol	108-95-2	N.D.	21	1
10727	Pyrene	129-00-0	81	4	1
Herbicides SW-846 8151A					
			ug/kg	ug/kg	
10401	2,4,5-TP	93-72-1	N.D.	0.96	1
Pesticides/PCBs SW-846 8081A					
			ug/kg	ug/kg	
10738	Aldrin	309-00-2	0.42 J	0.22	1
10738	Alpha BHC	319-84-6	0.81 J	0.22	1
10738	Beta BHC	319-85-7	N.D.	1.2	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.70	1
10738	Alpha Chlordane	5103-71-9	N.D.	1.4	1
10738	p,p-DDD	72-54-8	N.D.	0.98	1
10738	p,p-DDE	72-55-9	2.5	0.42	1
10738	p,p-DDT	50-29-3	2.4	0.45	1
10738	Delta BHC	319-86-8	N.D.	0.58	1
10738	Dieldrin	60-57-1	1.9 J	0.42	1
10738	Endosulfan I	959-98-8	N.D.	0.31	1
10738	Endosulfan II	33213-65-9	N.D.	0.42	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.42	1
10738	Endrin	72-20-8	N.D.	0.89	1
10738	HCB	118-74-1	1.5	0.27	1
10738	Heptachlor	76-44-8	N.D.	0.39	1
Reporting limits were raised due to interference from the sample matrix.					
Pesticides/PCBs SW-846 8082					
			ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	4.7	1

REVISED

Sample Description: POC-TSC2 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850759
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:00 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CTCS2 SDG#: TAP03-27

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1221	11104-28-2	N.D.	6.0	1
10736	PCB-1232	11141-16-5	N.D.	10	1
10736	PCB-1242	53469-21-9	N.D.	4.3	1
10736	PCB-1248	12672-29-6	N.D.	4.3	1
10736	PCB-1254	11097-69-1	26	4.3	1
10736	PCB-1260	11096-82-5	29	6.3	1
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	4.59	0.419	1
06946	Barium	7440-39-3	153	0.0419	1
06947	Beryllium	7440-41-7	1.08	0.0851	1
06949	Cadmium	7440-43-9	0.175 J	0.0419	1
06951	Chromium	7440-47-3	26.5	0.112	1
06953	Copper	7440-50-8	25.4	0.229	1
06955	Lead	7439-92-1	30.0	0.597	1
06958	Manganese	7439-96-5	825	0.105	1
06961	Nickel	7440-02-0	22.4	0.140	1
06936	Selenium	7782-49-2	2.93	0.914	1
06966	Silver	7440-22-4	0.424 J	0.178	1
06972	Zinc	7440-66-6	91.0	0.254	1
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	26.5	3.2	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0614 J	0.0130	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.22	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.23	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	3.2	5
Reporting limits were raised due to interference from the sample matrix.					
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	22.8	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

REVISED

Sample Description: POC-TSC2 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850759
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:00 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CTCS2 SDG#: TAP03-27

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 23:13	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 07:33	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 23:20	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 18:53	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:44	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 11:01	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 11:01	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:44	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 11:01	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 11:01	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:44	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 11:01	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:44	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:44	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 11:01	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:44	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:06	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:25	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:43	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	5

REVISED

Sample Description: POC-TSC2 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850759
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:00 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CTCS2 SDG#: TAP03-27

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

REVISED

Sample Description: POC-TS5 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850760
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:35 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

OCTS5 SDG#: TAP03-28

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	0.93
10237	Benzene	71-43-2	N.D.	0.0006	0.93
10237	2-Butanone	78-93-3	N.D.	0.005	0.93
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.93
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.93
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.93
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.93
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.93
10237	Chloroform	67-66-3	N.D.	0.001	0.93
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.93
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.93
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.93
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.93
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.93
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.93
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.93
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.93
10237	1,4-Dioxane	123-91-1	N.D.	0.083	0.93
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.93
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	0.93
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.93
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.93
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.93
10237	Toluene	108-88-3	N.D.	0.001	0.93
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.93
10237	Trichloroethene	79-01-6	N.D.	0.001	0.93
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.93
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.93
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.93
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.93
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.93

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	22.0	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

REVISED

Sample Description: POC-TS5 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850760
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:35 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

OCTS5 SDG#: TAP03-28

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123131AA	11/08/2012 13:08	Angela D Sneeringer	0.93
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:48	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

REVISED

Sample Description: POC-TS6 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850761
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:40 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

OCTS6 SDG#: TAP03-29

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	0.92
10237	Benzene	71-43-2	N.D.	0.0006	0.92
10237	2-Butanone	78-93-3	N.D.	0.005	0.92
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.92
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.92
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.92
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.92
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.92
10237	Chloroform	67-66-3	N.D.	0.001	0.92
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.92
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.92
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.92
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.92
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.92
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.92
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.92
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.92
10237	1,4-Dioxane	123-91-1	N.D.	0.081	0.92
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.92
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	0.92
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.92
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.92
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.92
10237	Toluene	108-88-3	N.D.	0.001	0.92
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.92
10237	Trichloroethene	79-01-6	N.D.	0.001	0.92
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.92
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.92
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.92
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.92
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.92

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	20.7	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

REVISED

Sample Description: POC-TS6 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850761
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:40 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

OCTS6 SDG#: TAP03-29

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	B123131AA	11/08/2012 15:25	Angela D Sneeringer	0.92
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:49	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

REVISED

Sample Description: POC-TS7 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850762
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:45 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

OCTS7 SDG#: TAP03-30

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.009	1
10237	Benzene	71-43-2	N.D.	0.0006	1
10237	2-Butanone	78-93-3	N.D.	0.005	1
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1
10237	Chlorobenzene	108-90-7	N.D.	0.001	1
10237	Chloroform	67-66-3	N.D.	0.001	1
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1
10237	1,4-Dioxane	123-91-1	N.D.	0.090	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	1
10237	Methylene Chloride	75-09-2	N.D.	0.003	1
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1
10237	Toluene	108-88-3	N.D.	0.001	1
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1
10237	Trichloroethene	79-01-6	N.D.	0.001	1
10237	Trichlorofluoromethane	75-69-4	N.D.	0.003	1
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	22.4	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

REVISED

Sample Description: POC-TS7 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850762
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:45 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

OCTS7 SDG#: TAP03-30

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	A123131AA	11/08/2012 03:35	Stephanie A Selis	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:51	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

REVISED

Sample Description: POC-TS8 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850763
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:50 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

OCTS8 SDG#: TAP03-31

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.01	1.05
10237	Benzene	71-43-2	N.D.	0.0007	1.05
10237	2-Butanone	78-93-3	N.D.	0.005	1.05
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.05
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.05
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.05
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.05
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.05
10237	Chloroform	67-66-3	N.D.	0.001	1.05
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.05
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.05
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.05
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.05
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.05
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.05
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.05
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.05
10237	1,4-Dioxane	123-91-1	N.D.	0.096	1.05
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.05
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0007	1.05
10237	Methylene Chloride	75-09-2	N.D.	0.003	1.05
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.05
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.05
10237	Toluene	108-88-3	N.D.	0.001	1.05
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.05
10237	Trichloroethene	79-01-6	N.D.	0.001	1.05
10237	Trichlorofluoromethane	75-69-4	N.D.	0.003	1.05
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.05
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.05
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.05
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.05

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	22.7	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

REVISED

Sample Description: POC-TS8 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850763
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:50 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

OCTS8 SDG#: TAP03-31

General Sample Comments

State of New York Certification No. 10670

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All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	A123131AA	11/08/2012 03:57	Stephanie A Selis	1.05
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:40	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TSC3 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850764
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:25 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CTCS3 SDG#: TAP03-32

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
			ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	7 J	4	1
10727	Acenaphthylene	208-96-8	9 J	4	1
10727	Anthracene	120-12-7	24	4	1
10727	Benzo(a)anthracene	56-55-3	70	4	1
10727	Benzo(a)pyrene	50-32-8	71	4	1
10727	Benzo(b)fluoranthene	205-99-2	100	4	1
10727	Benzo(g,h,i)perylene	191-24-2	53	4	1
10727	Benzo(k)fluoranthene	207-08-9	38	4	1
10727	Chrysene	218-01-9	72	4	1
10727	Dibenz(a,h)anthracene	53-70-3	15 J	4	1
10727	Dibenzofuran	132-64-9	N.D.	21	1
10727	Fluoranthene	206-44-0	140	4	1
10727	Fluorene	86-73-7	9 J	4	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	43	4	1
10727	2-Methylphenol	95-48-7	N.D.	21	1
10727	4-Methylphenol	106-44-5	25 J	21	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	14 J	4	1
10727	Pentachlorophenol	87-86-5	N.D.	43	1
10727	Phenanthrene	85-01-8	100	4	1
10727	Phenol	108-95-2	N.D.	21	1
10727	Pyrene	129-00-0	130	4	1
Herbicides SW-846 8151A					
			ug/kg	ug/kg	
10401	2,4,5-TP	93-72-1	N.D.	0.97	1
Pesticides/PCBs SW-846 8081A					
			ug/kg	ug/kg	
10738	Aldrin	309-00-2	N.D.	0.22	1
10738	Alpha BHC	319-84-6	N.D.	0.27	1
10738	Beta BHC	319-85-7	N.D.	1.2	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.22	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.89	1
10738	p,p-DDD	72-54-8	N.D.	1.2	1
10738	p,p-DDE	72-55-9	2.8	0.43	1
10738	p,p-DDT	50-29-3	2.4	0.45	1
10738	Delta BHC	319-86-8	N.D.	0.58	1
10738	Dieldrin	60-57-1	1.2 J	0.43	1
10738	Endosulfan I	959-98-8	N.D.	0.28	1
10738	Endosulfan II	33213-65-9	0.49 J	0.43	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.43	1
10738	Endrin	72-20-8	N.D.	1.4	1
10738	HCB	118-74-1	0.80 J	0.27	1
10738	Heptachlor	76-44-8	N.D.	0.36	1
Reporting limits were raised due to interference from the sample matrix.					
Pesticides/PCBs SW-846 8082					
			ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	4.7	1

REVISED

Sample Description: POC-TSC3 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850764
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:25 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CTCS3 SDG#: TAP03-32

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs					
	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1221	11104-28-2	N.D.	6.0	1
10736	PCB-1232	11141-16-5	N.D.	10	1
10736	PCB-1242	53469-21-9	N.D.	4.3	1
10736	PCB-1248	12672-29-6	N.D.	4.3	1
10736	PCB-1254	11097-69-1	N.D.	10	1
10736	PCB-1260	11096-82-5	N.D.	6.4	1
Reporting limits were raised due to interference from the sample matrix.					
Metals					
	SW-846 6010B		mg/kg	mg/kg	
06935	Arsenic	7440-38-2	5.16	0.416	1
06946	Barium	7440-39-3	143	0.0416	1
06947	Beryllium	7440-41-7	1.12	0.0844	1
06949	Cadmium	7440-43-9	0.287 J	0.0416	1
06951	Chromium	7440-47-3	27.4	0.111	1
06953	Copper	7440-50-8	20.4	0.227	1
06955	Lead	7439-92-1	33.6	0.592	1
06958	Manganese	7439-96-5	1,070	0.105	1
06961	Nickel	7440-02-0	28.5	0.139	1
06936	Selenium	7782-49-2	3.42	0.907	1
06966	Silver	7440-22-4	0.448 J	0.176	1
06972	Zinc	7440-66-6	108	0.252	1
	SW-846 6010B modified		mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	27.4	3.2	1
	SW-846 7471A		mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0686 J	0.0131	1
Wet Chemistry					
	SW-846 9012B		mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.22	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.23	1
	SW-846 7196A		mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	3.2	5
Reporting limits were raised due to interference from the sample matrix.					
Wet Chemistry					
	SM20 2540 G		%	%	
00111	Moisture	n.a.	22.9	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: POC-TSC3 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850764
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:25 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CTCS3 SDG#: TAP03-32

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 23:36	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 08:00	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 23:34	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 19:07	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:48	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 11:05	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 11:05	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:48	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 11:05	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 11:05	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:48	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 11:05	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:48	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:48	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 11:05	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:48	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:08	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201A	11/12/2012 07:27	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201A	11/09/2012 07:44	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201A	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201A	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	5

REVISED

Sample Description: POC-TSC3 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850764
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:25 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CTCS3 SDG#: TAP03-32

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Sample Description: POC-TSC4 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850765
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:30 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CTCS4 SDG#: TAP03-33

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
			ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	7 J	4	1
10727	Acenaphthylene	208-96-8	7 J	4	1
10727	Anthracene	120-12-7	20 J	4	1
10727	Benzo(a)anthracene	56-55-3	66	4	1
10727	Benzo(a)pyrene	50-32-8	74	4	1
10727	Benzo(b)fluoranthene	205-99-2	100	4	1
10727	Benzo(g,h,i)perylene	191-24-2	54	4	1
10727	Benzo(k)fluoranthene	207-08-9	42	4	1
10727	Chrysene	218-01-9	70	4	1
10727	Dibenz(a,h)anthracene	53-70-3	17 J	4	1
10727	Dibenzofuran	132-64-9	N.D.	21	1
10727	Fluoranthene	206-44-0	130	4	1
10727	Fluorene	86-73-7	8 J	4	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	45	4	1
10727	2-Methylphenol	95-48-7	N.D.	21	1
10727	4-Methylphenol	106-44-5	35 J	21	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	15 J	4	1
10727	Pentachlorophenol	87-86-5	N.D.	42	1
10727	Phenanthrene	85-01-8	81	4	1
10727	Phenol	108-95-2	N.D.	21	1
10727	Pyrene	129-00-0	130	4	1
Herbicides SW-846 8151A					
			ug/kg	ug/kg	
10401	2,4,5-TP	93-72-1	N.D.	0.96	1
Pesticides/PCBs SW-846 8081A					
			ug/kg	ug/kg	
10738	Aldrin	309-00-2	0.30 J	0.22	1
10738	Alpha BHC	319-84-6	N.D.	0.22	1
10738	Beta BHC	319-85-7	N.D.	1.2	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.22	1
10738	Alpha Chlordane	5103-71-9	N.D.	2.2	1
10738	p,p-DDD	72-54-8	N.D.	2.1	1
10738	p,p-DDE	72-55-9	2.2	0.42	1
10738	p,p-DDT	50-29-3	3.5	0.45	1
10738	Delta BHC	319-86-8	N.D.	0.58	1
10738	Dieldrin	60-57-1	N.D.	3.1	1
10738	Endosulfan I	959-98-8	N.D.	0.28	1
10738	Endosulfan II	33213-65-9	0.83 J	0.42	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.42	1
10738	Endrin	72-20-8	N.D.	1.1	1
10738	HCB	118-74-1	1.5	0.27	1
10738	Heptachlor	76-44-8	N.D.	0.75	1
Reporting limits were raised due to interference from the sample matrix.					
Pesticides/PCBs SW-846 8082					
			ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	4.6	1

REVISED

Sample Description: POC-TSC4 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850765
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:30 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CTCS4 SDG#: TAP03-33

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	
10736	PCB-1221	11104-28-2	N.D.	5.9	1
10736	PCB-1232	11141-16-5	N.D.	10	1
10736	PCB-1242	53469-21-9	N.D.	4.2	1
10736	PCB-1248	12672-29-6	N.D.	4.2	1
10736	PCB-1254	11097-69-1	7.5 J	4.2	1
10736	PCB-1260	11096-82-5	7.0 J	6.3	1
Metals		SW-846 6010B	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	7.43	0.416	1
06946	Barium	7440-39-3	142	0.0416	1
06947	Beryllium	7440-41-7	1.05	0.0845	1
06949	Cadmium	7440-43-9	0.194 J	0.0416	1
06951	Chromium	7440-47-3	26.9	0.111	1
06953	Copper	7440-50-8	17.4	0.227	1
06955	Lead	7439-92-1	30.5	0.593	1
06958	Manganese	7439-96-5	567	0.105	1
06961	Nickel	7440-02-0	23.2	0.139	1
06936	Selenium	7782-49-2	3.03	0.908	1
06966	Silver	7440-22-4	0.327 J	0.177	1
06972	Zinc	7440-66-6	91.6	0.252	1
		SW-846 6010B modified	mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	26.9	3.2	1
		SW-846 7471A	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0689 J	0.0130	1
Wet Chemistry		SW-846 9012B	mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.22	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.22	1
		SW-846 7196A	mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	3.2	5
Reporting limits were raised due to interference from the sample matrix.					
Wet Chemistry		SM20 2540 G	%	%	
00111	Moisture	n.a.	22.3	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

Sample Description: POC-TSC4 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850765
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:30 by JC

ExxonMobil Refining & Supply

Submitted: 11/07/2012 09:20

Global Remed.-Major Projects

Reported: 06/03/2013 14:00

38 Varick Street
Brooklyn NY 11222

CTCS4 SDG#: TAP03-33

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/08/2012 23:58	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123140018A	11/12/2012 18:43	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/13/2012 23:49	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 19:22	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	2	123140018A	11/10/2012 06:30	Karen L Beyer	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:53	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 11:09	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 11:09	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:53	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 11:09	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 11:09	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:53	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 11:09	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:53	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:53	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 11:09	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:53	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:10	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201B	11/12/2012 07:28	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201B	11/09/2012 07:45	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201B	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201B	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	5

REVISED

Sample Description: POC-TSC4 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850765
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:30 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CTCS4 SDG#: TAP03-33

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

REVISED

Sample Description: POC-TS9 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850766
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:55 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

OCTS9 SDG#: TAP03-34

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.009	0.99
10237	Benzene	71-43-2	N.D.	0.0006	0.99
10237	2-Butanone	78-93-3	N.D.	0.005	0.99
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.99
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.99
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.99
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.99
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.99
10237	Chloroform	67-66-3	N.D.	0.001	0.99
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.99
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.99
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.99
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.99
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.99
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.99
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.99
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.99
10237	1,4-Dioxane	123-91-1	N.D.	0.089	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	0.99
10237	Methylene Chloride	75-09-2	N.D.	0.003	0.99
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.99
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.99
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.99
10237	Trichloroethene	79-01-6	N.D.	0.001	0.99
10237	Trichlorofluoromethane	75-69-4	N.D.	0.003	0.99
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.99
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.99
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.99

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	22.5	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

REVISED

Sample Description: POC-TS9 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850766
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 13:55 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

OCTS9 SDG#: TAP03-34

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	A123131AA	11/08/2012 04:20	Stephanie A Selis	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:41	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

REVISED

Sample Description: POC-TS10 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850767
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:00 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20
Reported: 06/03/2013 14:00

CTS10 SDG#: TAP03-35

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	0.93
10237	Benzene	71-43-2	N.D.	0.0006	0.93
10237	2-Butanone	78-93-3	N.D.	0.005	0.93
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.93
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.93
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.93
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.93
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.93
10237	Chloroform	67-66-3	N.D.	0.001	0.93
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.93
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.93
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.93
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.93
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.93
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.93
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.93
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.93
10237	1,4-Dioxane	123-91-1	N.D.	0.083	0.93
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.93
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	0.93
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.93
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.93
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.93
10237	Toluene	108-88-3	N.D.	0.001	0.93
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.93
10237	Trichloroethene	79-01-6	N.D.	0.001	0.93
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.93
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.93
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.93
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.93
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.93

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	21.6	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

REVISED

Sample Description: POC-TS10 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850767
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:00 by JC

ExxonMobil Refining & Supply

Submitted: 11/07/2012 09:20

Global Remed.-Major Projects

Reported: 06/03/2013 14:00

38 Varick Street

Brooklyn NY 11222

CTS10 SDG#: TAP03-35

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	A123131AA	11/08/2012 06:36	Stephanie A Selis	0.93
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:43	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

REVISED

Sample Description: POC-TS11 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850768
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:05 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CTS11 SDG#: TAP03-36

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.009	1.01
10237	Benzene	71-43-2	N.D.	0.0007	1.01
10237	2-Butanone	78-93-3	N.D.	0.005	1.01
10237	n-Butylbenzene	104-51-8	N.D.	0.001	1.01
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	1.01
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	1.01
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.01
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.01
10237	Chloroform	67-66-3	N.D.	0.001	1.01
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.01
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.01
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.01
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.01
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.01
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.01
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.01
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.01
10237	1,4-Dioxane	123-91-1	N.D.	0.091	1.01
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.01
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0007	1.01
10237	Methylene Chloride	75-09-2	N.D.	0.003	1.01
10237	n-Propylbenzene	103-65-1	N.D.	0.001	1.01
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.01
10237	Toluene	108-88-3	N.D.	0.001	1.01
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.01
10237	Trichloroethene	79-01-6	N.D.	0.001	1.01
10237	Trichlorofluoromethane	75-69-4	N.D.	0.003	1.01
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	1.01
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	1.01
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.01
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.01

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	22.4	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

REVISED

Sample Description: POC-TS11 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850768
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:05 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CTS11 SDG#: TAP03-36

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	A123131AA	11/08/2012 05:05	Stephanie A Selis	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:38	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

REVISED

Sample Description: POC-TS12 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850769
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:10 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CTS12 SDG#: TAP03-37

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.008	0.93
10237	Benzene	71-43-2	N.D.	0.0006	0.93
10237	2-Butanone	78-93-3	N.D.	0.005	0.93
10237	n-Butylbenzene	104-51-8	N.D.	0.001	0.93
10237	sec-Butylbenzene	135-98-8	N.D.	0.001	0.93
10237	tert-Butylbenzene	98-06-6	N.D.	0.001	0.93
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.93
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.93
10237	Chloroform	67-66-3	N.D.	0.001	0.93
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.93
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.93
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.93
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.93
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.93
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.93
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.93
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.93
10237	1,4-Dioxane	123-91-1	N.D.	0.082	0.93
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.93
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0006	0.93
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.93
10237	n-Propylbenzene	103-65-1	N.D.	0.001	0.93
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.93
10237	Toluene	108-88-3	0.001 J	0.001	0.93
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.93
10237	Trichloroethene	79-01-6	N.D.	0.001	0.93
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.93
10237	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.001	0.93
10237	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.001	0.93
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.93
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.93

Wet Chemistry	SM20 2540 G	%	%	
00111	Moisture	n.a.	21.3	0.50
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.				

REVISED

Sample Description: POC-TS12 Grab Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850769
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:10 by JC

ExxonMobil Refining & Supply

Submitted: 11/07/2012 09:20

Global Remed.-Major Projects

Reported: 06/03/2013 14:00

38 Varick Street

Brooklyn NY 11222

CTS12 SDG#: TAP03-37

General Sample Comments

State of New York Certification No. 10670

Lancaster Laboratories is responsible only for the certified testing of samples. We are not directly responsible for the integrity of the sample prior to laboratory receipt. Any reported concentrations less than 200 ug/kg may be biased low if they were not collected according to EPA 5035/5035A specifications.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	Table 375-6.8(a) VOCs	SW-846 8260B	1	A123131AA	11/08/2012 07:28	Stephanie A Selis	0.93
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201231229319	11/07/2012 12:58	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201231229319	11/07/2012 12:36	Larry E Bevins	n.a.
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

REVISED

Sample Description: POC-TSC5 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850770
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:15 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CTCS5 SDG#: TAP03-38

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
			ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	5 J	4	1
10727	Acenaphthylene	208-96-8	7 J	4	1
10727	Anthracene	120-12-7	14 J	4	1
10727	Benzo(a)anthracene	56-55-3	50	4	1
10727	Benzo(a)pyrene	50-32-8	57	4	1
10727	Benzo(b)fluoranthene	205-99-2	78	4	1
10727	Benzo(g,h,i)perylene	191-24-2	43	4	1
10727	Benzo(k)fluoranthene	207-08-9	33	4	1
10727	Chrysene	218-01-9	54	4	1
10727	Dibenz(a,h)anthracene	53-70-3	12 J	4	1
10727	Dibenzofuran	132-64-9	N.D.	21	1
10727	Fluoranthene	206-44-0	94	4	1
10727	Fluorene	86-73-7	5 J	4	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	36	4	1
10727	2-Methylphenol	95-48-7	N.D.	21	1
10727	4-Methylphenol	106-44-5	N.D.	21	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	11 J	4	1
10727	Pentachlorophenol	87-86-5	N.D.	42	1
10727	Phenanthrene	85-01-8	57	4	1
10727	Phenol	108-95-2	N.D.	21	1
10727	Pyrene	129-00-0	92	4	1
Herbicides SW-846 8151A					
			ug/kg	ug/kg	
10401	2,4,5-TP	93-72-1	N.D.	0.96	1
Pesticides/PCBs SW-846 8081A					
			ug/kg	ug/kg	
10738	Aldrin	309-00-2	N.D.	0.27	1
10738	Alpha BHC	319-84-6	0.92 J	0.22	1
10738	Beta BHC	319-85-7	N.D.	1.2	1
10738	Gamma BHC - Lindane	58-89-9	N.D.	0.97	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.22	1
10738	p,p-DDD	72-54-8	N.D.	2.3	1
10738	p,p-DDE	72-55-9	3.7	0.42	1
10738	p,p-DDT	50-29-3	2.9	0.45	1
10738	Delta BHC	319-86-8	N.D.	0.57	1
10738	Dieldrin	60-57-1	2.1 J	0.42	1
10738	Endosulfan I	959-98-8	0.64 J	0.28	1
10738	Endosulfan II	33213-65-9	0.60 J	0.42	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.42	1
10738	Endrin	72-20-8	N.D.	1.0	1
10738	HCB	118-74-1	3.1	0.27	1
10738	Heptachlor	76-44-8	N.D.	0.41	1
Reporting limits were raised due to interference from the sample matrix.					
Pesticides/PCBs SW-846 8082					
			ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	4.7	1

REVISED

Sample Description: POC-TSC5 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850770
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:15 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CTCS5 SDG#: TAP03-38

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs					
	SW-846 8082		ug/kg	ug/kg	
10736	PCB-1221	11104-28-2	N.D.	6.0	1
10736	PCB-1232	11141-16-5	N.D.	10	1
10736	PCB-1242	53469-21-9	N.D.	4.3	1
10736	PCB-1248	12672-29-6	N.D.	4.3	1
10736	PCB-1254	11097-69-1	8.4 J	4.3	1
10736	PCB-1260	11096-82-5	6.9 J	6.3	1
Metals					
	SW-846 6010B		mg/kg	mg/kg	
06935	Arsenic	7440-38-2	6.55	0.414	1
06946	Barium	7440-39-3	164	0.0414	1
06947	Beryllium	7440-41-7	1.29	0.0842	1
06949	Cadmium	7440-43-9	0.160 J	0.0414	1
06951	Chromium	7440-47-3	29.2	0.111	1
06953	Copper	7440-50-8	23.2	0.226	1
06955	Lead	7439-92-1	24.2	0.590	1
06958	Manganese	7439-96-5	649	0.104	1
06961	Nickel	7440-02-0	24.3	0.138	1
06936	Selenium	7782-49-2	3.46	0.904	1
06966	Silver	7440-22-4	0.514 J	0.176	1
06972	Zinc	7440-66-6	92.6	0.251	1
	SW-846 6010B modified		mg/kg	mg/kg	
02829	Trivalent Chromium soils	16065-83-1	29.2	3.2	1
	SW-846 7471A		mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0550 J	0.0125	1
Wet Chemistry					
	SW-846 9012B		mg/kg	mg/kg	
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.22	1
05895	Total Cyanide (solid)	57-12-5	0.25 J	0.23	1
	SW-846 7196A		mg/kg	mg/kg	
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	3.2	5
Reporting limits were raised due to interference from the sample matrix.					
Wet Chemistry					
	SM20 2540 G		%	%	
00111	Moisture	n.a.	22.7	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

REVISED

Sample Description: POC-TSC5 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850770
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:15 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CTCS5 SDG#: TAP03-38

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/09/2012 00:21	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123120022A	11/09/2012 08:54	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/14/2012 00:03	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 19:36	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	123120022A	11/08/2012 04:15	Roman Kuropatkin	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 05:57	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 11:13	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 11:13	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 05:57	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 11:13	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 11:13	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 05:57	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 11:13	Joanne M Gates	1
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 05:57	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 05:57	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 11:13	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 05:57	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:16	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201B	11/12/2012 07:31	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201B	11/09/2012 07:49	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201B	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201B	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	5

REVISED

Sample Description: POC-TSC5 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850770
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:15 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CTCS5 SDG#: TAP03-38

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

REVISED

Sample Description: POC-TSC6 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850771
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:20 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CTCS6 SDG#: TAP03-39*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C					
			ug/kg	ug/kg	
10727	Acenaphthene	83-32-9	7 J	4	1
10727	Acenaphthylene	208-96-8	8 J	4	1
10727	Anthracene	120-12-7	23	4	1
10727	Benzo(a)anthracene	56-55-3	65	4	1
10727	Benzo(a)pyrene	50-32-8	74	4	1
10727	Benzo(b)fluoranthene	205-99-2	100	4	1
10727	Benzo(g,h,i)perylene	191-24-2	68	4	1
10727	Benzo(k)fluoranthene	207-08-9	44	4	1
10727	Chrysene	218-01-9	74	4	1
10727	Dibenz(a,h)anthracene	53-70-3	23	4	1
10727	Dibenzofuran	132-64-9	N.D.	21	1
10727	Fluoranthene	206-44-0	140	4	1
10727	Fluorene	86-73-7	8 J	4	1
10727	Indeno(1,2,3-cd)pyrene	193-39-5	51	4	1
10727	2-Methylphenol	95-48-7	N.D.	21	1
10727	4-Methylphenol	106-44-5	N.D.	21	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
10727	Naphthalene	91-20-3	15 J	4	1
10727	Pentachlorophenol	87-86-5	N.D.	41	1
10727	Phenanthrene	85-01-8	98	4	1
10727	Phenol	108-95-2	N.D.	21	1
10727	Pyrene	129-00-0	130	4	1
Herbicides SW-846 8151A					
			ug/kg	ug/kg	
10401	2,4,5-TP	93-72-1	N.D.	0.93	1
Pesticides/PCBs SW-846 8081A					
			ug/kg	ug/kg	
10738	Aldrin	309-00-2	N.D.	0.21	1
10738	Alpha BHC	319-84-6	N.D.	0.56	1
10738	Beta BHC	319-85-7	N.D.	1.2	1
10738	Gamma BHC - Lindane	58-89-9	4.4	0.21	1
10738	Alpha Chlordane	5103-71-9	N.D.	0.21	1
10738	p,p-DDD	72-54-8	N.D.	1.8	1
10738	p,p-DDE	72-55-9	3.7	0.41	1
10738	p,p-DDT	50-29-3	2.0 J	0.44	1
10738	Delta BHC	319-86-8	N.D.	0.56	1
10738	Dieldrin	60-57-1	1.4 J	0.41	1
10738	Endosulfan I	959-98-8	N.D.	0.27	1
10738	Endosulfan II	33213-65-9	0.62 J	0.41	1
10738	Endosulfan Sulfate	1031-07-8	N.D.	0.41	1
10738	Endrin	72-20-8	N.D.	1.0	1
10738	HCB	118-74-1	4.5	0.26	1
10738	Heptachlor	76-44-8	0.63 J	0.21	1
Reporting limits were raised due to interference from the sample matrix.					
Pesticides/PCBs SW-846 8082					
			ug/kg	ug/kg	
10736	PCB-1016	12674-11-2	N.D.	4.5	1

REVISED

Sample Description: POC-TSC6 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850771
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:20 by JC

ExxonMobil Refining & Supply
 Global Remed.-Major Projects
 38 Varick Street
 Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CTCS6 SDG#: TAP03-39*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs SW-846 8082 ug/kg					
10736	PCB-1221	11104-28-2	N.D.	5.8	1
10736	PCB-1232	11141-16-5	N.D.	10	1
10736	PCB-1242	53469-21-9	N.D.	4.1	1
10736	PCB-1248	12672-29-6	N.D.	4.1	1
10736	PCB-1254	11097-69-1	12 J	4.1	1
10736	PCB-1260	11096-82-5	8.4 J	6.1	1
Metals SW-846 6010B mg/kg					
06935	Arsenic	7440-38-2	5.94	0.409	1
06946	Barium	7440-39-3	124	0.0409	1
06947	Beryllium	7440-41-7	1.07	0.0831	1
06949	Cadmium	7440-43-9	0.460 J	0.0409	1
06951	Chromium	7440-47-3	29.7	0.109	1
06953	Copper	7440-50-8	23.5	0.223	1
06955	Lead	7439-92-1	34.6	0.583	1
06958	Manganese	7439-96-5	1,860	0.515	5
06961	Nickel	7440-02-0	25.4	0.136	1
06936	Selenium	7782-49-2	4.12	0.893	1
06966	Silver	7440-22-4	0.633	0.174	1
06972	Zinc	7440-66-6	105	0.248	1
SW-846 6010B modified mg/kg					
02829	Trivalent Chromium soils	16065-83-1	29.7	3.1	1
SW-846 7471A mg/kg					
00159	Mercury	7439-97-6	0.117 J	0.0127	1
Wet Chemistry SW-846 9012B mg/kg					
05898	Amenable Cyanide (solid)	n.a.	N.D.	0.21	1
05895	Total Cyanide (solid)	57-12-5	N.D.	0.22	1
SW-846 7196A mg/kg					
00425	Hexavalent Chromium (SOLIDS)	18540-29-9	N.D.	3.1	5
Reporting limits were raised due to interference from the sample matrix.					
Wet Chemistry SM20 2540 G %					
00111	Moisture	n.a.	20.2	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

REVISED

Sample Description: POC-TSC6 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850771
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:20 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CTCS6 SDG#: TAP03-39*

General Sample Comments

State of New York Certification No. 10670

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10727	Table 375-6.8(a) SVOCs	SW-846 8270C	1	12312SLF026	11/09/2012 00:44	Chad A Moline	1
10809	BNA Soil Microwave	SW-846 3546	1	12312SLF026	11/08/2012 10:00	Olivia Arosemena	1
10401	Table 375-6.8(a) Herbicides	SW-846 8151A	1	123140018A	11/12/2012 20:06	Matthew S Listner	1
10738	Table 375-6.8(a) Pesticides	SW-846 8081A	1	123130020A	11/14/2012 00:17	Jamie L Brillhart	1
10736	PCBs 8082 Soil	SW-846 8082	1	123120023A	11/08/2012 19:51	Jessica L Miller	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	123120023A	11/08/2012 02:30	Sherry L Morrow	1
10496	PPL Pest. Microwave Extraction	SW-846 3546	1	123130020A	11/08/2012 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	2	123140018A	11/10/2012 06:30	Karen L Beyer	1
06935	Arsenic	SW-846 6010B	1	123125708001	11/09/2012 06:01	Tara L Snyder	1
06946	Barium	SW-846 6010B	1	123125708001	11/09/2012 11:29	Joanne M Gates	1
06947	Beryllium	SW-846 6010B	1	123125708001	11/09/2012 11:29	Joanne M Gates	1
06949	Cadmium	SW-846 6010B	1	123125708001	11/09/2012 06:01	Tara L Snyder	1
06951	Chromium	SW-846 6010B	1	123125708001	11/09/2012 11:29	Joanne M Gates	1
06953	Copper	SW-846 6010B	1	123125708001	11/09/2012 11:29	Joanne M Gates	1
06955	Lead	SW-846 6010B	1	123125708001	11/09/2012 06:01	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	123125708001	11/09/2012 11:17	Joanne M Gates	5
06961	Nickel	SW-846 6010B	1	123125708001	11/09/2012 06:01	Tara L Snyder	1
06936	Selenium	SW-846 6010B	1	123125708001	11/09/2012 06:01	Tara L Snyder	1
06966	Silver	SW-846 6010B	1	123125708001	11/09/2012 11:29	Joanne M Gates	1
06972	Zinc	SW-846 6010B	1	123125708001	11/09/2012 06:01	Tara L Snyder	1
02829	Trivalent Chromium soils	SW-846 6010B modified	1	123182829001	11/13/2012 08:51	Nina C Haller	1
00159	Mercury	SW-846 7471A	1	123135711001	11/08/2012 13:19	Damary Valentin	1
05708	SW SW846 ICP/ICP MS Digest	SW-846 3050B	1	123125708001	11/07/2012 22:49	Annamaria Stipkovits	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	123135711001	11/08/2012 11:32	Damary Valentin	1
05898	Amenable Cyanide (solid)	SW-846 9012B	1	12314103201B	11/12/2012 07:32	K Robert Caulfeild-James	1
05895	Total Cyanide (solid)	SW-846 9012B	1	12313102201B	11/09/2012 07:50	K Robert Caulfeild-James	1
05897	Amenable Cyanide Solid Distill	SW-846 9012B	1	12314103201B	11/09/2012 09:40	Nancy J Shoop	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	12313102201B	11/08/2012 13:45	Carolyn M Mastropietro	1
00425	Hexavalent Chromium (SOLIDS)	SW-846 7196A	1	12313042501A	11/10/2012 10:30	Daniel S Smith	5

REVISED

Sample Description: POC-TSC6 Composite Soil
S2010L4632
EXXONMOBIL: Tappan Terminal, NY

LLI Sample # SW 6850771
LLI Group # 1347278
Account # 10629

Project Name: Tappan Terminal

Collected: 11/06/2012 14:20 by JC

ExxonMobil Refining & Supply
Global Remed.-Major Projects
38 Varick Street
Brooklyn NY 11222

Submitted: 11/07/2012 09:20

Reported: 06/03/2013 14:00

CTCS6 SDG#: TAP03-39*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07825	Hexavalent Cr (Extraction)	SW-846 3060A	1	12313042501A	11/08/2012 19:40	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	12312820002B	11/07/2012 18:39	Scott W Freisher	1

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 06/03/13 at 02:00 PM

Group Number: 1347278

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: A123131AA Sample number(s): 6850762-6850763, 6850766-6850769								
Acetone	N.D.	0.007	mg/kg	144	155	32-209	7	30
Benzene	N.D.	0.0005	mg/kg	92	93	80-120	1	30
2-Butanone	N.D.	0.004	mg/kg	99	104	37-155	5	30
n-Butylbenzene	N.D.	0.001	mg/kg	96	96	72-120	0	30
sec-Butylbenzene	N.D.	0.001	mg/kg	99	100	75-120	1	30
tert-Butylbenzene	N.D.	0.001	mg/kg	106	106	75-120	0	30
Carbon Tetrachloride	N.D.	0.001	mg/kg	85	86	69-122	1	30
Chlorobenzene	N.D.	0.001	mg/kg	96	97	80-120	1	30
Chloroform	N.D.	0.001	mg/kg	89	90	80-120	1	30
1,2-Dichlorobenzene	N.D.	0.001	mg/kg	97	98	79-120	1	30
1,3-Dichlorobenzene	N.D.	0.001	mg/kg	98	98	78-120	1	30
1,4-Dichlorobenzene	N.D.	0.001	mg/kg	96	96	79-120	0	30
1,1-Dichloroethane	N.D.	0.001	mg/kg	88	90	80-120	2	30
1,2-Dichloroethane	N.D.	0.001	mg/kg	87	88	70-137	1	30
1,1-Dichloroethene	N.D.	0.001	mg/kg	90	91	73-129	2	30
cis-1,2-Dichloroethene	N.D.	0.001	mg/kg	96	98	80-120	2	30
trans-1,2-Dichloroethene	N.D.	0.001	mg/kg	92	93	79-120	1	30
1,4-Dioxane	N.D.	0.070	mg/kg	100	98	48-129	1	30
Ethylbenzene	N.D.	0.001	mg/kg	96	97	80-120	1	30
Methyl Tertiary Butyl Ether	N.D.	0.0005	mg/kg	86	88	74-121	2	30
Methylene Chloride	N.D.	0.002	mg/kg	93	93	76-124	0	30
n-Propylbenzene	N.D.	0.001	mg/kg	100	100	77-120	0	30
Tetrachloroethene	N.D.	0.001	mg/kg	97	96	78-126	1	30
Toluene	N.D.	0.001	mg/kg	94	95	80-120	1	30
1,1,1-Trichloroethane	N.D.	0.001	mg/kg	86	88	71-125	2	30
Trichloroethene	N.D.	0.001	mg/kg	93	93	80-120	0	30
Trichlorofluoromethane	N.D.	0.002	mg/kg	74	76	58-133	3	30
1,2,4-Trimethylbenzene	N.D.	0.001	mg/kg	98	97	79-120	0	30
1,3,5-Trimethylbenzene	N.D.	0.001	mg/kg	98	99	78-120	1	30
Vinyl Chloride	N.D.	0.001	mg/kg	73	74	53-120	1	30
Xylene (Total)	N.D.	0.001	mg/kg	97	97	80-120	1	30
Batch number: B123122AA Sample number(s): 6850733-6850736, 6850740, 6850742-6850743, 6850746, 6850748-6850749, 6850751-6850752, 6850754-6850755, 6850757-6850758								
Acetone	N.D.	0.007	mg/kg	111	102	32-209	9	30
Benzene	N.D.	0.0005	mg/kg	100	98	80-120	3	30
2-Butanone	N.D.	0.004	mg/kg	108	102	37-155	7	30
n-Butylbenzene	N.D.	0.001	mg/kg	99	98	72-120	1	30
sec-Butylbenzene	N.D.	0.001	mg/kg	100	100	75-120	1	30
tert-Butylbenzene	N.D.	0.001	mg/kg	97	95	75-120	2	30
Carbon Tetrachloride	N.D.	0.001	mg/kg	102	99	69-122	3	30
Chlorobenzene	N.D.	0.001	mg/kg	98	96	80-120	3	30
Chloroform	N.D.	0.001	mg/kg	106	101	80-120	5	30

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 06/03/13 at 02:00 PM

Group Number: 1347278

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,2-Dichlorobenzene	N.D.	0.001	mg/kg	100	97	79-120	3	30
1,3-Dichlorobenzene	N.D.	0.001	mg/kg	100	98	78-120	1	30
1,4-Dichlorobenzene	N.D.	0.001	mg/kg	101	98	79-120	3	30
1,1-Dichloroethane	N.D.	0.001	mg/kg	105	101	80-120	4	30
1,2-Dichloroethane	N.D.	0.001	mg/kg	116	110	70-137	5	30
1,1-Dichloroethene	N.D.	0.001	mg/kg	107	103	73-129	4	30
cis-1,2-Dichloroethene	N.D.	0.001	mg/kg	101	98	80-120	3	30
trans-1,2-Dichloroethene	N.D.	0.001	mg/kg	106	102	79-120	4	30
1,4-Dioxane	N.D.	0.070	mg/kg	73	64	48-129	13	30
Ethylbenzene	N.D.	0.001	mg/kg	100	97	80-120	3	30
Methyl Tertiary Butyl Ether	N.D.	0.0005	mg/kg	116	111	74-121	4	30
Methylene Chloride	0.002 J	0.002	mg/kg	122	115	76-124	6	30
n-Propylbenzene	N.D.	0.001	mg/kg	87	85	77-120	2	30
Tetrachloroethene	N.D.	0.001	mg/kg	105	105	78-126	0	30
Toluene	N.D.	0.001	mg/kg	99	97	80-120	2	30
1,1,1-Trichloroethane	N.D.	0.001	mg/kg	111	108	71-125	3	30
Trichloroethene	N.D.	0.001	mg/kg	100	98	80-120	2	30
Trichlorofluoromethane	N.D.	0.002	mg/kg	110	106	58-133	4	30
1,2,4-Trimethylbenzene	N.D.	0.001	mg/kg	103	101	79-120	2	30
1,3,5-Trimethylbenzene	N.D.	0.001	mg/kg	102	101	78-120	1	30
Vinyl Chloride	N.D.	0.001	mg/kg	96	93	53-120	3	30
Xylene (Total)	N.D.	0.001	mg/kg	98	96	80-120	2	30

Batch number: B123131AA

Sample number(s): 6850739, 6850745, 6850760-6850761

Acetone	N.D.	0.007	mg/kg	155	32-209
Benzene	N.D.	0.0005	mg/kg	96	80-120
2-Butanone	N.D.	0.004	mg/kg	140	37-155
n-Butylbenzene	N.D.	0.001	mg/kg	96	72-120
sec-Butylbenzene	N.D.	0.001	mg/kg	96	75-120
tert-Butylbenzene	N.D.	0.001	mg/kg	91	75-120
Carbon Tetrachloride	N.D.	0.001	mg/kg	101	69-122
Chlorobenzene	N.D.	0.001	mg/kg	96	80-120
Chloroform	N.D.	0.001	mg/kg	101	80-120
1,2-Dichlorobenzene	N.D.	0.001	mg/kg	95	79-120
1,3-Dichlorobenzene	N.D.	0.001	mg/kg	95	78-120
1,4-Dichlorobenzene	N.D.	0.001	mg/kg	95	79-120
1,1-Dichloroethane	N.D.	0.001	mg/kg	101	80-120
1,2-Dichloroethane	N.D.	0.001	mg/kg	116	70-137
1,1-Dichloroethene	N.D.	0.001	mg/kg	100	73-129
cis-1,2-Dichloroethene	N.D.	0.001	mg/kg	99	80-120
trans-1,2-Dichloroethene	N.D.	0.001	mg/kg	101	79-120
1,4-Dioxane	N.D.	0.070	mg/kg	69	48-129
Ethylbenzene	N.D.	0.001	mg/kg	95	80-120
Methyl Tertiary Butyl Ether	N.D.	0.0005	mg/kg	117	74-121
Methylene Chloride	N.D.	0.002	mg/kg	107	76-124
n-Propylbenzene	N.D.	0.001	mg/kg	83	77-120
Tetrachloroethene	N.D.	0.001	mg/kg	100	78-126
Toluene	N.D.	0.001	mg/kg	97	80-120
1,1,1-Trichloroethane	N.D.	0.001	mg/kg	111	71-125
Trichloroethene	N.D.	0.001	mg/kg	97	80-120
Trichlorofluoromethane	N.D.	0.002	mg/kg	103	58-133
1,2,4-Trimethylbenzene	N.D.	0.001	mg/kg	98	79-120
1,3,5-Trimethylbenzene	N.D.	0.001	mg/kg	98	78-120
Vinyl Chloride	N.D.	0.001	mg/kg	86	53-120
Xylene (Total)	N.D.	0.001	mg/kg	95	80-120

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 06/03/13 at 02:00 PM

Group Number: 1347278

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 12312SLF026	Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-6850765, 6850770-6850771							
Acenaphthene	N.D.	3.	ug/kg	95		83-111		
Acenaphthylene	N.D.	3.	ug/kg	102		83-127		
Anthracene	N.D.	3.	ug/kg	94		83-111		
Benzo(a)anthracene	N.D.	3.	ug/kg	96		73-123		
Benzo(a)pyrene	N.D.	3.	ug/kg	99		80-123		
Benzo(b)fluoranthene	N.D.	3.	ug/kg	97		76-124		
Benzo(g,h,i)perylene	N.D.	3.	ug/kg	94		77-122		
Benzo(k)fluoranthene	N.D.	3.	ug/kg	100		71-135		
Chrysene	N.D.	3.	ug/kg	89		73-119		
Dibenz(a,h)anthracene	N.D.	3.	ug/kg	97		67-129		
Dibenzofuran	N.D.	17.	ug/kg	97		78-116		
Fluoranthene	N.D.	3.	ug/kg	93		80-113		
Fluorene	N.D.	3.	ug/kg	95		81-117		
Indeno(1,2,3-cd)pyrene	N.D.	3.	ug/kg	97		64-128		
2-Methylphenol	N.D.	17.	ug/kg	92		75-126		
4-Methylphenol	N.D.	17.	ug/kg	90		74-116		
Naphthalene	N.D.	3.	ug/kg	94		77-115		
Pentachlorophenol	N.D.	33.	ug/kg	106		60-134		
Phenanthrene	N.D.	3.	ug/kg	92		77-119		
Phenol	N.D.	17.	ug/kg	90		69-126		
Pyrene	N.D.	3.	ug/kg	97		80-121		
Batch number: 123120022A	Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764, 6850770							
2,4,5-TP	N.D.	0.75	ug/kg	128*		60-111		
Batch number: 123140018A	Sample number(s): 6850765, 6850771							
2,4,5-TP	N.D.	0.75	ug/kg	108		60-111		
Batch number: 123120023A	Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-6850765, 6850770-6850771							
PCB-1016	N.D.	3.6	ug/kg	102		64-121		
PCB-1221	N.D.	4.6	ug/kg					
PCB-1232	N.D.	8.0	ug/kg					
PCB-1242	N.D.	3.3	ug/kg					
PCB-1248	N.D.	3.3	ug/kg					
PCB-1254	N.D.	3.3	ug/kg					
PCB-1260	N.D.	4.9	ug/kg	106		72-123		
Batch number: 123130020A	Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-6850765, 6850770-6850771							
Aldrin	N.D.	0.17	ug/kg	93		62-134		
Alpha BHC	N.D.	0.17	ug/kg	104		67-131		
Beta BHC	N.D.	0.96	ug/kg	103		59-161		
Gamma BHC - Lindane	N.D.	0.17	ug/kg	102		66-132		
Alpha Chlordane	N.D.	0.17	ug/kg	93		64-140		
p,p-DDD	N.D.	0.33	ug/kg	98		73-131		
p,p-DDE	N.D.	0.33	ug/kg	95		72-132		
p,p-DDT	N.D.	0.35	ug/kg	89		65-131		
Delta BHC	N.D.	0.45	ug/kg	99		44-145		

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
 (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 06/03/13 at 02:00 PM

Group Number: 1347278

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Dieldrin	N.D.	0.33	ug/kg	98		71-134		
Endosulfan I	N.D.	0.22	ug/kg	89		57-127		
Endosulfan II	N.D.	0.33	ug/kg	91		63-127		
Endosulfan Sulfate	N.D.	0.33	ug/kg	100		80-137		
Endrin	N.D.	0.33	ug/kg	93		66-136		
HCB	N.D.	0.21	ug/kg					
Heptachlor	N.D.	0.17	ug/kg	94		68-132		

Batch number: 123125708001

Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-6850765, 6850770-6850771

Arsenic	N.D.	0.330	mg/kg	101		80-120		
Barium	0.209 J	0.0330	mg/kg	105		80-120		
Beryllium	N.D.	0.0670	mg/kg	100		80-120		
Cadmium	N.D.	0.0330	mg/kg	105		80-120		
Chromium	N.D.	0.0880	mg/kg	104		80-120		
Copper	N.D.	0.180	mg/kg	102		80-120		
Lead	N.D.	0.470	mg/kg	106		80-120		
Manganese	N.D.	0.0830	mg/kg	104		80-120		
Nickel	N.D.	0.110	mg/kg	107		80-120		
Selenium	N.D.	0.720	mg/kg	105		80-120		
Silver	N.D.	0.140	mg/kg	110		80-120		
Zinc	N.D.	0.200	mg/kg	100		80-120		

Batch number: 123135711001

Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-6850765, 6850770-6850771

Mercury	N.D.	0.0099	mg/kg	101		80-120		
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Batch number: 12313102201A

Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764

Total Cyanide (solid)	N.D.	0.18	mg/kg	101		90-110		
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Batch number: 12313102201B

Sample number(s): 6850765, 6850770-6850771

Total Cyanide (solid)	N.D.	0.18	mg/kg	101		90-110		
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Batch number: 12314103201A

Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764

Amenable Cyanide (solid)	N.D.	0.18	mg/kg	0		-20-20		
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Batch number: 12314103201B

Sample number(s): 6850765, 6850770-6850771

Amenable Cyanide (solid)	N.D.	0.18	mg/kg	0		-20-20		
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Batch number: 12313042501A

Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-6850765, 6850770-6850771

Hexavalent Chromium (SOLIDS)	N.D.	0.50	mg/kg	91		80-120		
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Batch number: 12312820001A

Sample number(s): 6850733-6850740

Moisture				100		99-101		
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Batch number: 12312820001B

Sample number(s): 6850741-6850752

Moisture				100		99-101		
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Batch number: 12312820002B

Sample number(s): 6850753-6850771

Moisture				100		99-101		
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*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control SummaryClient Name: ExxonMobil Refining & Supply
Reported: 06/03/13 at 02:00 PM

Group Number: 1347278

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
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Sample Matrix Quality ControlUnspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: A123131AA Sample number(s): 6850762-6850763,6850766-6850769 UNSPK: 6850762									
Acetone	201*		31-195						
Benzene	96		55-143						
2-Butanone	105		37-163						
n-Butylbenzene	86		30-146						
sec-Butylbenzene	101		33-157						
tert-Butylbenzene	106		41-152						
Carbon Tetrachloride	96		45-153						
Chlorobenzene	95		49-135						
Chloroform	90		61-142						
1,2-Dichlorobenzene	85		36-133						
1,3-Dichlorobenzene	93		34-134						
1,4-Dichlorobenzene	90		35-136						
1,1-Dichloroethane	94		63-142						
1,2-Dichloroethane	87		68-131						
1,1-Dichloroethene	108		61-149						
cis-1,2-Dichloroethene	98		60-136						
trans-1,2-Dichloroethene	100		59-142						
1,4-Dioxane	154		39-180						
Ethylbenzene	98		44-141						
Methyl Tertiary Butyl Ether	84		55-129						
Methylene Chloride	95		61-141						
n-Propylbenzene	117		39-157						
Tetrachloroethene	102		42-149						
Toluene	105		50-146						
1,1,1-Trichloroethane	93		64-142						
Trichloroethene	97		53-144						
Trichlorofluoromethane	102		47-163						
1,2,4-Trimethylbenzene	105		37-149						
1,3,5-Trimethylbenzene	111		38-150						
Vinyl Chloride	94		50-154						
Xylene (Total)	95		44-136						
Batch number: B123122AA Sample number(s): 6850733-6850736,6850740,6850742-6850743,6850746,6850748-6850749,6850751-6850752,6850754-6850755,6850757-6850758 UNSPK: 6850733									
Acetone	131		31-195						
Benzene	92		55-143						
2-Butanone	113		37-163						
n-Butylbenzene	90		30-146						
sec-Butylbenzene	92		33-157						
tert-Butylbenzene	83		41-152						
Carbon Tetrachloride	99		45-153						
Chlorobenzene	91		49-135						
Chloroform	94		61-142						
1,2-Dichlorobenzene	88		36-133						

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
 (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 06/03/13 at 02:00 PM

Group Number: 1347278

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
1,3-Dichlorobenzene	91		34-134						
1,4-Dichlorobenzene	89		35-136						
1,1-Dichloroethane	96		63-142						
1,2-Dichloroethane	104		68-131						
1,1-Dichloroethene	99		61-149						
cis-1,2-Dichloroethene	93		60-136						
trans-1,2-Dichloroethene	97		59-142						
1,4-Dioxane	76		39-180						
Ethylbenzene	91		44-141						
Methyl Tertiary Butyl Ether	97		55-129						
Methylene Chloride	101		61-141						
n-Propylbenzene	81		39-157						
Tetrachloroethene	155*		42-149						
Toluene	92		50-146						
1,1,1-Trichloroethane	106		64-142						
Trichloroethene	108		53-144						
Trichlorofluoromethane	102		47-163						
1,2,4-Trimethylbenzene	92		37-149						
1,3,5-Trimethylbenzene	95		38-150						
Vinyl Chloride	83		50-154						
Xylene (Total)	90		44-136						

Batch number: B123131AA Sample number(s): 6850739,6850745,6850760-6850761 UNSPK: P847401

Acetone	153	144	31-195	5	30
Benzene	110	106	55-143	3	30
2-Butanone	131	118	37-163	10	30
n-Butylbenzene	108	97	30-146	11	30
sec-Butylbenzene	124	112	33-157	10	30
tert-Butylbenzene	124	113	41-152	8	30
Carbon Tetrachloride	122	115	45-153	6	30
Chlorobenzene	102	95	49-135	7	30
Chloroform	115	110	61-142	4	30
1,2-Dichlorobenzene	89	82	36-133	8	30
1,3-Dichlorobenzene	94	86	34-134	8	30
1,4-Dichlorobenzene	93	86	35-136	8	30
1,1-Dichloroethane	118	113	63-142	4	30
1,2-Dichloroethane	122	113	68-131	7	30
1,1-Dichloroethene	124	121	61-149	2	30
cis-1,2-Dichloroethene	111	107	60-136	3	30
trans-1,2-Dichloroethene	119	114	59-142	4	30
1,4-Dioxane	152	143	39-180	6	30
Ethylbenzene	108	99	44-141	8	30
Methyl Tertiary Butyl Ether	115	110	55-129	4	30
Methylene Chloride	127	121	61-141	4	30
n-Propylbenzene	104	96	39-157	8	30
Tetrachloroethene	122	110	42-149	9	30
Toluene	114	107	50-146	6	30
1,1,1-Trichloroethane	133	127	64-142	4	30
Trichloroethene	109	103	53-144	5	30
Trichlorofluoromethane	135	130	47-163	4	30
1,2,4-Trimethylbenzene	118	109	37-149	8	30
1,3,5-Trimethylbenzene	125	115	38-150	8	30

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 06/03/13 at 02:00 PM

Group Number: 1347278

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Vinyl Chloride	110	111	50-154	1	30				
Xylene (Total)	104	96	44-136	7	30				

Batch number: 12312SLF026

Sample number(s): 6850737-
6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-
6850765, 6850770-6850771 UNSPK: 6850737

Acenaphthene	95	92	33-140	3	30
Acenaphthylene	103	99	47-137	4	30
Anthracene	94	94	40-147	0	30
Benzo(a)anthracene	91	90	32-150	1	30
Benzo(a)pyrene	99	98	30-150	1	30
Benzo(b)fluoranthene	94	89	29-150	5	30
Benzo(g,h,i)perylene	94	91	31-152	3	30
Benzo(k)fluoranthene	103	102	35-148	0	30
Chrysene	86	84	33-142	2	30
Dibenz(a,h)anthracene	97	95	37-151	2	30
Dibenzofuran	96	94	38-148	2	30
Fluoranthene	93	92	30-151	2	30
Fluorene	94	91	36-140	4	30
Indeno(1,2,3-cd)pyrene	97	94	31-154	3	30
2-Methylphenol	91	95	32-146	4	30
4-Methylphenol	89	90	36-149	1	30
Naphthalene	91	90	35-141	1	30
Pentachlorophenol	101	102	23-145	2	30
Phenanthrene	92	91	34-147	0	30
Phenol	88	89	39-151	1	30
Pyrene	94	93	29-148	0	30

Batch number: 123120022A

Sample number(s): 6850737-
6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764, 6850770
UNSPK: 6850737

2,4,5-TP	122	122	10-142	0	35
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Batch number: 123140018A

Sample number(s): 6850765, 6850771 UNSPK: P844767

2,4,5-TP	100	103	10-142	3	35
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Batch number: 123120023A

Sample number(s): 6850737-
6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-
6850765, 6850770-6850771 UNSPK: 6850737

PCB-1016	101	94	29-146	7	50
PCB-1260	101	100	39-149	2	50

Batch number: 123130020A

Sample number(s): 6850737-
6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-
6850765, 6850770-6850771 UNSPK: 6850737

Aldrin	84	93	18-138	9	50
Alpha BHC	92	101	9-143	9	50
Beta BHC	85	95	14-168	10	50
Gamma BHC - Lindane	87	97	14-143	10	50
Alpha Chlordane	86	95	15-153	10	50
p,p-DDD	89	98	17-163	9	50
p,p-DDE	88	97	22-169	9	50

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 06/03/13 at 02:00 PM

Group Number: 1347278

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
p,p-DDT	83	91	4-159	8	50				
Delta BHC	77	82	30-144	5	50				
Dieldrin	87	97	17-163	10	50				
Endosulfan I	76	88	8-137	14	50				
Endosulfan II	78	89	17-146	13	50				
Endosulfan Sulfate	91	101	6-190	10	50				
Endrin	83	92	25-166	10	50				
Heptachlor	86	94	25-148	8	50				

Batch number: 123125708001

Sample number(s): 6850737-
6850738,6850741,6850744,6850747,6850750,6850753,6850756,6850759,6850764-
6850765,6850770-6850771 UNSPK: 6850737 BKG: 6850737

Arsenic	79	90	75-125	13	20	N.D.	N.D.	0 (1)	20
Barium	91	99	75-125	7	20	15.8	16.8	6	20
Beryllium	93	100	83-111	7	20	N.D.	N.D.	0 (1)	20
Cadmium	86	96	75-125	11	20	0.0539 J	0.0500 J	8 (1)	20
Chromium	95	108	75-125	10	20	4.31	4.60	6 (1)	20
Copper	40 (2)	96 (2)	75-125	9	20	126	124	2	20
Lead	82	95	75-125	13	20	2.53	2.97	16 (1)	20
Manganese	184 (2)	192 (2)	75-125	1	20	242	251	4	20
Nickel	86	98	75-125	10	20	15.4	15.4	0	20
Selenium	90	97	75-125	7	20	2.44	2.78	13 (1)	20
Silver	105	115	75-125	9	20	0.265 J	0.400 J	41* (1)	20
Zinc	99	106	75-125	3	20	46.9	50.4	7	20

Batch number: 123135711001

Sample number(s): 6850737-
6850738,6850741,6850744,6850747,6850750,6850753,6850756,6850759,6850764-
6850765,6850770-6850771 UNSPK: P848628 BKG: P848628

Mercury	106	102	80-120	3	20	N.D.	N.D.	0 (1)	20
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Batch number: 12313102201A

Sample number(s): 6850737-
6850738,6850741,6850744,6850747,6850750,6850753,6850756,6850759,6850764 UNSPK:
6850737 BKG: 6850737

Total Cyanide (solid)	106		68-134			N.D.	N.D.	0 (1)	20
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Batch number: 12313102201B

Sample number(s): 6850765,6850770-6850771 UNSPK: 6850765 BKG: 6850765

Total Cyanide (solid)	101		68-134			N.D.	N.D.	0 (1)	20
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Batch number: 12314103201A

Sample number(s): 6850737-
6850738,6850741,6850744,6850747,6850750,6850753,6850756,6850759,6850764 UNSPK:
6850737 BKG: 6850737

Amenable Cyanide (solid)	0		-20-20			N.D.	N.D.	0 (1)	20
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Batch number: 12314103201B

Sample number(s): 6850765,6850770-6850771 UNSPK: 6850765 BKG: 6850765

Amenable Cyanide (solid)	0		-20-20			N.D.	N.D.	0 (1)	20
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Batch number: 12313042501A

Sample number(s): 6850737-
6850738,6850741,6850744,6850747,6850750,6850753,6850756,6850759,6850764-
6850765,6850770-6850771 UNSPK: 6850738 BKG: 6850738

Hexavalent Chromium (SOLIDS)	89		75-125			N.D.	N.D.	0 (1)	20
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Batch number: 12312820001A

Sample number(s): 6850733-6850740 BKG: 6850737

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control SummaryClient Name: ExxonMobil Refining & Supply
Reported: 06/03/13 at 02:00 PM

Group Number: 1347278

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Moisture						3.6	3.5	1	13
Batch number: 12312820001B Moisture	Sample number(s): 6850741-6850752					BKG: 6850741 4.2	4.2	1	13
Batch number: 12312820002B Moisture	Sample number(s): 6850753-6850771					BKG: 6850761 20.7	23.1	11	13

Surrogate Quality ControlSurrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 Benzene and Toluene

Batch number: A123131AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6850762	96	106	98	93
6850763	95	98	106	81
6850766	97	104	98	93
6850767	98	100	107	79
6850768	97	98	107	79
6850769	98	102	106	78
Blank	94	99	97	94
LCS	94	97	100	98
LCSD	96	97	100	98
MS	97	97	107	88

Limits: 50-141 54-135 52-141 50-131

Analysis Name: 8260 Benzene and Toluene

Batch number: B123122AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6850733	102	101	99	90
6850734	103	102	99	88
6850735	104	103	99	90
6850736	105	104	99	90
6850740	103	101	101	90
6850742	106	103	99	88
6850743	106	102	99	89
6850746	106	103	99	90
6850748	106	104	100	92
6850749	105	102	100	90
6850751	107	105	99	90
6850752	106	102	98	89
6850754	108	103	99	91
6850755	107	102	99	89
6850757	110	109	98	88

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 06/03/13 at 02:00 PM

Group Number: 1347278

Surrogate Quality Control

6850758	111	111	98	88
Blank	105	101	98	91
LCS	103	103	104	100
LCSD	101	104	102	100
MS	103	102	103	100

Limits: 50-141 54-135 52-141 50-131

Analysis Name: 8260 Benzene and Toluene
Batch number: B123131AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6850739	105	105	99	92
6850745	108	105	98	88
6850760	109	106	105	79
6850761	109	112	98	88
Blank	106	105	99	90
LCS	104	107	103	101
MS	104	100	111	93
MSD	103	99	111	91

Limits: 50-141 54-135 52-141 50-131

Analysis Name: TCL 8270 (microwave)
Batch number: 12312SLF026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6850737	84	85	87	84	86	92
6850738	83	86	84	87	87	94
6850741	86	90	95	90	90	99
6850744	83	85	91	86	87	95
6850747	83	85	87	85	86	97
6850750	80	82	89	81	85	95
6850753	82	86	85	85	86	92
6850756	85	88	94	88	90	98
6850759	83	84	88	81	85	91
6850764	82	85	85	81	85	90
6850765	90	91	94	85	89	96
6850770	75	77	77	75	80	86
6850771	73	76	77	76	80	85
Blank	86	90	102	90	90	99
LCS	88	95	99	94	96	102
MS	86	90	96	89	96	100
MSD	87	93	95	89	93	99

Limits: 42-130 48-136 28-139 45-123 47-126 46-143

Analysis Name: Herbicide soils 8151A Master
Batch number: 123120022A
2,4-Dichlorophenylacetic
acid

6850737	99
6850738	97
6850741	100
6850744	102

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 06/03/13 at 02:00 PM

Group Number: 1347278

Surrogate Quality Control

6850747 88
6850750 99
6850753 114
6850756 97
6850759 114
6850764 98
6850770 69
Blank 94
LCS 117
MS 115
MSD 107

Limits: 36-156

Analysis Name: PCBs in Soil (microwave)
Batch number: 123120023A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6850737	115	118
6850738	109	112
6850741	109	110
6850744	111	114
6850747	107	110
6850750	109	109
6850753	109	107
6850756	109	109
6850759	101	101
6850764	102	102
6850765	103	102
6850770	104	102
6850771	96	93
Blank	113	117
LCS	113	118
MS	110	115
MSD	110	112

Limits: 33-143 24-164

Analysis Name: TCL Pesticides 8081A Soil
Batch number: 123130020A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6850737	89	101
6850738	94	107
6850741	92	106
6850744	87	102
6850747	82	95
6850750	91	106
6850753	79	96
6850756	90	107
6850759	107	108
6850764	84	104
6850765	101	115
6850770	66	108
6850771	87	101
Blank	88	101

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ExxonMobil Refining & Supply
Reported: 06/03/13 at 02:00 PM

Group Number: 1347278

Surrogate Quality Control

LCS	102	99
MS	84	93
MSD	90	103

Limits: 33-140 45-150

Analysis Name: Herbicide soils 8151A Master
Batch number: 123140018A
2,4-Dichlorophenylacetic
acid

6850765	94
6850771	89
Blank	67
LCS	96
MS	95
MSD	101

Limits: 36-156

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

ExxonMobil Analysis Request/Chain of Custody



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Acct. # 10629

For Lancaster Laboratories use only
Group # 1347278 Sample # 6850733-71
Instructions on reverse side correspond with circled numbers.

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1 Client Information				4 Matrix		5 Analyses Requested										SCR#: _____																																					
Facility #/SID <u>S2010L4632</u>				☐ Sediment ☐ Potable ☐ Ground ☐ Water ☐ NPDES ☐ Surface ☐ Air ☐ Oil ☐ Total # of Containers		Preservation Code										Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other																																					
Site Address <u>1 Railroad Ave, Hahns-on-Hudson, NY</u>						<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>VOC</td><td>SVOC</td><td>TAL Metals</td><td>Hex/Tri Crown</td><td>Mercury</td><td>Cyanide</td><td>Pest</td><td>PCBs</td><td>Herbicides</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>												VOC	SVOC	TAL Metals	Hex/Tri Crown	Mercury	Cyanide	Pest	PCBs	Herbicides																											
VOC	SVOC	TAL Metals	Hex/Tri Crown															Mercury	Cyanide	Pest	PCBs	Herbicides																															
ExxonMobil PM <u>Steve Trifiletti</u>		Cost Center/AFE <u>E2.1986.86X16</u>																																																			
Consultant/Office <u>Roux Associates, Inc / Islandia, NY</u>		Consultant Phone # <u>(631) 232-2600</u>																																																			
Consultant PM <u>Tracy Bisphan</u>																6 Remarks <u>Part 375</u> <u>analyses</u> <u>PO# 4410017154</u>																																					
Sampler <u>Jessica Collins</u>																																																					
2 Sample Identification				3																																																	
		Collected		Grab																																																	
		Date	Time	Composite																																																	
TCN-ST9		11/6/12	1200	X																																																	
TCN-ST10		11/6/12	1205	X																																																	
TCN-ST11		11/6/12	1210	X																																																	
TCN-ST12		11/6/12	1215	X																																																	
TCN-STC5		11/6/12	1220		X																																																
TCN-STC6		11/6/12	1225		X																																																
TCN-ST13		11/6/12	1230	X																																																	
TCN-ST14		11/6/12	1235	X																																																	
TCN-STC7		11/6/12	1240		X																																																
TCN-ST15		11/6/12	1250	X																																																	
TCN-ST16		11/6/12	1255	X																																																	
TCN-STC8		11/6/12	1245		X																																																
7 Turnaround Time Requested (TAT) (please circle)				8 Data Package (circle if required)		EDD (circle if required)		Relinquished by		Date		Time		Received by		Date		Time																																			
Standard 5 day 4 day				Type I - Full		Locus EIM (default)		Relinquished by		Date		Time		Received by		Date		Time																																			
72 hour 48 hour <u>24 hour</u>				Type VI (Raw Data)		Other _____		Relinquished by		Date		Time		Received by		Date		Time																																			
Other <u>CALA</u>								Relinquished by Commercial Carrier		Date		Time		Received by		Date		Time																																			
								UPS FedEx <u>X</u> Other _____		Date		Time		Received by <u>Post 4/6</u>		Date <u>4/7/12</u>		Time <u>0920</u>																																			
								Temperature Upon Receipt <u>0.7</u> °C		Date		Time		Custody Seals Intact? <u>Yes</u>		Date		Time																																			

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For Lancaster Laboratories use only
Acct. # 10629 Group # 1347278 Sample # 6850733-71
Instructions on reverse side correspond with circled numbers.

2 of 4

Laboratories

1 Client Information				4 Matrix		5 Analyses Requested										6 Preservation Codes		7 Remarks																	
Facility #/SID				Sediment ☐ Ground ☐ Surface ☐		Preservation Code										H = HCl T = Thiosulfate		Remarks																	
Site Address				Potable ☐ NPDES ☐ Air ☐												N = HNO ₃ B = NaOH																			
Exxon/Mobil PM				Water												S = H ₂ SO ₄ O = Other																			
Consultant/Office				Oil ☐																															
Consultant Phone #				Total # of Containers																															
Sampler				Soil ☒																															
2 Sample Identification <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th colspan="2">Collected</th> <th rowspan="2">Grab</th> <th rowspan="2">Composite</th> <th rowspan="2">Soil</th> <th rowspan="2">Water</th> <th rowspan="2">Oil</th> <th rowspan="2">Total # of Containers</th> <th colspan="10">Analyses Requested</th> </tr> <tr> <th>Date</th> <th>Time</th> <th>VOL</th> <th>SVOC</th> <th>TAL Metals</th> <th>Mercury</th> <th>Cyanide</th> <th>Hex/Tri Chlora</th> <th>Pest</th> <th>PCBs</th> <th>Herb</th> </tr> </thead> </table>					Collected		Grab	Composite	Soil	Water	Oil	Total # of Containers	Analyses Requested										Date	Time	VOL	SVOC	TAL Metals	Mercury	Cyanide	Hex/Tri Chlora	Pest	PCBs	Herb		
	Collected		Grab		Composite	Soil							Water	Oil	Total # of Containers	Analyses Requested																			
	Date	Time		VOL			SVOC	TAL Metals	Mercury	Cyanide	Hex/Tri Chlora	Pest				PCBs	Herb																		
TCN - ST 17				11/6/12		1315		X		X																									
TCN - ST 18				11/6/12		1320		X		X																									
TCN - STC 9				11/6/12		1325		X		X		X		X		X																			
TCN - ST 19				11/6/12		1425		X		X																									
TCN - ST 20				11/6/12		1430		X		X																									
TCN - STC 10				11/6/12		1435		X		X		X		X		X																			
TCN - ST 21				11/6/12		1440		X		X																									
TCN - ST 22				11/6/12		1445		X		X																									
TCN - STC 11				11/6/12		1500		X		X		X		X		X																			
TCN - ST 23				11/6/12		1450		X		X																									
TCN - ST 24				11/6/12		1455		X		X																									
TCN - STC 12				11/6/12		1505		X		X		X		X		X																			
7 Turnaround Time Requested (TAT) (please circle) Standard 5 day 4 day 72 hour 48 hour <u>24 hour</u>				Relinquished by <u>[Signature]</u> Relinquished by <u>[Signature]</u> Relinquished by <u>[Signature]</u> Relinquished by Commercial Carrier <u>UPS</u> <u>FedEx</u> <u>Other</u>		Date <u>11/6/12</u> Time <u>1645</u> Date _____ Time _____ Date _____ Time _____		Received by _____ Received by _____ Received by _____ Received by <u>Pat Lh</u>		Date _____ Time _____ Date _____ Time _____ Date _____ Time _____ Date <u>11/7/12</u> Time <u>0920</u>		9 Custody Seals Intact? <u>Yes</u> No																							
8 Data Package (circle if required) Type I - Full Type VI (Raw Data) NJ Reduced Other <u>COLA</u>				EDD (circle if required) Locus EIM (default) Other _____		Temperature Upon Receipt <u>0.7</u> °C		Custody Seals Intact? <u>Yes</u> No																											

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ExxonMobil Analysis Request/Chain of Custody



Lancaster
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Acct. # 10629 Group # 1347278 Sample # 6850733-71
For Lancaster Laboratories use only
Instructions on reverse side correspond with circled numbers.

3 of 4

1 Client Information				4 Matrix		5 Analyses Requested										6 Remarks																		
Facility #/SID				Sediment ☐ Ground ☐ Surface ☐		Preservation Code										SCR#:																		
Site Address				Potable ☐ NPDES ☐ Air ☐		VOC SVOC Metals TAL Hex/Trivalent Chromium Mercury Cyanide Pest PCBs Herbicides										Preservation Codes																		
ExxonMobil PM				Water ☐ Oil ☐												H = HCl T = Thiosulfate																		
Consultant/Office				Total # of Containers												N = HNO ₃ B = NaOH																		
Consultant PM				Total # of Containers												S = H ₂ SO ₄ O = Other																		
Sampler				Total # of Containers												6																		
52010L 4632				Sediment ☐ Ground ☐ Surface ☐												Part 375																		
1 Railroad Ave, Hastings-on-Hudson, NY				Potable ☐ NPDES ☐ Air ☐												analytes																		
Steve Trifiletti				Water ☐ Oil ☐												PO# 4410017954																		
E2.1986.86X1C				Total # of Containers																														
Roux Associates / Islandia, NY				Total # of Containers																														
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2 Sample Identification			3 Collected		Grab		Composite		Soil		Water		Oil		Total # of Containers		VOC		SVOC		Metals TAL		Hex/Trivalent Chromium		Mercury		Cyanide		Pest		PCBs		Herbicides	
Date			Time		X		X		X		X		X		X		X		X		X		X		X		X		X		X			
POC-TS3			11/6/12		1310		X		X		X		X		X		X		X		X		X		X		X		X		X			
POC-TS4			11/6/12		1305		X		X		X		X		X		X		X		X		X		X		X		X		X			
POC-TSC2			11/6/12		1300		X		X		X		X		X		X		X		X		X		X		X		X		X			
POC-TS5			11/6/12		1335		X		X		X		X		X		X		X		X		X		X		X		X		X			
POC-TS6			11/6/12		1340		X		X		X		X		X		X		X		X		X		X		X		X		X			
POC-TS7			11/6/12		1345		X		X		X		X		X		X		X		X		X		X		X		X		X			
POC-TS8			11/6/12		1350		X		X		X		X		X		X		X		X		X		X		X		X		X			
POC-TSC3			11/6/12		1325		X		X		X		X		X		X		X		X		X		X		X		X		X			
POC-TSC4			11/6/12		1330		X		X		X		X		X		X		X		X		X		X		X		X		X			
POC-TS9			11/6/12		1355		X		X		X		X		X		X		X		X		X		X		X		X		X			
POC-TS10			11/6/12		1400		X		X		X		X		X		X		X		X		X		X		X		X		X			
POC-TS11			11/6/12		1405		X		X		X		X		X		X		X		X		X		X		X		X		X			
7 Turnaround Time Requested (TAT) (please circle)			Relinquished by		Date		Time		Received by		Date		Time																					
Standard 5 day 4 day			Relinquished by		Date		Time		Received by		Date		Time																					
72 hour 48 hour 24 hour			Relinquished by		Date		Time		Received by		Date		Time																					
8 Data Package (circle if required)			Relinquished by Commercial Carrier		Date		Time		Received by		Date		Time																					
Type I - Full			Relinquished by Commercial Carrier		Date		Time		Received by		Date		Time																					
Type VI (Raw Data)			Relinquished by Commercial Carrier		Date		Time		Received by		Date		Time																					
NJ Reduced			Relinquished by Commercial Carrier		Date		Time		Received by		Date		Time																					
Other Cat A			Relinquished by Commercial Carrier		Date		Time		Received by		Date		Time																					
EDD (circle if required)			Relinquished by Commercial Carrier		Date		Time		Received by		Date		Time																					
Locus EIM (default)			Relinquished by Commercial Carrier		Date		Time		Received by		Date		Time																					
Other			Relinquished by Commercial Carrier		Date		Time		Received by		Date		Time																					
UPS FedEx X Other			Relinquished by Commercial Carrier		Date		Time		Received by		Date		Time																					
Temperature Upon Receipt 0.7 °C			Relinquished by Commercial Carrier		Date		Time		Received by		Date		Time																					
Custody Seals Intact? Yes No			Relinquished by Commercial Carrier		Date		Time		Received by		Date		Time																					

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ExxonMobil Analysis Request/Chain of Custody



Lancaster
Laboratories

Acct. # 10629 Group # 1347278 Sample # 6850733-71
For Lancaster Laboratories use only
Instructions on reverse side correspond with circled numbers.

4 of 4

1 Client Information				4 Matrix		5 Analyses Requested										6 Remarks																																																																							
Facility #/SID <u>S2010L4632</u>				☐ Sediment ☐ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ Water ☐ Oil ☐ Air		Preservation Code										SCR#: <u>130025</u> Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other																																																																							
Site Address <u>1 Railroad Ave. Hastings-on-Hudson, NY</u>						<table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>VOC</td><td>SVOC</td><td>TAL Metals</td><td>Hex/tin Chrom</td><td>Mercury</td><td>Cyanide</td><td>Pest</td><td>PCBs</td><td>Herbicides</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>												VOC	SVOC	TAL Metals	Hex/tin Chrom	Mercury	Cyanide	Pest	PCBs	Herbicides																																																													
VOC	SVOC	TAL Metals	Hex/tin Chrom															Mercury	Cyanide	Pest	PCBs	Herbicides																																																																	
ExxonMobil PM <u>Steve Trifiletti</u>		Cost Center/AEE <u>E2.1986.86XIC</u>																																																																																					
Consultant/Office <u>Ronx Associates / Islandia, NY</u>		Consultant Phone # <u>631 232 2600</u>																																																																																					
Consultant PM <u>Tracy Bispham</u>				Total # of Containers VOC SVOC TAL Metals Hex/tin Chrom Mercury Cyanide Pest PCBs Herbicides		Part 375 analyses POF 440097954																																																																																	
Sampler <u>Jessica Collin</u>																																																																																							
2 Sample Identification		3 Collected		☐ Grab ☐ Composite ☐ Soil		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Sample</th> <th>Date</th> <th>Time</th> <th>Grab</th> <th>Composite</th> <th>Soil</th> <th>Water</th> <th>Oil</th> <th>Total # of Containers</th> <th>VOC</th> <th>SVOC</th> <th>TAL Metals</th> <th>Hex/tin Chrom</th> <th>Mercury</th> <th>Cyanide</th> <th>Pest</th> <th>PCBs</th> <th>Herbicides</th> </tr> <tr> <td>POC-TS12</td> <td>11/6/12</td> <td>1410</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>POC-TSC5</td> <td>11/6/12</td> <td>1415</td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td>1</td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>POC-TSC6</td> <td>11/6/12</td> <td>1420</td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td>1</td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> </table>										Sample	Date	Time	Grab	Composite	Soil	Water	Oil	Total # of Containers	VOC	SVOC	TAL Metals	Hex/tin Chrom	Mercury	Cyanide	Pest	PCBs	Herbicides	POC-TS12	11/6/12	1410	X					1	X									POC-TSC5	11/6/12	1415		X				1		X	X	X	X	X	X	X	X	POC-TSC6	11/6/12	1420		X				1		X	X	X	X	X	X	X	X
Sample	Date	Time	Grab													Composite	Soil	Water	Oil	Total # of Containers	VOC	SVOC	TAL Metals	Hex/tin Chrom	Mercury	Cyanide	Pest	PCBs	Herbicides																																																										
POC-TS12	11/6/12	1410	X					1	X																																																																														
POC-TSC5	11/6/12	1415		X				1		X	X	X	X	X	X	X	X																																																																						
POC-TSC6	11/6/12	1420		X				1		X	X	X	X	X	X	X	X																																																																						
7 Turnaround Time Requested (TAT) (please circle) Standard 5 day 4 day 72 hour 48 hour <u>24 hour</u>				Relinquished by <u>[Signature]</u>		Date <u>11/6/12</u> Time <u>1645</u>		Received by <u>[Signature]</u>		Date		Time																																																																											
				Relinquished by <u>[Signature]</u>		Date		Time		Received by		Date		Time																																																																									
8 Data Package (circle if required) Type I - Full Type VI (Raw Data) NJ Reduced Other <u>Ce + A</u>				EDD (circle if required) Locus EIM (default) Other _____		Relinquished by Commercial Carrier		Received by <u>[Signature]</u>		Date <u>11/7/12</u>		Time <u>0920</u>																																																																											
						UPS _____ FedEx <u>X</u> Other _____		Temperature Upon Receipt <u>0.7</u> °C		Custody Seals Intact? <u>Yes</u> No																																																																													

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Environmental Sample Administration
Receipt Documentation Log

1347278

Client/Project: Roux AssociatesShipping Container Sealed: YES NODate of Receipt: 11/7/12Custody Seal Present * : YES NOTime of Receipt: 0920* Custody seal was intact unless otherwise noted in the
discrepancy sectionSource Code: SOPackage: Chilled Not Chilled

Temperature of Shipping Containers

Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	429951	0.7	TB	WI	y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: 0

Paperwork Discrepancy/Unpacking Problems:

Unpacker Signature/Emp#: Pat Gyle 3472 Date/Time: 11/7/12 1000

Issued by Dept. 6042 Management

2174.06

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Volatiles by GC/MS Data

Case Narrative/Conformance Summary

Volatiles by GC/MS

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP03

GC/MS Volatiles

Fraction: Volatiles by GC/MS

Sample #	Client ID	Matrix		DF	Comments
		Liquid	Solid		
6850733	TCN-ST9		X	0.98; 0.99	
6850734	TCN-ST10		X	0.98	
6850735	TCN-ST11		X	0.96	
6850736	TCN-ST12		X	1.02	
6850739	TCN-ST13		X	1.02	
6850740	TCN-ST14		X	1	
6850742	TCN-ST15		X	1.04	
6850743	TCN-ST16		X	0.99	
6850745	TCN-ST17		X	1.03	
6850746	TCN-ST18		X	1	
6850748	TCN-ST19		X	1.01	
6850749	TCN-ST20		X	1.02	
6850751	TCN-ST21		X	0.97	
6850752	TCN-ST22		X	0.97	
6850754	TCN-ST23		X	0.95	
6850755	TCN-ST24		X	0.98	
6850757	POC-TS3		X	1.01	
6850758	POC-TS4		X	0.97	
6850760	POC-TS5		X	0.93	
6850761	POC-TS6		X	0.92	
6850762	POC-TS7		X	1; 1.05	
6850763	POC-TS8		X	1.05	
6850766	POC-TS9		X	0.99	
6850767	POC-TS10		X	0.93	
6850768	POC-TS11		X	1.01	
6850769	POC-TS12		X	0.93	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP03

GC/MS Volatiles

Fraction: Volatiles by GC/MS

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Method Blank

For noncompliant preparation/method blanks, corrective action is not required if the sample is ND or > 10 times the blank concentration, unless otherwise specified in the method or by the client.

MS/MSD

Please note that US EPA Methods for organic compounds do not require action by the laboratory based on out-of-specification MS/MSD results.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

GC/MS VOLATILES CALCULATIONS:

1. Relative response factor (RRF)

$$RRF = \frac{A_x}{A_{is}} \times \frac{C_{is}}{C_x}$$

Where :

A_x = Area of the characteristic ion for the compound to be measured.

A_{is} = Area of the characteristic ion for the specific internal standard to be measured.

C_{is} = Concentration of the internal standard.

C_x = Concentration of the compound to be measured.

2. % Relative Standard Deviation (%RSD)

$$\%RSD = \frac{\text{Standard deviation}}{\text{mean}} \times 100$$

3. % Difference (%D)

$$\%D = \frac{RRF_c - RRF_i}{RRF_i} \times 100$$

Where:

RRF_c = Relative response factor from continuing calibration standard.

RRF_i = Mean relative response factor from the initial calibration.

4. Concentration

$$\text{Concentration (ug/l)} = \frac{(A_x) (I_s) (D_f)}{(A_{is}) (RRF)}$$

Where:

A_x , A_{is}, RRF are as given in 1. above.

I_s = Concentration of internal standard added in parts per billion (ug/l)

D_f = Dilution factor

5. % Recovery (%Rec)

$$\%Rec = \frac{SSR - SR}{SA} \times 100$$

Where:

SSR = Spiked sample result

SR = Sample result

SA = Spike added

6. Relative Percent Difference (RPD)

$$RPD = \frac{|MSR - MSDR|}{(1/2) (MSR + MSDR)} \times 100$$

Where:

MSR = Matrix spike recovery

MSDR = Matrix spike duplicate recovery

Quality Control and Calibration Summary Forms

Volatiles by GC/MS

**CLIENT: ExxonMobil Refining & Supply
SDG: TAP03**

Fraction: Volatiles by GC/MS

Analysis	Batch Number	Sample Number	Analysis Date
Table 375-6.8(a) VOCs	A123131AA	VBLKA25	11/08/2012 01:17:00
		LCSA25	11/08/2012 01:39:00
		LCDA25	11/08/2012 02:02:00
		6850762 UNSPK	11/08/2012 03:35:00
		6850762 MS	11/08/2012 06:14:00
		6850763	11/08/2012 03:57:00
		6850766	11/08/2012 04:20:00
		6850767	11/08/2012 06:36:00
		6850768	11/08/2012 05:05:00
		6850769	11/08/2012 07:28:00
Table 375-6.8(a) VOCs	B123122AA	VBLKB84	11/07/2012 22:21:00
		LCSB84	11/07/2012 22:44:00
		LCDB84	11/07/2012 23:07:00
		6850733 UNSPK	11/07/2012 23:51:00
		6850733 MS	11/08/2012 01:45:00
		6850734	11/08/2012 00:14:00
		6850735	11/08/2012 00:36:00
		6850736	11/08/2012 00:59:00
		6850740	11/08/2012 02:07:00
		6850742	11/08/2012 02:30:00
		6850743	11/08/2012 02:53:00
		6850746	11/08/2012 03:15:00
		6850748	11/08/2012 05:45:00
		6850749	11/08/2012 06:08:00
		6850751	11/08/2012 06:30:00
		6850752	11/08/2012 06:53:00
		6850754	11/08/2012 07:16:00
		6850755	11/08/2012 07:38:00
		6850757	11/08/2012 08:01:00
		6850758	11/08/2012 08:24:00
Table 375-6.8(a) VOCs	B123131AA	VBLKB85	11/08/2012 10:24:00
		LCSB85	11/08/2012 10:53:00
		6850739	11/08/2012 12:37:00
		6850745	11/08/2012 13:54:00
		6850760	11/08/2012 13:08:00
		6850761	11/08/2012 15:25:00

Fraction: Volatiles by GC/MS

A123131AA / VBLKA25					
Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Vinyl Chloride	11/08/12	N.D.	mg/kg	0.001	0.005
1,1-Dichloroethene	11/08/12	N.D.	mg/kg	0.001	0.005
Acetone	11/08/12	N.D.	mg/kg	0.007	0.020
Benzene	11/08/12	N.D.	mg/kg	0.0005	0.005
2-Butanone	11/08/12	N.D.	mg/kg	0.004	0.010
Carbon Tetrachloride	11/08/12	N.D.	mg/kg	0.001	0.005
Chloroform	11/08/12	N.D.	mg/kg	0.001	0.005
1,1-Dichloroethane	11/08/12	N.D.	mg/kg	0.001	0.005
1,2-Dichloroethane	11/08/12	N.D.	mg/kg	0.001	0.005
cis-1,2-Dichloroethene	11/08/12	N.D.	mg/kg	0.001	0.005
trans-1,2-Dichloroethene	11/08/12	N.D.	mg/kg	0.001	0.005
1,4-Dioxane	11/08/12	N.D.	mg/kg	0.070	0.25
Methyl Tertiary Butyl Ether	11/08/12	N.D.	mg/kg	0.0005	0.005
Methylene Chloride	11/08/12	N.D.	mg/kg	0.002	0.005
Toluene	11/08/12	N.D.	mg/kg	0.001	0.005
1,1,1-Trichloroethane	11/08/12	N.D.	mg/kg	0.001	0.005
Trichloroethene	11/08/12	N.D.	mg/kg	0.001	0.005
Tetrachloroethene	11/08/12	N.D.	mg/kg	0.001	0.005
Chlorobenzene	11/08/12	N.D.	mg/kg	0.001	0.005
Ethylbenzene	11/08/12	N.D.	mg/kg	0.001	0.005
n-Propylbenzene	11/08/12	N.D.	mg/kg	0.001	0.005
Xylene (Total)	11/08/12	N.D.	mg/kg	0.001	0.005
1,3,5-Trimethylbenzene	11/08/12	N.D.	mg/kg	0.001	0.005
sec-Butylbenzene	11/08/12	N.D.	mg/kg	0.001	0.005
tert-Butylbenzene	11/08/12	N.D.	mg/kg	0.001	0.005
1,2,4-Trimethylbenzene	11/08/12	N.D.	mg/kg	0.001	0.005
n-Butylbenzene	11/08/12	N.D.	mg/kg	0.001	0.005
1,2-Dichlorobenzene	11/08/12	N.D.	mg/kg	0.001	0.005
1,3-Dichlorobenzene	11/08/12	N.D.	mg/kg	0.001	0.005
1,4-Dichlorobenzene	11/08/12	N.D.	mg/kg	0.001	0.005

B123122AA / VBLKB84					
Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Vinyl Chloride	11/07/12	N.D.	mg/kg	0.001	0.005
1,1-Dichloroethene	11/07/12	N.D.	mg/kg	0.001	0.005
Acetone	11/07/12	N.D.	mg/kg	0.007	0.020
Benzene	11/07/12	N.D.	mg/kg	0.0005	0.005
2-Butanone	11/07/12	N.D.	mg/kg	0.004	0.010
Carbon Tetrachloride	11/07/12	N.D.	mg/kg	0.001	0.005
Chloroform	11/07/12	N.D.	mg/kg	0.001	0.005
1,1-Dichloroethane	11/07/12	N.D.	mg/kg	0.001	0.005
1,2-Dichloroethane	11/07/12	N.D.	mg/kg	0.001	0.005
cis-1,2-Dichloroethene	11/07/12	N.D.	mg/kg	0.001	0.005
trans-1,2-Dichloroethene	11/07/12	N.D.	mg/kg	0.001	0.005
1,4-Dioxane	11/07/12	N.D.	mg/kg	0.070	0.25

Fraction: Volatiles by GC/MS

B123122AA / VBLKB84					
Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Methyl Tertiary Butyl Ether	11/07/12	N.D.	mg/kg	0.0005	0.005
Methylene Chloride	11/07/12	0.002	mg/kg	0.002	0.005
Toluene	11/07/12	N.D.	mg/kg	0.001	0.005
1,1,1-Trichloroethane	11/07/12	N.D.	mg/kg	0.001	0.005
Trichloroethene	11/07/12	N.D.	mg/kg	0.001	0.005
Tetrachloroethene	11/07/12	N.D.	mg/kg	0.001	0.005
Chlorobenzene	11/07/12	N.D.	mg/kg	0.001	0.005
Ethylbenzene	11/07/12	N.D.	mg/kg	0.001	0.005
n-Propylbenzene	11/07/12	N.D.	mg/kg	0.001	0.005
Xylene (Total)	11/07/12	N.D.	mg/kg	0.001	0.005
1,3,5-Trimethylbenzene	11/07/12	N.D.	mg/kg	0.001	0.005
sec-Butylbenzene	11/07/12	N.D.	mg/kg	0.001	0.005
tert-Butylbenzene	11/07/12	N.D.	mg/kg	0.001	0.005
1,2,4-Trimethylbenzene	11/07/12	N.D.	mg/kg	0.001	0.005
n-Butylbenzene	11/07/12	N.D.	mg/kg	0.001	0.005
1,2-Dichlorobenzene	11/07/12	N.D.	mg/kg	0.001	0.005
1,3-Dichlorobenzene	11/07/12	N.D.	mg/kg	0.001	0.005
1,4-Dichlorobenzene	11/07/12	N.D.	mg/kg	0.001	0.005

B123131AA / VBLKB85					
Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Vinyl Chloride	11/08/12	N.D.	mg/kg	0.001	0.005
1,1-Dichloroethene	11/08/12	N.D.	mg/kg	0.001	0.005
Acetone	11/08/12	N.D.	mg/kg	0.007	0.020
Benzene	11/08/12	N.D.	mg/kg	0.0005	0.005
2-Butanone	11/08/12	N.D.	mg/kg	0.004	0.010
Carbon Tetrachloride	11/08/12	N.D.	mg/kg	0.001	0.005
Chloroform	11/08/12	N.D.	mg/kg	0.001	0.005
1,1-Dichloroethane	11/08/12	N.D.	mg/kg	0.001	0.005
1,2-Dichloroethane	11/08/12	N.D.	mg/kg	0.001	0.005
cis-1,2-Dichloroethene	11/08/12	N.D.	mg/kg	0.001	0.005
trans-1,2-Dichloroethene	11/08/12	N.D.	mg/kg	0.001	0.005
1,4-Dioxane	11/08/12	N.D.	mg/kg	0.070	0.25
Methyl Tertiary Butyl Ether	11/08/12	N.D.	mg/kg	0.0005	0.005
Methylene Chloride	11/08/12	N.D.	mg/kg	0.002	0.005
Toluene	11/08/12	N.D.	mg/kg	0.001	0.005
1,1,1-Trichloroethane	11/08/12	N.D.	mg/kg	0.001	0.005
Trichloroethene	11/08/12	N.D.	mg/kg	0.001	0.005
Tetrachloroethene	11/08/12	N.D.	mg/kg	0.001	0.005
Chlorobenzene	11/08/12	N.D.	mg/kg	0.001	0.005
Ethylbenzene	11/08/12	N.D.	mg/kg	0.001	0.005
n-Propylbenzene	11/08/12	N.D.	mg/kg	0.001	0.005
Xylene (Total)	11/08/12	N.D.	mg/kg	0.001	0.005
1,3,5-Trimethylbenzene	11/08/12	N.D.	mg/kg	0.001	0.005
sec-Butylbenzene	11/08/12	N.D.	mg/kg	0.001	0.005

Fraction: Volatiles by GC/MS

B123131AA / VBLKB85					
Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
tert-Butylbenzene	11/08/12	N.D.	mg/kg	0.001	0.005
1,2,4-Trimethylbenzene	11/08/12	N.D.	mg/kg	0.001	0.005
n-Butylbenzene	11/08/12	N.D.	mg/kg	0.001	0.005
1,2-Dichlorobenzene	11/08/12	N.D.	mg/kg	0.001	0.005
1,3-Dichlorobenzene	11/08/12	N.D.	mg/kg	0.001	0.005
1,4-Dichlorobenzene	11/08/12	N.D.	mg/kg	0.001	0.005

Fraction: Volatiles by GC/MS

A123131AA	Dibromofluoromethane		1,2-Dichloroethane-d4		Toluene-d8		4-Bromofluorobenzene	
	Spike Added	50 ug/kg	Spike Added	50 ug/kg	Spike Added	50 ug/kg	Spike Added	50 ug/kg
	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLKA25	94	50 - 141	99	54 - 135	97	52 - 141	94	50 - 131
LCSA25	94	50 - 141	97	54 - 135	100	52 - 141	98	50 - 131
LCDA25	96	50 - 141	97	54 - 135	100	52 - 141	98	50 - 131
6850762 MS	97	50 - 141	97	54 - 135	107	52 - 141	88	50 - 131
6850762	96	50 - 141	106	54 - 135	98	52 - 141	93	50 - 131
6850763	95	50 - 141	98	54 - 135	106	52 - 141	81	50 - 131
6850766	97	50 - 141	104	54 - 135	98	52 - 141	93	50 - 131
6850767	98	50 - 141	100	54 - 135	107	52 - 141	79	50 - 131
6850768	97	50 - 141	98	54 - 135	107	52 - 141	79	50 - 131
6850769	98	50 - 141	102	54 - 135	106	52 - 141	78	50 - 131

B123122AA	Dibromofluoromethane		1,2-Dichloroethane-d4		Toluene-d8		4-Bromofluorobenzene	
	Spike Added	50 ug/kg	Spike Added	50 ug/kg	Spike Added	50 ug/kg	Spike Added	50 ug/kg
	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLKB84	105	50 - 141	101	54 - 135	98	52 - 141	91	50 - 131
LCSB84	103	50 - 141	103	54 - 135	104	52 - 141	100	50 - 131
LCDB84	101	50 - 141	104	54 - 135	102	52 - 141	100	50 - 131
6850733 MS	103	50 - 141	102	54 - 135	103	52 - 141	100	50 - 131
6850733	102	50 - 141	101	54 - 135	99	52 - 141	90	50 - 131
6850734	103	50 - 141	102	54 - 135	99	52 - 141	88	50 - 131
6850735	104	50 - 141	103	54 - 135	99	52 - 141	90	50 - 131
6850736	105	50 - 141	104	54 - 135	99	52 - 141	90	50 - 131
6850740	103	50 - 141	101	54 - 135	101	52 - 141	90	50 - 131
6850742	106	50 - 141	103	54 - 135	99	52 - 141	88	50 - 131
6850743	106	50 - 141	102	54 - 135	99	52 - 141	89	50 - 131
6850746	106	50 - 141	103	54 - 135	99	52 - 141	90	50 - 131
6850748	106	50 - 141	104	54 - 135	100	52 - 141	92	50 - 131
6850749	105	50 - 141	102	54 - 135	100	52 - 141	90	50 - 131
6850751	107	50 - 141	105	54 - 135	99	52 - 141	90	50 - 131
6850752	106	50 - 141	102	54 - 135	98	52 - 141	89	50 - 131
6850754	108	50 - 141	103	54 - 135	99	52 - 141	91	50 - 131
6850755	107	50 - 141	102	54 - 135	99	52 - 141	89	50 - 131
6850757	110	50 - 141	109	54 - 135	98	52 - 141	88	50 - 131
6850758	111	50 - 141	111	54 - 135	98	52 - 141	88	50 - 131

B123131AA	Dibromofluoromethane		1,2-Dichloroethane-d4		Toluene-d8		4-Bromofluorobenzene	
	Spike Added	50 ug/kg	Spike Added	50 ug/kg	Spike Added	50 ug/kg	Spike Added	50 ug/kg
	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits

Fraction: Volatiles by GC/MS

B123131AA Sample	Dibromofluoromethane		1,2-Dichloroethane-d4		Toluene-d8		4-Bromofluorobenzene	
	Spike Added	50 ug/kg	Spike Added	50 ug/kg	Spike Added	50 ug/kg	Spike Added	50 ug/kg
	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLKB85	106	50 - 141	105	54 - 135	99	52 - 141	90	50 - 131
LCSB85	104	50 - 141	107	54 - 135	103	52 - 141	101	50 - 131
6850739	105	50 - 141	105	54 - 135	99	52 - 141	92	50 - 131
6850745	108	50 - 141	105	54 - 135	98	52 - 141	88	50 - 131
6850760	109	50 - 141	106	54 - 135	105	52 - 141	79	50 - 131
6850761	109	50 - 141	112	54 - 135	98	52 - 141	88	50 - 131

GC/MS Volatiles

Fraction: Volatiles by GC/MS

UNSPK: 6850762 MS: 6850762	Batch: A123131AA (Sample number(s): 6850762-6850763, 6850766-6850769)								
Analyte	Spike Added ug/kg	Unspiked Conc ug/kg	MS Conc ug/kg	MSD Conc ug/kg	MS %Rec	MSD %Rec	%Rec Limits	%RPD	%RPD Limits
Vinyl Chloride	20.96	N.D.	19.76	NA	94	NA	50-154	NA	NA
1,1-Dichloroethene	20.96	N.D.	22.62	NA	108	NA	61-149	NA	NA
Acetone	157.23	N.D.	316.03	NA	201 *	NA	31-195	NA	NA
1,1,1-Trichloroethane	20.96	N.D.	19.56	NA	93	NA	64-142	NA	NA
1,1-Dichloroethane	20.96	N.D.	19.77	NA	94	NA	63-142	NA	NA
1,2-Dichloroethane	20.96	N.D.	18.19	NA	87	NA	68-131	NA	NA
1,4-Dioxane	524.1	N.D.	806.04	NA	154	NA	39-180	NA	NA
2-Butanone	157.23	N.D.	165.31	NA	105	NA	37-163	NA	NA
Benzene	20.96	N.D.	20.17	NA	96	NA	55-143	NA	NA
Carbon Tetrachloride	20.96	N.D.	20.14	NA	96	NA	45-153	NA	NA
Chloroform	20.96	N.D.	18.79	NA	90	NA	61-142	NA	NA
cis-1,2-Dichloroethene	20.96	N.D.	20.53	NA	98	NA	60-136	NA	NA
Methyl Tertiary Butyl Ether	20.96	N.D.	17.53	NA	84	NA	55-129	NA	NA
Methylene Chloride	20.96	N.D.	20.	NA	95	NA	61-141	NA	NA
Toluene	20.96	N.D.	22.02	NA	105	NA	50-146	NA	NA
trans-1,2-Dichloroethene	20.96	N.D.	21.06	NA	100	NA	59-142	NA	NA
Trichloroethene	20.96	N.D.	20.25	NA	97	NA	53-144	NA	NA
Tetrachloroethene	20.96	N.D.	21.49	NA	102	NA	42-149	NA	NA
Chlorobenzene	20.96	N.D.	19.92	NA	95	NA	49-135	NA	NA
Ethylbenzene	20.96	N.D.	20.46	NA	98	NA	44-141	NA	NA
n-Propylbenzene	20.96	N.D.	24.45	NA	117	NA	39-157	NA	NA
Xylene (Total)	62.89	N.D.	59.95	NA	95	NA	44-136	NA	NA
1,3,5-Trimethylbenzene	20.96	N.D.	23.19	NA	111	NA	38-150	NA	NA
1,2,4-Trimethylbenzene	20.96	N.D.	22.1	NA	105	NA	37-149	NA	NA
sec-Butylbenzene	20.96	N.D.	21.23	NA	101	NA	33-157	NA	NA
tert-Butylbenzene	20.96	N.D.	22.21	NA	106	NA	41-152	NA	NA
1,2-Dichlorobenzene	20.96	N.D.	17.9	NA	85	NA	36-133	NA	NA
1,3-Dichlorobenzene	20.96	N.D.	19.54	NA	93	NA	34-134	NA	NA
1,4-Dichlorobenzene	20.96	N.D.	18.87	NA	90	NA	35-136	NA	NA
n-Butylbenzene	20.96	N.D.	17.99	NA	86	NA	30-146	NA	NA

UNSPK: 6850733 MS: 6850733	Batch: B123122AA (Sample number(s): 6850733-6850736, 6850740, 6850742-6850743, 6850746, 6850748-6850749, 6850751-6850752, 6850754-6850755, 6850757-6850758)								
Analyte	Spike Added ug/kg	Unspiked Conc ug/kg	MS Conc ug/kg	MSD Conc ug/kg	MS %Rec	MSD %Rec	%Rec Limits	%RPD	%RPD Limits
Vinyl Chloride	19.65	N.D.	16.3	NA	83	NA	50-154	NA	NA
1,1-Dichloroethene	19.65	N.D.	19.41	NA	99	NA	61-149	NA	NA

Comments:

(2) The unspiked sample result is greater than four times the spike added.

* = Out of Specification

Results are being reported on an as received basis.

GC/MS Volatiles

Fraction: Volatiles by GC/MS

UNSPK: 6850733 MS: 6850733	Batch: B123122AA (Sample number(s): 6850733-6850736, 6850740, 6850742-6850743, 6850746, 6850748-6850749, 6850751-6850752, 6850754-6850755, 6850757-6850758)								
	Spike Added ug/kg	Unspiked Conc ug/kg	MS Conc ug/kg	MSD Conc ug/kg	MS %Rec	MSD %Rec	%Rec Limits	%RPD	
Analyte									%RPD Limits
Acetone	147.34	N.D.	192.7	NA	131	NA	31-195	NA	NA
1,1,1-Trichloroethane	19.65	N.D.	20.91	NA	106	NA	64-142	NA	NA
1,1-Dichloroethane	19.65	N.D.	18.92	NA	96	NA	63-142	NA	NA
1,2-Dichloroethane	19.65	N.D.	20.41	NA	104	NA	68-131	NA	NA
1,4-Dioxane	491.15	N.D.	375.24	NA	76	NA	39-180	NA	NA
2-Butanone	147.34	N.D.	166.16	NA	113	NA	37-163	NA	NA
Benzene	19.65	N.D.	18.15	NA	92	NA	55-143	NA	NA
Carbon Tetrachloride	19.65	N.D.	19.48	NA	99	NA	45-153	NA	NA
Chloroform	19.65	N.D.	18.5	NA	94	NA	61-142	NA	NA
cis-1,2-Dichloroethene	19.65	N.D.	18.23	NA	93	NA	60-136	NA	NA
Methyl Tertiary Butyl Ether	19.65	N.D.	19.12	NA	97	NA	55-129	NA	NA
Methylene Chloride	19.65	N.D.	19.81	NA	101	NA	61-141	NA	NA
Toluene	19.65	N.D.	18.11	NA	92	NA	50-146	NA	NA
trans-1,2-Dichloroethene	19.65	N.D.	19.01	NA	97	NA	59-142	NA	NA
Trichloroethene	19.65	N.D.	21.22	NA	108	NA	53-144	NA	NA
Tetrachloroethene	19.65	N.D.	30.38	NA	155 *	NA	42-149	NA	NA
Chlorobenzene	19.65	N.D.	17.79	NA	91	NA	49-135	NA	NA
Ethylbenzene	19.65	N.D.	17.94	NA	91	NA	44-141	NA	NA
n-Propylbenzene	19.65	N.D.	15.93	NA	81	NA	39-157	NA	NA
Xylene (Total)	58.94	N.D.	52.85	NA	90	NA	44-136	NA	NA
1,3,5-Trimethylbenzene	19.65	N.D.	18.57	NA	95	NA	38-150	NA	NA
1,2,4-Trimethylbenzene	19.65	N.D.	18.13	NA	92	NA	37-149	NA	NA
sec-Butylbenzene	19.65	N.D.	18.17	NA	92	NA	33-157	NA	NA
tert-Butylbenzene	19.65	N.D.	16.26	NA	83	NA	41-152	NA	NA
1,2-Dichlorobenzene	19.65	N.D.	17.37	NA	88	NA	36-133	NA	NA
1,3-Dichlorobenzene	19.65	N.D.	17.81	NA	91	NA	34-134	NA	NA
1,4-Dichlorobenzene	19.65	N.D.	17.57	NA	89	NA	35-136	NA	NA
n-Butylbenzene	19.65	N.D.	17.69	NA	90	NA	30-146	NA	NA

Comments:

(2) The unspiked sample result is greater than four times the spike added.

* = Out of Specification

Results are being reported on an as received basis.

**SDG: TAP03
Matrix: SOLID**

**GC/MS Volatiles
Fraction: Volatiles by GC/MS**

LCS: LCSA25 LCSD: LCDA25	Batch: A123131AA (Sample number(s): 6850762-6850763, 6850766-6850769)							
Analyte	Spike Added ug/kg	LCS Conc ug/kg	LCSD Conc ug/kg	LCS %Rec	LCSD %Rec	%Rec Limits	%RPD	%RPD Limits
Vinyl Chloride	20	14.65	14.76	73	74	53-120	1	30
1,1-Dichloroethene	20	17.9	18.23	90	91	73-129	2	30
Acetone	150	215.78	232.54	144	155	32-209	7	30
1,1,1-Trichloroethane	20	17.24	17.57	86	88	71-125	2	30
1,1-Dichloroethane	20	17.65	17.92	88	90	80-120	2	30
1,2-Dichloroethane	20	17.33	17.56	87	88	70-137	1	30
1,4-Dioxane	500	497.89	492.32	100	98	48-129	1	30
2-Butanone	150	148.53	156.1	99	104	37-155	5	30
Benzene	20	18.38	18.57	92	93	80-120	1	30
Carbon Tetrachloride	20	16.97	17.16	85	86	69-122	1	30
Chloroform	20	17.77	17.92	89	90	80-120	1	30
cis-1,2-Dichloroethene	20	19.13	19.5	96	98	80-120	2	30
Methyl Tertiary Butyl Ether	20	17.11	17.53	86	88	74-121	2	30
Methylene Chloride	20	18.57	18.62	93	93	76-124	0	30
Toluene	20	18.87	19.03	94	95	80-120	1	30
trans-1,2-Dichloroethene	20	18.4	18.62	92	93	79-120	1	30
Trichloroethene	20	18.57	18.6	93	93	80-120	0	30
Tetrachloroethene	20	19.43	19.2	97	96	78-126	1	30
Chlorobenzene	20	19.23	19.36	96	97	80-120	1	30
Ethylbenzene	20	19.15	19.32	96	97	80-120	1	30
n-Propylbenzene	20	19.92	19.95	100	100	77-120	0	30
Xylene (Total)	60	57.92	58.42	97	97	80-120	1	30
1,3,5-Trimethylbenzene	20	19.65	19.89	98	99	78-120	1	30
1,2,4-Trimethylbenzene	20	19.5	19.44	98	97	79-120	0	30
sec-Butylbenzene	20	19.75	19.96	99	100	75-120	1	30
tert-Butylbenzene	20	21.21	21.22	106	106	75-120	0	30
1,2-Dichlorobenzene	20	19.38	19.6	97	98	79-120	1	30
1,3-Dichlorobenzene	20	19.51	19.66	98	98	78-120	1	30
1,4-Dichlorobenzene	20	19.25	19.26	96	96	79-120	0	30
n-Butylbenzene	20	19.17	19.14	96	96	72-120	0	30

LCS: LCSB84 LCSD: LCDB84	Batch: B123122AA (Sample number(s): 6850733-6850736, 6850740, 6850742-6850743, 6850746, 6850748-6850749, 6850751-6850752, 6850754-6850755, 6850757-6850758)							
Analyte	Spike Added ug/kg	LCS Conc ug/kg	LCSD Conc ug/kg	LCS %Rec	LCSD %Rec	%Rec Limits	%RPD	%RPD Limits
Vinyl Chloride	20	19.26	18.62	96	93	53-120	3	30
1,1-Dichloroethene	20	21.48	20.69	107	103	73-129	4	30
Acetone	150	166.75	152.44	111	102	32-209	9	30
1,1,1-Trichloroethane	20	22.12	21.53	111	108	71-125	3	30
1,1-Dichloroethane	20	21	20.26	105	101	80-120	4	30
1,2-Dichloroethane	20	23.17	22.07	116	110	70-137	5	30

**SDG: TAP03
Matrix: SOLID**

**GC/MS Volatiles
Fraction: Volatiles by GC/MS**

LCS: LCSB84 LCSD: LCDB84		Batch: B123122AA (Sample number(s): 6850733-6850736, 6850740, 6850742-6850743, 6850746, 6850748-6850749, 6850751-6850752, 6850754-6850755, 6850757-6850758)						
Analyte	Spike Added ug/kg	LCS Conc ug/kg	LCSD Conc ug/kg	LCS %Rec	LCSD %Rec	%Rec Limits	%RPD	%RPD Limits
1,4-Dioxane	500	363.78	320.73	73	64	48-129	13	30
2-Butanone	150	162.67	152.28	108	102	37-155	7	30
Benzene	20	20.1	19.53	100	98	80-120	3	30
Carbon Tetrachloride	20	20.45	19.84	102	99	69-122	3	30
Chloroform	20	21.24	20.23	106	101	80-120	5	30
cis-1,2-Dichloroethene	20	20.24	19.68	101	98	80-120	3	30
Methyl Tertiary Butyl Ether	20	23.1	22.24	116	111	74-121	4	30
Methylene Chloride	20	24.4	22.98	122	115	76-124	6	30
Toluene	20	19.8	19.37	99	97	80-120	2	30
trans-1,2-Dichloroethene	20	21.21	20.47	106	102	79-120	4	30
Trichloroethene	20	19.97	19.53	100	98	80-120	2	30
Tetrachloroethene	20	21.08	21.05	105	105	78-126	0	30
Chlorobenzene	20	19.69	19.21	98	96	80-120	3	30
Ethylbenzene	20	20.05	19.38	100	97	80-120	3	30
n-Propylbenzene	20	17.34	16.96	87	85	77-120	2	30
Xylene (Total)	60	58.71	57.59	98	96	80-120	2	30
1,3,5-Trimethylbenzene	20	20.42	20.15	102	101	78-120	1	30
1,2,4-Trimethylbenzene	20	20.51	20.12	103	101	79-120	2	30
sec-Butylbenzene	20	20.03	19.91	100	100	75-120	1	30
tert-Butylbenzene	20	19.45	18.98	97	95	75-120	2	30
1,2-Dichlorobenzene	20	20	19.49	100	97	79-120	3	30
1,3-Dichlorobenzene	20	19.97	19.69	100	98	78-120	1	30
1,4-Dichlorobenzene	20	20.11	19.54	101	98	79-120	3	30
n-Butylbenzene	20	19.76	19.55	99	98	72-120	1	30

LCS: LCSB85		Batch: B123131AA (Sample number(s): 6850739, 6850745, 6850760-6850761)						
Analyte	Spike Added ug/kg	LCS Conc ug/kg	LCSD Conc ug/kg	LCS %Rec	LCSD %Rec	%Rec Limits	%RPD	%RPD Limits
Vinyl Chloride	20	17.13	NA	86	NA	53-120	NA	NA
1,1-Dichloroethene	20	20.06	NA	100	NA	73-129	NA	NA
Acetone	150	232.11	NA	155	NA	32-209	NA	NA
1,1,1-Trichloroethane	20	22.17	NA	111	NA	71-125	NA	NA
1,1-Dichloroethane	20	20.15	NA	101	NA	80-120	NA	NA
1,2-Dichloroethane	20	23.24	NA	116	NA	70-137	NA	NA
1,4-Dioxane	500	343.82	NA	69	NA	48-129	NA	NA
2-Butanone	150	209.75	NA	140	NA	37-155	NA	NA
Benzene	20	19.29	NA	96	NA	80-120	NA	NA
Carbon Tetrachloride	20	20.18	NA	101	NA	69-122	NA	NA
Chloroform	20	20.17	NA	101	NA	80-120	NA	NA
cis-1,2-Dichloroethene	20	19.77	NA	99	NA	80-120	NA	NA

**SDG: TAP03
Matrix: SOLID**

**GC/MS Volatiles
Fraction: Volatiles by GC/MS**

Analyte	Batch: B123131AA (Sample number(s): 6850739, 6850745, 6850760-6850761)							
	Spike Added ug/kg	LCS Conc ug/kg	LCSD Conc ug/kg	LCS %Rec	LCSD %Rec	%Rec Limits	%RPD	%RPD Limits
Methyl Tertiary Butyl Ether	20	23.37	NA	117	NA	74-121	NA	NA
Methylene Chloride	20	21.41	NA	107	NA	76-124	NA	NA
Toluene	20	19.3	NA	97	NA	80-120	NA	NA
trans-1,2-Dichloroethene	20	20.18	NA	101	NA	79-120	NA	NA
Trichloroethene	20	19.46	NA	97	NA	80-120	NA	NA
Tetrachloroethene	20	20.07	NA	100	NA	78-126	NA	NA
Chlorobenzene	20	19.21	NA	96	NA	80-120	NA	NA
Ethylbenzene	20	19.04	NA	95	NA	80-120	NA	NA
n-Propylbenzene	20	16.58	NA	83	NA	77-120	NA	NA
Xylene (Total)	60	57.17	NA	95	NA	80-120	NA	NA
1,3,5-Trimethylbenzene	20	19.63	NA	98	NA	78-120	NA	NA
1,2,4-Trimethylbenzene	20	19.57	NA	98	NA	79-120	NA	NA
sec-Butylbenzene	20	19.16	NA	96	NA	75-120	NA	NA
tert-Butylbenzene	20	18.28	NA	91	NA	75-120	NA	NA
1,2-Dichlorobenzene	20	19.02	NA	95	NA	79-120	NA	NA
1,3-Dichlorobenzene	20	19.03	NA	95	NA	78-120	NA	NA
1,4-Dichlorobenzene	20	18.93	NA	95	NA	79-120	NA	NA
n-Butylbenzene	20	19.25	NA	96	NA	72-120	NA	NA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:
Lab Code: LANCAS Case No.: SAS No.: SDG No.: TAP03
Lab File ID: ac09t01.d BFB Injection Date: 10/09/12
Instrument ID: HP09685 BFB Injection Time: 10:48
Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.07
75	30.0 - 60.0% of mass 95	51.89
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.95
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	86.23
175	5.0 - 9.0% of mass 174	6.32 (7.33)1
176	Greater than 95.0%, but less than 101.0% of mass 174	83.89 (97.29)1
177	5.0 - 9.0% of mass 176	5.59 (6.67)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD300	ac09i01.d	10/09/12	11:14
02	VSTD100	ac09i02.d	10/09/12	11:38
03	VSTD50	ac09i03.d	10/09/12	12:04
04	VSTD4	ac09i06.d	10/09/12	13:46
05	VSTD001	ac09m01.d	10/09/12	14:27
06	VSTD20	ac09i07.d	10/09/12	15:43
07	VSTD10	ac09i08.d	10/09/12	16:06
08	LCSAICV	ac09v01a.d	10/09/12	16:55

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:
Lab Code: LANCAS Case No.: SAS No.: SDG No.: TAP03
Lab File ID: an08t01.d BFB Injection Date: 11/08/12
Instrument ID: HP09685 BFB Injection Time: 00:08
Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.32
75	30.0 - 60.0% of mass 95	48.73
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.98
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	90.09
175	5.0 - 9.0% of mass 174	6.52 (7.24)1
176	Greater than 95.0%, but less than 101.0% of mass 174	85.85 (95.29)1
177	5.0 - 9.0% of mass 176	5.50 (6.41)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	an08c01.d	11/08/12	00:31
02	VBLKA25	an08b01.d	11/08/12	01:17
03	LCSA25	an08l01.d	11/08/12	01:39
04	LCDA25	an08l02.d	11/08/12	02:02
05	6850762	an08s01.d	11/08/12	03:35
06	6850763	an08s02.d	11/08/12	03:57
07	6850766	an08s03.d	11/08/12	04:20
08	6850768	an08s05.d	11/08/12	05:05
09	6847382	an08s07.d	11/08/12	05:51
10	6850762MS	an08s21.d	11/08/12	06:14
11	6850767	an08s22.d	11/08/12	06:36
12	6850769	an08s23.d	11/08/12	07:28
13	6847386	an08s08.d	11/08/12	07:50
14	6847387	an08s09.d	11/08/12	08:13
15	6847389	an08s10.d	11/08/12	08:35
16	6847390	an08s11.d	11/08/12	08:58
17	6847392	an08s12.d	11/08/12	09:21
18	6847393	an08s13.d	11/08/12	09:43
19	6847384	an08s14.d	11/08/12	10:06
20	6847385	an08s15.d	11/08/12	10:29
21	6847388	an08s16.d	11/08/12	10:51
22	6847394	an08s17.d	11/08/12	11:14

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:
Lab Code: LANCAS Case No.: SAS No.: SDG No.: TAP03
Lab File ID: an08t01.d BFB Injection Date: 11/08/12
Instrument ID: HP09685 BFB Injection Time: 00:08
Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.32
75	30.0 - 60.0% of mass 95	48.73
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.98
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	90.09
175	5.0 - 9.0% of mass 174	6.52 (7.24)1
176	Greater than 95.0%, but less than 101.0% of mass 174	85.85 (95.29)1
177	5.0 - 9.0% of mass 176	5.50 (6.41)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	6846160	an08s19.d	11/08/12	11:37
24	6847259	an08s20.d	11/08/12	11:59

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:
Lab Code: LANCAS Case No.: SAS No.: SDG No.: TAP03
Lab File ID: bc04t01.d BFB Injection Date: 10/04/12
Instrument ID: HP09953 BFB Injection Time: 15:01
Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.93
75	30.0 - 60.0% of mass 95	53.70
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.75
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	81.31
175	5.0 - 9.0% of mass 174	6.17 (7.59)1
176	Greater than 95.0%, but less than 101.0% of mass 174	77.80 (95.68)1
177	5.0 - 9.0% of mass 176	5.22 (6.71)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD300	bc04i01.d	10/04/12	15:15
02	VSTD100	bc04i02.d	10/04/12	15:38
03	VSTD50	bc04i03.d	10/04/12	16:31
04	VSTD20	bc04i04.d	10/04/12	16:55
05	VSTD10	bc04i05.d	10/04/12	17:21
06	VSTD4	bc04i06.d	10/04/12	17:43
07	MDL001 - MDL001	bc04m01.d	10/04/12	18:21
08	LGBICV	bc04v01.d	10/04/12	18:46

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:
Lab Code: LANCAS Case No.: SAS No.: SDG No.: TAP03
Lab File ID: bn07t11.d BFB Injection Date: 11/07/12
Instrument ID: HP09953 BFB Injection Time: 20:48
Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.00
75	30.0 - 60.0% of mass 95	55.32
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.80
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	83.26
175	5.0 - 9.0% of mass 174	6.20 (7.45)1
176	Greater than 95.0%, but less than 101.0% of mass 174	81.02 (97.30)1
177	5.0 - 9.0% of mass 176	5.33 (6.58)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	bn07c11.d	11/07/12	21:58
02	VBLKB84	bn07b10a.d	11/07/12	22:21
03	LCSB84	bn07l10.d	11/07/12	22:44
04	LCDB84	bn07l11.d	11/07/12	23:07
05	6850733	bn07s30.d	11/07/12	23:51
06	6850734	bn07s31.d	11/08/12	00:14
07	6850735	bn07s32.d	11/08/12	00:36
08	6850736	bn07s33.d	11/08/12	00:59
09	6850733MS	bn07s50.d	11/08/12	01:45
10	6850740	bn07s35.d	11/08/12	02:07
11	6850742	bn07s36.d	11/08/12	02:30
12	6850743	bn07s37.d	11/08/12	02:53
13	6850746	bn07s38.d	11/08/12	03:15
14	6850748	bn07s39.d	11/08/12	05:45
15	6850749	bn07s40.d	11/08/12	06:08
16	6850751	bn07s41.d	11/08/12	06:30
17	6850752	bn07s42.d	11/08/12	06:53
18	6850754	bn07s43.d	11/08/12	07:16
19	6850755	bn07s44.d	11/08/12	07:38
20	6850757	bn07s45.d	11/08/12	08:01
21	6850758	bn07s46.d	11/08/12	08:24

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:
Lab Code: LANCAS Case No.: SAS No.: SDG No.: TAP03
Lab File ID: bn08t01.d BFB Injection Date: 11/08/12
Instrument ID: HP09953 BFB Injection Time: 09:15
Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.04
75	30.0 - 60.0% of mass 95	56.57
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.58
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	82.86
175	5.0 - 9.0% of mass 174	6.24 (7.53)1
176	Greater than 95.0%, but less than 101.0% of mass 174	80.57 (97.24)1
177	5.0 - 9.0% of mass 176	5.49 (6.82)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	bn08c01.d	11/08/12	09:38
02	VSTD50	bn08c02.d	11/08/12	10:01
03	VBLKB85	bn08b01.d	11/08/12	10:24
04	LCSB85	bn08s01.d	11/08/12	10:53
05	LCSB86	bn08s02.d	11/08/12	11:34
06	LCDB86	bn08s03.d	11/08/12	11:57
07	6850739	bn08s04.d	11/08/12	12:37
08	6850760	bn08s05.d	11/08/12	13:08
09	6850745	bn08s07.d	11/08/12	13:54
10	6847401	bn08s08.d	11/08/12	14:16
11	6847401MS	bn08s09.d	11/08/12	14:39
12	6847401MSD	bn08s10.d	11/08/12	15:02
13	6850761	bn08s26.d	11/08/12	15:25
14	6845401RE	bn08s11.d	11/08/12	15:48
15	6847395	bn08s12.d	11/08/12	16:10
16	6847402	bn08s13.d	11/08/12	16:33
17	6847403	bn08s14.d	11/08/12	16:56
18	6847404	bn08s15.d	11/08/12	17:19
19	6847405	bn08s16.d	11/08/12	17:41
20	6847408	bn08s18.d	11/08/12	18:27
21	6847409	bn08s19.d	11/08/12	18:50
22	6847410	bn08s20.d	11/08/12	19:12

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:
Lab Code: LANCAS Case No.: SAS No.: SDG No.: TAP03
Lab File ID: bn08t01.d BFB Injection Date: 11/08/12
Instrument ID: HP09953 BFB Injection Time: 09:15
Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	24.04
75	30.0 - 60.0% of mass 95	56.57
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.58
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	82.86
175	5.0 - 9.0% of mass 174	6.24 (7.53)1
176	Greater than 95.0%, but less than 101.0% of mass 174	80.57 (97.24)1
177	5.0 - 9.0% of mass 176	5.49 (6.82)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	6847411	bn08s21.d	11/08/12	19:35
24	6847414	bn08s22.d	11/08/12	19:58
25	6847407	bn08s24.d	11/08/12	20:20
26	6847398	bn08s25.d	11/08/12	20:43

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: HP09685 Calibration Date(s): 10/09/12 10/09/12

Heated Purge: (Y/N) Y Calibration Times: 11:14 16:06

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID:		RRF 4 = ac09i06.d		RRF 10= ac09i08.d		RRF 20= ac09i07.d				
RRF 50= ac09i03.d		RRF100= ac09i02.d		RRF300= ac09i01.d		RRF =				
COMPOUND	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	RRF	% RSD	CAL. METHOD
Dichlorodifluoromethane	0.4193	0.4488	0.5090	0.4388	0.4519	0.4725		0.4567	7	AVG
Chloromethane	#0.4035	0.4099	0.4529	0.3883	0.3782	0.4057		0.4064	6	AVG
Vinyl Chloride	*0.3829	0.3882	0.4321	0.3769	0.3760	0.3927		0.3914	5	AVG
Bromomethane	0.2327	0.2503	0.2690	0.2389	0.2511	0.2312		0.2455	6	AVG
Chloroethane	0.2096	0.2112	0.2327	0.2043	0.2096	0.1940		0.2102	6	AVG
Dichlorofluoromethane	0.4996	0.5546	0.5573	0.5130	0.5238	0.5241		0.5287	4	AVG
Trichlorofluoromethane	0.4186	0.4694	0.5127	0.4510	0.4761	0.4812		0.4682	7	AVG
Ethanol	0.1293	0.1150	0.1289	0.1138	0.1114	0.1536		0.1253	13	AVG
Freon 123a	0.3245	0.3585	0.3597	0.3330	0.3375	0.3436		0.3428	4	AVG
Acrolein	2.4249	2.5693	2.5667	2.1201	2.3834	2.3250		2.3982	7	AVG
1,1-Dichloroethene	*0.2251	0.2524	0.2401	0.2465	0.2438	0.2491		0.2429	4	AVG
Acetone	0.0378	0.0358	0.0322	0.0330	0.0296	0.0263		0.0325	13	AVG
Freon 113	0.2355	0.2545	0.2733	0.2834	0.2784	0.2823		0.2679	7	AVG
2-Propanol	0.7770	0.9450	0.9666	0.8366	0.8769	0.8617		0.8773	8	AVG
Methyl Iodide	0.4101	0.4606	0.4559	0.4637	0.4610	0.4678		0.4532	5	AVG
Carbon Disulfide	0.8297	0.9025	0.8940	0.9032	0.8903	0.9058		0.8876	3	AVG
Methyl Acetate	0.2379	0.2437	0.2226	0.2366	0.2102	0.1900		0.2235	9	AVG
Allyl Chloride	0.4052	0.4428	0.4326	0.4437	0.4492	0.4470		0.4367	4	AVG
Methylene Chloride	0.3417	0.3114	0.2936	0.2914	0.2846	0.2819		0.3008	8	AVG
t-Butyl alcohol	1.2835	1.4111	1.3784	1.2999	1.3734	1.3224		1.3448	4	AVG
Acrylonitrile	0.1170	0.1306	0.1183	0.1262	0.1142	0.1076		0.1190	7	AVG
Methyl Tertiary Butyl Ether	0.7900	0.8695	0.8442	0.8907	0.8579	0.8239		0.8461	4	AVG
trans-1,2-Dichloroethene	0.2573	0.2789	0.2782	0.2780	0.2803	0.2811		0.2756	3	AVG
n-Hexane	0.3872	0.4091	0.4232	0.4791	0.4837	0.4834		0.4443	10	AVG
1,1-Dichloroethane	#0.4966	0.5568	0.5470	0.5544	0.5514	0.5529		0.5432	4	AVG
di-Isopropyl ether	0.9194	1.0249	1.0197	1.0400	1.0351	1.0066		1.0076	4	AVG
2-Chloro-1,3-butadiene	0.3712	0.4403	0.4488	0.4746	0.4809	0.4939		0.4516	10	AVG
Ethyl t-butyl ether	0.7851	0.8837	0.8835	0.9365	0.9257	0.9012		0.8860	6	AVG
2-Butanone	0.1490	0.1686	0.1496	0.1657	0.1466	0.1309		0.1517	9	AVG
cis-1,2-Dichloroethene	0.2712	0.3038	0.2997	0.3026	0.3035	0.3035		0.2974	4	AVG
1,2-Dichloroethene (Total)	0.2643	0.2914	0.2890	0.2903	0.2919	0.2923		0.2865	4	AVG
2,2-Dichloropropane	0.3697	0.4248	0.4194	0.4465	0.4514	0.4598		0.4286	8	AVG
Propionitrile	1.6916	1.8188	1.8743	1.6028	1.7625	1.6945		1.7407	6	AVG
Methacrylonitrile	0.1147	0.1289	0.1216	0.1308	0.1186	0.1102		0.1208	7	AVG
Bromochloromethane	0.1340	0.1406	0.1351	0.1379	0.1381	0.1358		0.1369	2	AVG
Tetrahydrofuran	1.3388	1.5606	1.4956	1.3178	1.4443	1.4206		1.4296	6	AVG
Chloroform	*0.5218	0.5435	0.5227	0.5204	0.5150	0.5168		0.5234	2	AVG
1,1,1-Trichloroethane	0.4742	0.4733	0.4781	0.4707	0.4703	0.4857		0.4754	1	AVG
Cyclohexane	0.4434	0.4749	0.5052	0.5546	0.5527	0.5569		0.5146	9	AVG
Cyclohexane(2)	0.3466	0.3838	0.4037	0.4414	0.4424	0.4491		0.4111	10	AVG
Cyclohexane(3)	0.1230	0.1374	0.1476	0.1627	0.1612	0.1647		0.1494	11	AVG
1,1-Dichloropropene	0.3482	0.4015	0.3975	0.4176	0.4202	0.4266		0.4019	7	AVG
Carbon Tetrachloride	0.3225	0.3565	0.3724	0.3918	0.3985	0.4172		0.3765	9	AVG
Isobutyl Alcohol	0.4737	0.5386	0.5019	0.4658	0.5054	0.4761		0.4936	6	AVG
Benzene	1.0913	1.1907	1.1607	1.1772	1.1693	1.1430		1.1554	3	AVG
1,2-Dichloroethane	0.3895	0.4308	0.4155	0.4187	0.4103	0.4049		0.4116	3	AVG
1,2-Dichloroethane(2)	0.0299	0.0360	0.0341	0.0345	0.0336	0.0338		0.0337	6	AVG
t-Amyl methyl ether	0.6989	0.7927	0.7818	0.8435	0.8265	0.8031		0.7911	6	AVG
n-Heptane	0.4818	0.4226	0.4425	0.5379	0.5516	0.5286		0.4942	11	AVG
n-Butanol	0.3415	0.3944	0.3833	0.3665	0.4107	0.3808		0.3795	6	AVG
Trichloroethene	0.2635	0.2915	0.2889	0.2989	0.2981	0.3047		0.2910	5	AVG
Methylcyclohexane	0.4011	0.4530	0.4582	0.4920	0.4994	0.4972		0.4668	8	AVG

Minimum RRF for SPCC(#) = 0.10
(0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)

Maximum %RSD for CCC(*) = 30%

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract: _____
Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____
Instrument ID: HP09685 Calibration Date(s): 10/09/12 10/09/12
Heated Purge: (Y/N) Y Calibration Times: 11:14 16:06
Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 4 = ac09i06.d RRF 10= ac09i08.d RRF 20= ac09i07.d
RRF 50= ac09i03.d RRF100= ac09i02.d RRF300= ac09i01.d RRF =

COMPOUND	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	RRF	% RSD	CAL. METHOD
1,2-Dichloropropane	*0.2857	0.3236	0.3120	0.3204	0.3189	0.3143		0.3125	4	AVG *
Methyl Methacrylate	0.1700	0.1974	0.1985	0.2260	0.2103	0.2027		0.2008	9	AVG
1,4-Dioxane	0.1076	0.1257	0.1287	0.1138	0.1205	0.1351		0.1219	8	AVG
Dibromomethane	0.1649	0.1838	0.1793	0.1840	0.1796	0.1763		0.1780	4	AVG
Bromodichloromethane	0.2996	0.3488	0.3495	0.3707	0.3793	0.3888		0.3561	9	AVG
2-Nitropropane	2.6791	3.1356	3.2909	3.0105	3.5320	3.5655		3.2023	10	AVG
cis-1,3-Dichloropropene	0.3590	0.4120	0.4267	0.4663	0.4706	0.4726		0.4346	10	AVG
4-Methyl-2-pentanone	0.2778	0.3464	0.3193	0.3509	0.3170	0.2778		0.3149	10	AVG
Toluene	*0.9251	0.9761	0.9803	0.9944	0.9873	0.9736		0.9728	3	AVG *
trans-1,3-Dichloropropene	0.4717	0.5517	0.5640	0.6137	0.6115	0.6083		0.5702	10	AVG
Ethyl Methacrylate	0.3946	0.4567	0.4825	0.5562	0.5320	0.5063		0.4881	12	AVG
1,1,2-Trichloroethane	0.3144	0.3348	0.3290	0.3358	0.3239	0.3160		0.3256	3	AVG
Tetrachloroethene	0.3978	0.4340	0.4491	0.4611	0.4642	0.4756		0.4469	6	AVG
1,3-Dichloropropane	0.5592	0.6123	0.6037	0.6156	0.5998	0.5776		0.5947	4	AVG
2-Hexanone	0.2921	0.3591	0.3321	0.3574	0.3178	0.2717		0.3217	11	AVG
Dibromochloromethane	0.2917	0.3445	0.3570	0.3836	0.3867	0.3962		0.3600	11	AVG
1,2-Dibromoethane	0.3018	0.3430	0.3356	0.3561	0.3422	0.3357		0.3357	5	AVG
Chlorobenzene	#1.0160	1.1071	1.1121	1.1257	1.1197	1.1022		1.0971	4	AVG #
1,1,1,2-Tetrachloroethane	0.3254	0.3667	0.3794	0.3972	0.4030	0.4025		0.3790	8	AVG
Ethylbenzene	*1.6567	1.8180	1.8915	1.9500	1.9491	1.8203		1.8476	6	AVG *
m+p-Xylene	0.6386	0.7045	0.7312	0.7517	0.7498	0.7274		0.7172	6	AVG
o-Xylene	0.5878	0.6690	0.7052	0.7298	0.7321	0.7194		0.6906	8	AVG
Xylene (Total)	0.6217	0.6927	0.7226	0.7444	0.7439	0.7247		0.7083	7	AVG
Styrene	0.8843	1.0547	1.1428	1.2050	1.2182	1.1866		1.1153	11	AVG
Bromoform	#0.1887	0.2285	0.2423	0.2739	0.2741	0.2837		0.2485	15	AVG #
Isopropylbenzene	1.5261	1.7676	1.8254	1.9200	1.9335	1.8262		1.7998	8	AVG
Cyclohexanone	0.4155	0.5212	0.5416	0.5285	0.5505	0.4395		0.4995	11	AVG
1,1,2,2-Tetrachloroethane	#0.7691	0.8167	0.7918	0.8168	0.7667	0.7150		0.7793	5	AVG #
Bromobenzene	0.8052	0.8443	0.8601	0.8609	0.8645	0.8593		0.8490	3	AVG
trans-1,4-Dichloro-2-butene	0.2231	0.2437	0.2380	0.2585	0.2417	0.2183		0.2372	6	AVG
1,2,3-Trichloropropane	0.2314	0.2422	0.2321	0.2416	0.2238	0.2092		0.2300	5	AVG
n-Propylbenzene	3.4678	3.7691	3.8050	3.9566	3.9093	3.4281		3.7227	6	AVG
2-Chlorotoluene	0.7092	0.7718	0.7902	0.8043	0.8106	0.8093		0.7826	5	AVG
1,3,5-Trimethylbenzene	2.3605	2.6629	2.6993	2.8032	2.8323	2.6661		2.6707	6	AVG
4-Chlorotoluene	0.7446	0.8115	0.8267	0.8375	0.8419	0.8370		0.8165	5	AVG
tert-Butylbenzene	0.4992	0.5549	0.5664	0.6180	0.6342	0.6265		0.5832	9	AVG
Pentachloroethane	0.4657	0.5527	0.5588	0.5719	0.5847	0.5904		0.5540	8	AVG
1,2,4-Trimethylbenzene	2.5034	2.8163	2.8035	2.9194	2.9476	2.7424		2.7888	6	AVG
sec-Butylbenzene	3.0097	3.2179	3.3011	3.6227	3.6813	3.2640		3.3495	8	AVG
1,3-Dichlorobenzene	1.5073	1.6345	1.6498	1.6639	1.6678	1.5994		1.6205	4	AVG
p-Isopropyltoluene	2.6218	2.8825	2.9623	3.2538	3.3168	2.9862		3.0039	8	AVG
1,4-Dichlorobenzene	1.5966	1.6772	1.6690	1.6831	1.6902	1.6181		1.6557	2	AVG
1,2,3-Trimethylbenzene	2.7672	3.0495	2.9971	2.9907	2.9881	2.7420		2.9224	5	AVG
Benzyl Chloride	0.2350	0.2866	0.3108	0.3615	0.3624	0.3585		0.3191	16	1STDEG
1,3-Diethylbenzene	1.6325	1.9222	1.9506	1.9531	1.9803	1.8899		1.8881	7	AVG
1,4-Diethylbenzene	1.7372	1.9850	2.0242	2.0084	2.0441	1.9294		1.9547	6	AVG
n-Butylbenzene	1.4136	1.4440	1.4835	1.6140	1.6493	1.5602		1.5274	6	AVG
1,2-Dichlorobenzene	1.4648	1.5492	1.5482	1.5636	1.5649	1.5159		1.5344	3	AVG
1,2-Diethylbenzene	1.4728	1.6586	1.6495	1.6240	1.6677	1.5948		1.6112	5	AVG
1,2-Dibromo-3-chloropropane	0.1360	0.1472	0.1437	0.1679	0.1590	0.1508		0.1508	8	AVG
1,3,5-Trichlorobenzene	1.2294	1.2966	1.2776	1.3662	1.4164	1.3830		1.3282	5	AVG
1,2,4-Trichlorobenzene	0.9771	1.1074	1.1013	1.2070	1.2399	1.2110		1.1406	9	AVG

Minimum RRF for SPCC(#) = 0.10
(0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %RSD for CCC(*) = 30%

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract: _____
 Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____
 Instrument ID: HP09685 Calibration Date(s): 10/09/12 10/09/12
 Heated Purge: (Y/N) Y Calibration Times: 11:14 16:06
 Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: Rxi-624Sil .25

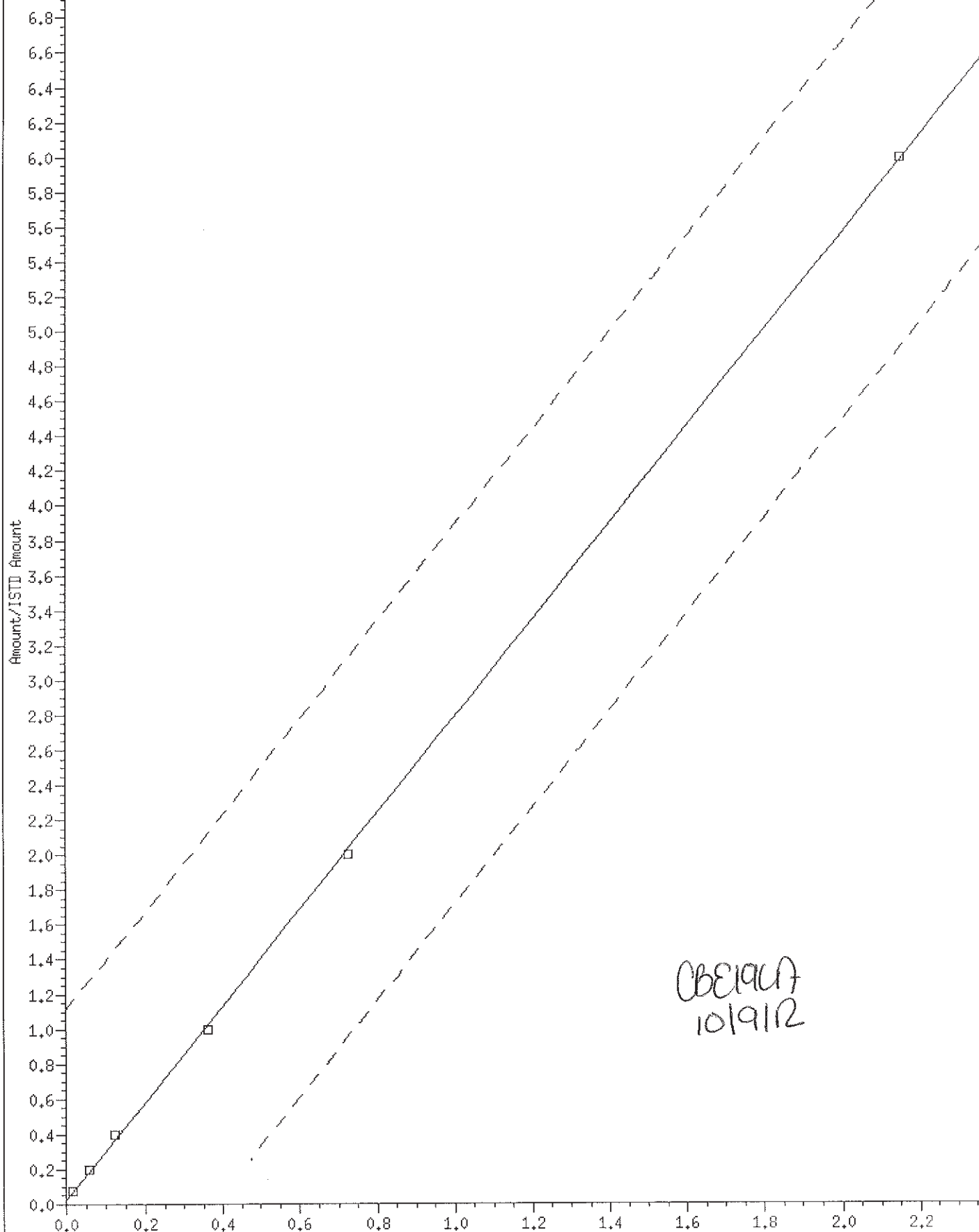
LAB FILE ID:		RRF 4 = ac09i06.d		RRF 10= ac09i08.d		RRF 20= ac09i07.d				
RRF 50= ac09i03.d		RRF100= ac09i02.d		RRF300= ac09i01.d		RRF =				
COMPOUND	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	RRF	% RSD	CAL. METHOD
Hexachlorobutadiene	0.6441	0.5591	0.5865	0.7317	0.7734	0.7731		0.6780	14	AVG
Naphthalene	1.9514	2.2982	2.3704	2.6740	2.6016	2.3515		2.3745	11	AVG
1,2,3-Trichlorobenzene	0.9571	1.0686	1.0560	1.1256	1.1355	1.0911		1.0723	6	AVG
2-Methylnaphthalene	0.6732	0.8980	0.9862	1.3516	1.3862	1.2936		1.0981	26	1STDEG
Dibromofluoromethane	0.2370	0.2406	0.2370	0.2384	0.2381	0.2424		0.2389	1	AVG
Dibromofluoromethane(2)	0.2429	0.2454	0.2416	0.2445	0.2455	0.2497		0.2450	1	AVG
1,2-Dichloroethane-d4	0.0556	0.0555	0.0545	0.0560	0.0559	0.0546		0.0553	1	AVG
1,2-Dichloroethane-d4(2)	0.3046	0.3094	0.2973	0.3051	0.2989	0.2974		0.3021	2	AVG
1,2-Dichloroethane-d4(3)	0.0350	0.0353	0.0346	0.0362	0.0352	0.0348		0.0352	2	AVG
Toluene-d8	1.3403	1.3387	1.3436	1.3318	1.3368	1.3314		1.3371	0	AVG
Toluene-d8(2)	0.8745	0.8785	0.8782	0.8754	0.8769	0.8717		0.8759	0	AVG
4-Bromofluorobenzene	0.5022	0.5010	0.4991	0.4999	0.4987	0.5019		0.5005	0	AVG
4-Bromofluorobenzene(2)	0.4422	0.4469	0.4478	0.4438	0.4418	0.4498		0.4454	1	AVG

Average %RSD 6

Minimum RRF for SPCC(#) = 0.10
 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
 Maximum %RSD for CCC(*) = 30%

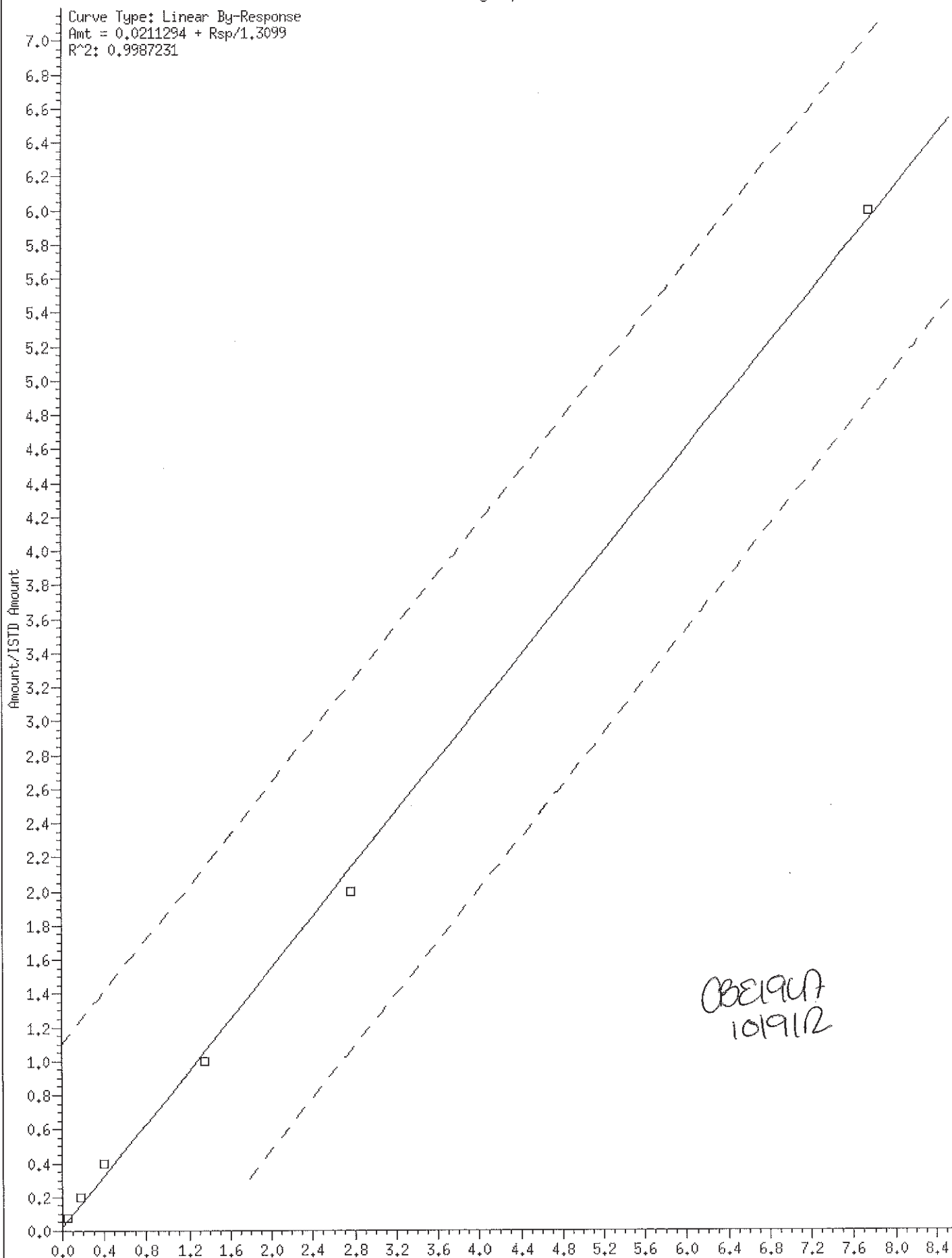
136 Benzyl Chloride

Curve Type: Linear By-Response
 Amt = 0.0257648 + Rsp/0.3609116
 R²: 0.9998743



OBEIACU
 10/9/12

150 2-Methylnaphthalene



Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

```
/chem2/HP09685.i/12oct09a.b/ac09i01.d VSTD300
/chem2/HP09685.i/12oct09a.b/ac09i02.d VSTD100
/chem2/HP09685.i/12oct09a.b/ac09i03.d VSTD050
/chem2/HP09685.i/12oct09a.b/ac09i07.d VSTD020
/chem2/HP09685.i/12oct09a.b/ac09i08.d VSTD010
/chem2/HP09685.i/12oct09a.b/ac09i06.d VSTD004
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Area Summary

File ID:

=====

Internal Standard Name	ac09i01.d	ac09i02.d	ac09i03.d	ac09i07.d	ac09i08.d	ac09i06.d	Avg. Area	%RSD	In Spec
t-Butyl alcohol-d10	153804	163922	207806	158111	171708	175816	171861	11	Yes
Fluorobenzene	1349744	1349034	1362489	1315915	1300414	1346182	1337296	2	Yes
Chlorobenzene-d5	998125	990374	1000244	958140	948685	979497	979178	2	Yes
1,4-Dichlorobenzene-d4	596035	581294	584655	559583	555075	564577	573536	3	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

=====

Internal Standard Name	ac09i01.d	ac09i02.d	ac09i03.d	ac09i07.d	ac09i08.d	ac09i06.d	Avg. RT
t-Butyl alcohol-d10	4.170	4.177	4.189	4.189	4.195	4.183	4.184
Fluorobenzene	7.681	7.687	7.687	7.687	7.681	7.681	7.684
Chlorobenzene-d5	11.179	11.179	11.179	11.179	11.179	11.179	11.179
1,4-Dichlorobenzene-d4	13.071	13.071	13.071	13.071	13.071	13.071	13.071

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 10/09/2012 at 16:34.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: HP09685 ICV Date: 10/09/12 Time: 16:55

Lab File ID: ac09v01a.d Init. Calib. Date(s): 10/09/12 10/09/12

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT
Dichlorodifluoromethane	0.4567	0.3442	15.07	20	-25
# Chloromethane	0.4064	0.3870	19.04	20	-5 #
* Vinyl Chloride	0.3914	0.3602	18.40	20	-8 *
Bromomethane	0.2455	0.2291	18.66	20	-7
Chloroethane	0.2102	0.1972	18.76	20	-6
Dichlorofluoromethane	0.5287	0.6196	23.44	20	17
Trichlorofluoromethane	0.4682	0.4500	19.23	20	-4
Ethanol	0.1253	0.1297	1035.24	1000	4
Freon 123a	0.3428	0.3798	22.16	20	11
Acrolein	2.3982	2.2804	142.63	150	-5
* 1,1-Dichloroethene	0.2429	0.2450	20.17	20	1 *
Acetone	0.0325	0.0334	154.10	150	3
Freon 113	0.2679	0.2689	20.07	20	0
2-Propanol	0.8773	0.8982	153.57	150	2
Methyl Iodide	0.4532	0.4319	19.06	20	-5
Carbon Disulfide	0.8876	0.8333	18.78	20	-6
Methyl Acetate	0.2235	0.2463	22.04	20	10
Allyl Chloride	0.4367	0.5122	23.46	20	17
Methylene Chloride	0.3008	0.2995	19.92	20	0
t-Butyl alcohol	1.3448	1.4253	211.97	200	6
Acrylonitrile	0.1190	0.1130	94.99	100	-5
Methyl Tertiary Butyl Ether	0.8461	0.8596	20.32	20	2
trans-1,2-Dichloroethene	0.2756	0.2760	20.02	20	0
n-Hexane	0.4443	0.4489	20.21	20	1
# 1,1-Dichloroethane	0.5432	0.5547	20.42	20	2 #
di-Isopropyl ether	1.0076	1.0249	20.34	20	2
2-Chloro-1,3-butadiene	0.4516	0.4485	19.86	20	-1
Ethyl t-butyl ether	0.8860	0.9018	20.36	20	2
2-Butanone	0.1517	0.1554	153.66	150	2
cis-1,2-Dichloroethene	0.2974	0.3109	20.91	20	5
1,2-Dichloroethene (Total)	0.2865	11.2182	40.93	40	2
2,2-Dichloropropane	0.4286	0.4330	20.21	20	1
Propionitrile	1.7407	1.7080	147.18	150	-2
Methacrylonitrile	0.1208	0.1209	150.11	150	0
Bromochloromethane	0.1369	0.1506	21.99	20	10
Tetrahydrofuran	1.4296	1.3994	97.89	100	-2

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)

Maximum %Drift for CCC(*)=20%

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract: _____
 Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____
 Instrument ID: HP09685 ICV Date: 10/09/12 Time: 16:55
 Lab File ID: ac09v01a.d Init. Calib. Date(s): 10/09/12 10/09/12
 Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT
* Chloroform	0.5234	0.5148	19.67	20	-2 *
1,1,1-Trichloroethane	0.4754	0.4536	19.09	20	-5
Cyclohexane	0.5146	0.5220	20.29	20	1
1,1-Dichloropropene	0.4019	0.3986	19.83	20	-1
Carbon Tetrachloride	0.3765	0.3697	19.64	20	-2
Isobutyl Alcohol	0.4936	0.4792	485.42	500	-3
Benzene	1.1554	1.1839	20.49	20	2
1,2-Dichloroethane	0.4116	0.4172	20.27	20	1
t-Amyl methyl ether	0.7911	0.8020	20.27	20	1
n-Heptane	0.4942	0.5075	20.54	20	3
n-Butanol	0.3795	0.3661	964.53	1000	-4
Trichloroethene	0.2910	0.2975	20.45	20	2
Methylcyclohexane	0.4668	0.5360	22.96	20	15
* 1,2-Dichloropropane	0.3125	0.3177	20.33	20	2 *
Methyl Methacrylate	0.2008	0.2016	20.08	20	0
1,4-Dioxane	0.1219	0.1192	489.12	500	-2
Dibromomethane	0.1780	0.1801	20.24	20	1
Bromodichloromethane	0.3561	0.3611	20.28	20	1
2-Nitropropane	3.2023	2.7996	17.48	20	-13
cis-1,3-Dichloropropene	0.4346	0.4771	21.96	20	10
4-Methyl-2-pentanone	0.3149	0.3133	99.49	100	-1
* Toluene	0.9728	0.9922	20.40	20	2 *
trans-1,3-Dichloropropene	0.5702	0.5740	20.13	20	1
Ethyl Methacrylate	0.4881	0.4984	20.43	20	2
1,1,2-Trichloroethane	0.3256	0.3379	20.75	20	4
Tetrachloroethene	0.4469	0.4618	20.67	20	3
1,3-Dichloropropane	0.5947	0.6054	20.36	20	2
2-Hexanone	0.3217	0.3121	97.02	100	-3
Dibromochloromethane	0.3600	0.3704	20.58	20	3
1,2-Dibromoethane	0.3357	0.3398	20.24	20	1
# Chlorobenzene	1.0971	1.1303	20.60	20	3 #
1,1,1,2-Tetrachloroethane	0.3790	0.3823	20.17	20	1
* Ethylbenzene	1.8476	1.9520	21.13	20	6 *
m+p-Xylene	0.7172	0.7536	42.03	40	5
o-Xylene	0.6906	0.7124	20.63	20	3
Xylene (Total)	0.7083	20.7535	62.66	60	4

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
 Maximum %Drift for CCC(*)=20%

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: HP09685 ICV Date: 10/09/12 Time: 16:55

Lab File ID: ac09v01a.d Init. Calib. Date(s): 10/09/12 10/09/12

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT
Styrene	1.1153	1.1699	20.98	20	5
# Bromoform	0.2485	0.2433	19.58	20	-2 #
Isopropylbenzene	1.7998	1.9044	21.16	20	6
Cyclohexanone	0.4995	0.4347	435.13	500	-13
# 1,1,2,2-Tetrachloroethane	0.7793	0.8142	20.89	20	4 #
Bromobenzene	0.8490	0.8723	20.55	20	3
trans-1,4-Dichloro-2-butene	0.2372	0.2477	104.42	100	4
1,2,3-Trichloropropane	0.2300	0.2362	20.53	20	3
n-Propylbenzene	3.7227	4.0128	21.56	20	8
2-Chlorotoluene	0.7826	0.8002	20.45	20	2
1,3,5-Trimethylbenzene	2.6707	2.8182	21.10	20	6
4-Chlorotoluene	0.8165	0.8557	20.96	20	5
tert-Butylbenzene	0.5832	0.6124	21.00	20	5
Pentachloroethane	0.5540	0.5370	19.39	20	-3
1,2,4-Trimethylbenzene	2.7888	2.9224	20.96	20	5
sec-Butylbenzene	3.3495	3.5853	21.41	20	7
1,3-Dichlorobenzene	1.6205	1.6943	20.91	20	5
p-Isopropyltoluene	3.0039	3.2239	21.46	20	7
1,4-Dichlorobenzene	1.6557	1.7088	20.64	20	3
1,2,3-Trimethylbenzene	2.9224	2.9577	20.24	20	1
Benzyl Chloride	0.3191	0.2974	17.77	20	-11
1,3-Diethylbenzene	1.8881	1.9022	20.15	20	1
1,4-Diethylbenzene	1.9547	1.9746	20.20	20	1
n-Butylbenzene	1.5274	1.6183	21.19	20	6
1,2-Dichlorobenzene	1.5344	1.5851	20.66	20	3
1,2-Diethylbenzene	1.6112	1.6010	19.87	20	-1
1,2-Dibromo-3-chloropropane	0.1508	0.1444	19.16	20	-4
1,3,5-Trichlorobenzene	1.3282	1.3802	20.78	20	4
1,2,4-Trichlorobenzene	1.1406	1.2030	21.09	20	5
Hexachlorobutadiene	0.6780	0.7146	21.08	20	5
Naphthalene	2.3745	2.4467	20.61	20	3
1,2,3-Trichlorobenzene	1.0723	1.1210	20.91	20	5
2-Methylnaphthalene	1.0981	1.0608	17.25	20	-14

Average %Drift 4

Minimum RRF for SPCC(=)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)

Maximum %Drift for CCC(*)=20%

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: HP09953 Calibration Date(s): 10/04/12 10/04/12

Heated Purge: (Y/N) Y Calibration Times: 15:15 17:43

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

LAB FILE ID: RRF 4 = bc04i06.d RRF 10= bc04i05.d RRF 20= bc04i04.d
 RRF 50= bc04i03.d RRF100= bc04i02.d RRF300= bc04i01.d RRF =

COMPOUND	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	RRF	% RSD	CAL. METHOD
Dichlorodifluoromethane	0.3343	0.5120	0.4725	0.4349	0.4522	0.4331		0.4398	14	AVG
Chloromethane	#0.3727	0.5087	0.4759	0.4312	0.4302	0.3907		0.4349	12	AVG #
Vinyl Chloride	*0.3155	0.4232	0.3917	0.3628	0.3616	0.3310		0.3643	11	AVG *
Bromomethane	0.2003	0.2666	0.2447	0.2273	0.2253	0.2060		0.2284	11	AVG
Chloroethane	0.1737	0.2255	0.2091	0.1874	0.1836	0.1593		0.1898	13	AVG
Dichlorofluoromethane	0.5370	0.5724	0.5555	0.5260	0.5056	0.4765		0.5289	7	AVG
Trichlorofluoromethane	0.3663	0.5247	0.4934	0.4606	0.4718	0.4639		0.4635	11	AVG
Ethanol	0.1392	0.1274	0.1332	0.1434	0.1383	0.1144		0.1327	8	AVG
Freon 123a	0.3217	0.3397	0.3295	0.3148	0.3076	0.2844		0.3163	6	AVG
Acrolein	1.7725	1.8544	1.8182	2.3156	2.0896	1.7648		1.9359	11	AVG
1,1-Dichloroethene	*0.2121	0.2266	0.2093	0.2161	0.2133	0.1959		0.2122	5	AVG *
Acetone	0.0286	0.0257	0.0239	0.0226	0.0202			0.0242	13	AVG
Freon 113	0.2382	0.2559	0.2426	0.2537	0.2571	0.2406		0.2480	3	AVG
2-Propanol	0.8462	0.9415	0.9099	0.9909	0.8787	0.8699		0.9062	6	AVG
Methyl Iodide	0.4243	0.4676	0.4380	0.4460	0.4407	0.4268		0.4406	4	AVG
Carbon Disulfide	0.6571	0.7417	0.6869	0.7284	0.7207	0.6628		0.6996	5	AVG
Methyl Acetate	0.2195	0.1940	0.1724	0.1565				0.1856	15	AVG
Allyl Chloride	0.4692	0.5006	0.4831	0.4514	0.4471	0.4175		0.4615	6	AVG
Methylene Chloride	0.2657	0.2704	0.2457	0.2418	0.2370	0.2179		0.2464	8	AVG
t-Butyl alcohol	1.2644	1.4742	1.2409	1.2864	1.2378	1.1034		1.2679	9	AVG
Acrylonitrile	0.0813	0.0860	0.0755	0.0890	0.0773	0.0762		0.0809	7	AVG
Methyl Tertiary Butyl Ether	0.6809	0.7468	0.6825	0.6747	0.6700	0.6794		0.6890	4	AVG
trans-1,2-Dichloroethene	0.2302	0.2580	0.2389	0.2421	0.2387	0.2290		0.2395	4	AVG
n-Hexane	0.4162	0.4224	0.4108	0.4276	0.4324	0.3908		0.4167	4	AVG
1,1-Dichloroethane	#0.5076	0.5515	0.5295	0.5379	0.5312	0.4971		0.5258	4	AVG #
di-Isopropyl ether	0.9471	1.0750	1.0121	1.0252	1.0122	0.9295		1.0002	5	AVG
2-Chloro-1,3-butadiene	0.4145	0.4730	0.4539	0.4790	0.4811	0.4643		0.4610	5	AVG
Ethyl t-butyl ether	0.7565	0.8491	0.8182	0.8320	0.8444	0.8084		0.8181	4	AVG
2-Butanone	0.1211	0.1406	0.1080	0.1397	0.1142	0.1182		0.1236	11	AVG
cis-1,2-Dichloroethene	0.2522	0.2887	0.2696	0.2755	0.2724	0.2619		0.2700	5	AVG
1,2-Dichloroethene (Total)	0.2412	0.2733	0.2542	0.2588	0.2556	0.2454		0.2548	4	AVG
2,2-Dichloropropane	0.3688	0.4091	0.3834	0.4115	0.4174	0.4105		0.4001	5	AVG
Propionitrile	1.5421	1.7082	1.6784	1.7752	1.7442	1.6221		1.6783	5	AVG
Methacrylonitrile	0.0841	0.0969	0.0882	0.0889	0.0868	0.0901		0.0892	5	AVG
Bromochloromethane	0.1249	0.1403	0.1329	0.1244	0.1269	0.1294		0.1298	5	AVG
Tetrahydrofuran	1.0713	1.3005	1.2123	1.5972	1.4484	1.3323		1.3270	14	AVG
Chloroform	*0.5067	0.5368	0.4928	0.4990	0.4940	0.4839		0.5022	4	AVG *
1,1,1-Trichloroethane	0.3924	0.4415	0.4136	0.4347	0.4423	0.4467		0.4285	5	AVG
Cyclohexane	0.4641	0.5173	0.4889	0.5287	0.5343	0.5043		0.5063	5	AVG
Cyclohexane(2)	0.3530	0.3896	0.3717	0.4051	0.4040	0.3904		0.3856	5	AVG
Cyclohexane(3)	0.1327	0.1448	0.1389	0.1518	0.1527	0.1460		0.1445	5	AVG
1,1-Dichloropropene	0.3527	0.3944	0.3735	0.3986	0.3970	0.3912		0.3846	5	AVG
Carbon Tetrachloride	0.3407	0.3841	0.3661	0.3969	0.4036	0.4202		0.3853	7	AVG
Isobutyl Alcohol	0.4321	0.4670	0.4456	0.4726	0.4937	0.4856		0.4661	5	AVG
Benzene	1.0390	1.1290	1.0530	1.0672	1.0586	1.0035		1.0584	4	AVG
1,2-Dichloroethane	0.3829	0.4236	0.3913	0.3955	0.3980	0.4117		0.4005	4	AVG
1,2-Dichloroethane(2)	0.0250	0.0305	0.0293	0.0290	0.0287	0.0290		0.0286	7	AVG
t-Amyl methyl ether	0.5991	0.7008	0.6625	0.6777	0.6878	0.6880		0.6693	5	AVG
n-Heptane	0.4791	0.5026	0.4739	0.5037	0.5178	0.4973		0.4957	3	AVG
n-Butanol	0.2417	0.2889	0.2971	0.3336	0.3514	0.3562		0.3115	14	AVG
Trichloroethene	0.2520	0.2819	0.2697	0.2788	0.2788	0.2758		0.2728	4	AVG
Methylcyclohexane	0.4326	0.4864	0.4990	0.4753	0.4953	0.4964		0.4808	5	AVG

Minimum RRF for SPCC(#) = 0.10
 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
 Maximum %RSD for CCC(*) = 30%

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract: _____
 Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____
 Instrument ID: HP09953 Calibration Date(s): 10/04/12 10/04/12
 Heated Purge: (Y/N) Y Calibration Times: 15:15 17:43
 Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

LAB FILE ID: RRF 4 = bc04i06.d RRF 10= bc04i05.d RRF 20= bc04i04.d
 RRF 50= bc04i03.d RRF100= bc04i02.d RRF300= bc04i01.d RRF =

COMPOUND	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	RRF	% RSD	CAL. METHOD
1,2-Dichloropropane	*0.2731	0.3123	0.2939	0.3007	0.2982	0.2913		0.2949	4	AVG *
Methyl Methacrylate	0.1228	0.1537	0.1430	0.1526	0.1576	0.1744		0.1507	11	AVG
1,4-Dioxane	0.0935	0.1163	0.1141	0.1367	0.1364	0.1283		0.1209	14	AVG
Dibromomethane	0.1473	0.1688	0.1531	0.1571	0.1565	0.1654		0.1580	5	AVG
Bromodichloromethane	0.2960	0.3477	0.3330	0.3483	0.3599	0.3766		0.3436	8	AVG
2-Nitropropane	2.5805	3.3697	2.6481	4.5102	3.8561	3.9972		3.4936	22	1STDEG
2-Chloroethyl Vinyl Ether	0.0199	0.0276	0.0292	0.0358	0.0345	0.0516		0.0331	32	2NDDEG
cis-1,3-Dichloropropene	0.3214	0.3935	0.3820	0.4152	0.4233	0.4363		0.3953	10	AVG
4-Methyl-2-pentanone	0.1790	0.2849	0.2182	0.3363	0.2601	0.2776		0.2593	21	1STDEG
Toluene	*0.9094	1.0198	0.9357	0.9582	0.9530	0.8881		0.9440	5	AVG *
trans-1,3-Dichloropropene	0.4308	0.5335	0.5125	0.5495	0.5678	0.5678		0.5270	10	AVG
Ethyl Methacrylate	0.2924	0.3995	0.3858	0.4153	0.4383	0.4502		0.3969	14	AVG
1,1,2-Trichloroethane	0.2813	0.3315	0.2930	0.2930	0.2920	0.2867		0.2962	6	AVG
Tetrachloroethene	0.3755	0.4394	0.4067	0.4232	0.4266	0.4230		0.4157	5	AVG
1,3-Dichloropropane	0.5080	0.5961	0.5467	0.5479	0.5512	0.5400		0.5483	5	AVG
2-Hexanone	0.1859	0.2978	0.2320	0.3375	0.2600	0.2685		0.2636	20	2NDDEG
Dibromochloromethane	0.2862	0.3562	0.3354	0.3555	0.3722	0.3864		0.3486	10	AVG
1,2-Dibromoethane	0.2702	0.3220	0.2953	0.2995	0.3017	0.3060		0.2991	6	AVG
Chlorobenzene	#1.0216	1.1333	1.0486	1.0544	1.0630	1.0163		1.0562	4	AVG #
1,1,1,2-Tetrachloroethane	0.3360	0.3982	0.3790	0.3860	0.4004	0.4042		0.3839	7	AVG
Ethylbenzene	*1.5782	1.8869	1.7917	1.8778	1.8912	1.7519		1.7963	7	AVG *
m+p-Xylene	0.6170	0.7354	0.7020	0.7202	0.7324	0.7032		0.7017	6	AVG
o-Xylene	0.5681	0.7000	0.6794	0.7157	0.7212	0.7109		0.6825	8	AVG
Xylene (Total)	0.6007	0.7236	0.6945	0.7187	0.7286	0.7058		0.6953	7	AVG
Styrene	0.8374	1.0867	1.0610	1.1325	1.1662	1.1566		1.0734	11	AVG
Bromoform	#0.1945	0.2241	0.2134	0.2272	0.2400	0.2730		0.2287	12	AVG #
Isopropylbenzene	1.5316	1.8949	1.8408	1.9250	1.9463	1.7824		1.8202	8	AVG
Cyclohexanone	0.2473	0.2967	0.3039	0.3421	0.3781	0.4224		0.3317	19	2NDDEG
1,1,2,2-Tetrachloroethane	#0.6719	0.7521	0.6690	0.6450	0.6411	0.5267		0.6510	11	AVG #
Bromobenzene	0.7316	0.7975	0.7459	0.7331	0.7461	0.6129		0.7278	8	AVG
trans-1,4-Dichloro-2-butene	0.1843	0.2195	0.2094	0.2071	0.2106	0.1796		0.2018	8	AVG
1,2,3-Trichloropropane	0.1816	0.2145	0.1921	0.1814	0.1826	0.1532		0.1842	11	AVG
n-Propylbenzene	3.4693	4.0186	3.7475	3.6944	3.7001	2.4156		3.5076	16	2NDDEG
2-Chlorotoluene	0.7159	0.7764	0.7362	0.7310	0.7397	0.5963		0.7159	9	AVG
1,3,5-Trimethylbenzene	2.3908	2.7922	2.6836	2.7049	2.7393	2.0333		2.5573	11	AVG
4-Chlorotoluene	0.7213	0.8137	0.7825	0.7717	0.7907	0.6543		0.7557	8	AVG
tert-Butylbenzene	0.4958	0.5988	0.5987	0.6070	0.6295	0.5285		0.5764	9	AVG
Pentachloroethane	0.4450	0.5088	0.5123	0.4872	0.5240	0.4889		0.4944	6	AVG
1,2,4-Trimethylbenzene	2.3552	2.8378	2.7281	2.7579	2.8093	2.0505		2.5898	12	AVG
sec-Butylbenzene	3.0395	3.5668	3.4412	3.5005	3.5353	2.3456		3.2381	15	AVG
1,3-Dichlorobenzene	1.3496	1.5368	1.4648	1.4470	1.4990	1.2382		1.4226	8	AVG
p-Isopropyltoluene	2.6193	3.0789	3.0074	3.0629	3.1172	2.2178		2.8506	13	AVG
1,4-Dichlorobenzene	1.5808	1.6962	1.5557	1.5061	1.5399	1.2807		1.5266	9	AVG
1,2,3-Trimethylbenzene	2.6070	2.9535	2.9381	2.6741	2.7775	2.0565		2.6677	12	AVG
Benzyl Chloride	0.1722	0.2416	0.2311	0.2578	0.2763	0.2565		0.2392	15	AVG
1,3-Diethylbenzene	1.4252	1.7759	1.8260	1.7019	1.7881	1.4541		1.6619	11	AVG
1,4-Diethylbenzene	1.6157	1.9384	1.9442	1.7962	1.8816	1.5565		1.7888	9	AVG
n-Butylbenzene	1.2809	1.5894	1.5543	1.5726	1.6057	1.2591		1.4770	11	AVG
1,2-Dichlorobenzene	1.4401	1.5792	1.4879	1.4448	1.5090	1.2986		1.4599	6	AVG
1,2-Diethylbenzene	1.4075	1.6276	1.6114	1.4601	1.5273	1.2529		1.4811	9	AVG
1,2-Dibromo-3-chloropropane	0.1220	0.1419	0.1334	0.1316	0.1376	0.1205		0.1312	6	AVG
1,3,5-Trichlorobenzene	1.1813	1.3156	1.2603	1.2628	1.3062	1.0625		1.2315	8	AVG

Minimum RRF for SPCC(%) = 0.10
 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
 Maximum %RSD for CCC(%) = 30%

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract: _____
 Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____
 Instrument ID: HP09953 Calibration Date(s): 10/04/12 10/04/12
 Heated Purge: (Y/N) Y Calibration Times: 15:15 17:43
 Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

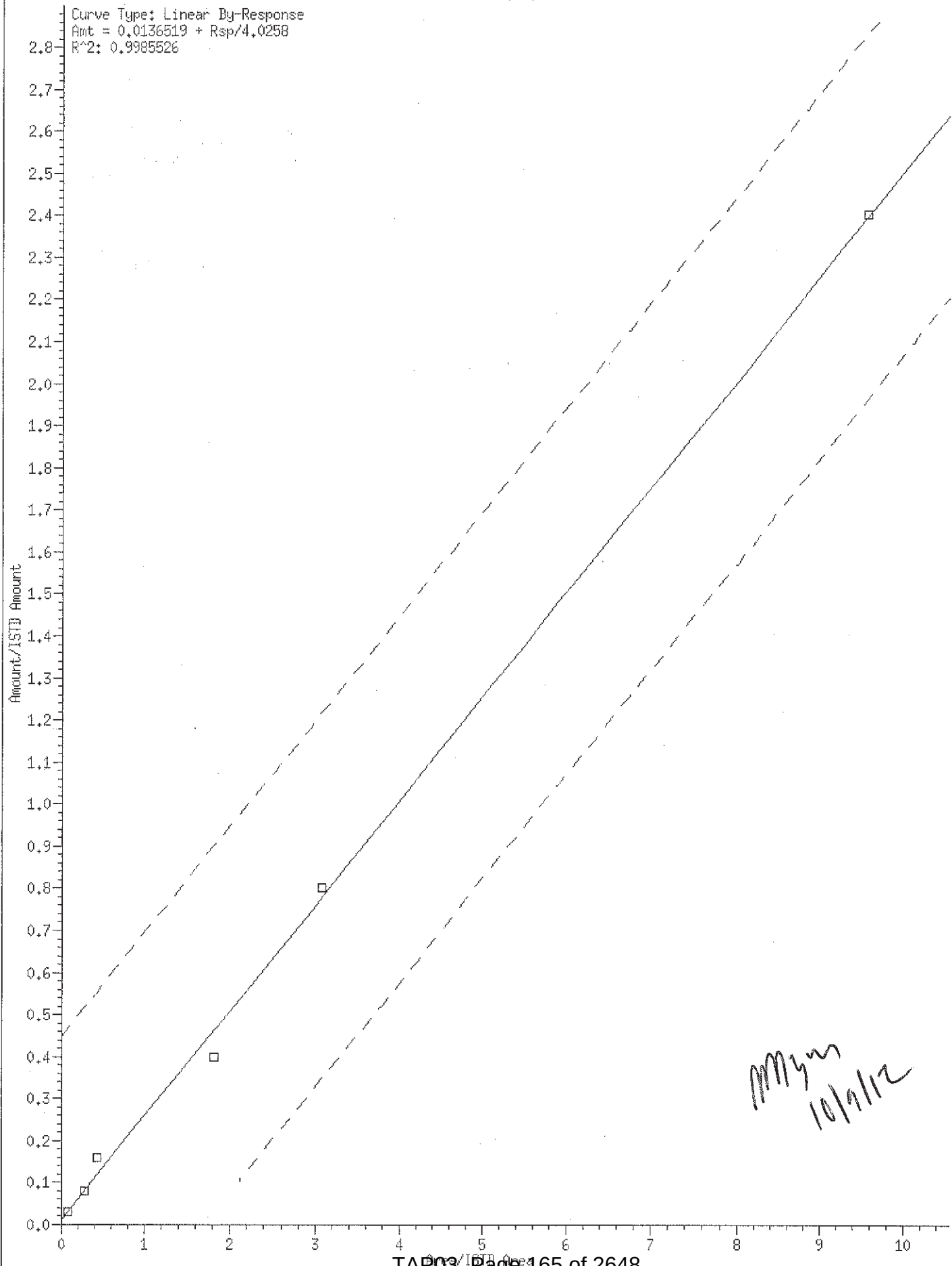
LAB FILE ID: RRF 4 = bc04i06.d RRF 10= bc04i05.d RRF 20= bc04i04.d
 RRF 50= bc04i03.d RRF100= bc04i02.d RRF300= bc04i01.d RRF =

COMPOUND	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	RRF	% RSD	CAL. METHOD
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
1,2,4-Trichlorobenzene	0.9943	1.1499	1.1072	1.1111	1.1455	0.8882		1.0660	10	AVG
Hexachlorobutadiene	0.6035	0.6768	0.6415	0.6521	0.6747	0.5437		0.6320	8	AVG
Naphthalene	1.9058	2.4291	2.3223	2.3415	2.3100	1.6827		2.1652	14	AVG
1,2,3-Trichlorobenzene	1.0044	1.1473	1.0702	1.0493	1.0291	0.7617		1.0103	13	AVG
2-Methylnaphthalene	0.8758	1.2049	1.3089	1.3080	1.3141			1.2023	16	1STDEG
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
Dibromofluoromethane	0.2513	0.2504	0.2511	0.2472	0.2487	0.2536		0.2504	1	AVG
Dibromofluoromethane(2)	0.2566	0.2536	0.2544	0.2513	0.2539	0.2606		0.2551	1	AVG
1,2-Dichloroethane-d4	0.0533	0.0532	0.0533	0.0540	0.0503	0.0517		0.0526	3	AVG
1,2-Dichloroethane-d4(2)	0.3138	0.3165	0.3125	0.3261	0.3097	0.3314		0.3183	3	AVG
1,2-Dichloroethane-d4(3)	0.0332	0.0333	0.0325	0.0328	0.0323	0.0335		0.0329	1	AVG
Toluene-d8	1.4473	1.4491	1.4503	1.4305	1.4404	1.3730		1.4318	2	AVG
Toluene-d8(2)	0.9294	0.9374	0.9313	0.9268	0.9288	0.8915		0.9242	2	AVG
4-Bromofluorobenzene	0.5254	0.5307	0.5339	0.5288	0.5312	0.5699		0.5367	3	AVG
4-Bromofluorobenzene(2)	0.4299	0.4361	0.4400	0.4376	0.4349	0.4666		0.4408	3	AVG

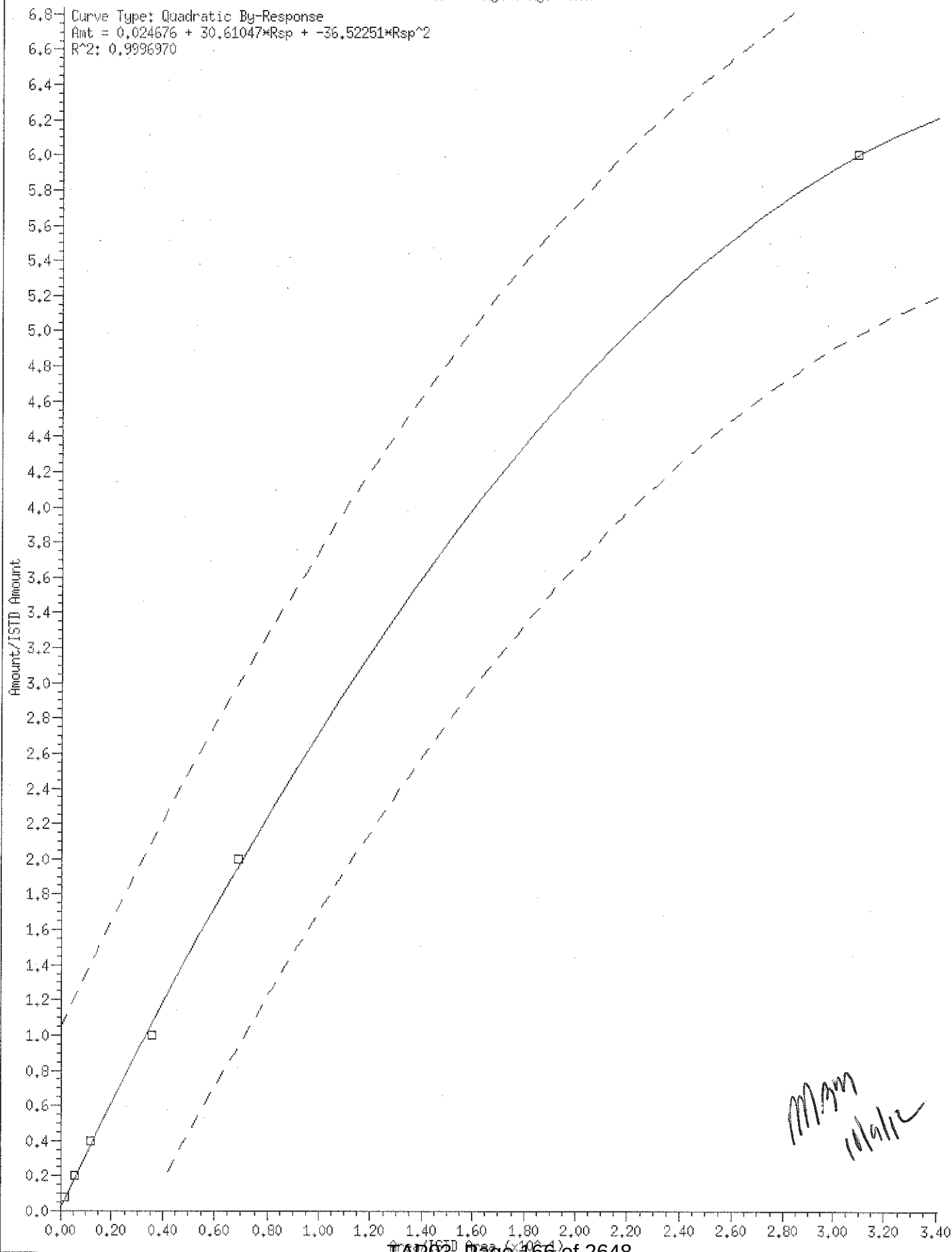
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Minimum RRF for SPCC(%) = 0.10
 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
 Maximum %RSD for CCC(*) = 30%

82 2-Nitropropane



83 2-Chloroethyl Vinyl Ether



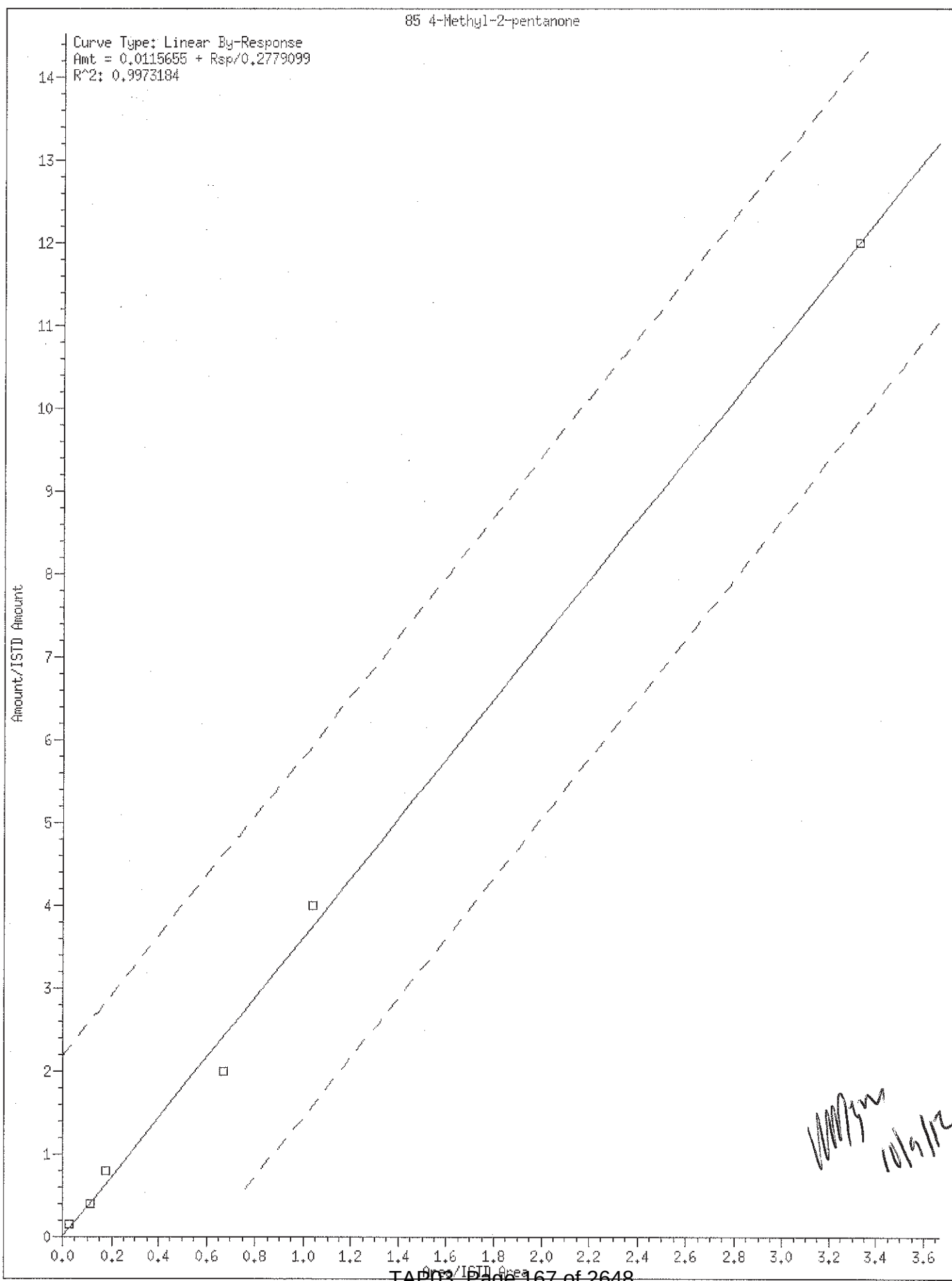
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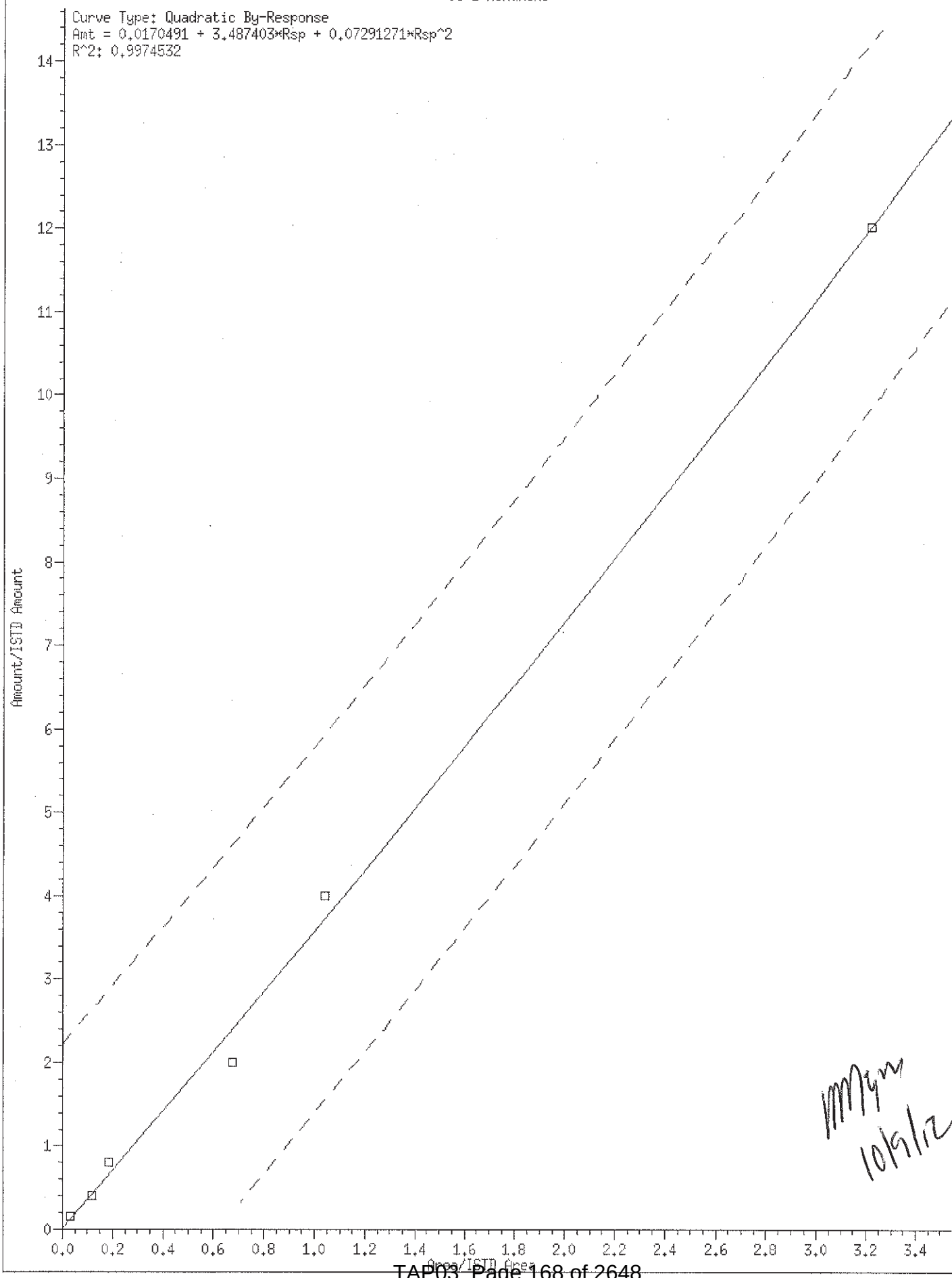
Amount/ISTD Amount

14
13
12
11
10
9
8
7
6
5
4
3
2
1
0

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WMP/3m
10/9/12



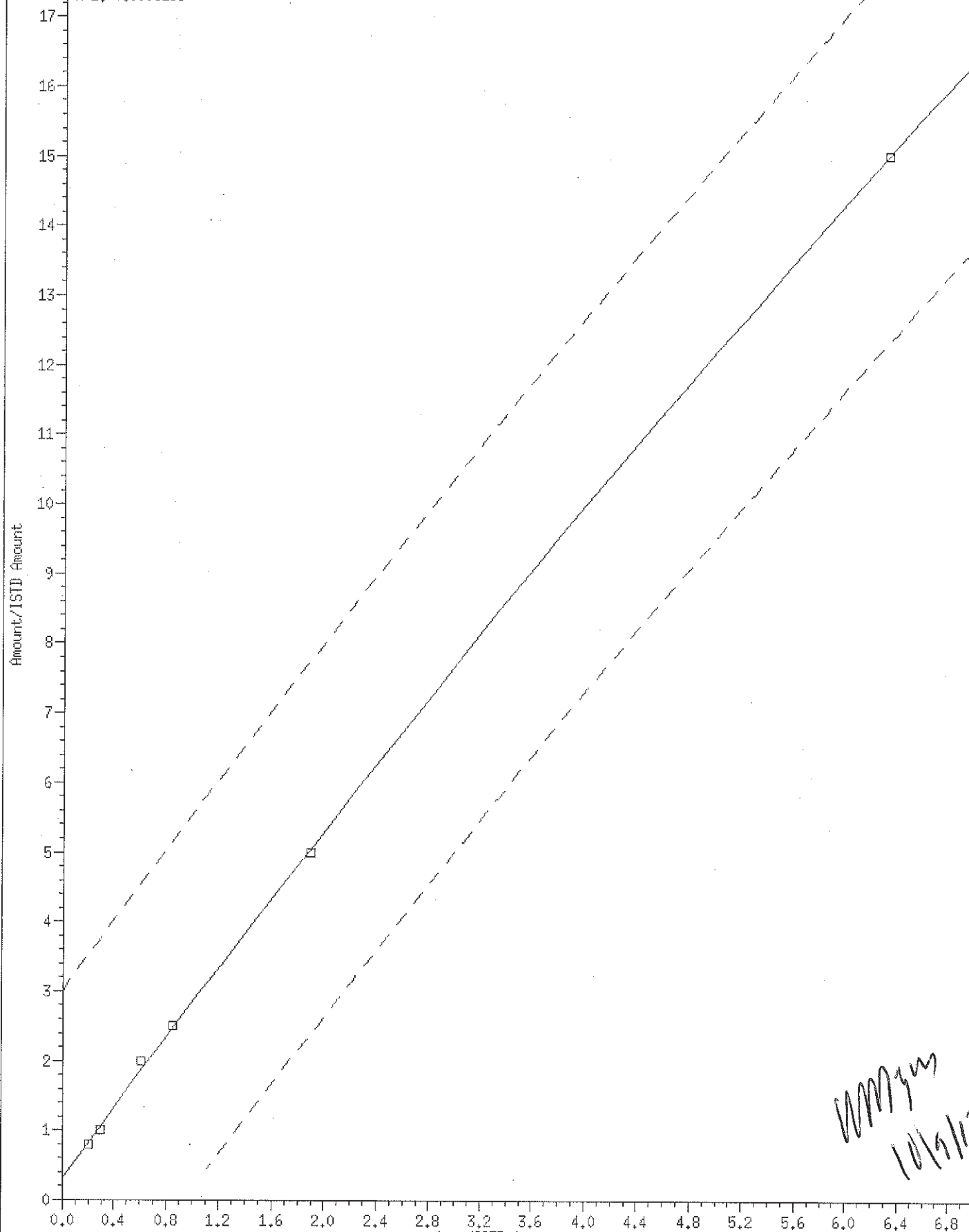


111 Cyclohexanone

Curve Type: Quadratic By-Response

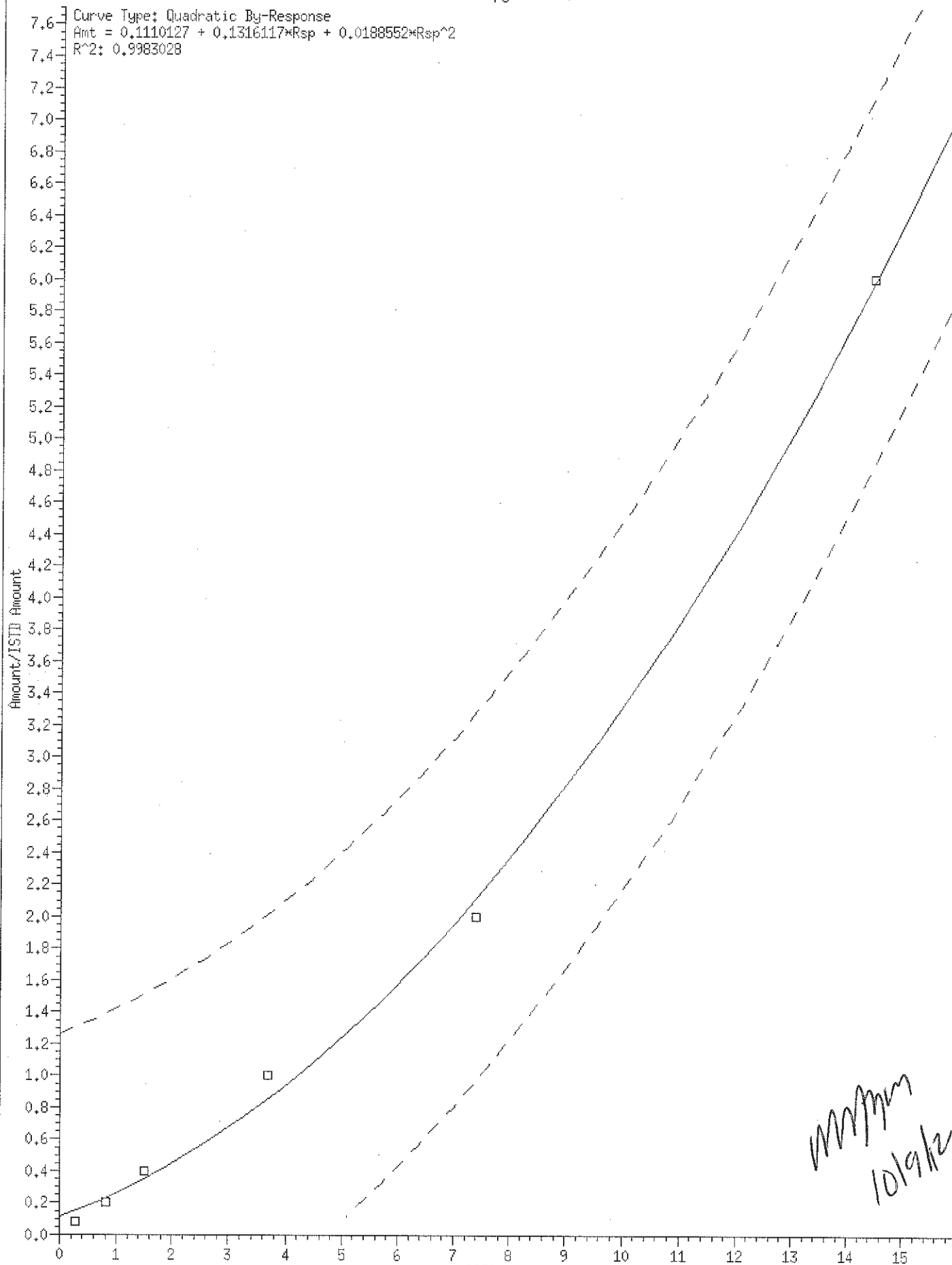
Amt = $0.3181452 + 2.57463 \cdot \text{Rsp} + -0.04065765 \cdot \text{Rsp}^2$

R²: 0.9998235



MM3m
10/9/12

117 n-Propylbenzene

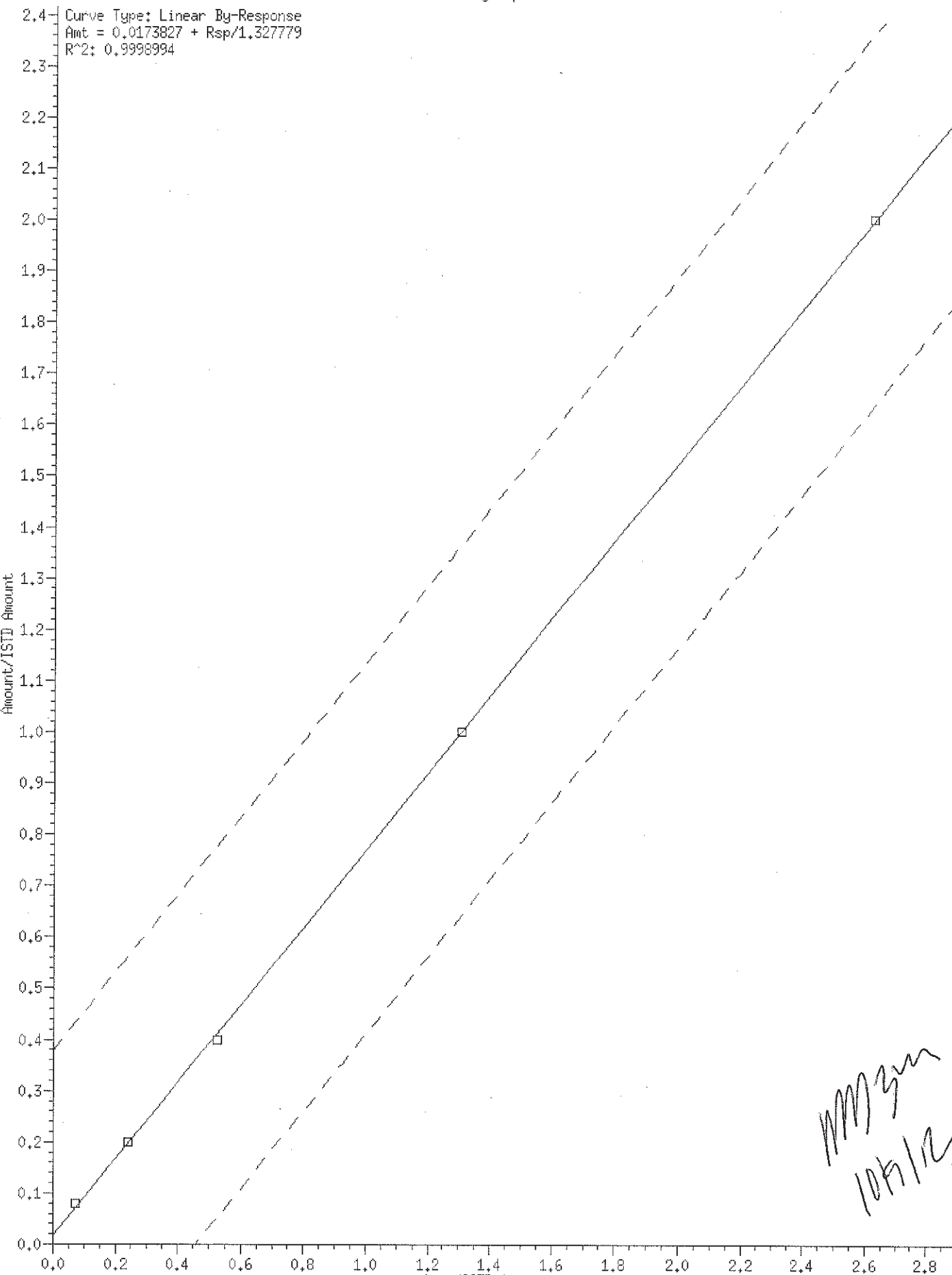


mmmm
 10/9/12

150 2-Methylnaphthalene

Curve Type: Linear By-Response
 Amt = 0.0173827 + Rsp/1.327779
 R²: 0.9998994

Amount/ISTD Amount



MM3m
 10/12

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

```
/chem2/HP09953.i/12oct04b.b/bc04i01.d VSTD300
/chem2/HP09953.i/12oct04b.b/bc04i02.d VSTD100
/chem2/HP09953.i/12oct04b.b/bc04i03.d VSTD050
/chem2/HP09953.i/12oct04b.b/bc04i04.d VSTD020
/chem2/HP09953.i/12oct04b.b/bc04i05.d VSTD010
/chem2/HP09953.i/12oct04b.b/bc04i06.d VSTD004
```

Area Summary

File ID:

=====

Internal Standard Name	bc04i01.d	bc04i02.d	bc04i03.d	bc04i04.d	bc04i05.d	bc04i06.d	Avg. Area	%RSD	In Spec
t-Butyl alcohol-d10	134009	124592	134182	140055	156335	148820	139666	8	Yes
Fluorobenzene	1348200	1411705	1448978	1431262	1465221	1420014	1420897	3	Yes
Chlorobenzene-d5	1000979	974195	1001377	967974	979343	943427	977882	2	Yes
1,4-Dichlorobenzene-d4	789231	602614	616350	580630	591113	554900	622473	14	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

=====

Internal Standard Name	bc04i01.d	bc04i02.d	bc04i03.d	bc04i04.d	bc04i05.d	bc04i06.d	Avg. RT
t-Butyl alcohol-d10	2.222	2.216	2.222	2.216	2.216	2.222	2.219
Fluorobenzene	4.357	4.351	4.357	4.358	4.351	4.357	4.355
Chlorobenzene-d5	7.545	7.539	7.545	7.545	7.539	7.545	7.543
1,4-Dichlorobenzene-d4	9.522	9.522	9.522	9.522	9.522	9.522	9.522

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 10/09/2012 at 11:51.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: HP09953 ICV Date: 10/04/12 Time: 18:46

Lab File ID: bc04v01.d Init. Calib. Date(s): 10/04/12 10/04/12

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

COMPOUND	RRF	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT
Dichlorodifluoromethane	0.4398	0.3520	16.00	20	-20
# Chloromethane	0.4349	0.4066	18.70	20	-6 #
* Vinyl Chloride	0.3643	0.3390	18.61	20	-7 *
Bromomethane	0.2284	0.2117	18.54	20	-7
Chloroethane	0.1898	0.1758	18.53	20	-7
Dichlorofluoromethane	0.5289	0.5998	22.68	20	13
Trichlorofluoromethane	0.4635	0.4620	19.94	20	0
Ethanol	0.1327	0.1357	1023.17	1000	2
Freon 123a	0.3163	0.3518	22.25	20	11
Acrolein	1.9359	2.0501	158.85	150	6
* 1,1-Dichloroethene	0.2122	0.2183	20.58	20	3 *
Acetone	0.0242	0.0343	212.86	150	42
Freon 113	0.2480	0.2501	20.17	20	1
2-Propanol	0.9062	0.9637	159.52	150	6
Methyl Iodide	0.4406	0.4306	19.55	20	-2
Carbon Disulfide	0.6996	0.6719	19.21	20	-4
Methyl Acetate	0.1856	0.1805	19.45	20	-3
Allyl Chloride	0.4615	0.4849	21.02	20	5
Methylene Chloride	0.2464	0.2543	20.64	20	3
t-Butyl alcohol	1.2679	1.2824	202.30	200	1
Acrylonitrile	0.0809	0.0803	99.25	100	-1
Methyl Tertiary Butyl Ether	0.6890	0.6994	20.30	20	2
trans-1,2-Dichloroethene	0.2395	0.2496	20.85	20	4
n-Hexane	0.4167	0.3867	18.56	20	-7
# 1,1-Dichloroethane	0.5258	0.5406	20.56	20	3 #
di-Isopropyl ether	1.0002	1.0091	20.18	20	1
2-Chloro-1,3-butadiene	0.4610	0.4672	20.27	20	1
Ethyl t-butyl ether	0.8181	0.8137	19.89	20	-1
2-Butanone	0.1236	0.1560	189.21	150	26
cis-1,2-Dichloroethene	0.2700	0.2791	20.67	20	3
1,2-Dichloroethene (Total)	0.2548	12.8960	41.52	40	4
2,2-Dichloropropane	0.4001	0.3997	19.98	20	0
Propionitrile	1.6783	1.7238	154.06	150	3
Methacrylonitrile	0.0892	0.0962	161.77	150	8
Bromochloromethane	0.1298	0.1316	20.28	20	1
Tetrahydrofuran	1.3270	1.3606	102.53	100	3

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: HP09953 ICV Date: 10/04/12 Time: 18:46

Lab File ID: bc04v01.d Init. Calib. Date(s): 10/04/12 10/04/12

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

COMPOUND	RRF	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT
* Chloroform	0.5022	0.4872	19.40	20	-3 *
1,1,1-Trichloroethane	0.4285	0.4521	21.10	20	5
Cyclohexane	0.5063	0.5122	20.23	20	1
1,1-Dichloropropene	0.3846	0.3795	19.73	20	-1
Carbon Tetrachloride	0.3853	0.3760	19.52	20	-2
Isobutyl Alcohol	0.4661	0.4530	485.91	500	-3
Benzene	1.0584	1.0751	20.32	20	2
1,2-Dichloroethane	0.4005	0.4020	20.08	20	0
t-Amyl methyl ether	0.6693	0.6611	19.75	20	-1
n-Heptane	0.4957	0.4966	20.04	20	0
n-Butanol	0.3115	0.2906	933.00	1000	-7
Trichloroethene	0.2728	0.2755	20.20	20	1
Methylcyclohexane	0.4808	0.4962	20.64	20	3
* 1,2-Dichloropropane	0.2949	0.2948	19.99	20	0 *
Methyl Methacrylate	0.1507	0.1465	19.45	20	-3
1,4-Dioxane	0.1209	0.1072	443.27	500	-11
Dibromomethane	0.1580	0.1569	19.85	20	-1
Bromodichloromethane	0.3436	0.3329	19.38	20	-3
2-Nitropropane	3.4936	2.8748	17.69	20	-12
2-Chloroethyl Vinyl Ether	0.0331	0.0310	19.91	20	0
cis-1,3-Dichloropropene	0.3953	0.4103	20.76	20	4
4-Methyl-2-pentanone	0.2593	0.2653	96.05	100	-4
* Toluene	0.9440	0.9617	20.37	20	2 *
trans-1,3-Dichloropropene	0.5270	0.5186	19.68	20	-2
Ethyl Methacrylate	0.3969	0.4066	20.49	20	2
1,1,2-Trichloroethane	0.2962	0.3074	20.76	20	4
Tetrachloroethene	0.4157	0.4331	20.84	20	4
1,3-Dichloropropane	0.5483	0.5533	20.18	20	1
2-Hexanone	0.2636	0.2944	104.78	100	5
Dibromochloromethane	0.3486	0.3497	20.06	20	0
1,2-Dibromoethane	0.2991	0.2996	20.04	20	0
# Chlorobenzene	1.0562	1.0689	20.24	20	1 #
1,1,1,2-Tetrachloroethane	0.3839	0.3765	19.61	20	-2
* Ethylbenzene	1.7963	1.8450	20.54	20	3 *
m+p-Xylene	0.7017	0.7192	41.00	40	2
o-Xylene	0.6825	0.6822	19.99	20	0

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)

Maximum %Drift for CCC(*)=20%

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: HP09953 ICV Date: 10/04/12 Time: 18:46

Lab File ID: bc04v01.d Init. Calib. Date(s): 10/04/12 10/04/12

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

COMPOUND	RRF	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT
=====	=====	=====	=====	=====	=====
Xylene (Total)	0.6953	23.0040	60.99	60	2
Styrene	1.0734	1.0856	20.23	20	1
# Bromoform	0.2287	0.2166	18.95	20	-5 #
Isopropylbenzene	1.8202	1.8920	20.79	20	4
Cyclohexanone	0.3317	0.5950	831.09	500	66
# 1,1,2,2-Tetrachloroethane	0.6510	0.7236	22.23	20	11 #
Bromobenzene	0.7278	0.7631	20.97	20	5
trans-1,4-Dichloro-2-butene	0.2018	0.2237	110.87	100	11
1,2,3-Trichloropropane	0.1842	0.2022	21.95	20	10
n-Propylbenzene	3.5076	3.9051	18.13	20	-9
2-Chlorotoluene	0.7159	0.7640	21.34	20	7
1,3,5-Trimethylbenzene	2.5573	2.7656	21.63	20	8
4-Chlorotoluene	0.7557	0.7792	20.62	20	3
tert-Butylbenzene	0.5764	0.6050	20.99	20	5
Pentachloroethane	0.4944	0.5016	20.29	20	1
1,2,4-Trimethylbenzene	2.5898	2.7847	21.50	20	8
sec-Butylbenzene	3.2381	3.5691	22.04	20	10
1,3-Dichlorobenzene	1.4226	1.4920	20.98	20	5
p-Isopropyltoluene	2.8506	3.1160	21.86	20	9
1,4-Dichlorobenzene	1.5266	1.5919	20.86	20	4
1,2,3-Trimethylbenzene	2.6677	2.9504	22.12	20	11
Benzyl Chloride	0.2392	0.2396	20.03	20	0
1,3-Diethylbenzene	1.6619	1.8388	22.13	20	11
1,4-Diethylbenzene	1.7888	1.9524	21.83	20	9
n-Butylbenzene	1.4770	1.6151	21.87	20	9
1,2-Dichlorobenzene	1.4599	1.5077	20.65	20	3
1,2-Diethylbenzene	1.4811	1.6009	21.62	20	8
1,2-Dibromo-3-chloropropane	0.1312	0.1435	21.88	20	9
1,3,5-Trichlorobenzene	1.2315	1.2839	20.85	20	4
1,2,4-Trichlorobenzene	1.0660	1.1331	21.26	20	6
Hexachlorobutadiene	0.6320	0.6817	21.57	20	8
Naphthalene	2.1652	2.3658	21.85	20	9
1,2,3-Trichlorobenzene	1.0103	1.0720	21.22	20	6
2-Methylnaphthalene	1.2023	1.2698	20.00	20	0

Average %Drift 6

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)

Maximum %Drift for CCC(*)=20%

Lancaster Laboratories

Continuing Calibration Internal Standard Check

Initial Calibration Standards:

```

/chem2/HP09685.i/12oct09a.b/ac09i06.d
/chem2/HP09685.i/12oct09a.b/ac09i08.d
/chem2/HP09685.i/12oct09a.b/ac09i07.d
/chem2/HP09685.i/12oct09a.b/ac09i03.d
/chem2/HP09685.i/12oct09a.b/ac09i02.d
/chem2/HP09685.i/12oct09a.b/ac09i01.d

```

File /chem2/HP09685.i/12oct09a.b/ac09i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

```

/chem2/HP09685.i/12nov08a.b/an08c01.d

```

RT Summary

File ID:

=====

Internal Standard Name	an08c01.d	ICAL RT	In Spec
t-Butyl alcohol-d10	4.177	4.189	Yes
Fluorobenzene	7.687	7.687	Yes
Chlorobenzene-d5	11.179	11.179	Yes
1,4-Dichlorobenzene-d4	13.071	13.071	Yes

A "No" indicates the retention time is greater than 30 seconds from the referenced ICAL standard.

Area Summary

File ID:

=====

Internal Standard Name	an08c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	119744	207806	103903	415612	Yes
Fluorobenzene	1249822	1362489	681244	2724978	Yes
Chlorobenzene-d5	901125	1000244	500122	2000488	Yes
1,4-Dichlorobenzene-d4	511193	584655	292328	1169310	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 11/08/2012 at 00:57

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: HP09685 Calibration Date: 11/08/12 Time: 00:31

Lab File ID: an08c01.d Init. Calib. Date(s): 10/09/12 10/09/12

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Dichlorodifluoromethane	0.4567	0.4050	44.34	50	-11
# Chloromethane	0.4064	0.3543	43.59	50	-13 #
* Vinyl Chloride	0.3914	0.3557	45.43	50	-9 *
Bromomethane	0.2455	0.2340	47.65	50	-5
Chloroethane	0.2102	0.1929	45.89	50	-8
Trichlorofluoromethane	0.4682	0.4119	44.00	50	-12
Ethanol	0.1253	0.0808	1611.47	2500	-36
Acrolein	2.3982	2.8241	588.78	500	18
* 1,1-Dichloroethene	0.2429	0.2231	45.93	50	-8 *
Acetone	0.0325	0.0257	79.02	100	-21
Freon 113	0.2679	0.2363	44.10	50	-12
2-Propanol	0.8773	0.9976	284.29	250	14
Methyl Iodide	0.4532	0.4221	46.58	50	-7
Carbon Disulfide	0.8876	0.7592	42.77	50	-14
Methyl Acetate	0.2235	0.1874	41.93	50	-16
Allyl Chloride	0.4367	0.4299	49.21	50	-2
Methylene Chloride	0.3008	0.2685	44.63	50	-11
t-Butyl alcohol	1.3448	1.2810	238.14	250	-5
Acrylonitrile	0.1190	0.0977	41.05	50	-18
Methyl Tertiary Butyl Ether	0.8461	0.7348	43.43	50	-13
trans-1,2-Dichloroethene	0.2756	0.2658	48.22	50	-4
n-Hexane	0.4443	0.3633	40.89	50	-18
# 1,1-Dichloroethane	0.5432	0.4916	45.26	50	-9 #
di-Isopropyl ether	1.0076	0.8508	42.22	50	-16
2-Chloro-1,3-butadiene	0.4516	0.4225	46.78	50	-6
Ethyl t-butyl ether	0.8860	0.7812	44.09	50	-12
2-Butanone	0.1517	0.1161	76.54	100	-23
cis-1,2-Dichloroethene	0.2974	0.2908	48.89	50	-2
1,2-Dichloroethene (Total)	0.2865	0.2783	97.11	100	-3
2,2-Dichloropropane	0.4286	0.4083	47.63	50	-5
Propionitrile	1.7407	1.8596	267.07	250	7
Methacrylonitrile	0.1208	0.1012	104.75	125	-16
Bromochloromethane	0.1369	0.1435	52.40	50	5
Tetrahydrofuran	1.4296	1.5858	110.93	100	11
* Chloroform	0.5234	0.4823	46.08	50	-8 *
1,1,1-Trichloroethane	0.4754	0.4110	43.23	50	-14

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: HP09685 Calibration Date: 11/08/12 Time: 00:31

Lab File ID: an08c01.d Init. Calib. Date(s): 10/09/12 10/09/12

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
=====	=====	=====	=====	=====	=====
Cyclohexane	0.5146	0.4404	42.79	50	-14
Cyclohexane(2)	0.4111	0.3749	45.59	50	-9
Cyclohexane(3)	0.1494	0.1349	45.13	50	-10
1,1-Dichloropropene	0.4019	0.3780	47.03	50	-6
Carbon Tetrachloride	0.3765	0.3528	46.86	50	-6
Isobutyl Alcohol	0.4936	0.4735	599.55	625	-4
Benzene	1.1554	1.1020	47.69	50	-5
1,2-Dichloroethane	0.4116	0.3602	43.76	50	-12
1,2-Dichloroethane(2)	0.0337	0.0322	47.80	50	-4
t-Amyl methyl ether	0.7911	0.7012	44.32	50	-11
n-Heptane	0.4942	0.3935	39.82	50	-20
n-Butanol	0.3795	0.3716	1223.82	1250	-2
Trichloroethene	0.2910	0.2832	48.66	50	-3
Methylcyclohexane	0.4668	0.4742	50.79	50	2
* 1,2-Dichloropropane	0.3125	0.2848	45.57	50	-9 *
Methyl Methacrylate	0.2008	0.1722	42.87	50	-14
1,4-Dioxane	0.1219	0.1373	703.79	625	13
Dibromomethane	0.1780	0.1647	46.29	50	-7
Bromodichloromethane	0.3561	0.3402	47.77	50	-4
2-Nitropropane	3.2023	3.5073	109.52	100	10
cis-1,3-Dichloropropene	0.4346	0.4156	47.82	50	-4
4-Methyl-2-pentanone	0.3149	0.2414	76.66	100	-23
* Toluene	0.9728	0.9645	49.57	50	-1 *
trans-1,3-Dichloropropene	0.5702	0.5449	47.79	50	-4
Ethyl Methacrylate	0.4881	0.4615	47.28	50	-5
1,1,2-Trichloroethane	0.3256	0.3093	47.49	50	-5
Tetrachloroethene	0.4469	0.4566	51.08	50	2
1,3-Dichloropropane	0.5947	0.5497	46.22	50	-8
2-Hexanone	0.3217	0.2403	74.70	100	-25
Dibromochloromethane	0.3600	0.3495	48.55	50	-3
1,2-Dibromoethane	0.3357	0.3195	47.59	50	-5
# Chlorobenzene	1.0971	1.0910	49.72	50	-1 #
1,1,1,2-Tetrachloroethane	0.3790	0.3740	49.33	50	-1
* Ethylbenzene	1.8476	1.8644	50.46	50	1 *
m+p-Xylene	0.7172	0.7230	100.81	100	1
o-Xylene	0.6906	0.7010	50.76	50	2

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: HP09685 Calibration Date: 11/08/12 Time: 00:31

Lab File ID: an08c01.d Init. Calib. Date(s): 10/09/12 10/09/12

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
=====	=====	=====	=====	=====	=====
Xylene (Total)	0.7083	0.7157	151.57	150	1
Styrene	1.1153	1.1596	51.99	50	4
# Bromoform	0.2485	0.2410	48.48	50	-3 #
Isopropylbenzene	1.7998	1.8403	51.13	50	2
Cyclohexanone	0.4995	0.5289	661.83	625	6
# 1,1,2,2-Tetrachloroethane	0.7793	0.7120	45.68	50	-9 #
Bromobenzene	0.8490	0.8507	50.10	50	0
trans-1,4-Dichloro-2-butene	0.2372	0.2019	106.41	125	-15
1,2,3-Trichloropropane	0.2300	0.2048	44.51	50	-11
n-Propylbenzene	3.7227	3.8914	52.27	50	5
2-Chlorotoluene	0.7826	0.8085	51.65	50	3
1,3,5-Trimethylbenzene	2.6707	2.7956	52.34	50	5
4-Chlorotoluene	0.8165	0.8409	51.49	50	3
tert-Butylbenzene	0.5832	0.6634	56.88	50	14
Pentachloroethane	0.5540	0.5422	48.94	50	-2
1,2,4-Trimethylbenzene	2.7888	2.8694	51.45	50	3
sec-Butylbenzene	3.3495	3.5781	53.41	50	7
1,3-Dichlorobenzene	1.6205	1.6196	49.97	50	0
p-Isopropyltoluene	3.0039	3.1847	53.01	50	6
1,4-Dichlorobenzene	1.6557	1.6430	49.62	50	-1
1,2,3-Trimethylbenzene	2.9224	2.8900	49.44	50	-1
Benzyl Chloride	0.3191	0.3271	46.61	50	-7
1,3-Diethylbenzene	1.8881	1.9123	50.64	50	1
1,4-Diethylbenzene	1.9547	1.9739	50.49	50	1
n-Butylbenzene	1.5274	1.5549	50.90	50	2
1,2-Dichlorobenzene	1.5344	1.5016	48.93	50	-2
1,2-Diethylbenzene	1.6112	1.5991	49.62	50	-1
1,2-Dibromo-3-chloropropane	0.1508	0.3027	100.40	50	101
1,3,5-Trichlorobenzene	1.3282	1.3892	52.29	50	5
1,2,4-Trichlorobenzene	1.1406	1.1848	51.94	50	4
Hexachlorobutadiene	0.6780	0.7101	52.37	50	5
Naphthalene	2.3745	2.4591	51.78	50	4
1,2,3-Trichlorobenzene	1.0723	1.1125	51.88	50	4
2-Methylnaphthalene	1.0981	1.3340	51.98	50	4
=====	=====	=====	=====	=====	=====
Dibromofluoromethane	0.2389	0.2293	47.98	50	-4

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: HP09685 Calibration Date: 11/08/12 Time: 00:31

Lab File ID: an08c01.d Init. Calib. Date(s): 10/09/12 10/09/12

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
=====	=====	=====	=====	=====	=====
Dibromofluoromethane(2)	0.2450	0.2357	48.11	50	-4
1,2-Dichloroethane-d4	0.0553	0.0538	48.63	50	-3
1,2-Dichloroethane-d4(2)	0.3021	0.2738	45.31	50	-9
1,2-Dichloroethane-d4(3)	0.0352	0.0342	48.64	50	-3
Toluene-d8	1.3371	1.3250	49.55	50	-1
Toluene-d8(2)	0.8759	0.8805	50.26	50	1
4-Bromofluorobenzene	0.5005	0.4860	48.56	50	-3
4-Bromofluorobenzene(2)	0.4454	0.4404	49.45	50	-1

Average %Drift 8

Minimum RRF for SPCC(=)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
 Maximum %Drift for CCC(*)=20%

Lancaster Laboratories

Continuing Calibration Internal Standard Check

Initial Calibration Standards:

```

/chem2/HP09953.i/12oct04b.b/bc04i06.d
/chem2/HP09953.i/12oct04b.b/bc04i05.d
/chem2/HP09953.i/12oct04b.b/bc04i04.d
/chem2/HP09953.i/12oct04b.b/bc04i03.d
/chem2/HP09953.i/12oct04b.b/bc04i02.d
/chem2/HP09953.i/12oct04b.b/bc04i01.d

```

File /chem2/HP09953.i/12oct04b.b/bc04i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

```
/chem2/HP09953.i/12nov07b.b/bn07c11.d
```

RT Summary

File ID:

=====

Internal Standard Name	bn07c11.d	ICAL RT	In Spec
t-Butyl alcohol-d10	2.210	2.222	Yes
Fluorobenzene	4.351	4.357	Yes
Chlorobenzene-d5	7.539	7.545	Yes
1,4-Dichlorobenzene-d4	9.522	9.522	Yes

A "No" indicates the retention time is greater than 30 seconds from the referenced ICAL standard.

Area Summary

File ID:

=====

Internal Standard Name	bn07c11.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	140798	134182	67091	268364	Yes
Fluorobenzene	1159587	1448978	724489	2897956	Yes
Chlorobenzene-d5	802814	1001377	500688	2002754	Yes
1,4-Dichlorobenzene-d4	509330	616350	308175	1232700	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments:

report generated on 11/07/2012 at 22:23

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: HP09953 Calibration Date: 11/07/12 Time: 21:58

Lab File ID: bn07c11.d Init. Calib. Date(s): 10/04/12 10/04/12

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Dichlorodifluoromethane	0.4398	0.5714	64.96	50	30
# Chloromethane	0.4349	0.5091	58.54	50	17 #
* Vinyl Chloride	0.3643	0.4213	57.82	50	16 *
Bromomethane	0.2284	0.2679	58.64	50	17
Chloroethane	0.1898	0.2233	58.84	50	18
Trichlorofluoromethane	0.4635	0.5711	61.61	50	23
Ethanol	0.1327	0.1235	2327.21	2500	-7
Acrolein	1.9359	2.1791	562.83	500	13
* 1,1-Dichloroethene	0.2122	0.2324	54.75	50	10 *
Acetone	0.0242	0.0263	108.76	100	9
Freon 113	0.2480	0.2819	56.82	50	14
2-Propanol	0.9062	0.9831	271.22	250	8
Methyl Iodide	0.4406	0.4717	53.53	50	7
Carbon Disulfide	0.6996	0.7680	54.89	50	10
Methyl Acetate	0.1856	0.2004	53.99	50	8
Allyl Chloride	0.4615	0.4956	53.70	50	7
Methylene Chloride	0.2464	0.2732	55.44	50	11
t-Butyl alcohol	1.2679	1.2340	243.33	250	-3
Acrylonitrile	0.0809	0.1041	64.37	50	29
Methyl Tertiary Butyl Ether	0.6890	0.8153	59.16	50	18
trans-1,2-Dichloroethene	0.2395	0.2666	55.67	50	11
n-Hexane	0.4167	0.4144	49.72	50	-1
# 1,1-Dichloroethane	0.5258	0.5653	53.76	50	8 #
di-Isopropyl ether	1.0002	1.0473	52.36	50	5
2-Chloro-1,3-butadiene	0.4610	0.5437	58.97	50	18
Ethyl t-butyl ether	0.8181	0.8743	53.43	50	7
2-Butanone	0.1236	0.1479	119.57	100	20
cis-1,2-Dichloroethene	0.2700	0.2832	52.43	50	5
1,2-Dichloroethene (Total)	0.2548	0.2749	108.10	100	8
2,2-Dichloropropane	0.4001	0.4888	61.08	50	22
Propionitrile	1.6783	1.5209	226.54	250	-9
Methacrylonitrile	0.0892	0.0996	139.59	125	12
Bromochloromethane	0.1298	0.1345	51.82	50	4
Tetrahydrofuran	1.3270	1.2730	95.93	100	-4
* Chloroform	0.5022	0.5537	55.12	50	10 *
1,1,1-Trichloroethane	0.4285	0.4931	57.53	50	15

Minimum RRF for SPCC(#) = 0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*) = 20%

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: HP09953 Calibration Date: 11/07/12 Time: 21:58

Lab File ID: bn07c11.d Init. Calib. Date(s): 10/04/12 10/04/12

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Cyclohexane	0.5063	0.5277	52.11	50	4
Cyclohexane(2)	0.3856	0.4018	52.09	50	4
Cyclohexane(3)	0.1445	0.1495	51.74	50	3
1,1-Dichloropropene	0.3846	0.4184	54.40	50	9
Carbon Tetrachloride	0.3853	0.4426	57.43	50	15
Isobutyl Alcohol	0.4661	0.4682	627.82	625	0
Benzene	1.0584	1.1094	52.41	50	5
1,2-Dichloroethane	0.4005	0.4816	60.13	50	20
1,2-Dichloroethane(2)	0.0286	0.0304	53.15	50	6
t-Amyl methyl ether	0.6693	0.7447	55.63	50	11
n-Heptane	0.4957	0.5320	53.66	50	7
n-Butanol	0.3115	0.2897	1162.57	1250	-7
Trichloroethene	0.2728	0.2915	53.42	50	7
Methylcyclohexane	0.4808	0.4747	49.36	50	-1
* 1,2-Dichloropropane	0.2949	0.3107	52.67	50	5 *
Methyl Methacrylate	0.1507	0.1654	54.87	50	10
1,4-Dioxane	0.1209	0.1079	557.68	625	-11
Dibromomethane	0.1580	0.1730	54.73	50	9
Bromodichloromethane	0.3436	0.3894	56.67	50	13
2-Nitropropane	3.4936	3.6351	93.71	100	-6
2-Chloroethyl Vinyl Ether	0.0331	0.1446	184.41	50	269
cis-1,3-Dichloropropene	0.3953	0.4394	55.58	50	11
4-Methyl-2-pentanone	0.2593	0.3283	118.71	100	19
* Toluene	0.9440	0.9947	52.68	50	5 *
trans-1,3-Dichloropropene	0.5270	0.5968	56.62	50	13
Ethyl Methacrylate	0.3969	0.4592	57.84	50	16
1,1,2-Trichloroethane	0.2962	0.3265	55.10	50	10
Tetrachloroethene	0.4157	0.4550	54.72	50	9
1,3-Dichloropropane	0.5483	0.6025	54.94	50	10
2-Hexanone	0.2636	0.3173	112.98	100	13
Dibromochloromethane	0.3486	0.3931	56.38	50	13
1,2-Dibromoethane	0.2991	0.3270	54.66	50	9
# Chlorobenzene	1.0562	1.1075	52.43	50	5 #
1,1,1,2-Tetrachloroethane	0.3839	0.4210	54.83	50	10
* Ethylbenzene	1.7963	1.9810	55.14	50	10 *
m+p-Xylene	0.7017	0.7570	107.88	100	8

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: HP09953 Calibration Date: 11/07/12 Time: 21:58

Lab File ID: bn07c11.d Init. Calib. Date(s): 10/04/12 10/04/12

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
=====	=====	=====	=====	=====	=====
o-Xylene	0.6825	0.7374	54.02	50	8
Xylene (Total)	0.6953	0.7505	161.90	150	8
Styrene	1.0734	1.1828	55.10	50	10
# Bromoform	0.2287	0.2538	55.49	50	11 #
Isopropylbenzene	1.8202	2.0301	55.77	50	12
Cyclohexanone	0.3317	0.2321	449.56	625	-28
# 1,1,2,2-Tetrachloroethane	0.6510	0.7205	55.34	50	11 #
Bromobenzene	0.7278	0.7746	53.21	50	6
trans-1,4-Dichloro-2-butene	0.2018	0.2492	154.42	125	24
1,2,3-Trichloropropane	0.1842	0.2116	57.43	50	15
n-Propylbenzene	3.5076	3.8270	44.54	50	-11
2-Chlorotoluene	0.7159	0.7359	51.39	50	3
1,3,5-Trimethylbenzene	2.5573	2.8590	55.90	50	12
4-Chlorotoluene	0.7557	0.7820	51.74	50	3
tert-Butylbenzene	0.5764	0.6320	54.83	50	10
Pentachloroethane	0.4944	0.5351	54.11	50	8
1,2,4-Trimethylbenzene	2.5898	2.8746	55.50	50	11
sec-Butylbenzene	3.2381	3.5959	55.52	50	11
1,3-Dichlorobenzene	1.4226	1.5144	53.23	50	6
p-Isopropyltoluene	2.8506	3.1994	56.12	50	12
1,4-Dichlorobenzene	1.5266	1.5771	51.66	50	3
1,2,3-Trimethylbenzene	2.6677	2.9060	54.46	50	9
Benzyl Chloride	0.2392	0.2759	57.66	50	15
1,3-Diethylbenzene	1.6619	1.7876	53.78	50	8
1,4-Diethylbenzene	1.7888	1.8797	52.54	50	5
n-Butylbenzene	1.4770	1.6323	55.26	50	11
1,2-Dichlorobenzene	1.4599	1.5440	52.88	50	6
1,2-Diethylbenzene	1.4811	1.5675	52.91	50	6
1,2-Dibromo-3-chloropropane	0.1312	0.1528	58.23	50	16
1,3,5-Trichlorobenzene	1.2315	1.2992	52.75	50	6
1,2,4-Trichlorobenzene	1.0660	1.1483	53.86	50	8
Hexachlorobutadiene	0.6320	0.6961	55.06	50	10
Naphthalene	2.1652	2.5131	58.03	50	16
1,2,3-Trichlorobenzene	1.0103	1.1191	55.38	50	11
2-Methylnaphthalene	1.2023	1.4934	57.11	50	14
=====	=====	=====	=====	=====	=====
Dibromofluoromethane	0.2504	0.2561	51.15	50	2

Minimum RRF for SPCC(#)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: HP09953 Calibration Date: 11/07/12 Time: 21:58

Lab File ID: bn07c11.d Init. Calib. Date(s): 10/04/12 10/04/12

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Dibromofluoromethane (2)	0.2551	0.2636	51.67	50	3
1,2-Dichloroethane-d4	0.0526	0.0561	53.30	50	7
1,2-Dichloroethane-d4 (2)	0.3183	0.3816	59.94	50	20
1,2-Dichloroethane-d4 (3)	0.0329	0.0334	50.66	50	1
Toluene-d8	1.4318	1.4427	50.38	50	1
Toluene-d8 (2)	0.9242	0.9285	50.23	50	0
4-Bromofluorobenzene	0.5367	0.5404	50.35	50	1
4-Bromofluorobenzene (2)	0.4408	0.4566	51.78	50	4

Average %Drift 12

Minimum RRF for SPCC(##)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

Lancaster Laboratories
Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP09953.i/12oct04b.b/bc04i06.d
/chem2/HP09953.i/12oct04b.b/bc04i05.d
/chem2/HP09953.i/12oct04b.b/bc04i04.d
/chem2/HP09953.i/12oct04b.b/bc04i03.d
/chem2/HP09953.i/12oct04b.b/bc04i02.d
/chem2/HP09953.i/12oct04b.b/bc04i01.d

File /chem2/HP09953.i/12oct04b.b/bc04i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP09953.i/12nov08a.b/bn08c01.d

RT Summary

File ID:

=====

Internal Standard Name	bn08c01.d	ICAL RT	In Spec
t-Butyl alcohol-d10	2.222	2.222	Yes
Fluorobenzene	4.358	4.357	Yes
Chlorobenzene-d5	7.539	7.545	Yes
1,4-Dichlorobenzene-d4	9.522	9.522	Yes

A "No" indicates the retention time is greater than 30 seconds from the referenced ICAL standard.

Area Summary

File ID:

=====

Internal Standard Name	bn08c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	151989	134182	67091	268364	Yes
Fluorobenzene	1092638	1448978	724489	2897956	Yes
Chlorobenzene-d5	754995	1001377	500688	2002754	Yes
1,4-Dichlorobenzene-d4	488192	616350	308175	1232700	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments:

report generated on 11/08/2012 at 11:02

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract: _____
 Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____
 Instrument ID: HP09953 Calibration Date: 11/08/12 Time: 09:38
 Lab File ID: bn08c01.d Init. Calib. Date(s): 10/04/12 10/04/12
 Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Dichlorodifluoromethane	0.4398	0.4286	48.72	50	-3
# Chloromethane	0.4349	0.4488	51.59	50	3 #
* Vinyl Chloride	0.3643	0.3718	51.03	50	2 *
Bromomethane	0.2284	0.2456	53.77	50	8
Chloroethane	0.1898	0.2029	53.47	50	7
Trichlorofluoromethane	0.4635	0.4723	50.96	50	2
Ethanol	0.1327	0.1236	2328.75	2500	-7
Acrolein	1.9359	1.8988	490.43	500	-2
* 1,1-Dichloroethene	0.2122	0.2214	52.15	50	4 *
Acetone	0.0242	0.0267	110.37	100	10
Freon 113	0.2480	0.2505	50.49	50	1
2-Propanol	0.9062	0.9779	269.78	250	8
Methyl Iodide	0.4406	0.4700	53.34	50	7
Carbon Disulfide	0.6996	0.7376	52.71	50	5
Methyl Acetate	0.1856	0.2246	60.50	50	21
Allyl Chloride	0.4615	0.4909	53.18	50	6
Methylene Chloride	0.2464	0.2663	54.04	50	8
t-Butyl alcohol	1.2679	1.2659	249.62	250	0
Acrylonitrile	0.0809	0.0981	60.62	50	21
Methyl Tertiary Butyl Ether	0.6890	0.8496	61.65	50	23
trans-1,2-Dichloroethene	0.2395	0.2584	53.95	50	8
n-Hexane	0.4167	0.3438	41.26	50	-17
# 1,1-Dichloroethane	0.5258	0.5555	52.82	50	6 #
di-Isopropyl ether	1.0002	1.0448	52.23	50	4
2-Chloro-1,3-butadiene	0.4610	0.5178	56.16	50	12
Ethyl t-butyl ether	0.8181	0.8755	53.51	50	7
2-Butanone	0.1236	0.1513	122.37	100	22
cis-1,2-Dichloroethene	0.2700	0.2752	50.95	50	2
1,2-Dichloroethene (Total)	0.2548	0.2668	104.90	100	5
2,2-Dichloropropane	0.4001	0.4686	58.56	50	17
Propionitrile	1.6783	1.5127	225.33	250	-10
Methacrylonitrile	0.0892	0.1076	150.86	125	21
Bromochloromethane	0.1298	0.1399	53.87	50	8
Tetrahydrofuran	1.3270	1.1523	86.84	100	-13
* Chloroform	0.5022	0.5445	54.21	50	8 *
1,1,1-Trichloroethane	0.4285	0.4800	56.00	50	12

Minimum RRF for SPCC(#) = 0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
 Maximum %Drift for CCC(*) = 20%

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: HP09953 Calibration Date: 11/08/12 Time: 09:38

Lab File ID: bn08c01.d Init. Calib. Date(s): 10/04/12 10/04/12

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Cyclohexane	0.5063	0.4550	44.93	50	-10
Cyclohexane(2)	0.3856	0.3468	44.97	50	-10
Cyclohexane(3)	0.1445	0.1290	44.65	50	-11
1,1-Dichloropropene	0.3846	0.3984	51.80	50	4
Carbon Tetrachloride	0.3853	0.4222	54.80	50	10
Isobutyl Alcohol	0.4661	0.4645	622.81	625	0
Benzene	1.0584	1.0775	50.90	50	2
1,2-Dichloroethane	0.4005	0.4971	62.06	50	24
1,2-Dichloroethane(2)	0.0286	0.0322	56.38	50	13
t-Amyl methyl ether	0.6693	0.7501	56.03	50	12
n-Heptane	0.4957	0.4216	42.52	50	-15
n-Butanol	0.3115	0.2854	1145.56	1250	-8
Trichloroethene	0.2728	0.2815	51.59	50	3
Methylcyclohexane	0.4808	0.4129	42.93	50	-14
* 1,2-Dichloropropane	0.2949	0.3056	51.81	50	4 *
Methyl Methacrylate	0.1507	0.1793	59.49	50	19
1,4-Dioxane	0.1209	0.1033	534.28	625	-15
Dibromomethane	0.1580	0.1797	56.87	50	14
Bromodichloromethane	0.3436	0.3862	56.21	50	12
2-Nitropropane	3.4936	3.4951	90.23	100	-10
2-Chloroethyl Vinyl Ether	0.0331	0.1510	190.73	50	281
cis-1,3-Dichloropropene	0.3953	0.4356	55.10	50	10
4-Methyl-2-pentanone	0.2593	0.3334	120.53	100	21
* Toluene	0.9440	0.9623	50.97	50	2 *
trans-1,3-Dichloropropene	0.5270	0.6069	57.58	50	15
Ethyl Methacrylate	0.3969	0.4836	60.92	50	22
1,1,2-Trichloroethane	0.2962	0.3366	56.82	50	14
Tetrachloroethene	0.4157	0.4412	53.06	50	6
1,3-Dichloropropane	0.5483	0.6159	56.16	50	12
2-Hexanone	0.2636	0.3320	118.25	100	18
Dibromochloromethane	0.3486	0.4032	57.82	50	16
1,2-Dibromoethane	0.2991	0.3460	57.83	50	16
# Chlorobenzene	1.0562	1.0859	51.41	50	3 #
1,1,1,2-Tetrachloroethane	0.3839	0.4234	55.14	50	10
* Ethylbenzene	1.7963	1.9315	53.76	50	8 *
m+p-Xylene	0.7017	0.7419	105.73	100	6

Minimum RRF for SPCC(#) = 0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)

Maximum %Drift for CCC(*) = 20%

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: HP09953 Calibration Date: 11/08/12 Time: 09:38

Lab File ID: bn08c01.d Init. Calib. Date(s): 10/04/12 10/04/12

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
o-Xylene	0.6825	0.7272	53.27	50	7
Xylene (Total)	0.6953	0.7370	159.01	150	6
Styrene	1.0734	1.1803	54.98	50	10
# Bromoform	0.2287	0.2710	59.25	50	18 #
Isopropylbenzene	1.8202	1.9682	54.07	50	8
Cyclohexanone	0.3317	0.1893	381.88	625	-39
# 1,1,2,2-Tetrachloroethane	0.6510	0.7611	58.46	50	17 #
Bromobenzene	0.7278	0.7611	52.28	50	5
trans-1,4-Dichloro-2-butene	0.2018	0.2770	171.59	125	37
1,2,3-Trichloropropane	0.1842	0.2281	61.92	50	24
n-Propylbenzene	3.5076	3.6578	42.23	50	-16
2-Chlorotoluene	0.7159	0.7299	50.98	50	2
1,3,5-Trimethylbenzene	2.5573	2.7341	53.46	50	7
4-Chlorotoluene	0.7557	0.7682	50.83	50	2
tert-Butylbenzene	0.5764	0.5948	51.60	50	3
Pentachloroethane	0.4944	0.5720	57.85	50	16
1,2,4-Trimethylbenzene	2.5898	2.8022	54.10	50	8
sec-Butylbenzene	3.2381	3.3427	51.61	50	3
1,3-Dichlorobenzene	1.4226	1.4912	52.41	50	5
p-Isopropyltoluene	2.8506	3.0247	53.05	50	6
1,4-Dichlorobenzene	1.5266	1.5600	51.10	50	2
1,2,3-Trimethylbenzene	2.6677	3.0968	58.04	50	16
Benzyl Chloride	0.2392	0.3023	63.17	50	26
1,3-Diethylbenzene	1.6619	1.8840	56.68	50	13
1,4-Diethylbenzene	1.7888	1.9792	55.32	50	11
n-Butylbenzene	1.4770	1.5338	51.92	50	4
1,2-Dichlorobenzene	1.4599	1.5518	53.15	50	6
1,2-Diethylbenzene	1.4811	1.6516	55.76	50	12
1,2-Dibromo-3-chloropropane	0.1312	0.1750	66.72	50	33
1,3,5-Trichlorobenzene	1.2315	1.2731	51.69	50	3
1,2,4-Trichlorobenzene	1.0660	1.1605	54.43	50	9
Hexachlorobutadiene	0.6320	0.5940	46.99	50	-6
Naphthalene	2.1652	2.7826	64.26	50	29
1,2,3-Trichlorobenzene	1.0103	1.1567	57.24	50	14
2-Methylnaphthalene	1.2023	1.7510	66.81	50	34
Dibromofluoromethane	0.2504	0.2632	52.57	50	5

Minimum RRF for SPCC(=)0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)

Maximum %Drift for CCC(*)=20%

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: HP09953 Calibration Date: 11/08/12 Time: 09:38

Lab File ID: bn08c01.d Init. Calib. Date(s): 10/04/12 10/04/12

Matrix: (soil/water) SOIL Level: (low/med) LOW GC Column: DB-624 ID: .18

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Dibromofluoromethane (2)	0.2551	0.2680	52.53	50	5
1,2-Dichloroethane-d4	0.0526	0.0574	54.56	50	9
1,2-Dichloroethane-d4 (2)	0.3183	0.3943	61.94	50	24
1,2-Dichloroethane-d4 (3)	0.0329	0.0351	53.27	50	7
Toluene-d8	1.4318	1.4616	51.04	50	2
Toluene-d8 (2)	0.9242	0.9284	50.23	50	0
4-Bromofluorobenzene	0.5367	0.5425	50.54	50	1
4-Bromofluorobenzene (2)	0.4408	0.4628	52.49	50	5

Average %Drift 13

Minimum RRF for SPCC(##)=0.10 (0.30 for Chlorobenzene, 1,1,2,2-Tetrachloroethane)
Maximum %Drift for CCC(*)=20%

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:
 Lab Code: LANCAS Case No.: SAS No.: SDG No.: TAP03
 Lab File ID (Standard): an08c01.d Date Analyzed: 11/08/12
 Instrument ID: HP09685 Time Analyzed: 00:31
 Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) CAP

		IS1(TBA)	RT #	IS2(FBZ)	RT #	IS3(CBZ)	RT #	IS4(DCB)	RT #
		AREA #		AREA #		AREA #		AREA #	
	=====	=====	=====	=====	=====	=====	=====	=====	=====
	12 HOUR STD	119744	4.176	1249822	7.687	901125	11.179	511193	13.071
	UPPER LIMIT	239488	4.676	2499644	8.187	1802250	11.679	1022386	13.571
	LOWER LIMIT	59872	3.676	624911	7.187	450562	10.679	255596	12.571
	=====	=====	=====	=====	=====	=====	=====	=====	=====
	LAB SAMPLE								
	ID								
	=====	=====	=====	=====	=====	=====	=====	=====	=====
01	VBLKA25	119127	4.183	1198502	7.687	868909	11.179	480612	13.071
02	LCSA25	123756	4.170	1195194	7.687	860415	11.179	492672	13.071
03	LCDA25	126794	4.183	1188480	7.687	861469	11.179	492390	13.071
04	6850762	149793	4.183	1210263	7.687	861640	11.179	466760	13.071
05	6850763	100283	4.183	1110997	7.687	715443	11.179	291474	13.071
06	6850766	135945	4.170	1161589	7.687	833646	11.179	454290	13.071
07	6850768	88962	4.189	1058009	7.687	660538	11.179	257660	13.071
08	6847382	99016	4.176	1079715	7.687	760108	11.179	393748	13.071
09	6850762MS	90347	4.189	1086098	7.687	716969	11.179	312433	13.071
10	6850767	102467	4.183	1054810	7.687	668740	11.179	261719	13.071
11	6850769	116965	4.170	1091658	7.681	684989	11.179	258379	13.071
12	6847386	53258 *	4.170	1080410	7.687	778572	11.179	417569	13.071
13	6847387	71979	4.171	1103863	7.681	800868	11.179	435638	13.071
14	6847389	103343	4.176	1066155	7.687	728488	11.179	336330	13.071
15	6847390	102257	4.183	1099432	7.687	797995	11.179	432104	13.071
16	6847392	95853	4.195	1075781	7.687	810898	11.179	464280	13.071
17	6847393	79822	4.189	1102864	7.687	795440	11.179	444533	13.071
18	6847384	103901	4.183	1048372	7.687	680155	11.179	281528	13.071
19	6847385	94723	4.183	1052157	7.687	728969	11.179	344347	13.071
20	6847388	119088	4.177	1104949	7.681	810202	11.179	454323	13.071
21	6847394	111079	4.177	955343	7.687	643478	11.179	301949	13.071
22	6846160	58826 *	4.177	1035391	7.681	717951	11.179	358039	13.071

IS1 (TBA)=t-Butyl alcohol-d10
 IS2 (FBZ)=Fluorobenzene
 IS3 (CBZ)=Chlorobenzene-d5
 IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
 of internal standard area.
 LOWER LIMIT = - 50%
 of internal standard area.

Column used to flag values outside QC limits with an asterisk
 * Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:
 Lab Code: LANCAS Case No.: SAS No.: SDG No.: TAP03
 Lab File ID (Standard): an08c01.d Date Analyzed: 11/08/12
 Instrument ID: HP09685 Time Analyzed: 00:31
 Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) CAP

	IS1 (TBA)		IS2 (FBZ)		IS3 (CBZ)		IS4 (DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
=====	=====	=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	119744	4.176	1249822	7.687	901125	11.179	511193	13.071
UPPER LIMIT	239488	4.676	2499644	8.187	1802250	11.679	1022386	13.571
LOWER LIMIT	59872	3.676	624911	7.187	450562	10.679	255596	12.571
=====	=====	=====	=====	=====	=====	=====	=====	=====
LAB SAMPLE								
ID								
=====	=====	=====	=====	=====	=====	=====	=====	=====
23 6847259	91350	4.177	1058439	7.687	760395	11.179	418297	13.071

IS1 (TBA)=t-Butyl alcohol-d10 UPPER LIMIT = + 100%
 IS2 (FBZ)=Fluorobenzene of internal standard area.
 IS3 (CBZ)=Chlorobenzene-d5 LOWER LIMIT = - 50%
 IS4 (DCB)=1,4-Dichlorobenzene-d4 of internal standard area.

Column used to flag values outside QC limits with an asterisk
 * Values outside of QC limits.

page 2 of 2

FORM VIII VOA

Lab Name: Lancaster Laboratories	Contract:		
Lab Code: LANCAS	Case No.:	SAS No.:	SDG No.: TAP03
Lab File ID (Standard): bn07c11.d	Date Analyzed: 11/07/12		
Instrument ID: HP09953	Time Analyzed: 21:58		
Matrix: (soil/water) SOIL	Level: (low/med) LOW	Column: (pack/cap) CAP	

IS1 (TBA)=t-Butyl alcohol-d10	UPPER LIMIT = + 100%
IS2 (FBZ)=Fluorobenzene	of internal standard area.
IS3 (CBZ)=Chlorobenzene-d5	LOWER LIMIT = - 50%
IS4 (DCB)=1,4-Dichlorobenzene-d4	of internal standard area.

TAP03 Page 196 of 2648

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:
 Lab Code: LANCAS Case No.: SAS No.: SDG No.: TAP03
 Lab File ID (Standard): bn08c01.d Date Analyzed: 11/08/12
 Instrument ID: HP09953 Time Analyzed: 09:38
 Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) CAP

		IS1 (TBA)		IS2 (FBZ)		IS3 (CBZ)		IS4 (DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
	=====	=====	=====	=====	=====	=====	=====	=====	=====
	12 HOUR STD	151989	2.222	1092638	4.358	754995	7.539	488192	9.522
	UPPER LIMIT	303978	2.722	2185276	4.858	1509990	8.039	976384	10.022
	LOWER LIMIT	75994	1.722	546319	3.858	377498	7.039	244096	9.022
	=====	=====	=====	=====	=====	=====	=====	=====	=====
	LAB SAMPLE								
	ID								
	=====	=====	=====	=====	=====	=====	=====	=====	=====
01	VBLKB85	127562	2.210	1040500	4.351	701746	7.539	391796	9.528
02	LCSB85	148182	2.210	1131612	4.357	766450	7.539	484039	9.522
03	LCSB86	146964	2.216	1106222	4.351	750578	7.545	414309	9.528
04	LCDB86	133645	2.216	1074948	4.351	737224	7.539	402067	9.528
05	6850739	110505	2.222	1021021	4.357	682743	7.545	382208	9.528
06	6850760	122106	2.216	989749	4.357	600148	7.545	248679	9.528
07	6850745	104605	2.216	948469	4.351	644919	7.545	350970	9.528
08	6847401	87689	2.204	959661	4.351	581760	7.545	246529	9.528
09	6847401MS	74218 *	2.210	1023344	4.351	638340	7.539	323699	9.522
10	6847401MSD	81096	2.204	1068880	4.351	665399	7.539	328992	9.522
11	6850761	151206	2.210	1018981	4.351	688694	7.539	370322	9.528
12	6845401RE	111587	2.210	504090*	4.351	322254 *	7.545	151964 *	9.528
13	6847395	116184	2.216	987823	4.351	666709	7.545	374477	9.528
14	6847402	120091	2.222	965430	4.351	632833	7.545	315664	9.528
15	6847403	102328	2.210	981697	4.351	661171	7.539	353979	9.522
16	6847404	112075	2.198	939616	4.351	599586	7.539	273000	9.528
17	6847405	80643	2.204	963347	4.351	642091	7.539	323205	9.528
18	6847408	134677	2.216	959947	4.351	655750	7.545	365038	9.528
19	6847409	151902	2.204	953552	4.351	649088	7.539	366087	9.528
20	6847410	60250 *	2.216	477607*	4.351	314830 *	7.545	148981 *	9.528
21	6847411	98324	2.216	949591	4.351	628841	7.545	340991	9.528
22	6847414	111578	2.198	946804	4.351	651789	7.539	371299	9.528

IS1 (TBA)=t-Butyl alcohol-d10
 IS2 (FBZ)=Fluorobenzene
 IS3 (CBZ)=Chlorobenzene-d5
 IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
 of internal standard area.
 LOWER LIMIT = - 50%
 of internal standard area.

Column used to flag values outside QC limits with an asterisk
 * Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:
 Lab Code: LANCAS Case No.: SAS No.: SDG No.: TAP03
 Lab File ID (Standard): bn08c01.d Date Analyzed: 11/08/12
 Instrument ID: HP09953 Time Analyzed: 09:38
 Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) CAP

		IS1 (TBA)		IS2 (FBZ)		IS3 (CBZ)		IS4 (DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
	=====	=====	=====	=====	=====	=====	=====	=====	=====
	12 HOUR STD	151989	2.222	1092638	4.358	754995	7.539	488192	9.522
	UPPER LIMIT	303978	2.722	2185276	4.858	1509990	8.039	976384	10.022
	LOWER LIMIT	75994	1.722	546319	3.858	377498	7.039	244096	9.022
	=====	=====	=====	=====	=====	=====	=====	=====	=====
	LAB SAMPLE								
	ID								
	=====	=====	=====	=====	=====	=====	=====	=====	=====
23	6847407	127927	2.204	946458	4.351	642769	7.539	380103	9.522
24	6847398	247074	2.240	1204955	4.357	903368	7.545	649403	9.528

IS1 (TBA)=t-Butyl alcohol-d10
 IS2 (FBZ)=Fluorobenzene
 IS3 (CBZ)=Chlorobenzene-d5
 IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
 of internal standard area.
 LOWER LIMIT = - 50%
 of internal standard area.

Column used to flag values outside QC limits with an asterisk
 * Values outside of QC limits.

page 2 of 2

FORM VIII VOA

Sample Data

Volatiles by GC/MS

Fraction: Volatiles by GC/MS

10237: Table 375-6.8(a) VOCs Analyte Name	Default MDL	Default LOQ	Units
Vinyl Chloride	1	5	ug/kg
1,1-Dichloroethene	1	5	ug/kg
Acetone	7	20	ug/kg
Methylene Chloride	2	5	ug/kg
trans-1,2-Dichloroethene	1	5	ug/kg
Methyl Tertiary Butyl Ether	0.5	5	ug/kg
1,1-Dichloroethane	1	5	ug/kg
2-Butanone	4	10	ug/kg
cis-1,2-Dichloroethene	1	5	ug/kg
Chloroform	1	5	ug/kg
1,1,1-Trichloroethane	1	5	ug/kg
Carbon Tetrachloride	1	5	ug/kg
Benzene	0.5	5	ug/kg
1,2-Dichloroethane	1	5	ug/kg
Trichloroethene	1	5	ug/kg
1,4-Dioxane	70	250	ug/kg
Toluene	1	5	ug/kg
Tetrachloroethene	1	5	ug/kg
Chlorobenzene	1	5	ug/kg
Ethylbenzene	1	5	ug/kg
Xylene (Total)	1	5	ug/kg
n-Propylbenzene	1	5	ug/kg
1,3,5-Trimethylbenzene	1	5	ug/kg
tert-Butylbenzene	1	5	ug/kg
1,2,4-Trimethylbenzene	1	5	ug/kg
sec-Butylbenzene	1	5	ug/kg
1,3-Dichlorobenzene	1	5	ug/kg
1,4-Dichlorobenzene	1	5	ug/kg
n-Butylbenzene	1	5	ug/kg
1,2-Dichlorobenzene	1	5	ug/kg

CNST9

Contract:

Case No.:

SAS No. :

SDG No. :

Lab Sample ID: 6850733

Lab File ID: HP09953.i/12nov07b.b/bn07s30.d

Date Received: 11/07/12

Date Analyzed: 11/07/12.

Dilution Factor: 1.0

CAS NO.

COMPOUND

(mg/L or mg/Kg) mg/Kg

0

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.020	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.260	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST9

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850733

Sample wt/vol: 5.03 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s30.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/07/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----	1,2-Dichlorobenzene	0.005	U
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CNST9

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850733

Data file: /chem2/HP09953.i/12nov07b.b/bn07s30.d

Injection date and time: 07-NOV-2012 23:51

Data file Sample Info. Line: CNST9;6850733;2;0;;TAP03;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 00:58 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 0.99

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5.03 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	2.222(-0.012)	229	65	84297 (-40)	250.00	
67) Fluorobenzene	4.357(-0.006)	580	96	1061920 (-8)	50.00	
99) Chlorobenzene-d5	7.545(-0.006)	1104	117	708833 (-12)	50.00	
133) 1,4-Dichlorobenzene-d4	9.528(-0.006)	1430	152	390665 (-23)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.712(0.000)	113	270914	50.949	102%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.029(0.001)	102	56718	50.748	101%		54 - 135
86) Toluene-d8	(3)	5.988(0.000)	98	1009141	49.716	99%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622(0.001)	95	342673	45.040	90%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit LOQ (in sample)
5) Vinyl Chloride	(2)			Not Detected					1 5
13) Trichlorofluoromethane	(2)			Not Detected					2 5
19) 1,1-Dichloroethene	(2)			Not Detected					1 5
20) Acetone	(2)			Not Detected					7 20
31) Methylene Chloride	(2)			Not Detected					2 5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5 5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1 5
40) 1,1-Dichloroethane	(2)			Not Detected					1 5
45) 2-Butanone	(2)			Not Detected					4 10
46) cis-1,2-Dichloroethene	(2)			Not Detected					1 5
54) Chloroform	(2)			Not Detected					1 5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1 5
59) Carbon Tetrachloride	(2)			Not Detected					1 5
62) Benzene	(2)			Not Detected					0.5 5
64) 1,2-Dichloroethane	(2)			Not Detected					1 5
72) Trichloroethene	(2)			Not Detected					1 5
77) 1,4-Dioxane	(1)			Not Detected					70 250
87) Toluene	(3)			Not Detected					1 5
92) Tetrachloroethene	(3)			Not Detected					1 5
100) Chlorobenzene	(3)			Not Detected					1 5
102) Ethylbenzene	(3)			Not Detected					1 5
103) m+p-Xylene	(3)			Not Detected					1 5
104) o-Xylene	(3)			Not Detected					1 5
105) Xylene (Total)	(3)			Not Detected					1 5
117) n-Propylbenzene	(4)			Not Detected					1 5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1 5
126) tert-Butylbenzene	(4)			Not Detected					1 5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1 5
129) sec-Butylbenzene	(4)			Not Detected					1 5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1 5

CNST9

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850733

Data file: /chem2/HP09953.i/12nov07b.b/bn07s30.d

Injection date and time: 07-NOV-2012 23:51

Data file Sample Info. Line: CNST9;6850733;2;0;;TAP03;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 00:58 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 0.99

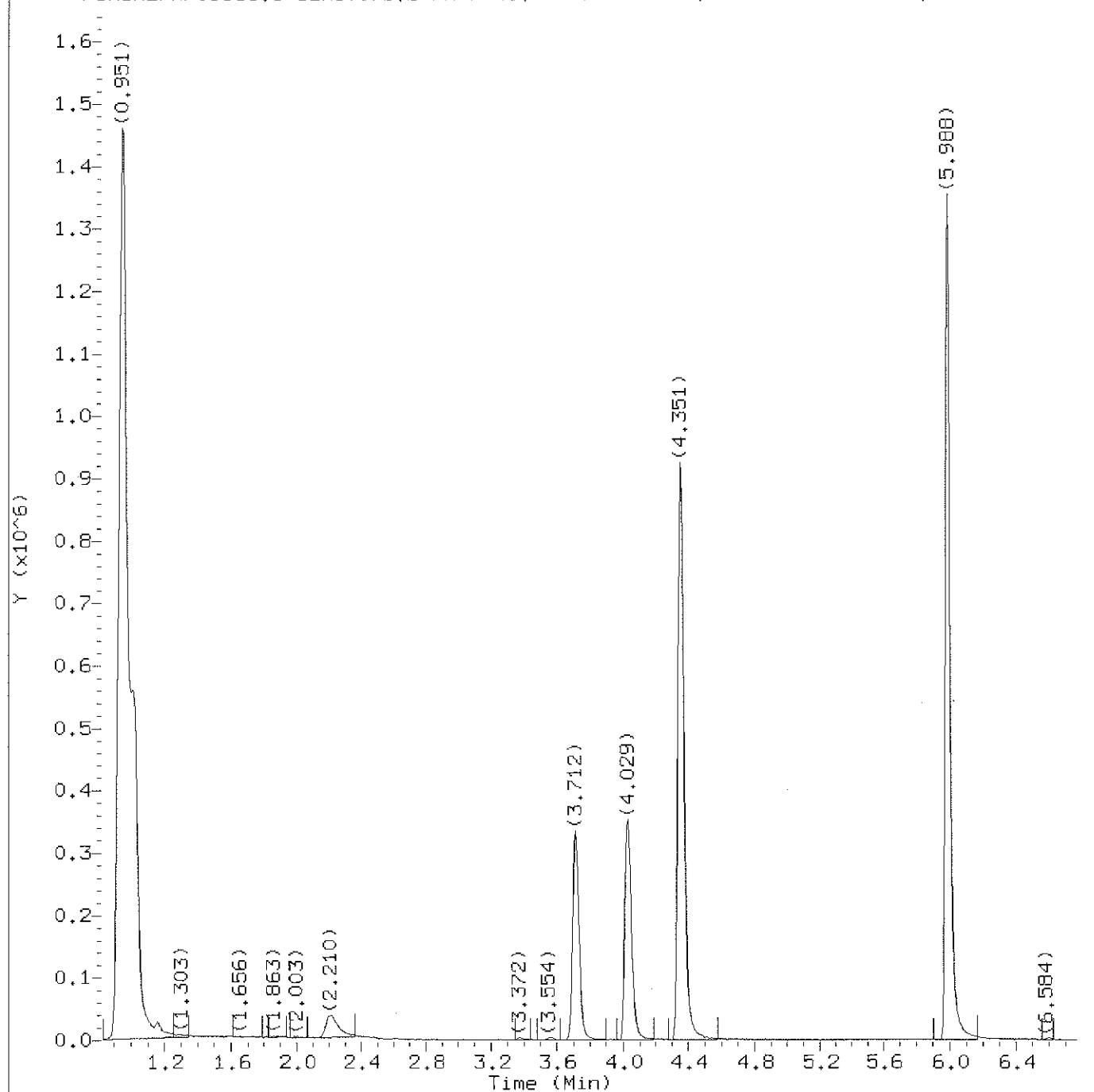
Volume Purged (Vt): 5 ml Sample Weight (Ws): 5.03 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
134) 1,4-Dichlorobenzene	(4)			Not Detected					1	5
139) n-Butylbenzene	(4)			Not Detected					1	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					1	5

Total number of targets = 33

Digitally signed by Stephanie A. Selis on 11/08/2012 at 00:59. Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14. Parallax ID: ahu01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s30.d
Injection date and time: 07-NOV-2012 23:51

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 10261

Calibration date and time: 07-NOV-2012 22:23

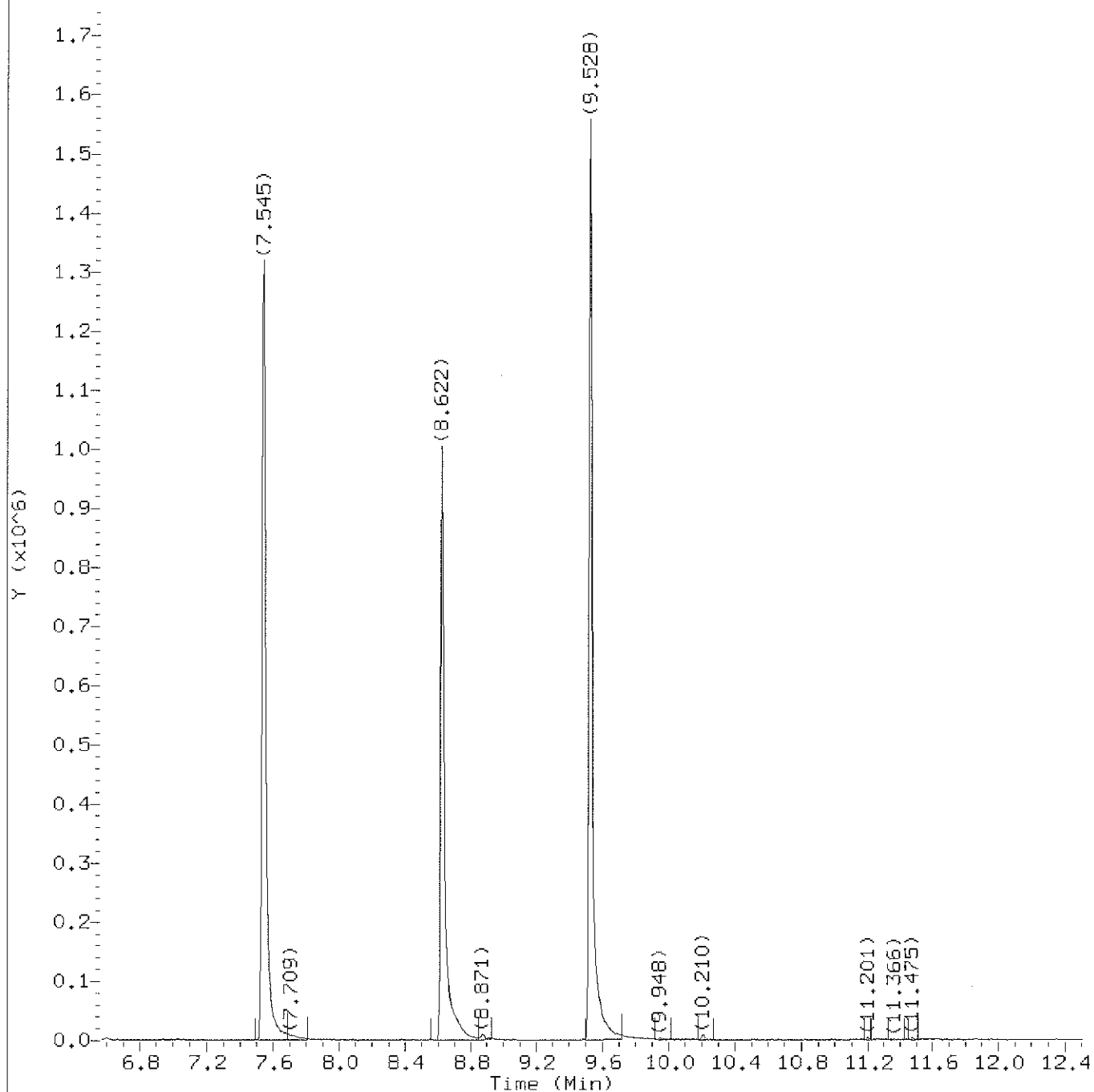
Date, time and analyst ID of latest file update: 08-Nov-2012 00:58 sas00403

Sample Name: CNST9

Lab Sample ID: 6850733

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 00:59.

Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s30.d
Injection date and time: 07-NOV-2012 23:51

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 00:58 sas00403

Sublist used: 10261

Sample Name: CNST9

Lab Sample ID: 6850733

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 00:59.

Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s30.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2012 23:51 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 00:58 sas00403

Sample Name: CNST9

Lab Sample ID: 6850733

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30) *t-Butyl Alcohol-d10	(1)	2.222	65	84297	250.000
55) \$Dibromofluoromethane	(2)	3.712	113	270914	50.949
61) \$1,2-Dichloroethane-d4	(2)	4.029	102	56718	50.748
67) *Fluorobenzene	(2)	4.357	96	1061920	50.000
86) \$Toluene-d8	(3)	5.988	98	1009141	49.716
99) *Chlorobenzene-d5	(3)	7.545	117	708833	50.000
112) \$4-Bromofluorobenzene	(3)	8.622	95	342673	45.040
133) *1,4-Dichlorobenzene-d4	(4)	9.528	152	390665	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 00:59.
Target 3.5 esignature user ID: sas00403

VOLATILE ORGANICS ANALYSIS DATA SHEET

NST10

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850734

Sample wt/vol: 5.11 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s31.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 4

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg

CAS NO.	COMPOUND	Q
75-01-4-----	Vinyl Chloride	0.005 U
75-69-4-----	Trichlorofluoromethane	0.005 U
75-35-4-----	1,1-Dichloroethene	0.005 U
67-64-1-----	Acetone	0.020 U
75-09-2-----	Methylene Chloride	0.005 U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005 U
156-60-5-----	trans-1,2-Dichloroethene	0.005 U
75-34-3-----	1,1-Dichloroethane	0.005 U
78-93-3-----	2-Butanone	0.010 U
156-59-2-----	cis-1,2-Dichloroethene	0.005 U
67-66-3-----	Chloroform	0.005 U
71-55-6-----	1,1,1-Trichloroethane	0.005 U
56-23-5-----	Carbon Tetrachloride	0.005 U
71-43-2-----	Benzene	0.005 U
107-06-2-----	1,2-Dichloroethane	0.005 U
79-01-6-----	Trichloroethene	0.005 U
123-91-1-----	1,4-Dioxane	0.250 U
108-88-3-----	Toluene	0.005 U
127-18-4-----	Tetrachloroethene	0.005 U
108-90-7-----	Chlorobenzene	0.005 U
100-41-4-----	Ethylbenzene	0.005 U
1330-20-7-----	Xylene (Total)	0.005 U
103-65-1-----	n-Propylbenzene	0.005 U
108-67-8-----	1,3,5-Trimethylbenzene	0.005 U
98-06-6-----	tert-Butylbenzene	0.005 U
95-63-6-----	1,2,4-Trimethylbenzene	0.005 U
135-98-8-----	sec-Butylbenzene	0.005 U
541-73-1-----	1,3-Dichlorobenzene	0.005 U
106-46-7-----	1,4-Dichlorobenzene	0.005 U
104-51-8-----	n-Butylbenzene	0.005 U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST10

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850734

Sample wt/vol: 5.11 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s31.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 4

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.005	U
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NST10

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850734

Data file: /chem2/HP09953.i/12nov07b.b/bn07s31.d

Injection date and time: 08-NOV-2012 00:14

Data file Sample Info. Line: NST10;6850734;2;0;;TAP03;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 00:58 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150A Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 0.98

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5.11 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	2.216(-0.006)	228	65	94695 (-33)	250.00	
67) Fluorobenzene	4.351(0.000)	579	96	1079145 (-7)	50.00	
99) Chlorobenzene-d5	7.539(0.000)	1103	117	722743 (-10)	50.00	
133) 1,4-Dichlorobenzene-d4	9.529(-0.006)	1430	152	395870 (-22)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.713(-0.001)	113	278211	51.486	103%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.029(0.000)	102	58078	51.135	102%		54 - 135
86) Toluene-d8	(3)	5.988(-0.001)	98	1028675	49.703	99%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622(0.000)	95	343078	44.226	88%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
5) Vinyl Chloride	(2)			Not Detected					1	5
13) Trichlorofluoromethane	(2)			Not Detected					2	5
19) 1,1-Dichloroethene	(2)			Not Detected					1	5
20) Acetone	(2)			Not Detected					7	20
31) Methylene Chloride	(2)			Not Detected					2	5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5	5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1	5
40) 1,1-Dichloroethane	(2)			Not Detected					1	5
45) 2-Butanone	(2)			Not Detected					4	10
46) cis-1,2-Dichloroethene	(2)			Not Detected					1	5
54) Chloroform	(2)			Not Detected					1	5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1	5
59) Carbon Tetrachloride	(2)			Not Detected					1	5
62) Benzene	(2)			Not Detected					0.5	5
64) 1,2-Dichloroethane	(2)			Not Detected					1	5
72) Trichloroethene	(2)			Not Detected					1	5
77) 1,4-Dioxane	(1)			Not Detected					68	240
87) Toluene	(3)			Not Detected					1	5
92) Tetrachloroethene	(3)			Not Detected					1	5
100) Chlorobenzene	(3)			Not Detected					1	5
102) Ethylbenzene	(3)			Not Detected					1	5
103) m+p-Xylene	(3)			Not Detected					1	5
104) o-Xylene	(3)			Not Detected					1	5
105) Xylene (Total)	(3)			Not Detected					1	5
117) n-Propylbenzene	(4)			Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1	5
126) tert-Butylbenzene	(4)			Not Detected					1	5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1	5
129) sec-Butylbenzene	(4)			Not Detected					1	5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1	5

NST10

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850734

Data file: /chem2/HP09953.i/12nov07b.b/bn07s31.d

Injection date and time: 08-NOV-2012 00:14

Data file Sample Info. Line: NST10;6850734;2;0;;TAP03;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 00:58 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150A

Matrix: SOIL

Level: Low

On-Column Amount units: ng

In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 0.98

Volume Purged (Vt): 5 ml

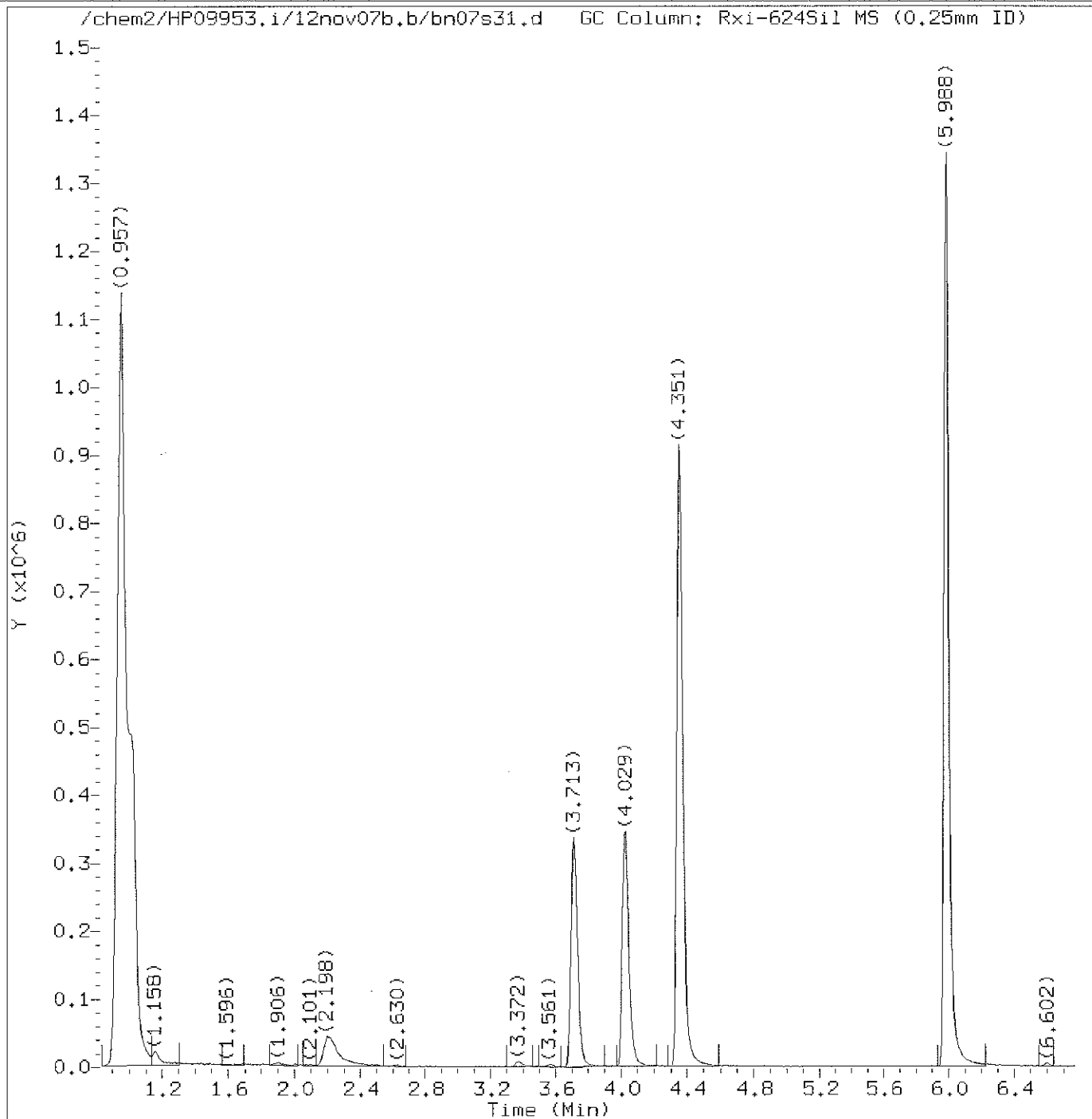
Sample Weight (Ws): 5.11 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
134) 1,4-Dichlorobenzene	(4)			Not Detected					1	5
139) n-Butylbenzene	(4)			Not Detected					1	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					1	5

Total number of targets = 33

Digitally signed by Stephanie A. Selis on 11/08/2012 at 00:59 Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14. Parallax ID: ahu01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s31.d

Instrument ID: HP09953.i

Injection date and time: 08-NOV-2012 00:14

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 10261

Calibration date and time: 07-NOV-2012 22:23

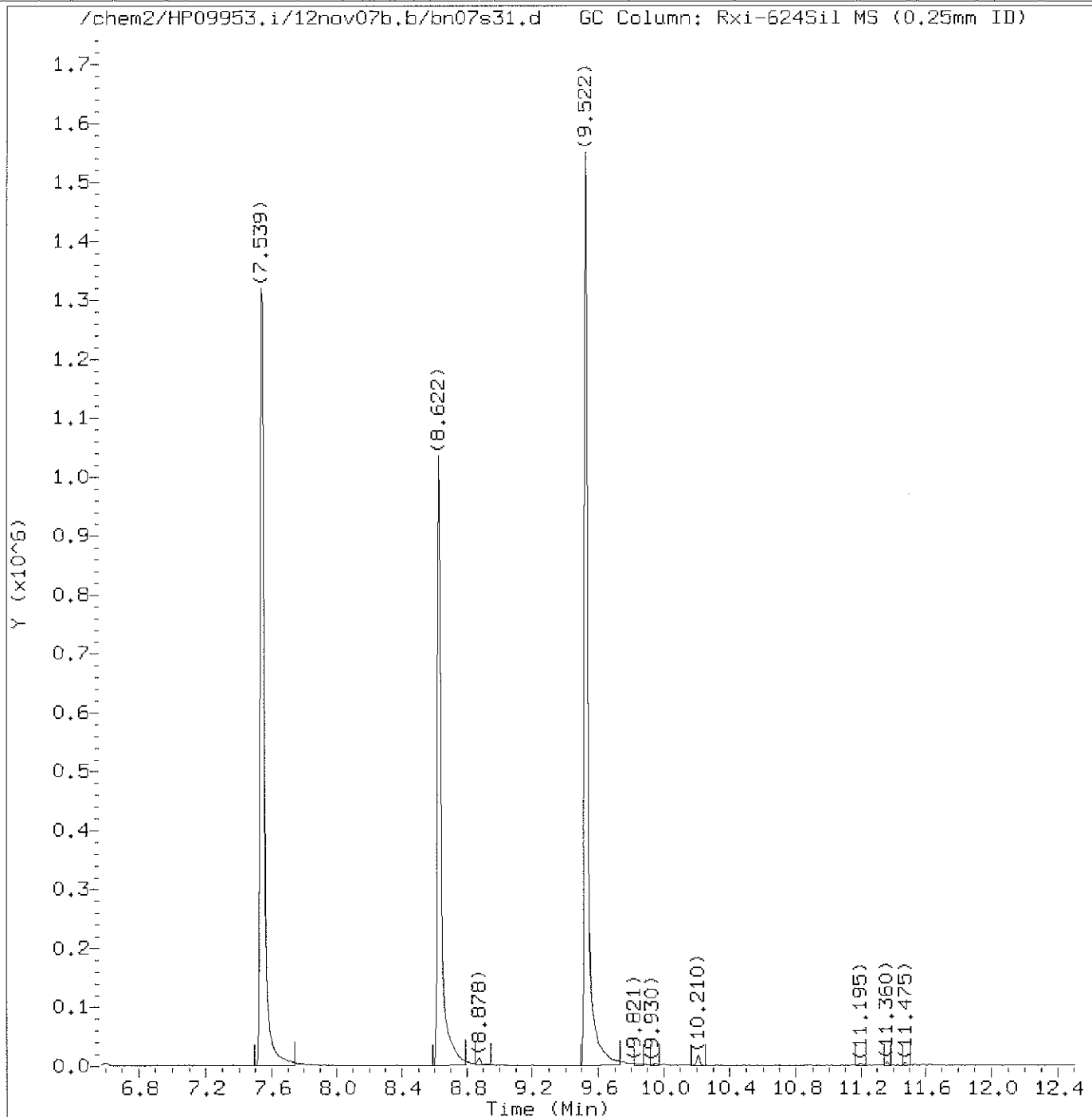
Date, time and analyst ID of latest file update: 08-Nov-2012 00:58 sas00403

Sample Name: NST10

Lab Sample ID: 6850734

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 00:59.

Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s31.d
Injection date and time: 08-NOV-2012 00:14

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 00:58 sas00403

Sample Name: NST10

Lab Sample ID: 6850734

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 00:59.
Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s31.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 00:14 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 00:58 sas00403

Sample Name: NST10

Lab Sample ID: 6850734

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30)*t-Butyl Alcohol-d10	(1)	2.216	65	94695	250.000
55)\$Dibromofluoromethane	(2)	3.713	113	278211	51.486
61)\$1,2-Dichloroethane-d4	(2)	4.029	102	58078	51.135
67)*Fluorobenzene	(2)	4.351	96	1079145	50.000
86)\$Toluene-d8	(3)	5.988	98	1028675	49.703
99)*Chlorobenzene-d5	(3)	7.539	117	722743	50.000
112)\$4-Bromofluorobenzene	(3)	8.622	95	343078	44.226
133)*1,4-Dichlorobenzene-d4	(4)	9.529	152	395870	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

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Digitally signed by Stephanie A. Selis
on 11/08/2012 at 00:59.
Target 3.5 esignature user ID: sas00403

VOLATILE ORGANICS ANALYSIS DATA SHEET

NST11

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850735

Sample wt/vol: 5.23 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s32.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(mg/L or mg/Kg) mg/Kg	Q
---------	----------	-----------------------	---

75-01-4	Vinyl Chloride	0.005	U
75-69-4	Trichlorofluoromethane	0.005	U
75-35-4	1,1-Dichloroethene	0.005	U
67-64-1	Acetone	0.020	U
75-09-2	Methylene Chloride	0.005	U
1634-04-4	Methyl Tertiary Butyl Ether	0.005	U
156-60-5	trans-1,2-Dichloroethene	0.005	U
75-34-3	1,1-Dichloroethane	0.005	U
78-93-3	2-Butanone	0.010	U
156-59-2	cis-1,2-Dichloroethene	0.005	U
67-66-3	Chloroform	0.005	U
71-55-6	1,1,1-Trichloroethane	0.005	U
56-23-5	Carbon Tetrachloride	0.005	U
71-43-2	Benzene	0.005	U
107-06-2	1,2-Dichloroethane	0.005	U
79-01-6	Trichloroethene	0.005	U
123-91-1	1,4-Dioxane	0.250	U
108-88-3	Toluene	0.005	U
127-18-4	Tetrachloroethene	0.005	U
108-90-7	Chlorobenzene	0.005	U
100-41-4	Ethylbenzene	0.005	U
1330-20-7	Xylene (Total)	0.005	U
103-65-1	n-Propylbenzene	0.005	U
108-67-8	1,3,5-Trimethylbenzene	0.005	U
98-06-6	tert-Butylbenzene	0.005	U
95-63-6	1,2,4-Trimethylbenzene	0.005	U
135-98-8	sec-Butylbenzene	0.005	U
541-73-1	1,3-Dichlorobenzene	0.005	U
106-46-7	1,4-Dichlorobenzene	0.005	U
104-51-8	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST11

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850735

Sample wt/vol: 5.23 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s32.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----	1,2-Dichlorobenzene	0.005	U
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NST11

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850735

Data file: /chem2/HP09953.i/12nov07b.b/bn07s32.d Injection date and time: 08-NOV-2012 00:36
 Data file Sample Info. Line: NST11;6850735;2;0;;TAP03;;bn07b10a; Instrument ID: HP09953.i Batch: B123122AA
 Date, time and analyst ID of latest file update: 08-Nov-2012 00:59 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
 Calibration date and time (Last Method Edit): 07-NOV-2012 22:23
 Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150A Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 0.96

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5.23 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	2.216(-0.006)	228	65	95565 (-32)	250.00	
67) Fluorobenzene	4.351(0.000)	579	96	1049021 (-10)	50.00	
99) Chlorobenzene-d5	7.539(0.000)	1103	117	694987 (-13)	50.00	
133) 1,4-Dichlorobenzene-d4	9.528(-0.006)	1430	152	377313 (-26)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.706(0.000)	113	272523	51.881	104%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.023(0.001)	102	56608	51.272	103%		54 - 135
86) Toluene-d8	(3)	5.982(0.000)	98	986818	49.585	99%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622(0.000)	95	337247	45.210	90%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit LOQ (in sample)
5) Vinyl Chloride	(2)			Not Detected					1 5
13) Trichlorofluoromethane	(2)			Not Detected					2 5
19) 1,1-Dichloroethene	(2)			Not Detected					1 5
20) Acetone	(2)			Not Detected					7 19
31) Methylene Chloride	(2)			Not Detected					2 5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5 5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1 5
40) 1,1-Dichloroethane	(2)			Not Detected					1 5
45) 2-Butanone	(2)			Not Detected					4 10
46) cis-1,2-Dichloroethene	(2)			Not Detected					1 5
54) Chloroform	(2)			Not Detected					1 5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1 5
59) Carbon Tetrachloride	(2)			Not Detected					1 5
62) Benzene	(2)			Not Detected					0.5 5
64) 1,2-Dichloroethane	(2)			Not Detected					1 5
72) Trichloroethene	(2)			Not Detected					1 5
77) 1,4-Dioxane	(1)			Not Detected					67 240
87) Toluene	(3)			Not Detected					1 5
92) Tetrachloroethene	(3)			Not Detected					1 5
100) Chlorobenzene	(3)			Not Detected					1 5
102) Ethylbenzene	(3)			Not Detected					1 5
103) m+p-Xylene	(3)			Not Detected					1 5
104) o-Xylene	(3)			Not Detected					1 5
105) Xylene (Total)	(3)			Not Detected					1 5
117) n-Propylbenzene	(4)			Not Detected					1 5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1 5
126) tert-Butylbenzene	(4)			Not Detected					1 5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1 5
129) sec-Butylbenzene	(4)			Not Detected					1 5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1 5

NST11

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850735

Data file: /chem2/HP09953.i/12nov07b.b/bn07s32.d

Injection date and time: 08-NOV-2012 00:36

Data file Sample Info. Line: NST11;6850735;2;0;;TAP03;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 00:59 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150A Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 0.96

Volume Purged (Vt): 5 ml

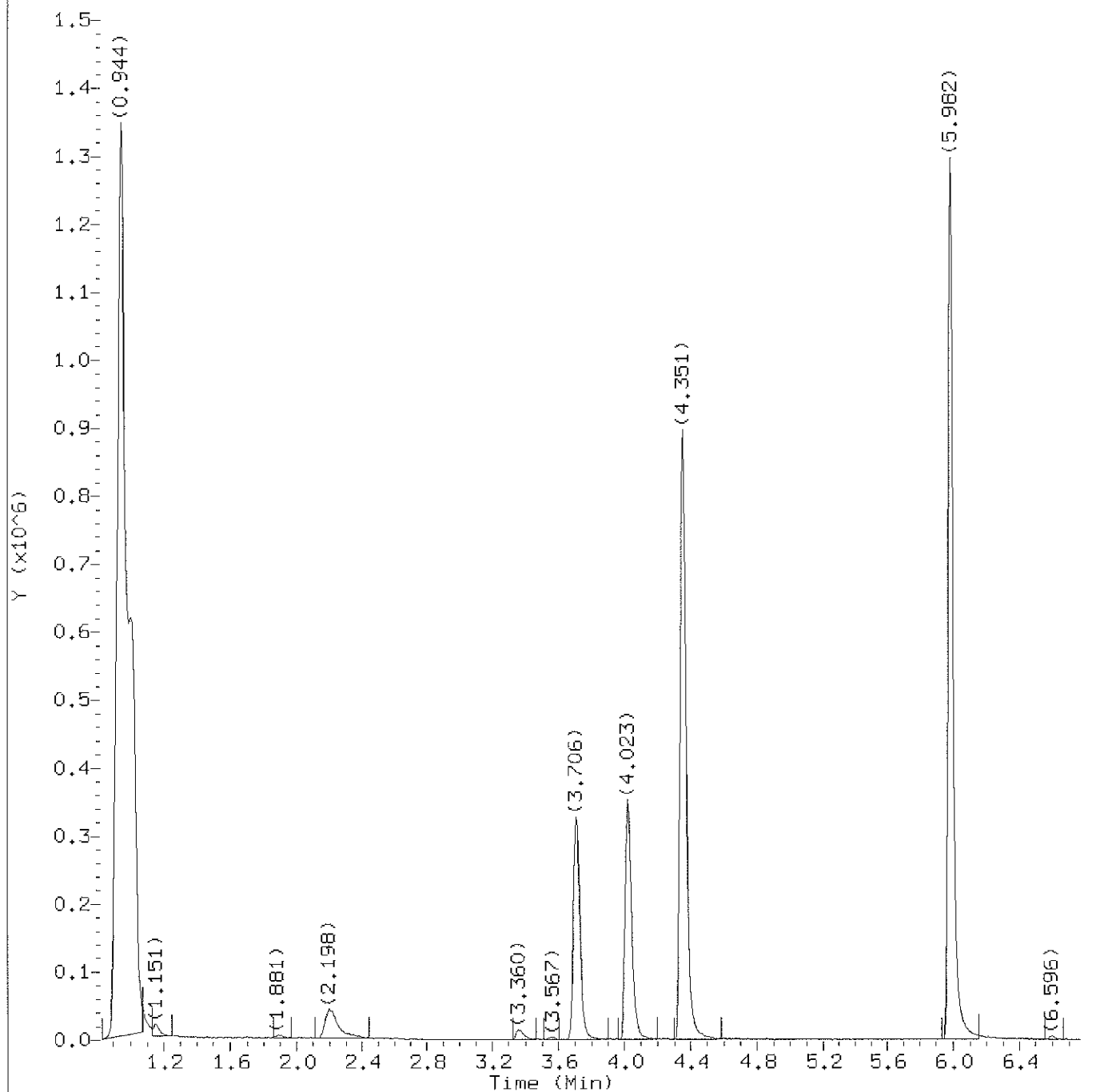
Sample Weight (Ws): 5.23 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit	LOQ
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
134) 1,4-Dichlorobenzene	(4)			Not Detected					1	5
139) n-Butylbenzene	(4)			Not Detected					1	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					1	5

Total number of targets = 33

Digitally signed by Stephanie A. Selis on 11/08/2012 at 01:00. Target 3.5 signature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14. Parallax ID: ahu01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s32.d
Injection date and time: 08-NOV-2012 00:36

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m
Calibration date and time: 07-NOV-2012 22:23

Sublist used: 10261

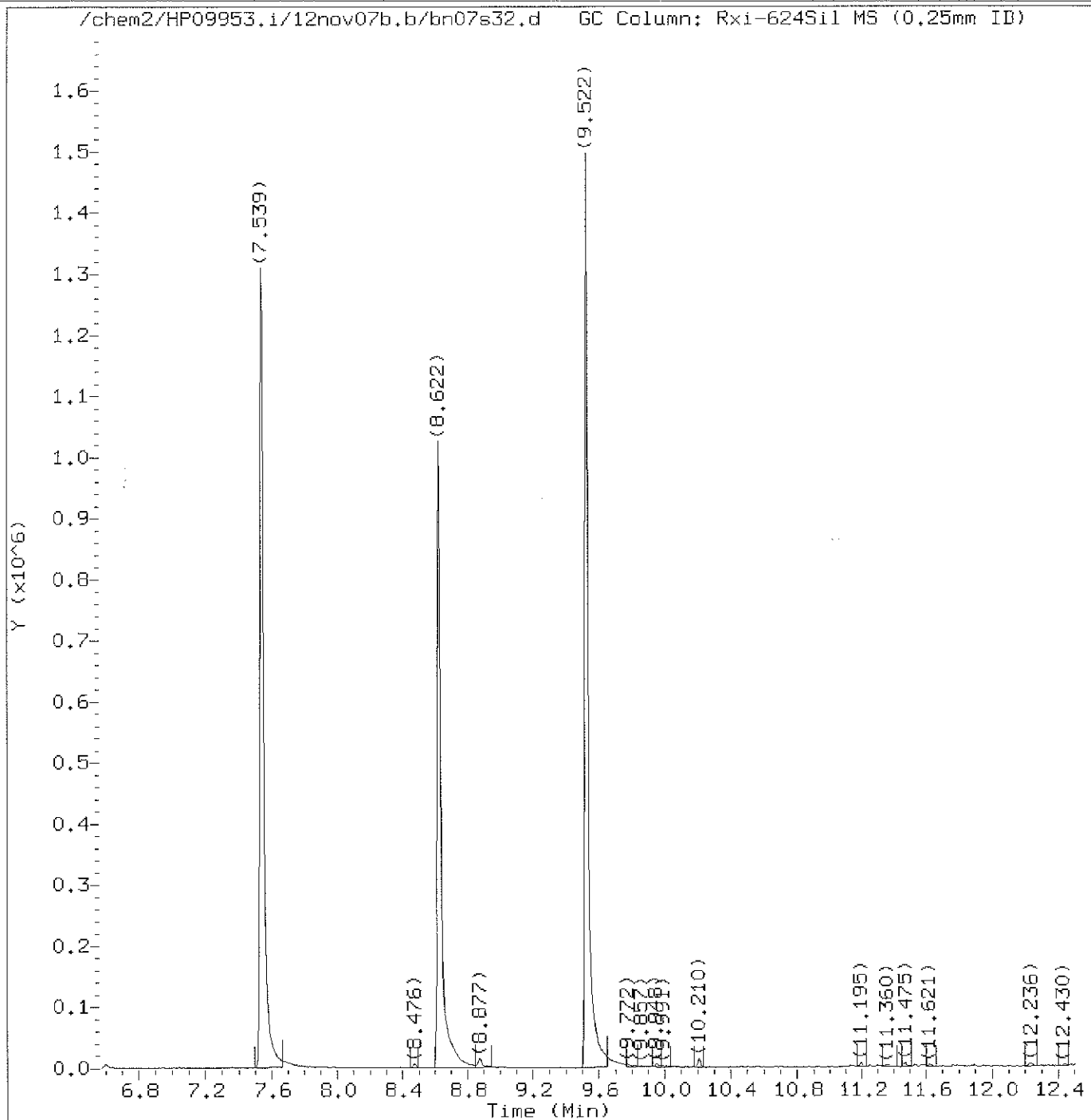
Date, time and analyst ID of latest file update: 08-Nov-2012 00:59 sas00403

Sample Name: NST11

Lab Sample ID: 6850735

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 01:00.

Target 3.5 esignature user ID: sas00403



Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s32.d
Injection date and time: 08-NOV-2012 00:36

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 00:59 sas00403

Sample Name: NST11

Lab Sample ID: 6850735

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 01:00.
Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s32.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 00:36 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 00:59 sas00403

Sample Name: NST11

Lab Sample ID: 6850735

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30) *t-Butyl Alcohol-d10	(1)	2.216	65	95565	250.000
55) \$Dibromofluoromethane	(2)	3.706	113	272523	51.881
61) \$1,2-Dichloroethane-d4	(2)	4.023	102	56608	51.272
67) *Fluorobenzene	(2)	4.351	96	1049021	50.000
86) \$Toluene-d8	(3)	5.982	98	986818	49.585
99) *Chlorobenzene-d5	(3)	7.539	117	694987	50.000
112) \$4-Bromofluorobenzene	(3)	8.622	95	337247	45.210
133) *1,4-Dichlorobenzene-d4	(4)	9.528	152	377313	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 01:00.
Target 3.5 esignature user ID: sas00403

VOLATILE ORGANICS ANALYSIS DATA SHEET

NST12

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850736

Sample wt/vol: 4.91 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s33.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.021	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.260	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST12

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850736

Sample wt/vol: 4.91 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s33.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----	1,2-Dichlorobenzene	0.005	U
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NST12

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850736

Data file: /chem2/HP09953.i/12nov07b.b/bn07s33.d

Injection date and time: 08-NOV-2012 00:59

Data file Sample Info. Line: NST12;6850736;2;0;;TAP03;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 05:27 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150A Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.02

Volume Purged (Vt): 5 ml Sample Weight (Ws): 4.91 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	2.210(0.000)	227	65	76119 (-46)	250.00	
67) Fluorobenzene	4.351(0.000)	579	96	1022238 (-12)	50.00	
99) Chlorobenzene-d5	7.539(0.000)	1103	117	686953 (-14)	50.00	
133) 1,4-Dichlorobenzene-d4	9.529(-0.006)	1430	152	387043 (-24)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.707(0.000)	113	269325	52.616	105%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.023(0.001)	102	55994	52.045	104%		54 - 135
86) Toluene-d8	(3)	5.982(0.000)	98	973588	49.493	99%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622(0.000)	95	330266	44.792	90%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit LOQ (in sample)
5) Vinyl Chloride	(2)			Not Detected					1 5
13) Trichlorofluoromethane	(2)			Not Detected					2 5
19) 1,1-Dichloroethene	(2)			Not Detected					1 5
20) Acetone	(2)			Not Detected					7 20
31) Methylene Chloride	(2)			Not Detected					2 5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5 5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1 5
40) 1,1-Dichloroethane	(2)			Not Detected					1 5
45) 2-Butanone	(2)			Not Detected					4 10
46) cis-1,2-Dichloroethene	(2)			Not Detected					1 5
54) Chloroform	(2)			Not Detected					1 5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1 5
59) Carbon Tetrachloride	(2)			Not Detected					1 5
62) Benzene	(2)			Not Detected					0.5 5
64) 1,2-Dichloroethane	(2)			Not Detected					1 5
72) Trichloroethene	(2)			Not Detected					1 5
77) 1,4-Dioxane	(1)			Not Detected					71 250
87) Toluene	(3)			Not Detected					1 5
92) Tetrachloroethene	(3)			Not Detected					1 5
100) Chlorobenzene	(3)			Not Detected					1 5
102) Ethylbenzene	(3)			Not Detected					1 5
103) m+p-Xylene	(3)			Not Detected					1 5
104) o-Xylene	(3)			Not Detected					1 5
105) Xylene (Total)	(3)			Not Detected					1 5
117) n-Propylbenzene	(4)			Not Detected					1 5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1 5
126) tert-Butylbenzene	(4)			Not Detected					1 5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1 5
129) sec-Butylbenzene	(4)			Not Detected					1 5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1 5

NST12

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850736

Data file: /chem2/HP09953.i/12nov07b.b/bn07s33.d

Injection date and time: 08-NOV-2012 00:59

Data file Sample Info. Line: NST12;6850736;2;0;;TAP03;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 05:27 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150A Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.02

Volume Purged (Vt): 5 ml

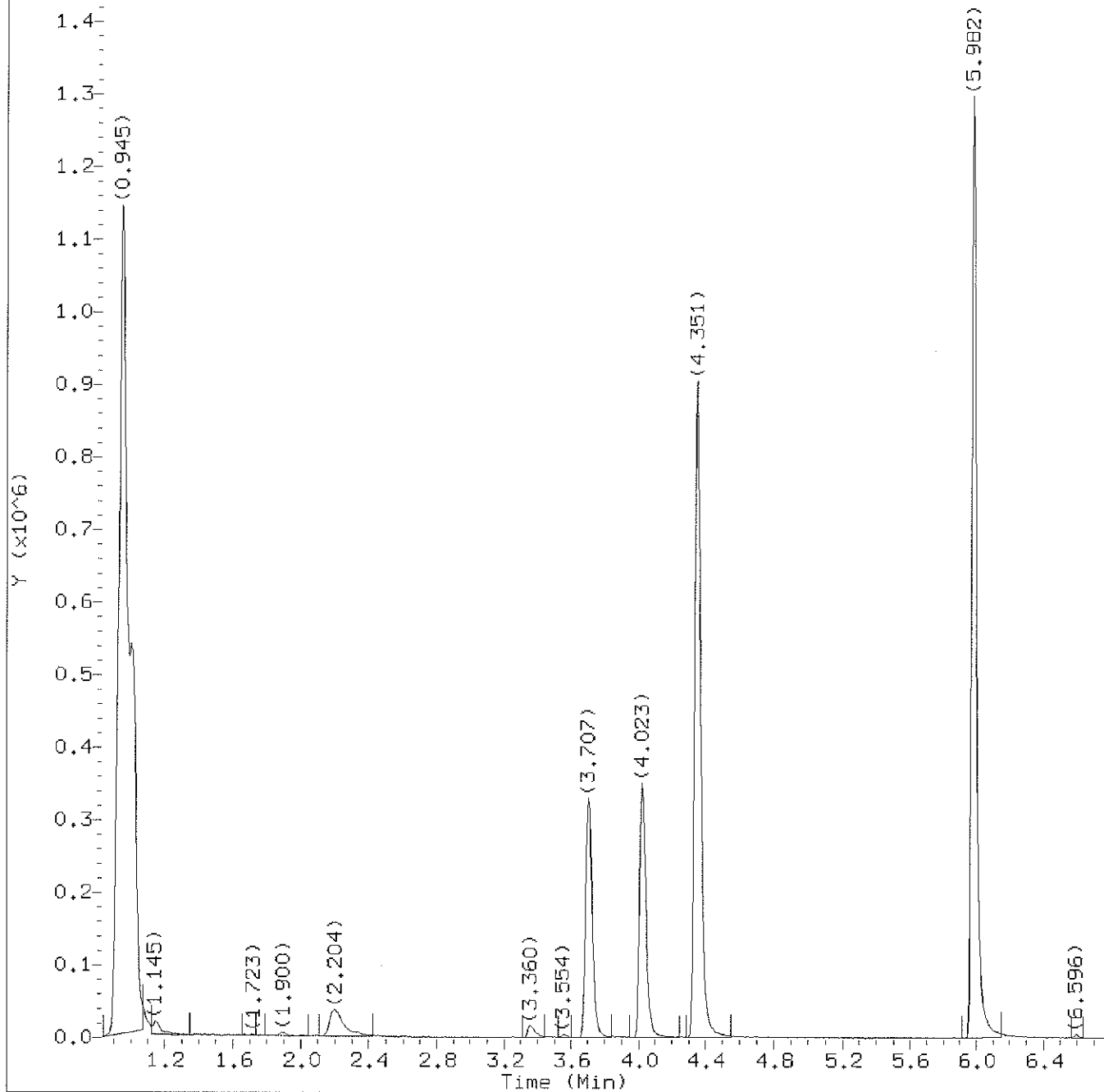
Sample Weight (Ws): 4.91 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit	10Q
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
134) 1,4-Dichlorobenzene	(4)			Not Detected					1	5
139) n-Butylbenzene	(4)			Not Detected					1	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					1	5

Total number of targets = 33

Digitally signed by Stephanie A. Selis on 11/08/2012 at 05:33. Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14. Parallax ID: ahu01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s33.d
Injection date and time: 08-NOV-2012 00:59

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m
Calibration date and time: 07-NOV-2012 22:23

Sublist used: 10261

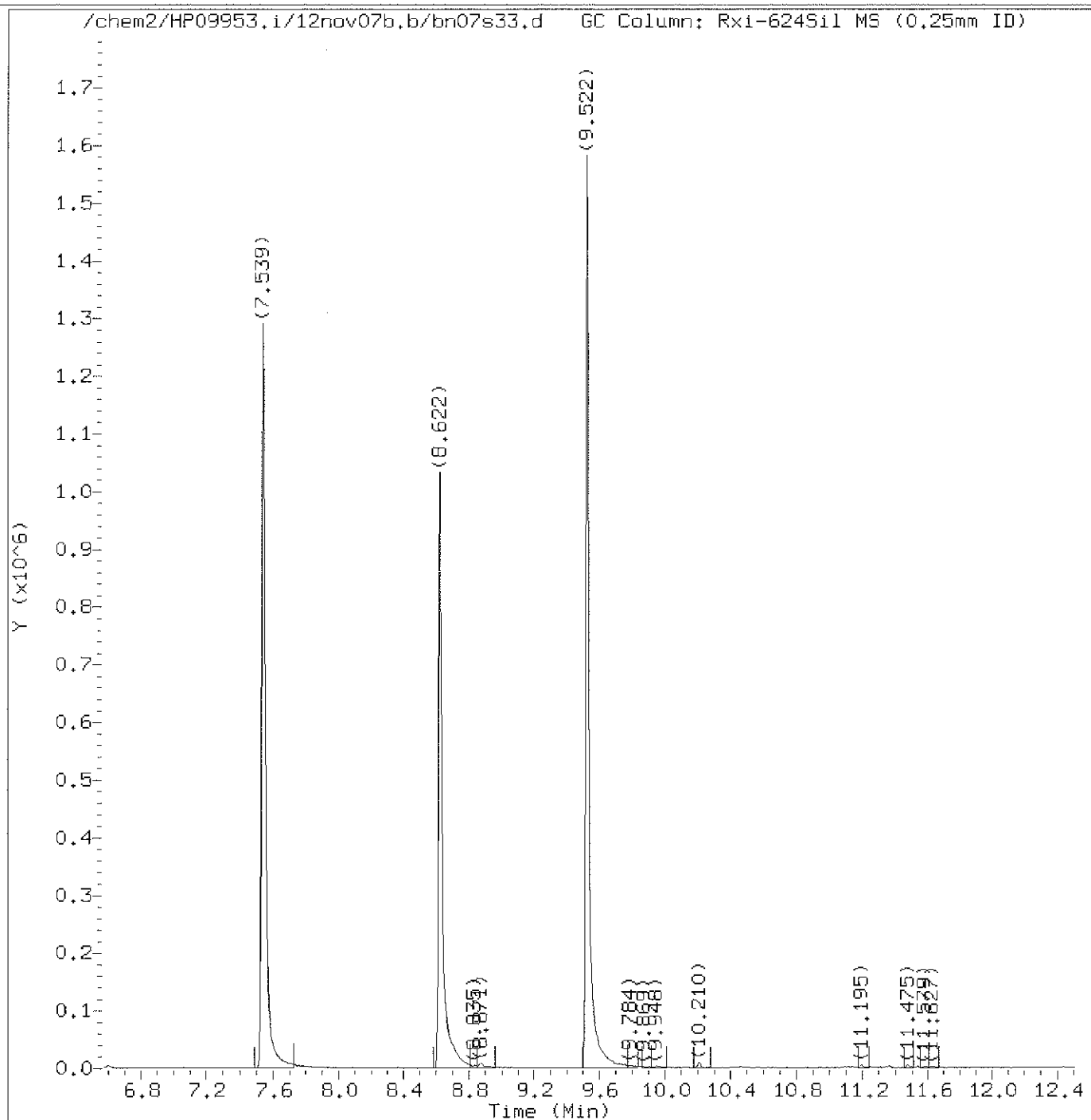
Date, time and analyst ID of latest file update: 08-Nov-2012 05:27 sas00403

Sample Name: NST12

Lab Sample ID: 6850736

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:33.

Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s33.d
Injection date and time: 08-NOV-2012 00:59

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 05:27 sas00403

Sample Name: NST12

Lab Sample ID: 6850736

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:33.

Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s33.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 00:59 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 05:27 sas00403

Sample Name: NST12

Lab Sample ID: 6850736

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30) *t-Butyl Alcohol-d10	(1)	2.210	65	76119	250.000
55) \$Dibromofluoromethane	(2)	3.707	113	269325	52.616
61) \$1,2-Dichloroethane-d4	(2)	4.023	102	55994	52.045
67) *Fluorobenzene	(2)	4.351	96	1022238	50.000
86) \$Toluene-d8	(3)	5.982	98	973588	49.493
99) *Chlorobenzene-d5	(3)	7.539	117	686953	50.000
112) \$4-Bromofluorobenzene	(3)	8.622	95	330266	44.792
133) *1,4-Dichlorobenzene-d4	(4)	9.529	152	387043	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:33.
Target 3.5 esignature user ID: sas00403

VOLATILE ORGANICS ANALYSIS DATA SHEET

NST13

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850739

Sample wt/vol: 4.92 (g/mL) g

Lab File ID: HP09953.i/12nov08a.b/bn08s04.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.021	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.260	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST13

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850739

Sample wt/vol: 4.92 (g/mL) g Lab File ID: HP09953.i/12nov08a.b/bn08s04.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1	1,2-Dichlorobenzene	0.005	U
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NST13

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850739

Data file: /chem2/HP09953.i/12nov08a.b/bn08s04.d

Injection date and time: 08-NOV-2012 12:37

Data file Sample Info. Line: NST13;6850739;2;0;;TAP03;;bn08b01;

Instrument ID: HP09953.i Batch: B123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 14:08 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov08a.b/bn08b01.d

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 08-NOV-2012 12:18

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov08a.b/bn08c01.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.02

Volume Purged (Vt): 5 ml Sample Weight (Ws): 4.92 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	2.222(0.000)	229	65	110505 (-27)	250.00	
67) Fluorobenzene	4.357(0.000)	580	96	1021021 (-7)	50.00	
99) Chlorobenzene-d5	7.545(-0.006)	1104	117	682743 (-10)	50.00	
133) 1,4-Dichlorobenzene-d4	9.528(-0.006)	1430	152	382208 (-22)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.712(0.000)	113	268020	52.423	105%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.029(0.000)	102	56544	52.619	105%		54 - 135
86) Toluene-d8	(3)	5.988(0.001)	98	967649	49.494	99%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.628(0.000)	95	335863	45.832	92%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
5) Vinyl Chloride	(2)			Not Detected					1	5
13) Trichlorofluoromethane	(2)			Not Detected					2	5
19) 1,1-Dichloroethene	(2)			Not Detected					1	5
20) Acetone	(2)			Not Detected					7	20
31) Methylene Chloride	(2)			Not Detected					2	5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5	5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1	5
40) 1,1-Dichloroethane	(2)			Not Detected					1	5
45) 2-Butanone	(2)			Not Detected					4	10
46) cis-1,2-Dichloroethene	(2)			Not Detected					1	5
54) Chloroform	(2)			Not Detected					1	5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1	5
59) Carbon Tetrachloride	(2)			Not Detected					1	5
62) Benzene	(2)			Not Detected					0.5	5
64) 1,2-Dichloroethane	(2)			Not Detected					1	5
72) Trichloroethene	(2)			Not Detected					1	5
77) 1,4-Dioxane	(1)			Not Detected					71	250
87) Toluene	(3)			Not Detected					1	5
92) Tetrachloroethene	(3)			Not Detected					1	5
100) Chlorobenzene	(3)			Not Detected					1	5
102) Ethylbenzene	(3)			Not Detected					1	5
103) m+p-Xylene	(3)			Not Detected					1	5
104) o-Xylene	(3)			Not Detected					1	5
105) Xylene (Total)	(3)			Not Detected					1	5
117) n-Propylbenzene	(4)			Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1	5
126) tert-Butylbenzene	(4)			Not Detected					1	5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1	5
129) sec-Butylbenzene	(4)			Not Detected					1	5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1	5

NST13

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850739

Data file: /chem2/HP09953.i/12nov08a.b/bn08s04.d

Injection date and time: 08-NOV-2012 12:37

Data file Sample Info. Line: NST13;6850739;2;0;;TAP03;;;bn08b01;

Instrument ID: HP09953.i Batch: B123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 14:08 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov08a.b/bn08b01.d

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 08-NOV-2012 12:18

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov08a.b/bn08c01.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.02

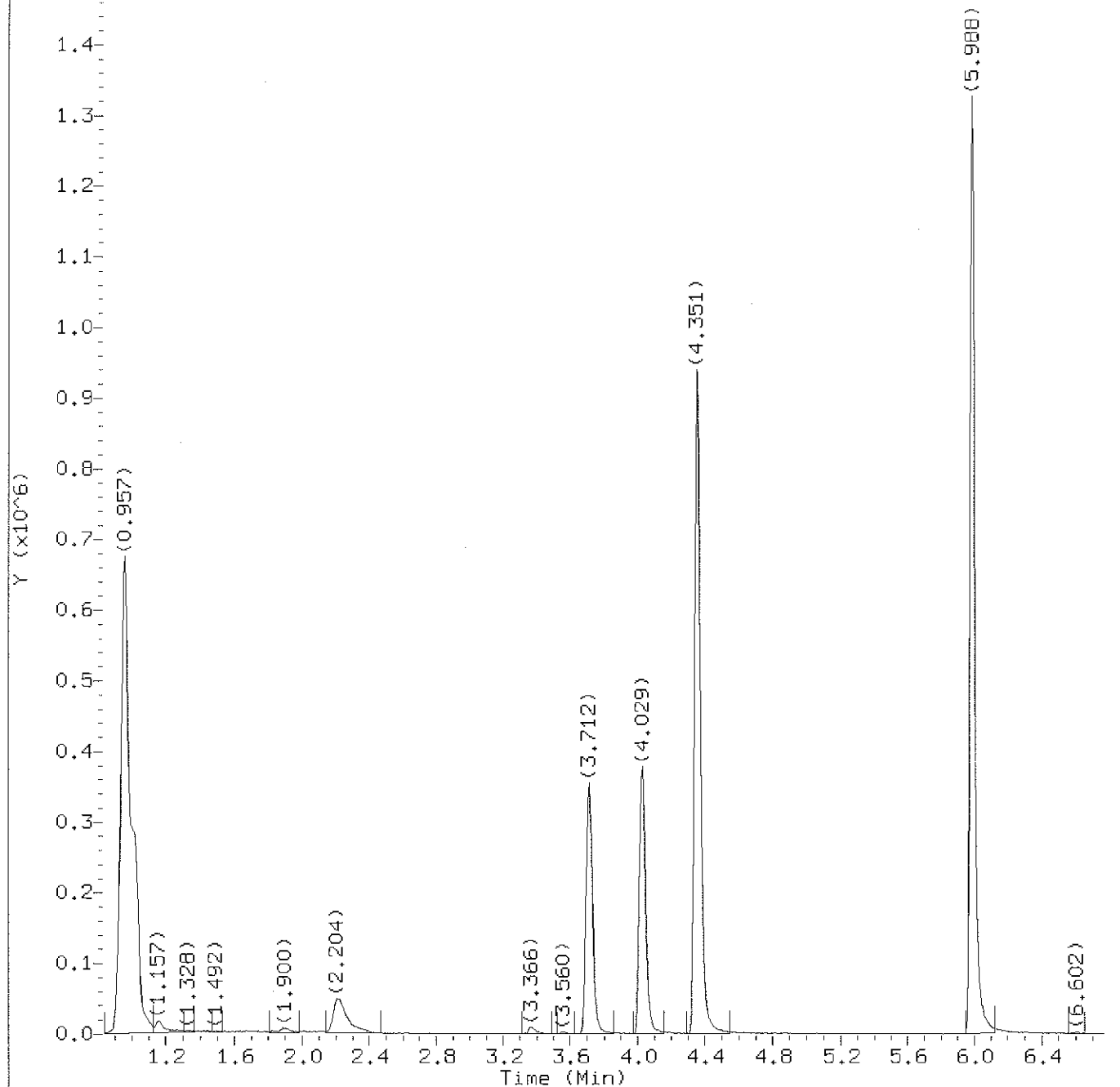
Volume Purged (Vt): 5 ml Sample Weight (Ws): 4.92 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit	LOQ
134) 1,4-Dichlorobenzene	(4)			Not Detected					1	5
139) n-Butylbenzene	(4)			Not Detected					1	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					1	5

Total number of targets = 33

Digitally signed by Angela D. Sneeringer on 11/08/2012 at 14:10. Target 3.5 esignature user ID: ads01731

Secondary review performed and digitally signed by Christine M. Dulaney on 11/08/2012 at 16:03. Parallax ID: cmd00448



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a,b/bn08s04.d
Injection date and time: 08-NOV-2012 12:37

Instrument ID: HP09953.i
Analyst ID: ADS01731

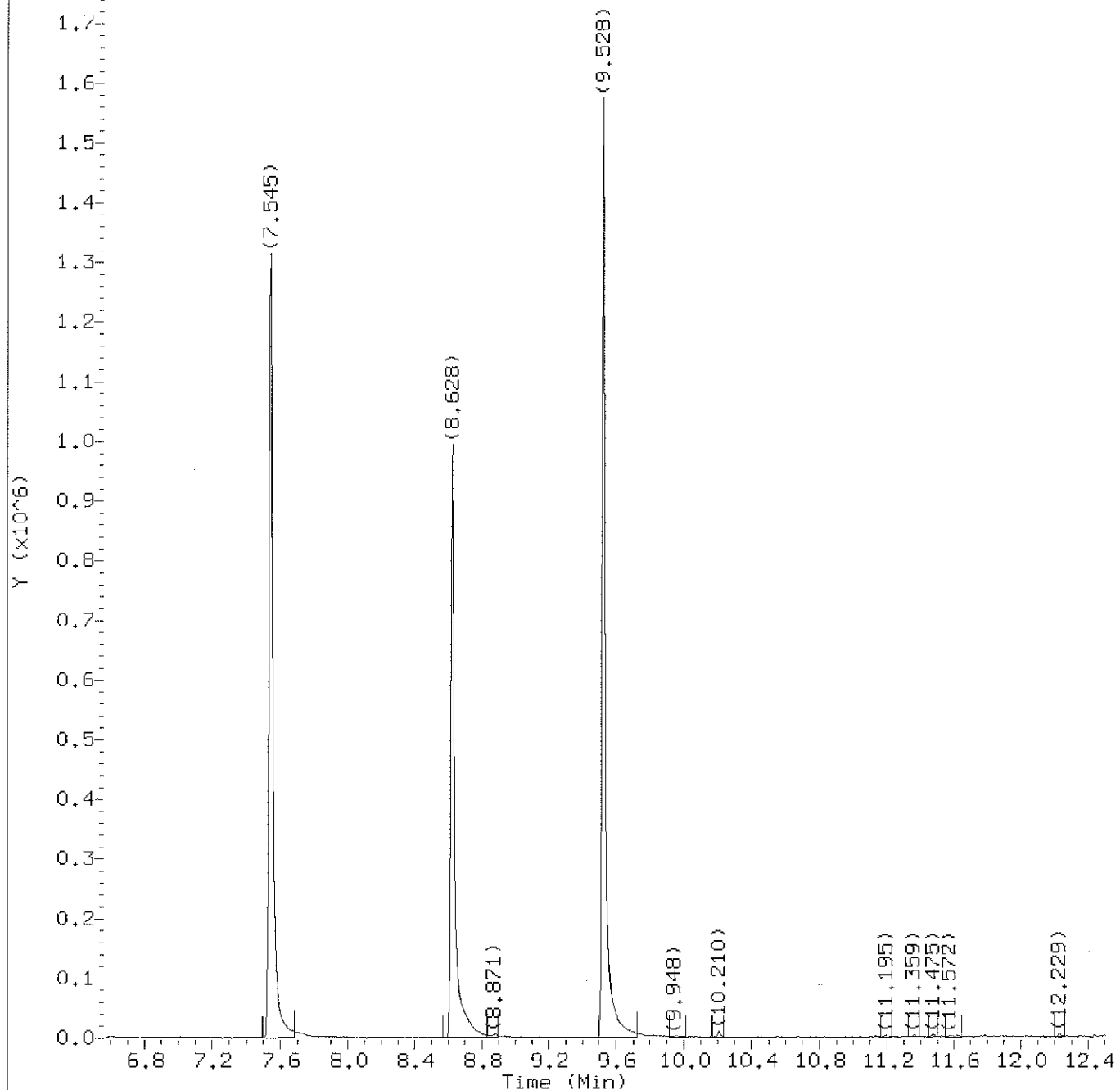
Method used: /chem2/HP09953.i/12nov08a,b/di8260b.m
Calibration date and time: 08-NOV-2012 12:18
Date, time and analyst ID of latest file update: 08-Nov-2012 14:08 ads01731

Sublist used: 10261

Sample Name: NST13

Lab Sample ID: 6850739

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 14:10.
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08s04.d
Injection date and time: 08-NOV-2012 12:37

Instrument ID: HP09953.i
Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 12:18
Date, time and analyst ID of latest file update: 08-Nov-2012 14:08 ads01731

Sample Name: NST13

Lab Sample ID: 6850739

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 14:10.
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08s04.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 12:37 Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 12:18
Date, time and analyst ID of latest file update: 08-Nov-2012 14:08 ads01731

Sample Name: NST13

Lab Sample ID: 6850739

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30)*t-Butyl Alcohol-d10	(1)	2.222	65	110505	250.000
55)\$Dibromofluoromethane	(2)	3.712	113	268020	52.423
61)\$1,2-Dichloroethane-d4	(2)	4.029	102	56544	52.619
67)*Fluorobenzene	(2)	4.357	96	1021021	50.000
86)\$Toluene-d8	(3)	5.988	98	967649	49.494
99)*Chlorobenzene-d5	(3)	7.545	117	682743	50.000
112)\$4-Bromofluorobenzene	(3)	8.628	95	335863	45.832
133)*1,4-Dichlorobenzene-d4	(4)	9.528	152	382208	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 14:10.
Target 3.5 esignature user ID: ads01731

VOLATILE ORGANICS ANALYSIS DATA SHEET

NST14

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850740

Sample wt/vol: 4.98 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s35.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.021	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.260	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST14

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850740

Sample wt/vol: 4.98 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s35.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.005	U
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NST14

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850740

Data file: /chem2/HP09953.i/12nov07b.b/bn07s35.d

Injection date and time: 08-NOV-2012 02:07

Data file Sample Info. Line: NST14;6850740;2;0;;TAP03;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 05:32 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml

Sample Weight (Ws): 4.98 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	2.210(0.000)	227	65	81253 (-42)	250.00	
67) Fluorobenzene	4.351(0.000)	579	96	1061041 (-8)	50.00	
99) Chlorobenzene-d5	7.539(0.000)	1103	117	702074 (-13)	50.00	
133) 1,4-Dichlorobenzene-d4	9.528(-0.006)	1430	152	393909 (-23)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.706(0.000)	113	274511	51.668	103%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.023(0.001)	102	56376	50.484	101%		54 - 135
86) Toluene-d8	(3)	5.982(0.000)	98	1013557	50.415	101%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622(0.000)	95	338921	44.976	90%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
5) Vinyl Chloride	(2)			Not Detected					1	5
13) Trichlorofluoromethane	(2)			Not Detected					2	5
19) 1,1-Dichloroethene	(2)			Not Detected					1	5
20) Acetone	(2)			Not Detected					7	20
31) Methylene Chloride	(2)			Not Detected					2	5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5	5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1	5
40) 1,1-Dichloroethane	(2)			Not Detected					1	5
45) 2-Butanone	(2)			Not Detected					4	10
46) cis-1,2-Dichloroethene	(2)			Not Detected					1	5
54) Chloroform	(2)			Not Detected					1	5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1	5
59) Carbon Tetrachloride	(2)			Not Detected					1	5
62) Benzene	(2)			Not Detected					0.5	5
64) 1,2-Dichloroethane	(2)			Not Detected					1	5
72) Trichloroethene	(2)			Not Detected					1	5
77) 1,4-Dioxane	(1)			Not Detected					70	250
87) Toluene	(3)			Not Detected					1	5
92) Tetrachloroethene	(3)			Not Detected					1	5
100) Chlorobenzene	(3)			Not Detected					1	5
102) Ethylbenzene	(3)			Not Detected					1	5
103) m+p-Xylene	(3)			Not Detected					1	5
104) o-Xylene	(3)			Not Detected					1	5
105) Xylene (Total)	(3)			Not Detected					1	5
117) n-Propylbenzene	(4)			Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1	5
126) tert-Butylbenzene	(4)			Not Detected					1	5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1	5
129) sec-Butylbenzene	(4)			Not Detected					1	5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1	5

NST14

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850740

Data file: /chem2/HP09953.i/12nov07b.b/bn07s35.d

Injection date and time: 08-NOV-2012 02:07

Data file Sample Info. Line: NST14;6850740;2;0;;TAP03;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 05:32 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150B

Matrix: SOIL

Level: Low

On-Column Amount units: ng

In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml

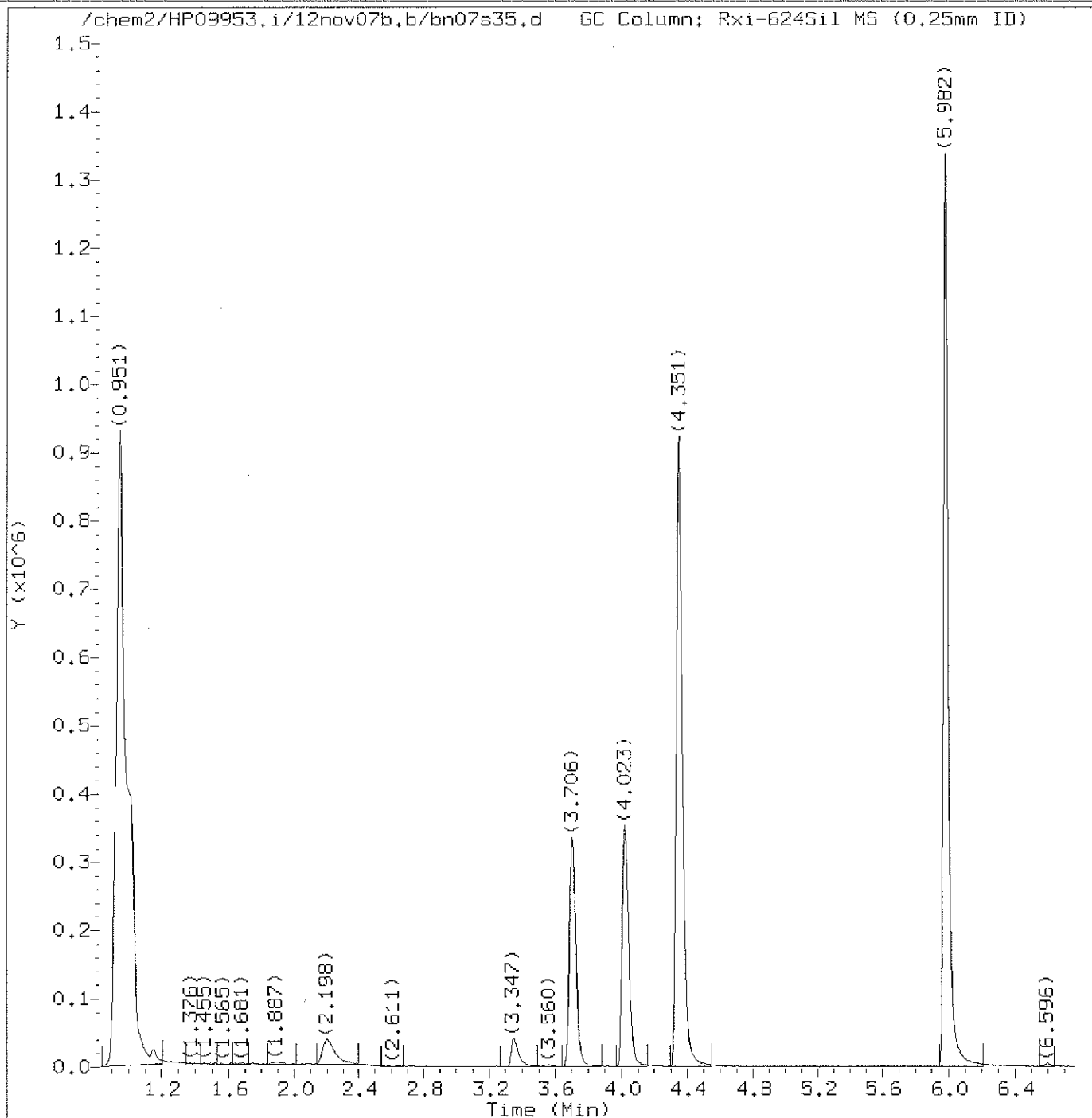
Sample Weight (Ws): 4.98 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
134) 1,4-Dichlorobenzene	(4)			Not Detected					1	5
139) n-Butylbenzene	(4)			Not Detected					1	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					1	5

Total number of targets = 33

Digitally signed by Stephanie A. Selis on 11/08/2012 at 05:33 Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14. Parallelex ID: ahu01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s35.d
Injection date and time: 08-NOV-2012 02:07

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m
Calibration date and time: 07-NOV-2012 22:23

Sublist used: 10261

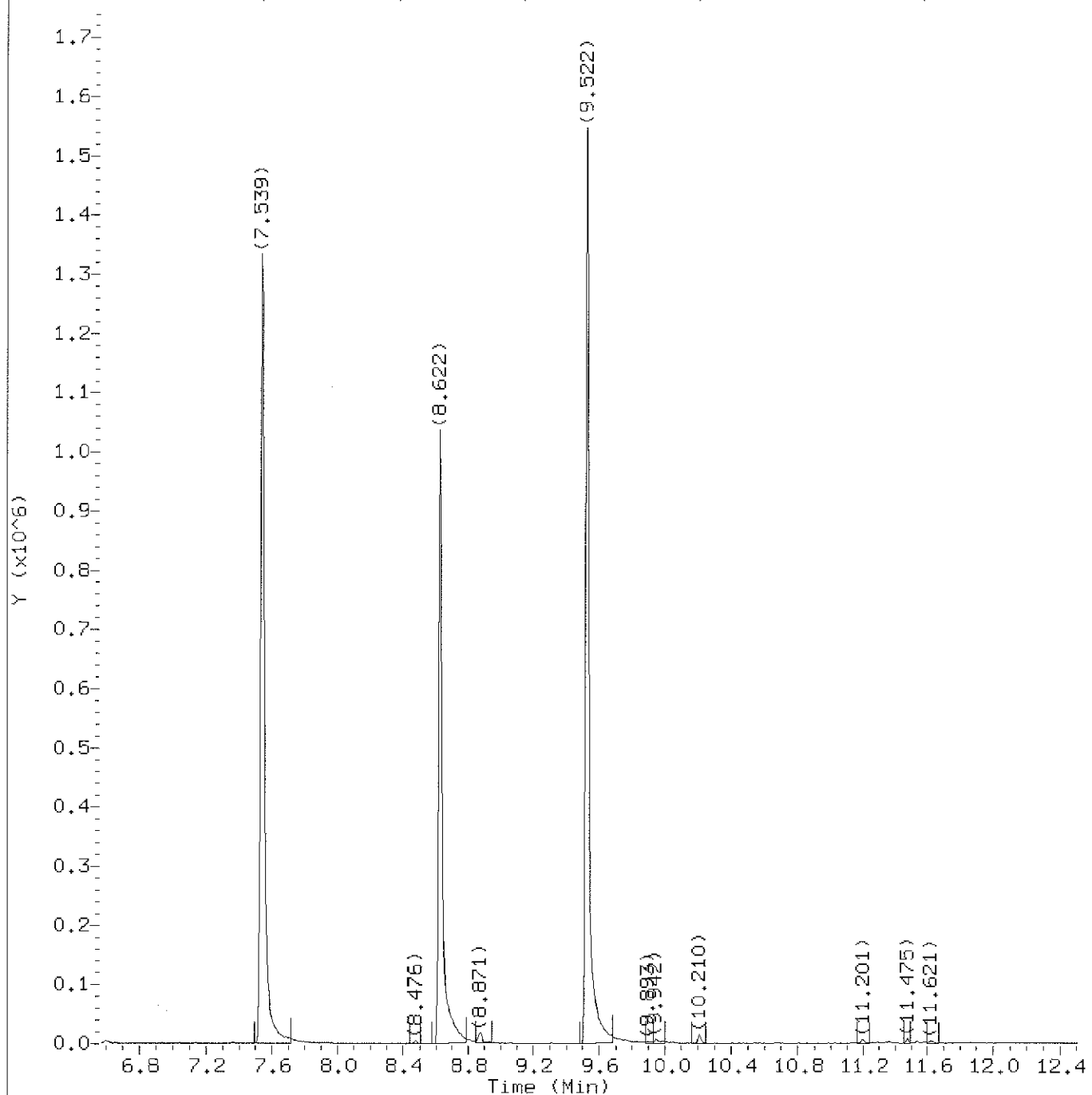
Date, time and analyst ID of latest file update: 08-Nov-2012 05:32 sas00403

Sample Name: NST14

Lab Sample ID: 6850740

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:33.

Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s35.d
Injection date and time: 08-NOV-2012 02:07

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 05:32 sas00403

Sublist used: 10261

Sample Name: NST14

Lab Sample ID: 6850740

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:33.

Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s35.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 02:07 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 05:32 sas00403

Sample Name: NST14

Lab Sample ID: 6850740

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
30)*t-Butyl Alcohol-d10	(1)	2.210	65	81253	250.000
55)\$Dibromofluoromethane	(2)	3.706	113	274511	51.668
61)\$1,2-Dichloroethane-d4	(2)	4.023	102	56376	50.484
67)*Fluorobenzene	(2)	4.351	96	1061041	50.000
86)\$Toluene-d8	(3)	5.982	98	1013557	50.415
99)*Chlorobenzene-d5	(3)	7.539	117	702074	50.000
112)\$4-Bromofluorobenzene	(3)	8.622	95	338921	44.976
133)*1,4-Dichlorobenzene-d4	(4)	9.528	152	393909	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:33.
Target 3.5 esignature user ID: sas00403

VOLATILE ORGANICS ANALYSIS DATA SHEET

NST15

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850742

Sample wt/vol: 4.83 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s36.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(mg/L or mg/Kg) mg/Kg	Q
---------	----------	-----------------------	---

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.021	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.011	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.270	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST15

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850742

Sample wt/vol: 4.83 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s36.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----1,2-Dichlorobenzene	0.005	U
---------------------------------	-------	---

NST15

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850742

Data file: /chem2/HP09953.i/12nov07b.b/bn07s36.d

Injection date and time: 08-NOV-2012 02:30

Data file Sample Info. Line: NST15;6850742;2;0;;TAP03;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 05:32 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150B

Matrix: SOIL

Level: Low

On-Column Amount units: ng

In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.04

Volume Purged (Vt): 5 ml

Sample Weight (Ws): 4.83 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	2.222(-0.012)	229	65	76457 (-46)	250.00	
67) Fluorobenzene	4.351(0.000)	579	96	832876 (-28)	50.00	
99) Chlorobenzene-d5	7.545(-0.006)	1104	117	554797 (-31)	50.00	
133) 1,4-Dichlorobenzene-d4	9.529(-0.006)	1430	152	302988 (-41)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.707(0.000)	113	221194	53.038	106%		50 ~ 141
61) 1,2-Dichloroethane-d4	(2)	4.023(0.001)	102	45076	51.423	103%		54 ~ 135
86) Toluene-d8	(3)	5.988(0.000)	98	786571	49.510	99%		52 ~ 141
112) 4-Bromofluorobenzene	(3)	8.622(0.001)	95	261205	43.864	88%		50 ~ 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
5) Vinyl Chloride	(2)			Not Detected					1	5
13) Trichlorofluoromethane	(2)			Not Detected					2	5
19) 1,1-Dichloroethene	(2)			Not Detected					1	5
20) Acetone	(2)			Not Detected					7	21
31) Methylene Chloride	(2)			Not Detected					2	5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5	5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1	5
40) 1,1-Dichloroethane	(2)			Not Detected					1	5
45) 2-Butanone	(2)			Not Detected					4	10
46) cis-1,2-Dichloroethene	(2)			Not Detected					1	5
54) Chloroform	(2)			Not Detected					1	5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1	5
59) Carbon Tetrachloride	(2)			Not Detected					1	5
62) Benzene	(2)			Not Detected					0.5	5
64) 1,2-Dichloroethane	(2)			Not Detected					1	5
72) Trichloroethene	(2)			Not Detected					1	5
77) 1,4-Dioxane	(1)			Not Detected					72	260
87) Toluene	(3)			Not Detected					1	5
92) Tetrachloroethene	(3)			Not Detected					1	5
100) Chlorobenzene	(3)			Not Detected					1	5
102) Ethylbenzene	(3)			Not Detected					1	5
103) m+p-Xylene	(3)			Not Detected					1	5
104) o-Xylene	(3)			Not Detected					1	5
105) Xylene (Total)	(3)			Not Detected					1	5
117) n-Propylbenzene	(4)			Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1	5
126) tert-Butylbenzene	(4)			Not Detected					1	5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1	5
129) sec-Butylbenzene	(4)			Not Detected					1	5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1	5

NST15

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850742

Data file: /chem2/HP09953.i/12nov07b.b/bn07s36.d

Injection date and time: 08-NOV-2012 02:30

Data file Sample Info. Line: NST15;6850742;2;0;;TAP03;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 05:32 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.04

Volume Purged (Vt): 5 ml

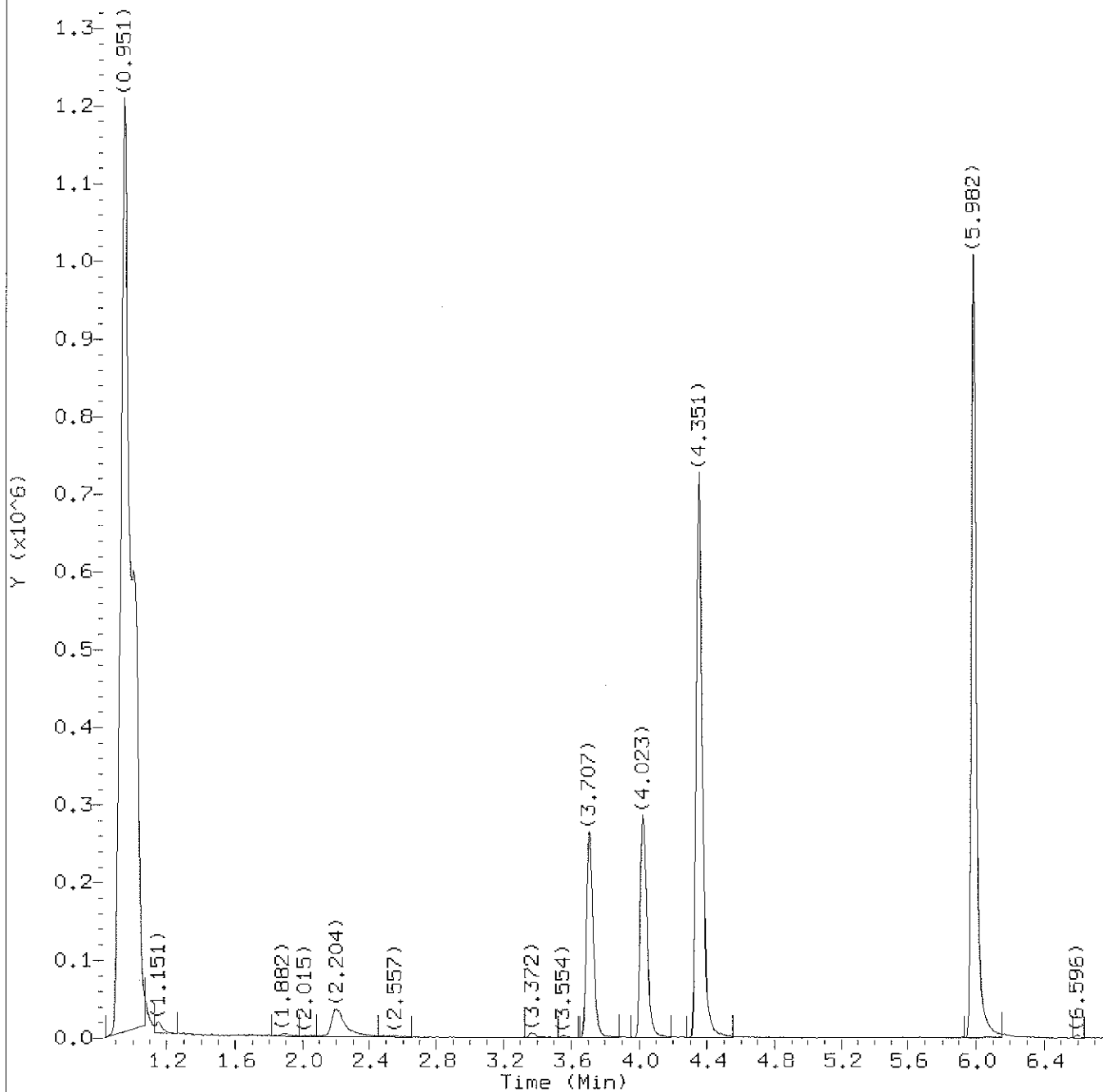
Sample Weight (Ws): 4.83 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
134) 1,4-Dichlorobenzene	(4)			Not Detected					1	5
139) n-Butylbenzene	(4)			Not Detected					1	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					1	5

Total number of targets = 33

Digitally signed by Stephanie A. Selis on 11/08/2012 at 05:34. Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14. Parallax ID: ahu01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s36.d
Injection date and time: 08-NOV-2012 02:30

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 05:32 sas00403

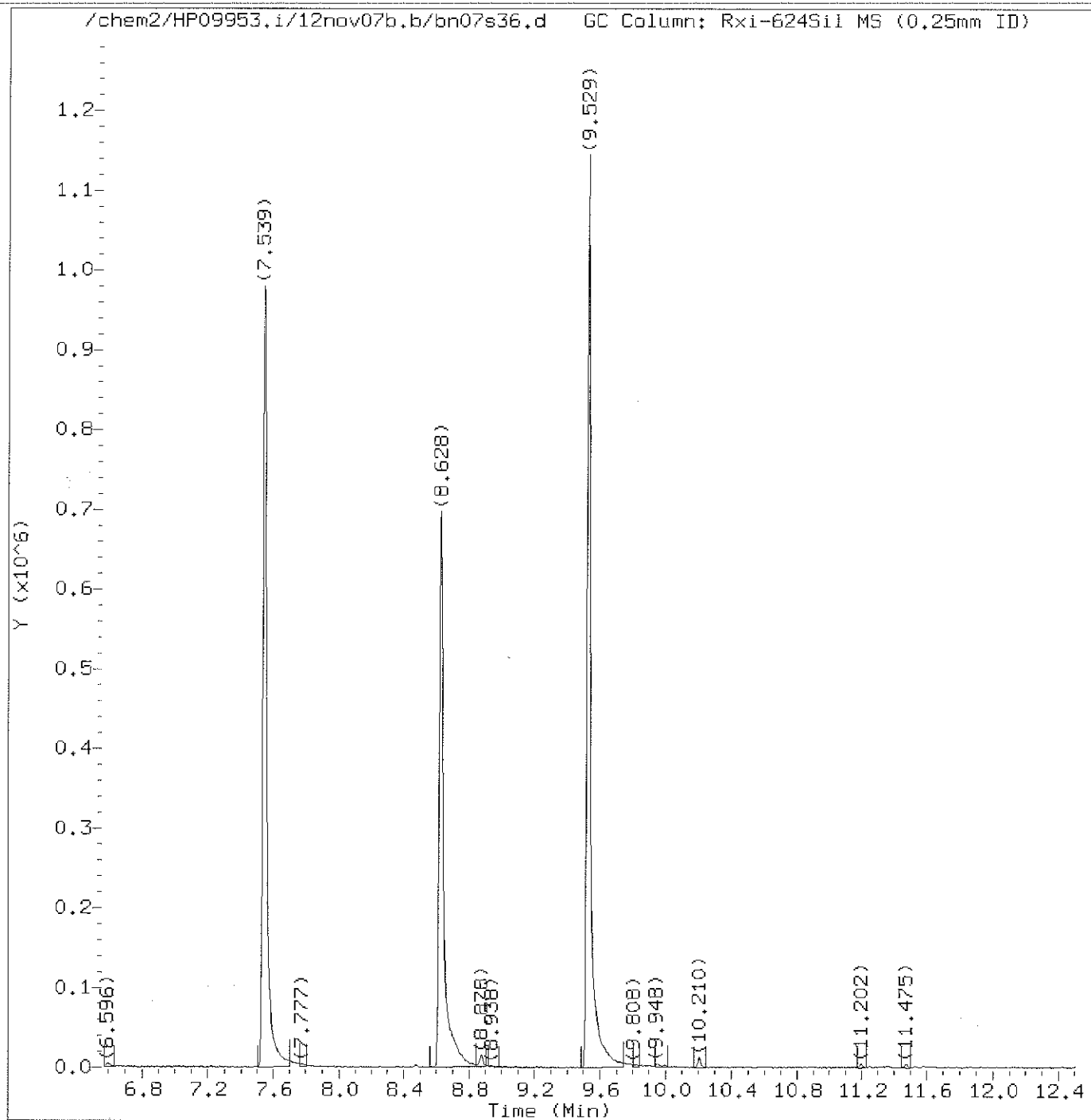
Sublist used: 10261

Sample Name: NST15

Lab Sample ID: 6850742

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:34.

Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s36.d
Injection date and time: 08-NOV-2012 02:30

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 10261

Calibration date and time: 07-NOV-2012 22:23

Date, time and analyst ID of latest file update: 08-Nov-2012 05:32 sas00403

Sample Name: NST15

Lab Sample ID: 6850742

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:34.

Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s36.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 02:30 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 05:32 sas00403

Sample Name: NST15 Lab Sample ID: 6850742

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
30)*t-Butyl Alcohol-d10	(1)	2.222	65	76457	250.000
55)\$Dibromofluoromethane	(2)	3.707	113	221194	53.038
61)\$1,2-Dichloroethane-d4	(2)	4.023	102	45076	51.423
67)*Fluorobenzene	(2)	4.351	96	832876	50.000
86)\$Toluene-d8	(3)	5.988	98	786571	49.510
99)*Chlorobenzene-d5	(3)	7.545	117	554797	50.000
112)\$4-Bromofluorobenzene	(3)	8.622	95	261205	43.864
133)*1,4-Dichlorobenzene-d4	(4)	9.529	152	302988	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:34.
Target 3.5 esignature user ID: sas00403

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST16

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850743

Sample wt/vol: 5.03 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s37.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.020	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.260	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST16

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850743

Sample wt/vol: 5.03 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s37.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----	1,2-Dichlorobenzene	0.005	U
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NST16

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850743

Data file: /chem2/HP09953.i/12nov07b.b/bn07s37.d

Injection date and time: 08-NOV-2012 02:53

Data file Sample Info. Line: NST16;6850743;2;0;;TAP03;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 05:32 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng

In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 0.99

Volume Purged (Vt): 5 ml

Sample Weight (Ws): 5.03 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	2.204 (0.006)	226	65	84704 (-40)	250.00	
67) Fluorobenzene	4.351 (0.000)	579	96	993842 (-14)	50.00	
99) Chlorobenzene-d5	7.539 (0.000)	1103	117	662043 (-18)	50.00	
133) 1,4-Dichlorobenzene-d4	9.528 (-0.006)	1430	152	375818 (-26)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.706 (0.000)	113	262914	52.831	106%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.023 (0.001)	102	53118	50.782	102%		54 - 135
86) Toluene-d8	(3)	5.982 (0.000)	98	937156	49.433	99%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622 (0.000)	95	316558	44.548	89%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
5) Vinyl Chloride	(2)			Not Detected					1	5
13) Trichlorofluoromethane	(2)			Not Detected					2	5
19) 1,1-Dichloroethene	(2)			Not Detected					1	5
20) Acetone	(2)			Not Detected					7	20
31) Methylene Chloride	(2)			Not Detected					2	5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5	5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1	5
40) 1,1-Dichloroethane	(2)			Not Detected					1	5
45) 2-Butanone	(2)			Not Detected					4	10
46) cis-1,2-Dichloroethene	(2)			Not Detected					1	5
54) Chloroform	(2)			Not Detected					1	5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1	5
59) Carbon Tetrachloride	(2)			Not Detected					1	5
62) Benzene	(2)			Not Detected					0.5	5
64) 1,2-Dichloroethane	(2)			Not Detected					1	5
72) Trichloroethene	(2)			Not Detected					1	5
77) 1,4-Dioxane	(1)			Not Detected					70	250
87) Toluene	(3)			Not Detected					1	5
92) Tetrachloroethene	(3)			Not Detected					1	5
100) Chlorobenzene	(3)			Not Detected					1	5
102) Ethylbenzene	(3)			Not Detected					1	5
103) m+p-Xylene	(3)			Not Detected					1	5
104) o-Xylene	(3)			Not Detected					1	5
105) Xylene (Total)	(3)			Not Detected					1	5
117) n-Propylbenzene	(4)			Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1	5
126) tert-Butylbenzene	(4)			Not Detected					1	5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1	5
129) sec-Butylbenzene	(4)			Not Detected					1	5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1	5

NST16

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850743

Data file: /chem2/HP09953.i/12nov07b.b/bn07s37.d

Injection date and time: 08-NOV-2012 02:53

Data file Sample Info. Line: NST16;6850743;2;0;;TAP03;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 05:32 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 0.99

Volume Purged (Vt): 5 ml

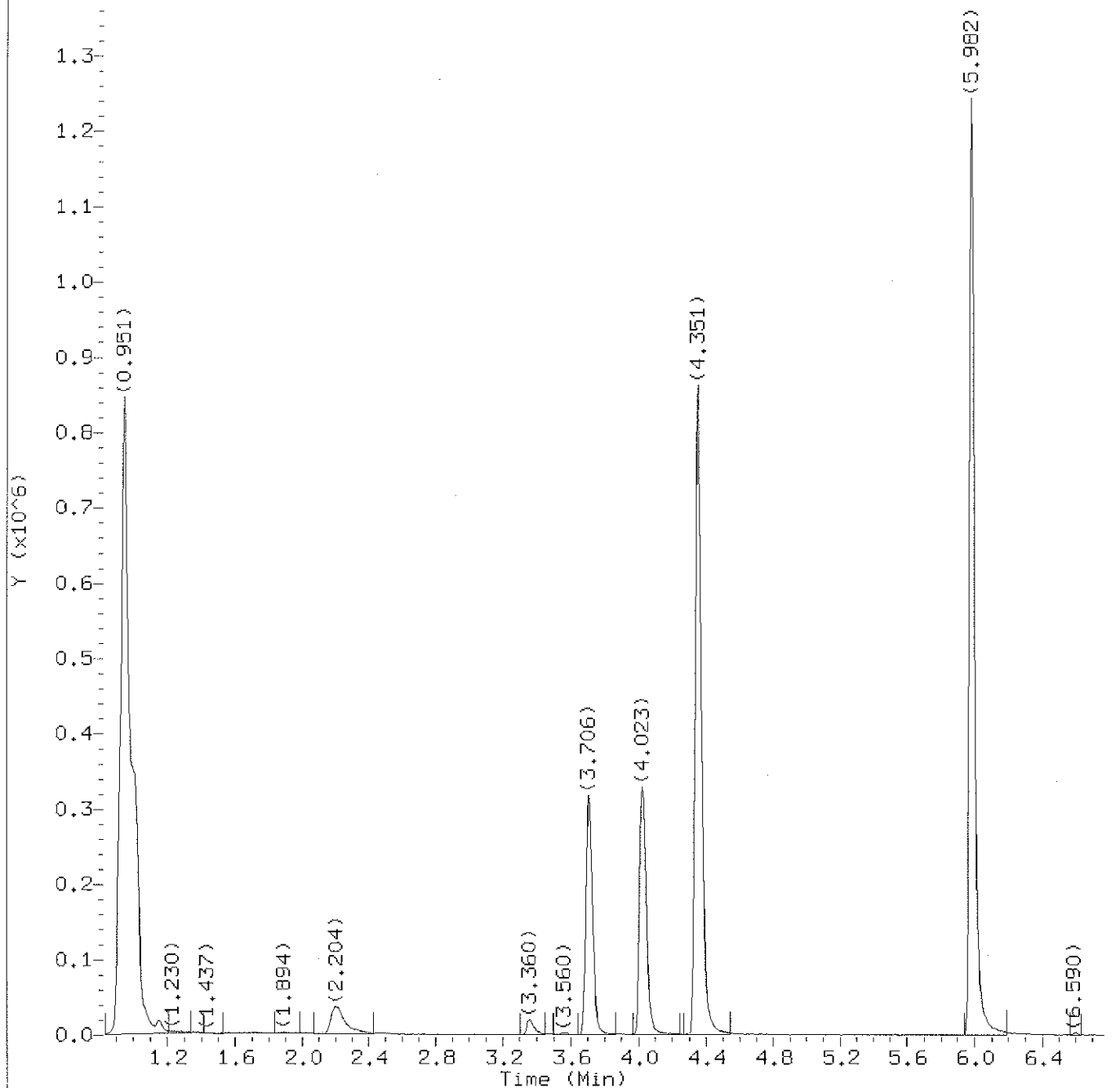
Sample Weight (Ws): 5.03 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Reporting Limit (in sample)	LOQ
134) 1,4-Dichlorobenzene	(4)			Not Detected				1	5
139) n-Butylbenzene	(4)			Not Detected				1	5
140) 1,2-Dichlorobenzene	(4)			Not Detected				1	5

Total number of targets = 33

Digitally signed by Stephanie A. Selis on 11/08/2012 at 05:34. Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14. Parallax ID: ahp01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s37.d
Injection date and time: 08-NOV-2012 02:53

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m
Calibration date and time: 07-NOV-2012 22:23

Sublist used: 10261

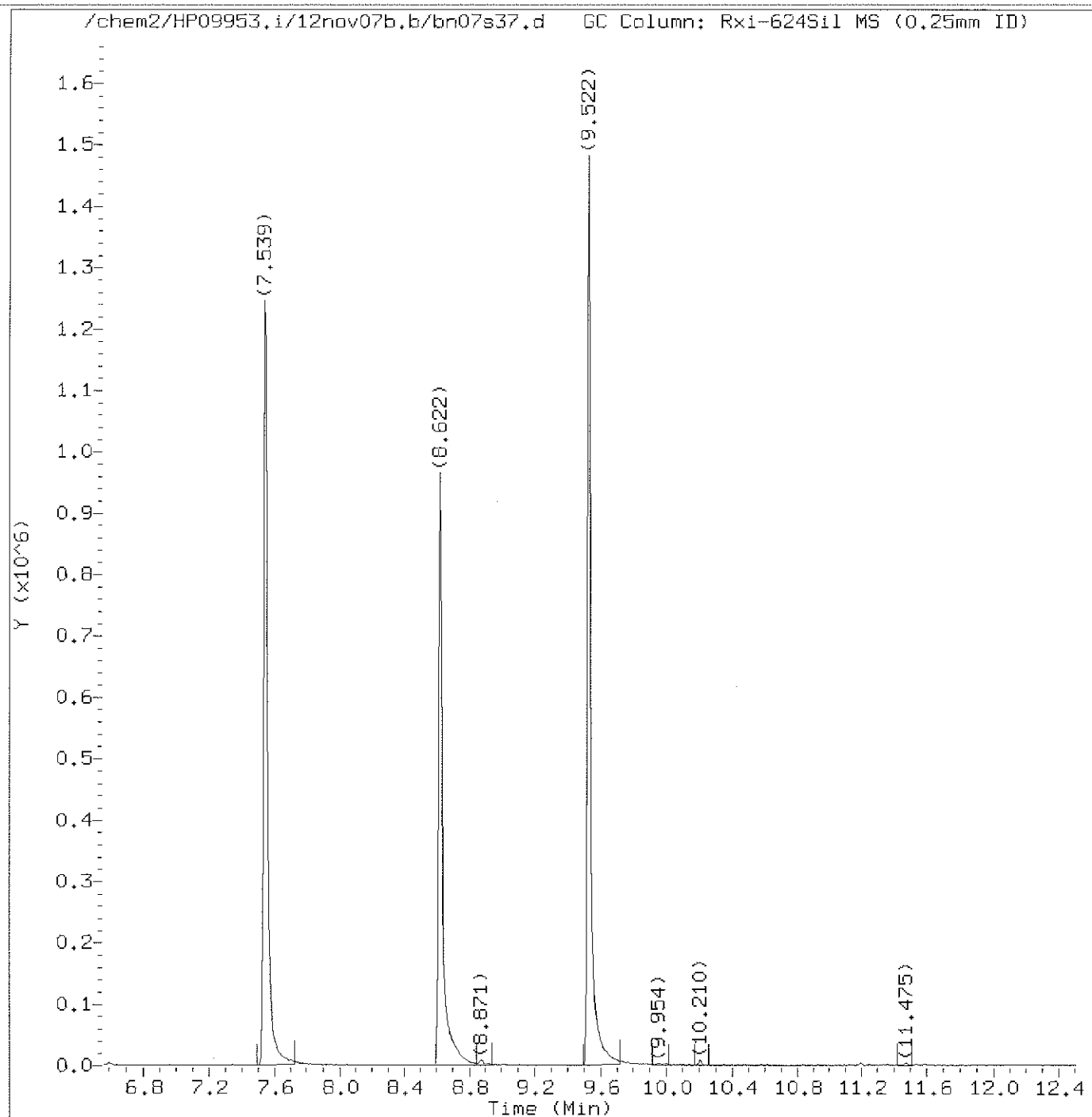
Date, time and analyst ID of latest file update: 08-Nov-2012 05:32 sas00403

Sample Name: NST16

Lab Sample ID: 6850743

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:34.

Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s37.d
Injection date and time: 08-NOV-2012 02:53

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m
Calibration date and time: 07-NOV-2012 22:23

Sublist used: 10261

Date, time and analyst ID of latest file update: 08-Nov-2012 05:32 sas00403

Sample Name: NST16

Lab Sample ID: 6850743

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on 11/08/2012 at 05:34.

Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s37.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 02:53 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 05:32 sas00403

Sample Name: NST16

Lab Sample ID: 6850743

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30)*t-Butyl Alcohol-d10	(1)	2.204	65	84704	250.000
55)\$Dibromofluoromethane	(2)	3.706	113	262914	52.831
61)\$1,2-Dichloroethane-d4	(2)	4.023	102	53118	50.782
67)*Fluorobenzene	(2)	4.351	96	993842	50.000
86)\$Toluene-d8	(3)	5.982	98	937156	49.433
99)*Chlorobenzene-d5	(3)	7.539	117	662043	50.000
112)\$4-Bromofluorobenzene	(3)	8.622	95	316558	44.548
133)*1,4-Dichlorobenzene-d4	(4)	9.528	152	375818	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:34.
Target 3.5 esignature user ID: sas00403

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST17

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850745

Sample wt/vol: 4.84 (g/mL) - g

Lab File ID: HP09953.i/12nov08a.b/bn08s07.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 4

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.022	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.011	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.270	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST17

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850745

Sample wt/vol: 4.84 (g/mL) g

Lab File ID: HP09953.i/12nov08a.b/bn08s07.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 4

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1	1,2-Dichlorobenzene	0.005	U
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NST17

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850745

Data file: /chem2/HP09953.i/12nov08a.b/bn08s07.d

Injection date and time: 08-NOV-2012 13:54

Data file Sample Info. Line: NST17;6850745;2;0;;TAP03;;;bn08b01;

Instrument ID: HP09953.i Batch: B123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 14:35 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov08a.b/bn08b01.d

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 08-NOV-2012 12:18

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov08a.b/bn08c01.d

Bottle Code: 150A Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.03

Volume Purged (Vt): 5 ml Sample Weight (Ws): 4.84 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	2.216(0.006)	228	65	104605 (-31)	250.00	
67) Fluorobenzene	4.351(0.006)	579	96	948469 (-13)	50.00	
99) Chlorobenzene-d5	7.545(-0.006)	1104	117	644919 (-15)	50.00	
133) 1,4-Dichlorobenzene-d4	9.528(-0.006)	1430	152	350970 (-28)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.713(-0.001)	113	255542	53.806	108%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.023(0.000)	102	52459	52.552	105%		54 - 135
86) Toluene-d8	(3)	5.988(0.001)	98	906780	49.101	98%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622(0.001)	95	305158	44.084	88%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit LOQ (in sample)
5) Vinyl Chloride	(2)			Not Detected					1 5
13) Trichlorofluoromethane	(2)			Not Detected					2 5
19) 1,1-Dichloroethene	(2)			Not Detected					1 5
20) Acetone	(2)			Not Detected					7 21
31) Methylene Chloride	(2)			Not Detected					2 5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5 5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1 5
40) 1,1-Dichloroethane	(2)			Not Detected					1 5
45) 2-Butanone	(2)			Not Detected					4 10
46) cis-1,2-Dichloroethene	(2)			Not Detected					1 5
54) Chloroform	(2)			Not Detected					1 5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1 5
59) Carbon Tetrachloride	(2)			Not Detected					1 5
62) Benzene	(2)			Not Detected					0.5 5
64) 1,2-Dichloroethane	(2)			Not Detected					1 5
72) Trichloroethene	(2)			Not Detected					1 5
77) 1,4-Dioxane	(1)			Not Detected					72 260
87) Toluene	(3)			Not Detected					1 5
92) Tetrachloroethene	(3)			Not Detected					1 5
100) Chlorobenzene	(3)			Not Detected					1 5
102) Ethylbenzene	(3)			Not Detected					1 5
103) m+p-Xylene	(3)			Not Detected					1 5
104) o-Xylene	(3)			Not Detected					1 5
105) Xylene (Total)	(3)			Not Detected					1 5
117) n-Propylbenzene	(4)			Not Detected					1 5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1 5
126) tert-Butylbenzene	(4)			Not Detected					1 5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1 5
129) sec-Butylbenzene	(4)			Not Detected					1 5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1 5

NST17

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850745

Data file: /chem2/HP09953.i/12nov08a.b/bn08s07.d

Injection date and time: 08-NOV-2012 13:54

Data file Sample Info. Line: NST17;6850745;2;0;;TAP03;;;bn08b01;

Instrument ID: HP09953.i Batch: B123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 14:35 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov08a.b/bn08b01.d

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m

Sublist used: 10261

Calibration date and time (Last Method Edit): 08-NOV-2012 12:18

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov08a.b/bn08c01.d

Bottle Code: 150A

Matrix: SOIL

Level: Low

On-Column Amount units: ng

In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.03

Volume Purged (Vt): 5 ml

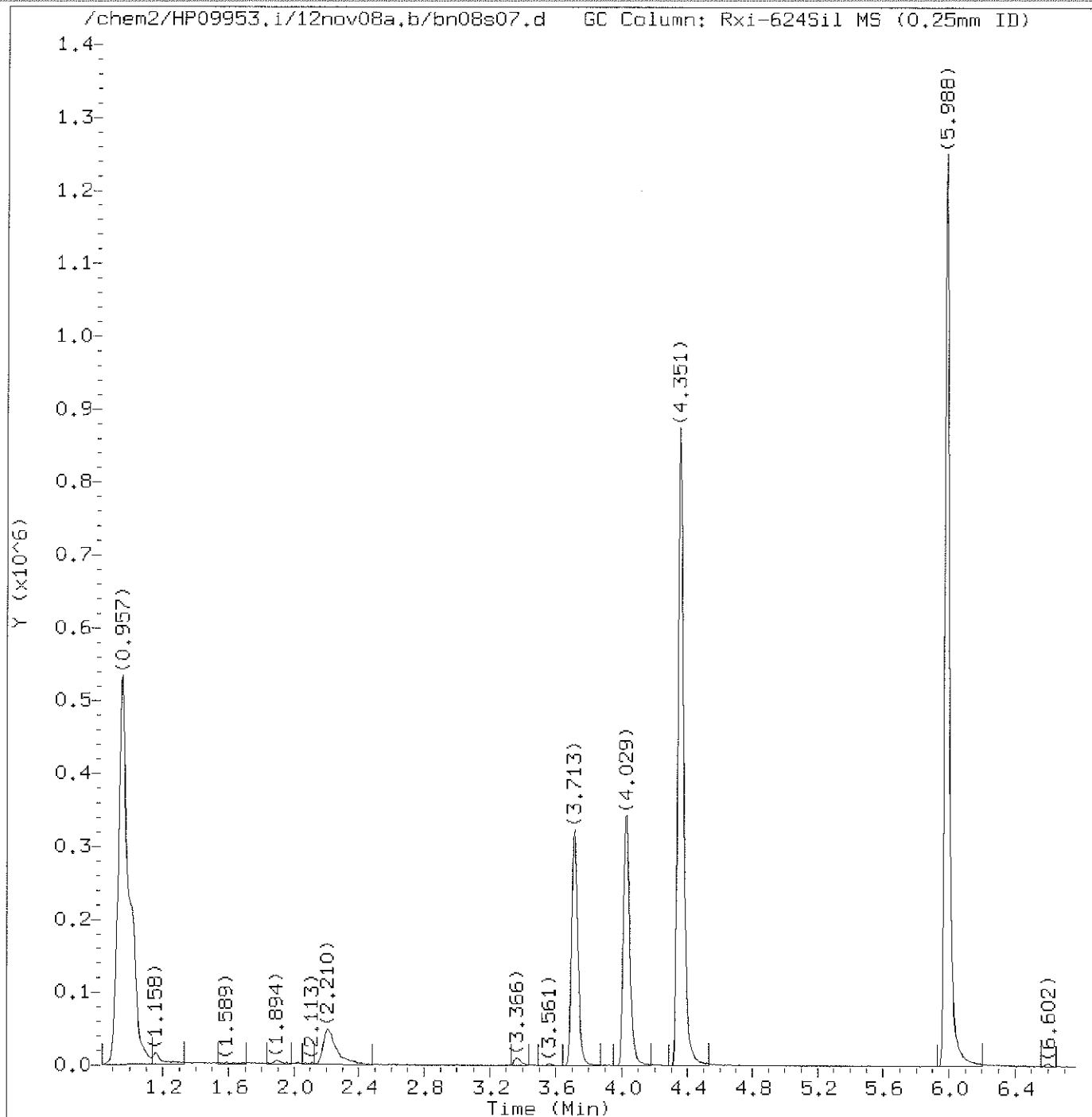
Sample Weight (Ws): 4.84 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit	LOQ
134) 1,4-Dichlorobenzene	(4)			Not Detected					1	5
139) n-Butylbenzene	(4)			Not Detected					1	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					1	5

Total number of targets = 33

Digitally signed by Angela D. Sneeringer on 11/08/2012 at 14:38. Target 3.5 esignature user ID: ads01731

Secondary review performed and digitally signed by Christine M. Dulaney on 11/08/2012 at 16:03. Parallax ID: cmd00448



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08s07.d

Instrument ID: HP09953.i

Injection date and time: 08-NOV-2012 13:54

Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m

Sublist used: 10261

Calibration date and time: 08-NOV-2012 12:18

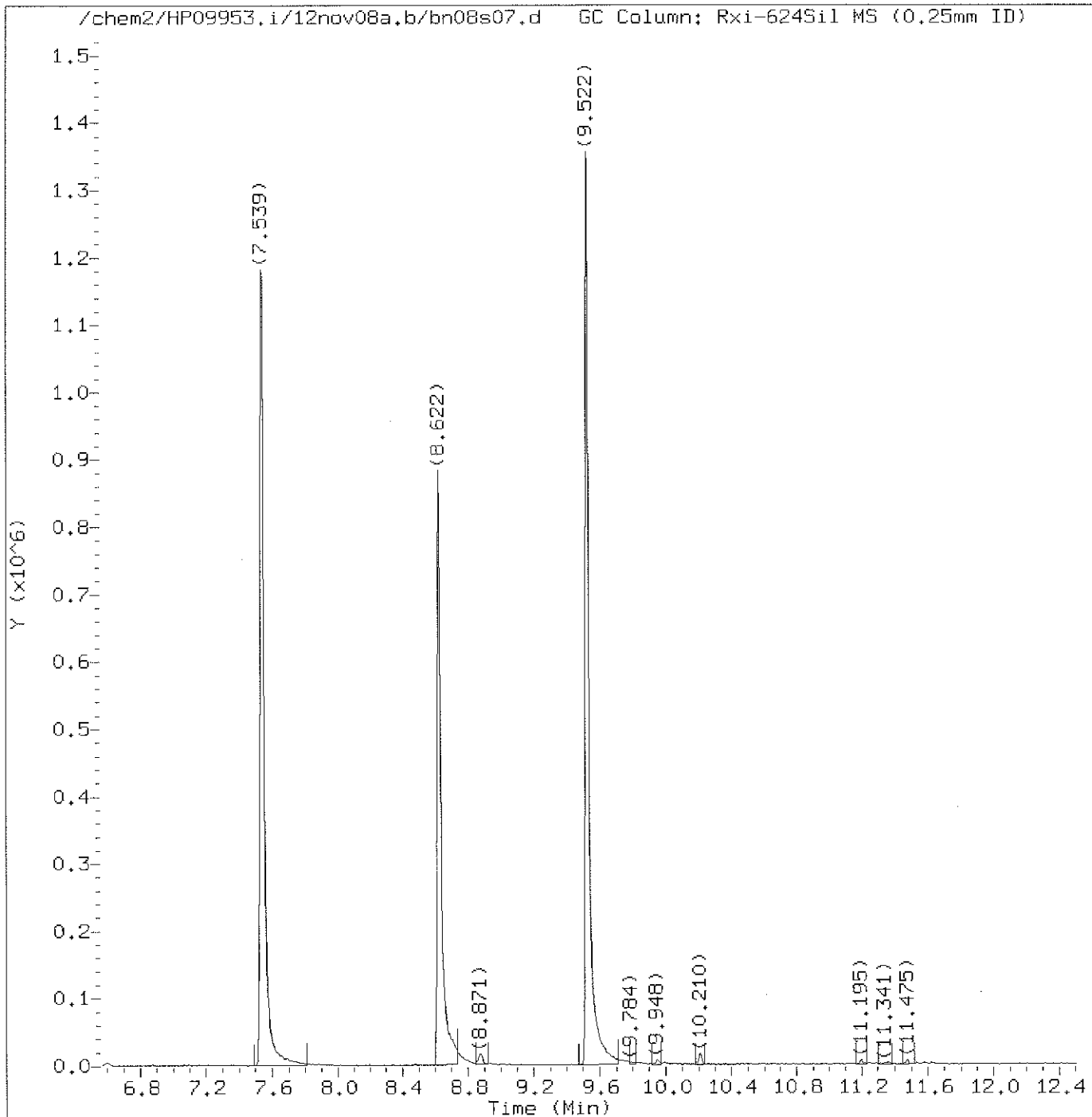
Date, time and analyst ID of latest file update: 08-Nov-2012 14:35 ads01731

Sample Name: NST17

Lab Sample ID: 6850745

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 14:38.

Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08s07.d
Injection date and time: 08-NOV-2012 13:54

Instrument ID: HP09953.i
Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m
Calibration date and time: 08-NOV-2012 12:18

Sublist used: 10261

Date, time and analyst ID of latest file update: 08-Nov-2012 14:35 ads01731

Sample Name: NST17

Lab Sample ID: 6850745

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 14:38.

Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08s07.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 13:54 Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 12:18
Date, time and analyst ID of latest file update: 08-Nov-2012 14:35 ads01731

Sample Name: NST17

Lab Sample ID: 6850745

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30) *t-Butyl Alcohol-d10	(1)	2.216	65	104605	250.000
55) \$Dibromofluoromethane	(2)	3.713	113	255542	53.806
61) \$1,2-Dichloroethane-d4	(2)	4.023	102	52459	52.552
67) *Fluorobenzene	(2)	4.351	96	948469	50.000
86) \$Toluene-d8	(3)	5.988	98	906780	49.101
99) *Chlorobenzene-d5	(3)	7.545	117	644919	50.000
112) \$4-Bromofluorobenzene	(3)	8.622	95	305158	44.084
133) *1,4-Dichlorobenzene-d4	(4)	9.528	152	350970	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 14:38.
Target 3.5 esignature user ID: ads01731

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST18

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850746

Sample wt/vol: 4.99 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s38.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.021	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.260	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST18

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850746

Sample wt/vol: 4.99 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s38.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----	1,2-Dichlorobenzene	0.005	U
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NST18

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850746

Data file: /chem2/HP09953.i/12nov07b.b/bn07s38.d

Injection date and time: 08-NOV-2012 03:15

Data file Sample Info. Line: NST18;6850746;2;0;;TAP03;;bn07b10a;

Instrument ID: HP09953.i

Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 05:33 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng

In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml

Sample Weight (Ws): 4.99 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	2.216(-0.006)	228	65	79594 (-43)	250.00	
67) Fluorobenzene	4.351(0.000)	579	96	998541 (-14)	50.00	
99) Chlorobenzene-d5	7.545(-0.006)	1104	117	666600 (-17)	50.00	
133) 1,4-Dichlorobenzene-d4	9.528(-0.006)	1430	152	368910 (-28)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.713(-0.001)	113	265854	53.170	106%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.029(0.000)	102	54301	51.669	103%		54 - 135
86) Toluene-d8	(3)	5.988(0.000)	98	948039	49.665	99%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622(0.001)	95	321476	44.931	90%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit 10Q (in sample)
5) Vinyl Chloride	(2)			Not Detected					1 5
13) Trichlorofluoromethane	(2)			Not Detected					2 5
19) 1,1-Dichloroethene	(2)			Not Detected					1 5
20) Acetone	(2)			Not Detected					7 20
31) Methylene Chloride	(2)			Not Detected					2 5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5 5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1 5
40) 1,1-Dichloroethane	(2)			Not Detected					1 5
45) 2-Butanone	(2)			Not Detected					4 10
46) cis-1,2-Dichloroethene	(2)			Not Detected					1 5
54) Chloroform	(2)			Not Detected					1 5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1 5
59) Carbon Tetrachloride	(2)			Not Detected					1 5
62) Benzene	(2)			Not Detected					0.5 5
64) 1,2-Dichloroethane	(2)			Not Detected					1 5
72) Trichloroethene	(2)			Not Detected					1 5
77) 1,4-Dioxane	(1)			Not Detected					70 250
87) Toluene	(3)			Not Detected					1 5
92) Tetrachloroethene	(3)			Not Detected					1 5
100) Chlorobenzene	(3)			Not Detected					1 5
102) Ethylbenzene	(3)			Not Detected					1 5
103) m+p-Xylene	(3)			Not Detected					1 5
104) o-Xylene	(3)			Not Detected					1 5
105) Xylene (Total)	(3)			Not Detected					1 5
117) n-Propylbenzene	(4)			Not Detected					1 5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1 5
126) tert-Butylbenzene	(4)			Not Detected					1 5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1 5
129) sec-Butylbenzene	(4)			Not Detected					1 5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1 5

NST18

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850746

Data file: /chem2/HP09953.i/12nov07b.b/bn07s38.d

Injection date and time: 08-NOV-2012 03:15

Data file Sample Info. Line: NST18;6850746;2;0;;TAP03;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 05:33 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150B

Matrix: SOIL

Level: Low

On-Column Amount units: ng

In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml

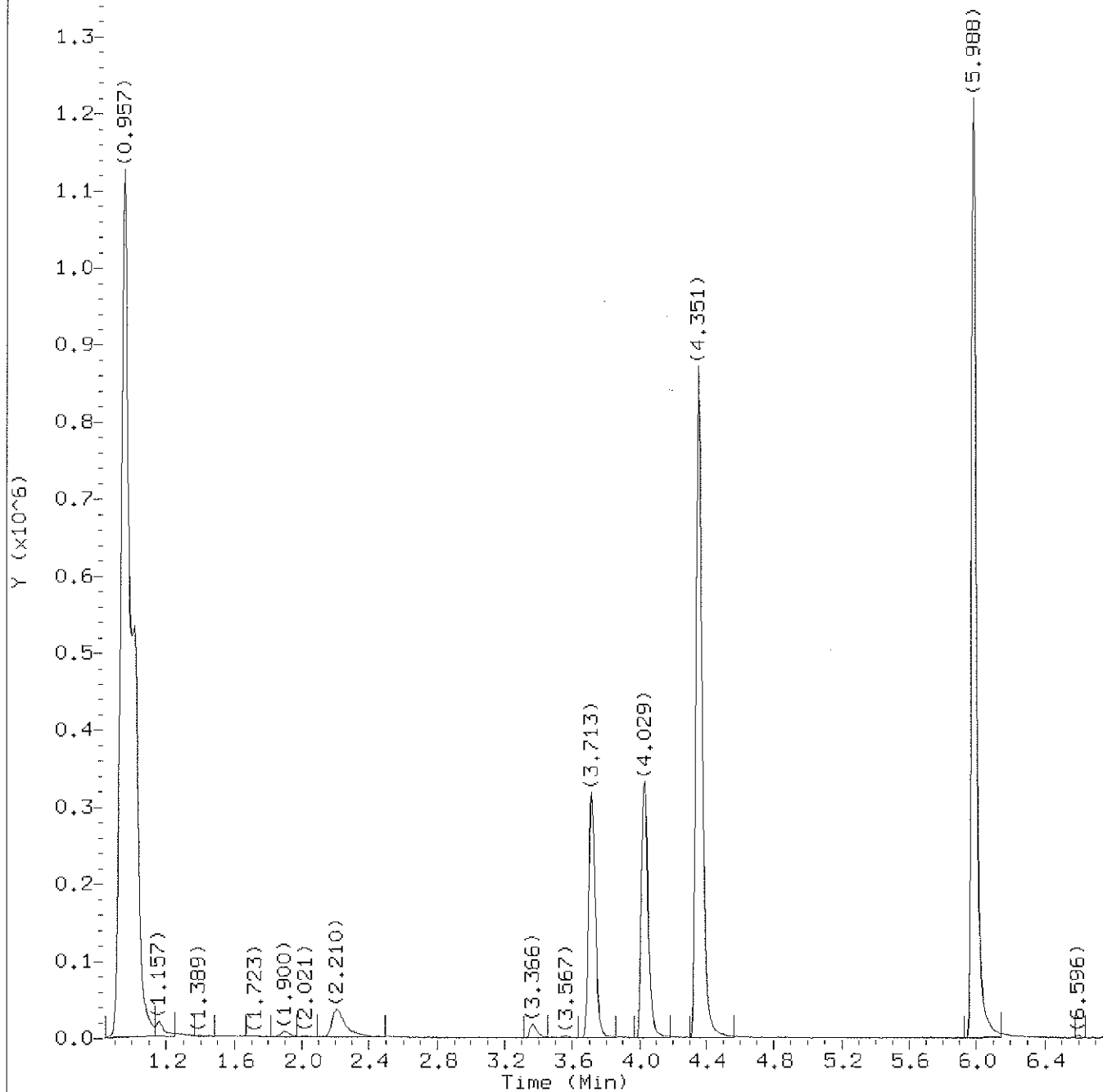
Sample Weight (Ws): 4.99 g

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
										Limit	LOQ
134) 1,4-Dichlorobenzene	(4)				Not Detected					1	5
139) n-Butylbenzene	(4)				Not Detected					1	5
140) 1,2-Dichlorobenzene	(4)				Not Detected					1	5

Total number of targets = 33

Digitally signed by Stephanie A. Selis on 11/08/2012 at 05:34. Target 3.5 signature user ID: sas00403

Secondary review performed and digitally signed by Abraham R. Uysal on 11/08/2012 at 10:14. Parallax ID: ahu01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s38.d
Injection date and time: 08-NOV-2012 03:15

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m
Calibration date and time: 07-NOV-2012 22:23

Sublist used: 10261

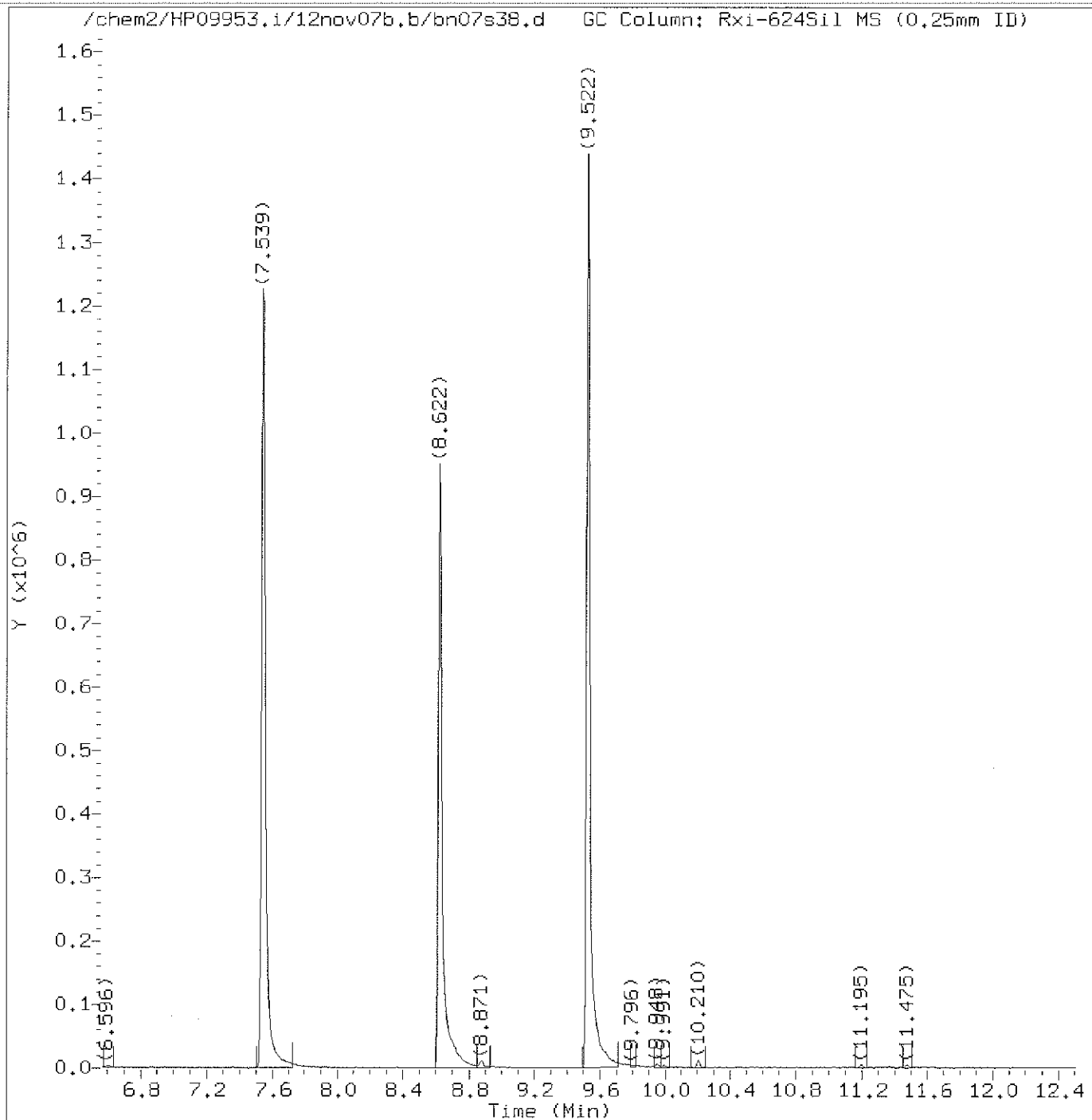
Date, time and analyst ID of latest file update: 08-Nov-2012 05:33 sas00403

Sample Name: NST18

Lab Sample ID: 6850746

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:34.

Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s38.d
Injection date and time: 08-NOV-2012 03:15

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 05:33 sas00403

Sample Name: NST18

Lab Sample ID: 6850746

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:34.

Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s38.d
Injection date and time: 08-NOV-2012 03:15

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 05:33 sas00403

Sample Name: NST18

Lab Sample ID: 6850746

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30) *t-Butyl Alcohol-d10	(1)	2.216	65	79594	250.000
55) \$Dibromofluoromethane	(2)	3.713	113	265854	53.170
61) \$1,2-Dichloroethane-d4	(2)	4.029	102	54301	51.669
67) *Fluorobenzene	(2)	4.351	96	998541	50.000
86) \$Toluene-d8	(3)	5.988	98	948039	49.665
99) *Chlorobenzene-d5	(3)	7.545	117	666600	50.000
112) \$4-Bromofluorobenzene	(3)	8.622	95	321476	44.931
133) *1,4-Dichlorobenzene-d4	(4)	9.528	152	368910	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:34.
Target 3.5 esignature user ID: sas00403

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST19

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850748

Sample wt/vol: 4.96 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s39.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

GAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.021	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.260	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST19

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850748

Sample wt/vol: 4.96 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s39.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----	1,2-Dichlorobenzene	0.005	U
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NST19

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850748

Data file: /chem2/HP09953.i/12nov07b.b/bn07s39.d

Injection date and time: 08-NOV-2012 05:45

Data file Sample Info. Line: NST19;6850748;2;0;;TAP03;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 08:33 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150A Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.01

Volume Purged (Vt): 5 ml Sample Weight (Ws): 4.96 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	2.228(-0.018)	230	65	101576 (-28)	250.00	
67) Fluorobenzene	4.357(-0.006)	580	96	1029827 (-11)	50.00	
99) Chlorobenzene-d5	7.545(-0.006)	1104	117	677075 (-16)	50.00	
133) 1,4-Dichlorobenzene-d4	9.528(-0.006)	1430	152	393012 (-23)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.713(0.000)	113	274212	53.176	106%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.029(0.001)	102	56486	52.115	104%		54 - 135
86) Toluene-d8	(3)	5.988(0.000)	98	972370	50.152	100%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622(0.001)	95	332771	45.790	92%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
5) Vinyl Chloride	(2)			Not Detected					1	5
13) Trichlorofluoromethane	(2)			Not Detected					2	5
19) 1,1-Dichloroethene	(2)			Not Detected					1	5
20) Acetone	(2)			Not Detected					7	20
31) Methylene Chloride	(2)			Not Detected					2	5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5	5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1	5
40) 1,1-Dichloroethane	(2)			Not Detected					1	5
45) 2-Butanone	(2)			Not Detected					4	10
46) cis-1,2-Dichloroethene	(2)			Not Detected					1	5
54) Chloroform	(2)			Not Detected					1	5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1	5
59) Carbon Tetrachloride	(2)			Not Detected					1	5
62) Benzene	(2)			Not Detected					0.5	5
64) 1,2-Dichloroethane	(2)			Not Detected					1	5
72) Trichloroethene	(2)			Not Detected					1	5
77) 1,4-Dioxane	(1)			Not Detected					71	250
87) Toluene	(3)			Not Detected					1	5
92) Tetrachloroethene	(3)			Not Detected					1	5
100) Chlorobenzene	(3)			Not Detected					1	5
102) Ethylbenzene	(3)			Not Detected					1	5
103) m+p-Xylene	(3)			Not Detected					1	5
104) o-Xylene	(3)			Not Detected					1	5
105) Xylene (Total)	(3)			Not Detected					1	5
117) n-Propylbenzene	(4)			Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1	5
126) tert-Butylbenzene	(4)			Not Detected					1	5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1	5
129) sec-Butylbenzene	(4)			Not Detected					1	5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1	5

NST19

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850748

Data file: /chem2/HP09953.i/12nov07b.b/bn07s39.d

Injection date and time: 08-NOV-2012 05:45

Data file Sample Info. Line: NST19;6850748;2;0;;TAP03;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 08:33 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150A

Matrix: SOIL

Level: Low

On-Column Amount units: ng

In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.01

Volume Purged (Vt): 5 ml

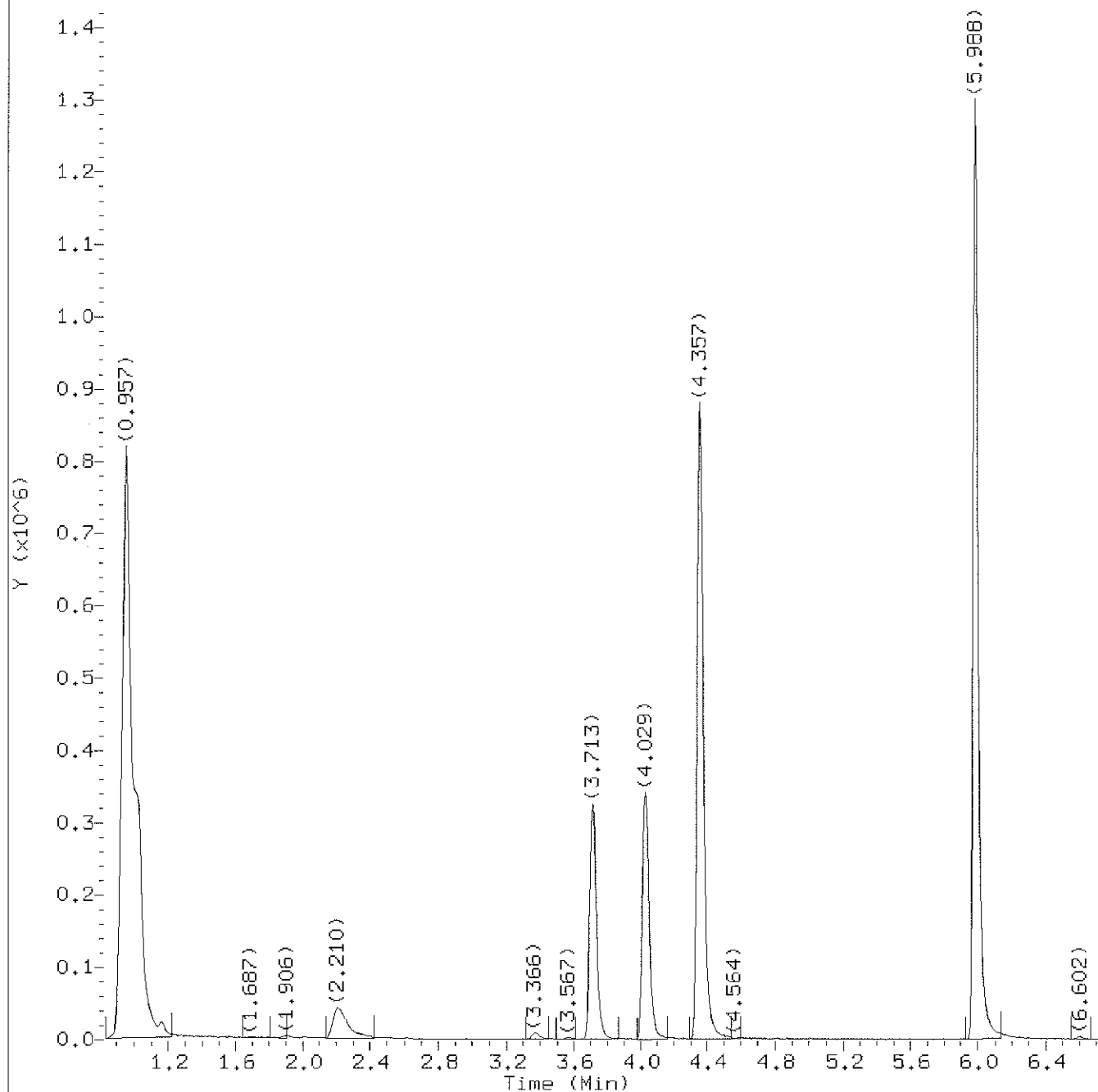
Sample Weight (Ws): 4.96 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
134) 1,4-Dichlorobenzene	{4}			Not Detected					1	5
139) n-Butylbenzene	{4}			Not Detected					1	5
140) 1,2-Dichlorobenzene	{4}			Not Detected					1	5

Total number of targets = 33

Digitally signed by Angela D. Sneeringer on 11/08/2012 at 08:39. Target 3.5 signature user ID: ads01731

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14. Parallax ID: ahu01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s39.d
Injection date and time: 08-NOV-2012 05:45

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 10261

Calibration date and time: 07-NOV-2012 22:23

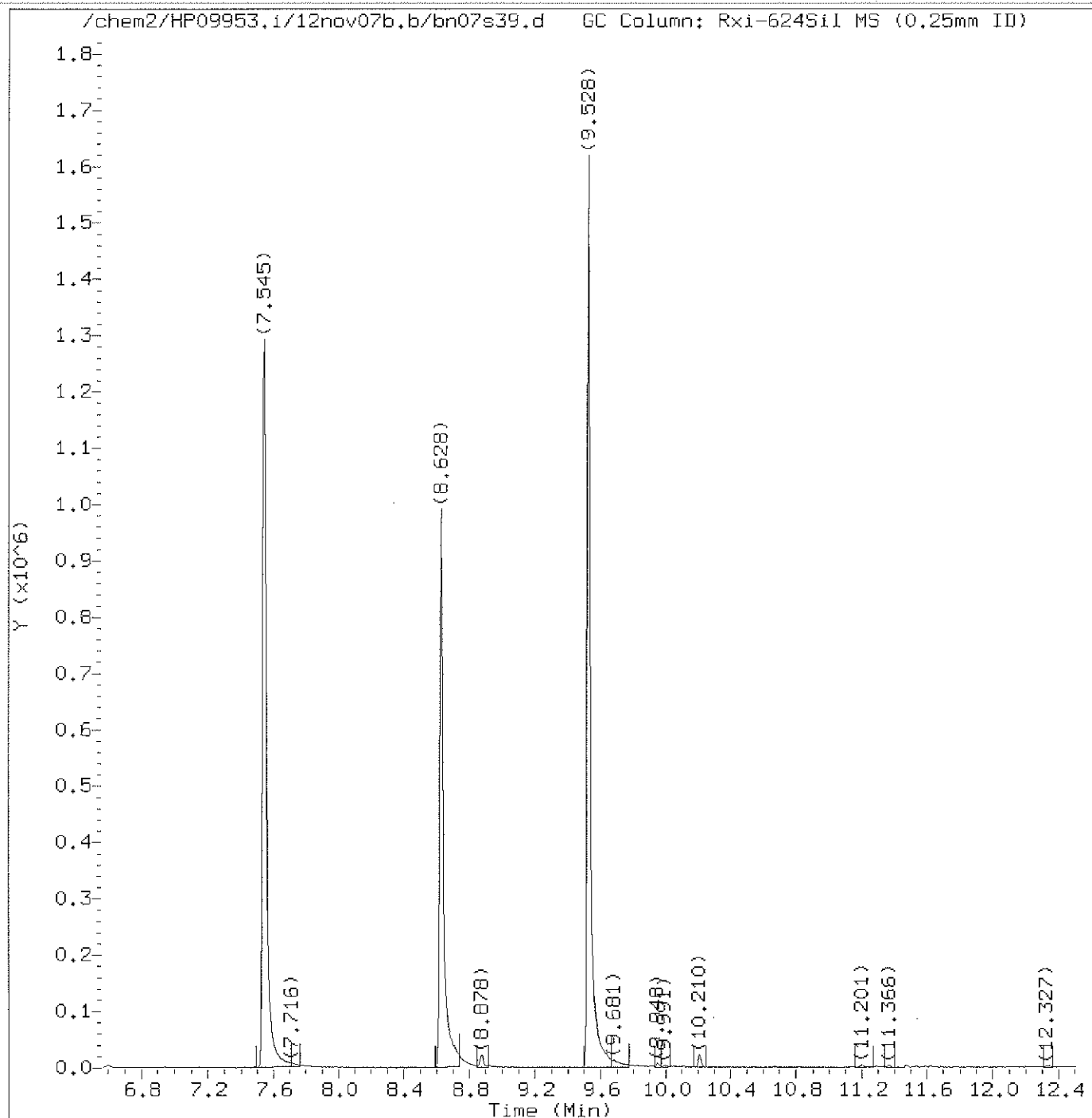
Date, time and analyst ID of latest file update: 08-Nov-2012 08:33 ads01731

Sample Name: NST19

Lab Sample ID: 6850748

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 08:39.

Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s39.d

Injection date and time: 08-NOV-2012 05:45

Instrument ID: HP09953.i

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 10261

Calibration date and time: 07-NOV-2012 22:23

Date, time and analyst ID of latest file update: 08-Nov-2012 08:33 ads01731

Sample Name: NST19

Lab Sample ID: 6850748

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 08:39.

Target 3.5 esignature user ID: ads01731

TAP03 Page 276 of 2648

page 2 of 2

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s39.d
Injection date and time: 08-NOV-2012 05:45

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 08:33 ads01731

Sample Name: NST19

Lab Sample ID: 6850748

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30) *t-Butyl Alcohol-d10	(1)	2.228	65	101576	250.000
55) \$Dibromofluoromethane	(2)	3.713	113	274212	53.176
61) \$1,2-Dichloroethane-d4	(2)	4.029	102	56486	52.115
67) *Fluorobenzene	(2)	4.357	96	1029827	50.000
86) \$Toluene-d8	(3)	5.988	98	972370	50.152
99) *Chlorobenzene-d5	(3)	7.545	117	677075	50.000
112) \$4-Bromofluorobenzene	(3)	8.622	95	332771	45.790
133) *1,4-Dichlorobenzene-d4	(4)	9.528	152	393012	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 08:39.
Target 3.5 esignature user ID: ads01731

VOLATILE ORGANICS ANALYSIS DATA SHEET

NST20

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850749

Sample wt/vol: 4.92 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s40.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 4

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(mg/L or mg/Kg)	mg/Kg
75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.021	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.011	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.260	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST20

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850749

Sample wt/vol: 4.92 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s40.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 4

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.005	U
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NST20

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850749

Data file: /chem2/HP09953.i/12nov07b.b/bn07s40.d

Injection date and time: 08-NOV-2012 06:08

Data file Sample Info. Line: NST20;6850749;2;0;;TAP03;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 08:34 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150A Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.02

Volume Purged (Vt): 5 ml Sample Weight (Ws): 4.92 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	2.210(0.000)	227	65	84349 (-40)	250.00	
67) Fluorobenzene	4.351(0.000)	579	96	988018 (-15)	50.00	
99) Chlorobenzene-d5	7.539(0.000)	1103	117	655418 (-18)	50.00	
133) 1,4-Dichlorobenzene-d4	9.528(-0.006)	1430	152	366759 (-28)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.707(0.000)	113	259692	52.491	105%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.023(0.001)	102	53097	51.062	102%		54 - 135
86) Toluene-d8	(3)	5.982(0.000)	98	935981	49.870	100%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622(0.000)	95	317279	45.101	90%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
5) Vinyl Chloride	(2)			Not Detected					1	5
13) Trichlorofluoromethane	(2)			Not Detected					2	5
19) 1,1-Dichloroethene	(2)			Not Detected					1	5
20) Acetone	(2)			Not Detected					7	20
31) Methylene Chloride	(2)			Not Detected					2	5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5	5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1	5
40) 1,1-Dichloroethane	(2)			Not Detected					1	5
45) 2-Butanone	(2)			Not Detected					4	10
46) cis-1,2-Dichloroethene	(2)			Not Detected					1	5
54) Chloroform	(2)			Not Detected					1	5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1	5
59) Carbon Tetrachloride	(2)			Not Detected					1	5
62) Benzene	(2)			Not Detected					0.5	5
64) 1,2-Dichloroethane	(2)			Not Detected					1	5
72) Trichloroethene	(2)			Not Detected					1	5
77) 1,4-Dioxane	(1)			Not Detected					71	250
87) Toluene	(3)			Not Detected					1	5
92) Tetrachloroethene	(3)			Not Detected					1	5
100) Chlorobenzene	(3)			Not Detected					1	5
102) Ethylbenzene	(3)			Not Detected					1	5
103) m+p-Xylene	(3)			Not Detected					1	5
104) o-Xylene	(3)			Not Detected					1	5
105) Xylene (Total)	(3)			Not Detected					1	5
117) n-Propylbenzene	(4)			Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1	5
126) tert-Butylbenzene	(4)			Not Detected					1	5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1	5
129) sec-Butylbenzene	(4)			Not Detected					1	5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1	5

NST20

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850749

Data file: /chem2/HP09953.i/12nov07b.b/bn07s40.d

Injection date and time: 08-NOV-2012 06:08

Data file Sample Info. Line: NST20;6850749;2;0;;TAP03;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 08:34 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150A

Matrix: SOIL

Level: Low

On-Column Amount units: ng

In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.02

Volume Purged (Vt): 5 ml

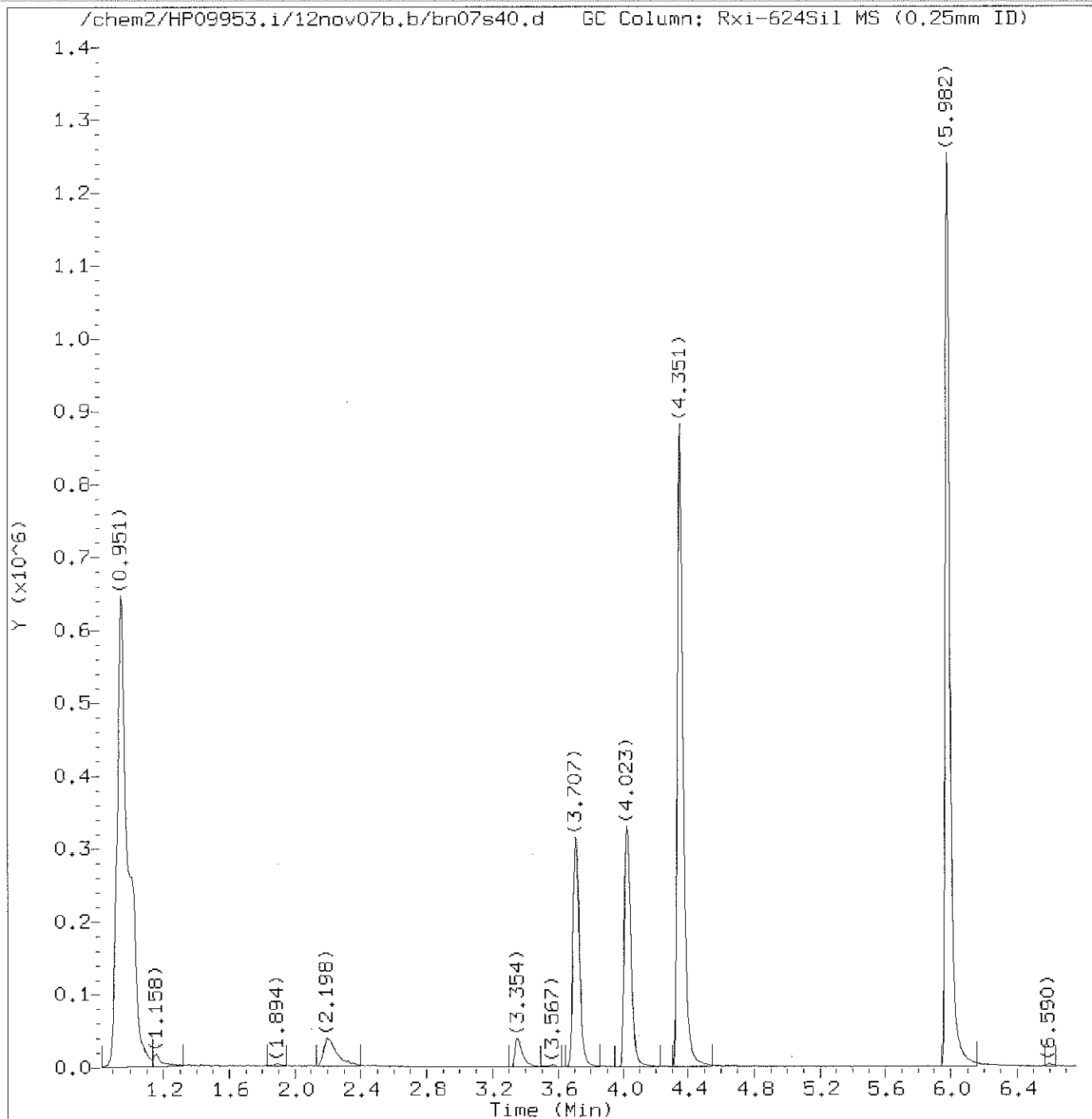
Sample Weight (Ws): 4.92 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
134) 1,4-Dichlorobenzene	(4)			Not Detected					1	5
139) n-Butylbenzene	(4)			Not Detected					1	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					1	5

Total number of targets = 33

Digitally signed by Angela D. Sneeringer on 11/08/2012 at 08:39. Target 3.5 signature user ID: ads01731

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14. Parallax ID: ahu01800



Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s40.d
Injection date and time: 08-NOV-2012 06:08

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 08:34 ads01731

Sample Name: NST20

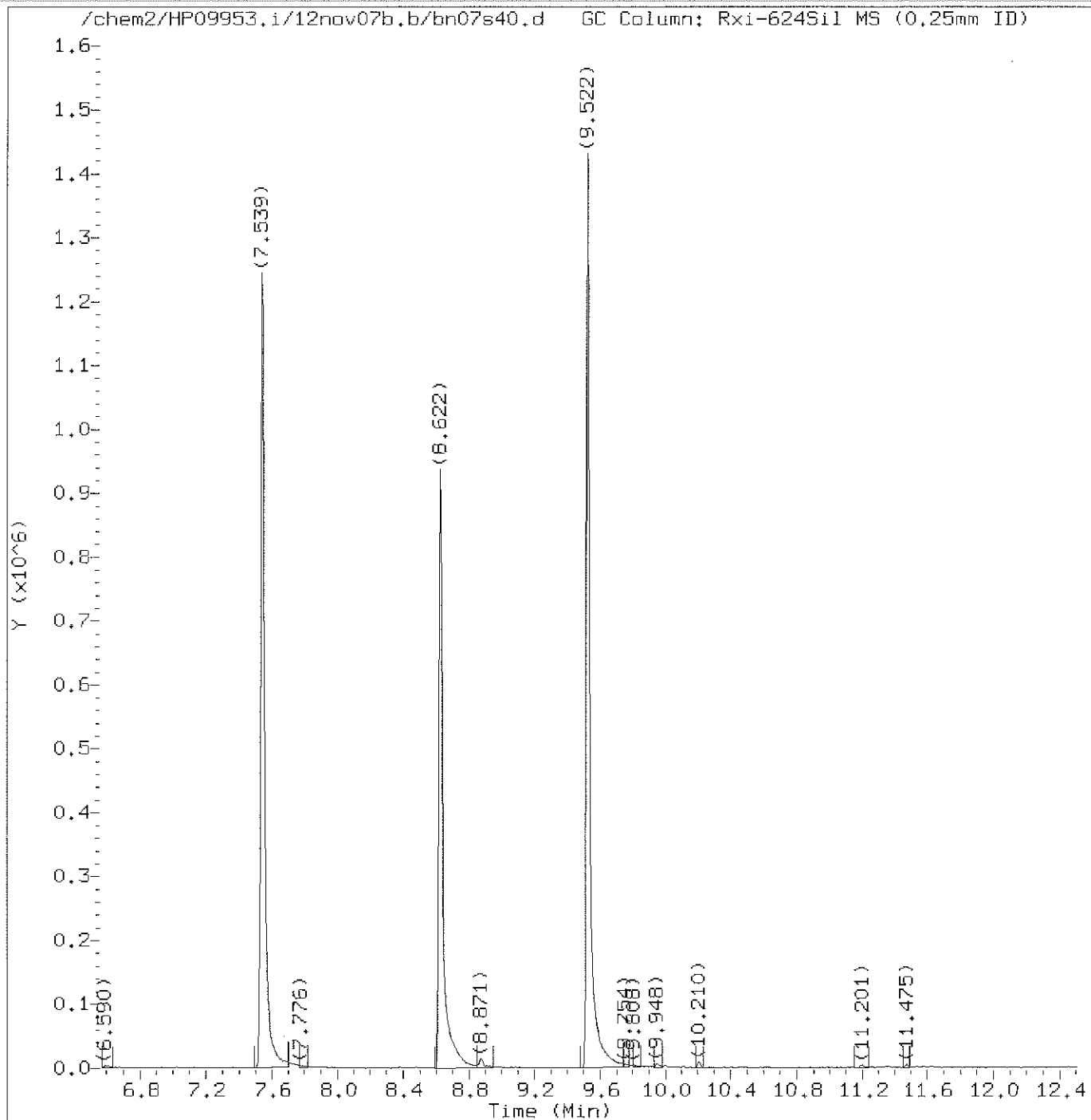
Lab Sample ID: 6850749

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 08:39.

Target 3.5 esignature user ID: ads01731

TAP03 Page 282 of 2648

page 1 of 2



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s40.d
Injection date and time: 08-NOV-2012 06:08

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 08:34 ads01731

Sample Name: NST20

Lab Sample ID: 6850749

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 08:39.

Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s40.d
Injection date and time: 08-NOV-2012 06:08

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 08:34 ads01731

Sample Name: NST20

Lab Sample ID: 6850749

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30) *t-Butyl Alcohol-d10	(1)	2.210	65	84349	250.000
55) \$Dibromofluoromethane	(2)	3.707	113	259692	52.491
61) \$1,2-Dichloroethane-d4	(2)	4.023	102	53097	51.062
67) *Fluorobenzene	(2)	4.351	96	988018	50.000
86) \$Toluene-d8	(3)	5.982	98	935981	49.870
99) *Chlorobenzene-d5	(3)	7.539	117	655418	50.000
112) \$4-Bromofluorobenzene	(3)	8.622	95	317279	45.101
133) *1,4-Dichlorobenzene-d4	(4)	9.528	152	366759	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 08:39.
Target 3.5 esignature user ID: ads01731

VOLATILE ORGANICS ANALYSIS DATA SHEET

NST21

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850751

Sample wt/vol: 5.18 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s41.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(mg/L or mg/Kg) mg/Kg

Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.020	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.250	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST21

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850751

Sample wt/vol: 5.18 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s41.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----	1,2-Dichlorobenzene	0.005	U
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NST21

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850751

Data file: /chem2/HP09953.i/12nov07b.b/bn07s41.d

Injection date and time: 08-NOV-2012 06:30

Data file Sample Info. Line: NST21;6850751;2;0;;TAP03;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 08:35 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150B

Matrix: SOIL

Level: Low

On-Column Amount units: ng

In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 0.97

Volume Purged (Vt): 5 ml

Sample Weight (Ws): 5.18 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	2.204 (0.006)	226	65	124078 (-12)	250.00	
67) Fluorobenzene	4.351 (0.000)	579	96	996788 (-14)	50.00	
99) Chlorobenzene-d5	7.539 (0.000)	1103	117	675589 (-16)	50.00	
133) 1,4-Dichlorobenzene-d4	9.529 (-0.006)	1430	152	380393 (-25)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.707 (0.000)	113	268178	53.730	107%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.023 (0.001)	102	55228	52.644	105%		54 - 135
86) Toluene-d8	(3)	5.988 (-0.001)	98	954182	49.322	99%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622 (0.000)	95	325189	44.845	90%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
5) Vinyl Chloride	(2)			Not Detected					1	5
13) Trichlorofluoromethane	(2)			Not Detected					2	5
19) 1,1-Dichloroethene	(2)			Not Detected					1	5
20) Acetone	(2)			Not Detected					7	19
31) Methylene Chloride	(2)			Not Detected					2	5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5	5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1	5
40) 1,1-Dichloroethane	(2)			Not Detected					1	5
45) 2-Butanone	(2)			Not Detected					4	10
46) cis-1,2-Dichloroethene	(2)			Not Detected					1	5
54) Chloroform	(2)			Not Detected					1	5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1	5
59) Carbon Tetrachloride	(2)			Not Detected					1	5
62) Benzene	(2)			Not Detected					0.5	5
64) 1,2-Dichloroethane	(2)			Not Detected					1	5
72) Trichloroethene	(2)			Not Detected					1	5
77) 1,4-Dioxane	(1)			Not Detected					68	240
87) Toluene	(3)			Not Detected					1	5
92) Tetrachloroethene	(3)			Not Detected					1	5
100) Chlorobenzene	(3)			Not Detected					1	5
102) Ethylbenzene	(3)			Not Detected					1	5
103) m+p-Xylene	(3)			Not Detected					1	5
104) o-Xylene	(3)			Not Detected					1	5
105) Xylene (Total)	(3)			Not Detected					1	5
117) n-Propylbenzene	(4)			Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1	5
126) tert-Butylbenzene	(4)			Not Detected					1	5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1	5
129) sec-Butylbenzene	(4)			Not Detected					1	5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1	5

NST21

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 6850751

Data file: /chem2/HP09953.i/12nov07b.b/bn07s41.d

Injection date and time: 08-NOV-2012 06:30

Data file Sample Info. Line: NST21;6850751;2;0;;TAP03;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 08:35 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 0.97

Volume Purged (Vt): 5 ml

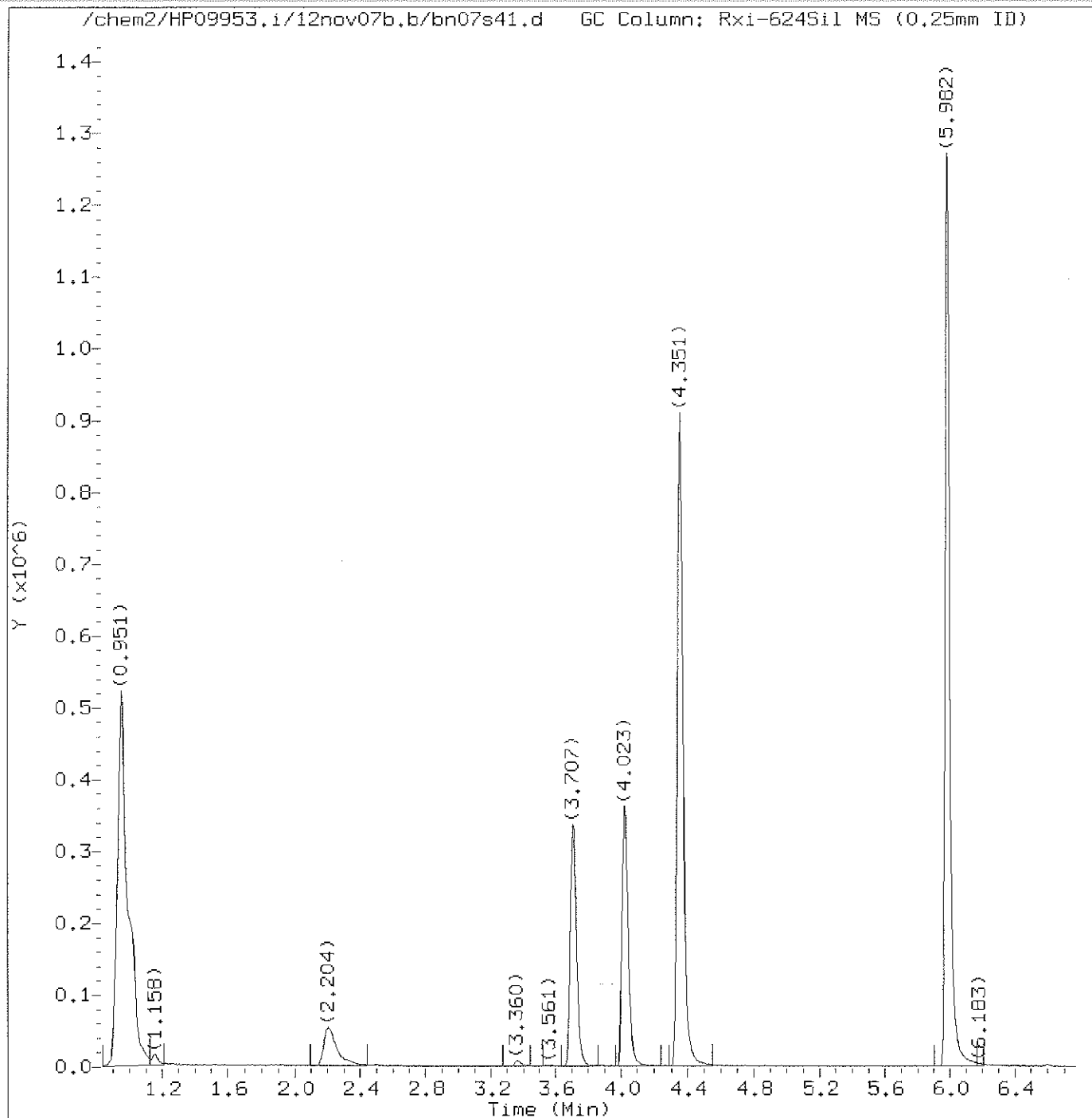
Sample Weight (Ws): 5.18 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
134) 1,4-Dichlorobenzene	(4)			Not Detected					1	5
139) n-Butylbenzene	(4)			Not Detected					1	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					1	5

Total number of targets = 33

Digitally signed by Angela D. Sneeringer on 11/08/2012 at 08:38. Target 3.5 esignature user ID: ads01731

Secondary review performed and digitally signed by Abraham H. Goyal on 11/08/2012 at 10:14. Parallax ID: ahv01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s41.d
Injection date and time: 08-NOV-2012 06:30

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 08:35 ads01731

Sample Name: NST21

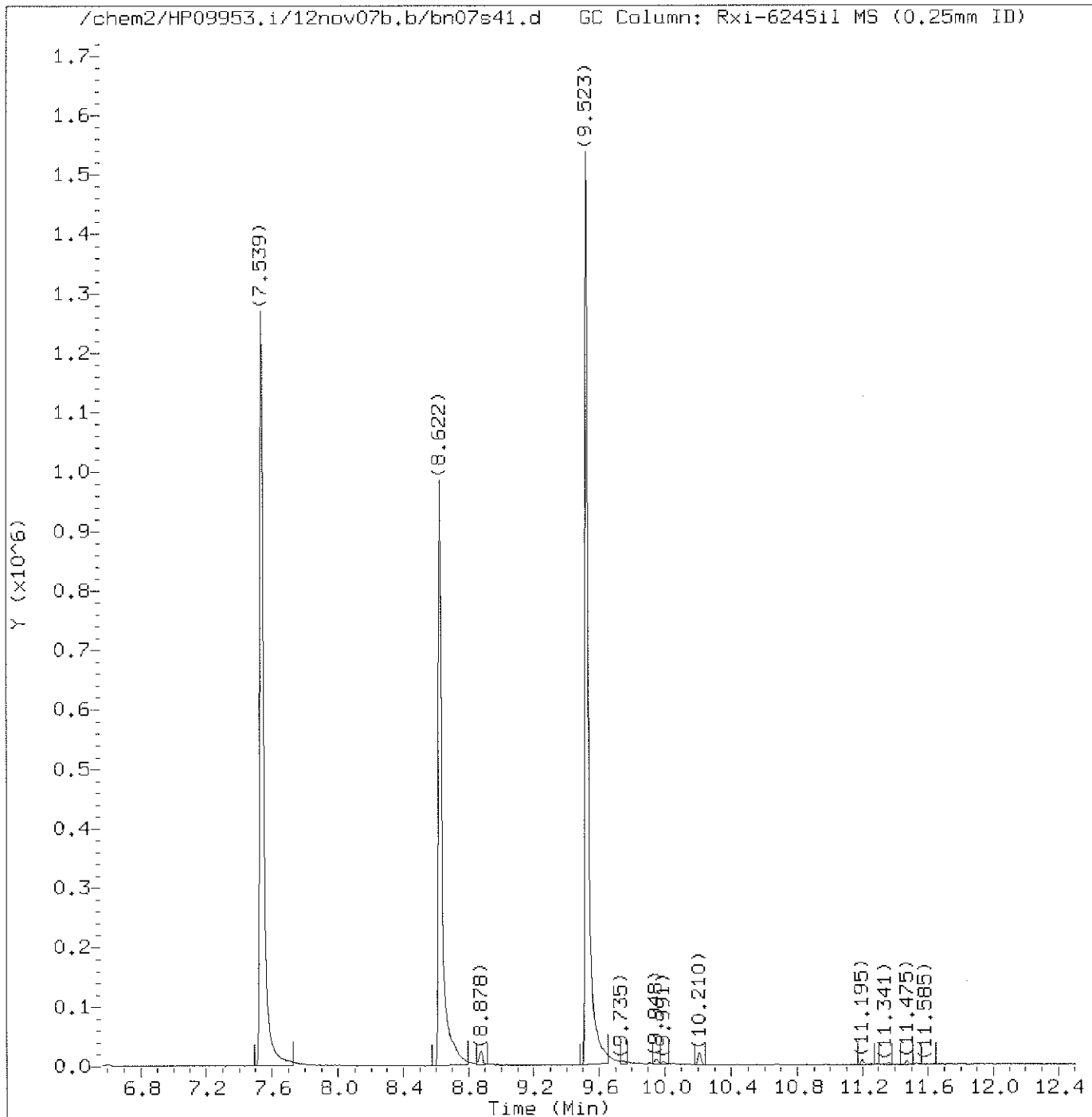
Lab Sample ID: 6850751

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 08:38.

Target 3.5 esignature user ID: ads01731

TAP03 Page 289 of 2648

page 1 of 2



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s41.d
Injection date and time: 08-NOV-2012 06:30

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m
Calibration date and time: 07-NOV-2012 22:23

Sublist used: 10261

Date, time and analyst ID of latest file update: 08-Nov-2012 08:35 ads01731

Sample Name: NST21

Lab Sample ID: 6850751

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 08:38.

Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s41.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 06:30 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 08:35 ads01731

Sample Name: NST21 Lab Sample ID: 6850751

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30) *t-Butyl Alcohol-d10	(1)	2.204	65	124078	250.000
55) \$Dibromofluoromethane	(2)	3.707	113	268178	53.730
61) \$1,2-Dichloroethane-d4	(2)	4.023	102	55228	52.644
67) *Fluorobenzene	(2)	4.351	96	996788	50.000
86) \$Toluene-d8	(3)	5.988	98	954182	49.322
99) *Chlorobenzene-d5	(3)	7.539	117	675589	50.000
112) \$4-Bromofluorobenzene	(3)	8.622	95	325189	44.845
133) *1,4-Dichlorobenzene-d4	(4)	9.529	152	380393	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 08:38.
Target 3.5 esignature user ID: ads01731

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST22

Lab Name: Lancaster Laboratories Contract: _____
 Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: 6850752
 Sample wt/vol: 5.15 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s42.d
 Level: (low/med) LOW Date Received: 11/07/12
 Moisture: not dec. 3 Date Analyzed: 11/08/12
 Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:
 CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.020	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.250	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST22

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850752

Sample wt/vol: 5.15 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s42.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.005	U
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NST22

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850752

Data file: /chem2/HP09953.i/12nov07b.b/bn07s42.d

Injection date and time: 08-NOV-2012 06:53

Data file Sample Info. Line: NST22;6850752;2;0;;TAP03;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 08:35 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 0.97

Volume Purged (Vt): 5 ml

Sample Weight (Ws): 5.15 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	2.216(-0.006)	228	65	119466 (-15)	250.00	
67) Fluorobenzene	4.351(0.000)	579	96	988899 (-15)	50.00	
99) Chlorobenzene-d5	7.539(0.000)	1103	117	665964 (-17)	50.00	
133) 1,4-Dichlorobenzene-d4	9.528(-0.006)	1430	152	376941 (-26)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.706(0.000)	113	261251	52.759	106%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.023(0.001)	102	52930	50.856	102%		54 - 135
86) Toluene-d8	(3)	5.988(-0.001)	98	936046	49.084	98%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622(0.000)	95	319588	44.710	89%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
5) Vinyl Chloride	(2)			Not Detected					1	5
13) Trichlorofluoromethane	(2)			Not Detected					2	5
19) 1,1-Dichloroethene	(2)			Not Detected					1	5
20) Acetone	(2)			Not Detected					7	19
31) Methylene Chloride	(2)			Not Detected					2	5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5	5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1	5
40) 1,1-Dichloroethane	(2)			Not Detected					1	5
45) 2-Butanone	(2)			Not Detected					4	10
46) cis-1,2-Dichloroethene	(2)			Not Detected					1	5
54) Chloroform	(2)			Not Detected					1	5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1	5
59) Carbon Tetrachloride	(2)			Not Detected					1	5
62) Benzene	(2)			Not Detected					0.5	5
64) 1,2-Dichloroethane	(2)			Not Detected					1	5
72) Trichloroethene	(2)			Not Detected					1	5
77) 1,4-Dioxane	(1)			Not Detected					68	240
87) Toluene	(3)			Not Detected					1	5
92) Tetrachloroethene	(3)			Not Detected					1	5
100) Chlorobenzene	(3)			Not Detected					1	5
102) Ethylbenzene	(3)			Not Detected					1	5
103) m+p-Xylene	(3)			Not Detected					1	5
104) o-Xylene	(3)			Not Detected					1	5
105) Xylene (Total)	(3)			Not Detected					1	5
117) n-Propylbenzene	(4)			Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1	5
126) tert-Butylbenzene	(4)			Not Detected					1	5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1	5
129) sec-Butylbenzene	(4)			Not Detected					1	5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1	5

NST22

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850752

Data file: /chem2/HP09953.i/12nov07b.b/bn07s42.d

Injection date and time: 08-NOV-2012 06:53

Data file Sample Info. Line: NST22;6850752;2;0;;TAP03;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 08:35 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150B

Matrix: SOIL

Level: Low

On-Column Amount units: ng

In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 0.97

Volume Purged (Vt): 5 ml

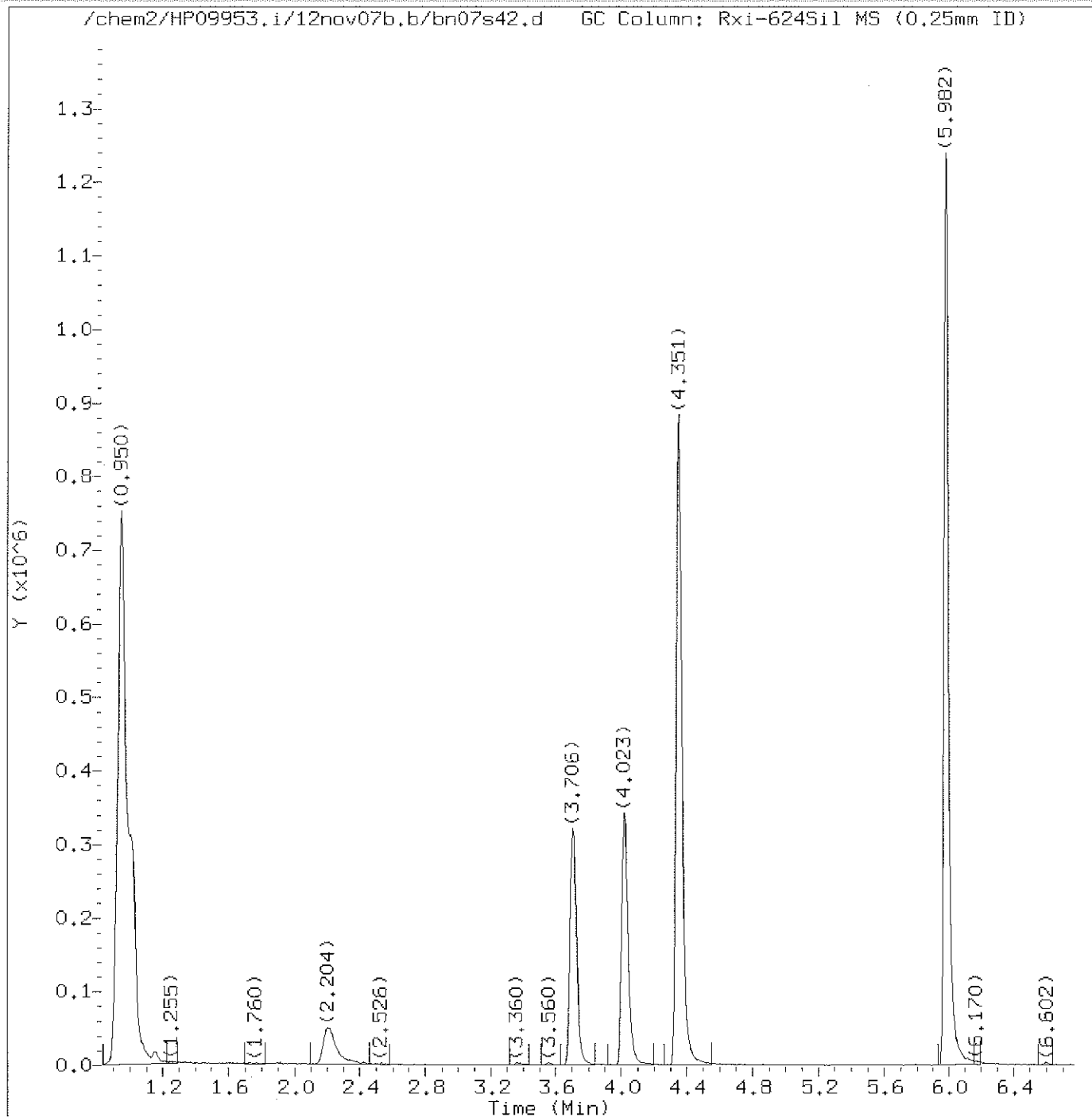
Sample Weight (Ws): 5.15 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit	LOQ
134) 1,4-Dichlorobenzene	(4)			Not Detected					1	5
139) n-Butylbenzene	(4)			Not Detected					1	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					1	5

Total number of targets = 33

Digitally signed by Angela D. Sheeringer on 11/08/2012 at 08:38. Target 3.5 esignature user ID: ads01731

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14. Parallax ID: ahu01800



Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s42.d
Injection date and time: 08-NOV-2012 06:53

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 08:35 ads01731

Sample Name: NST22

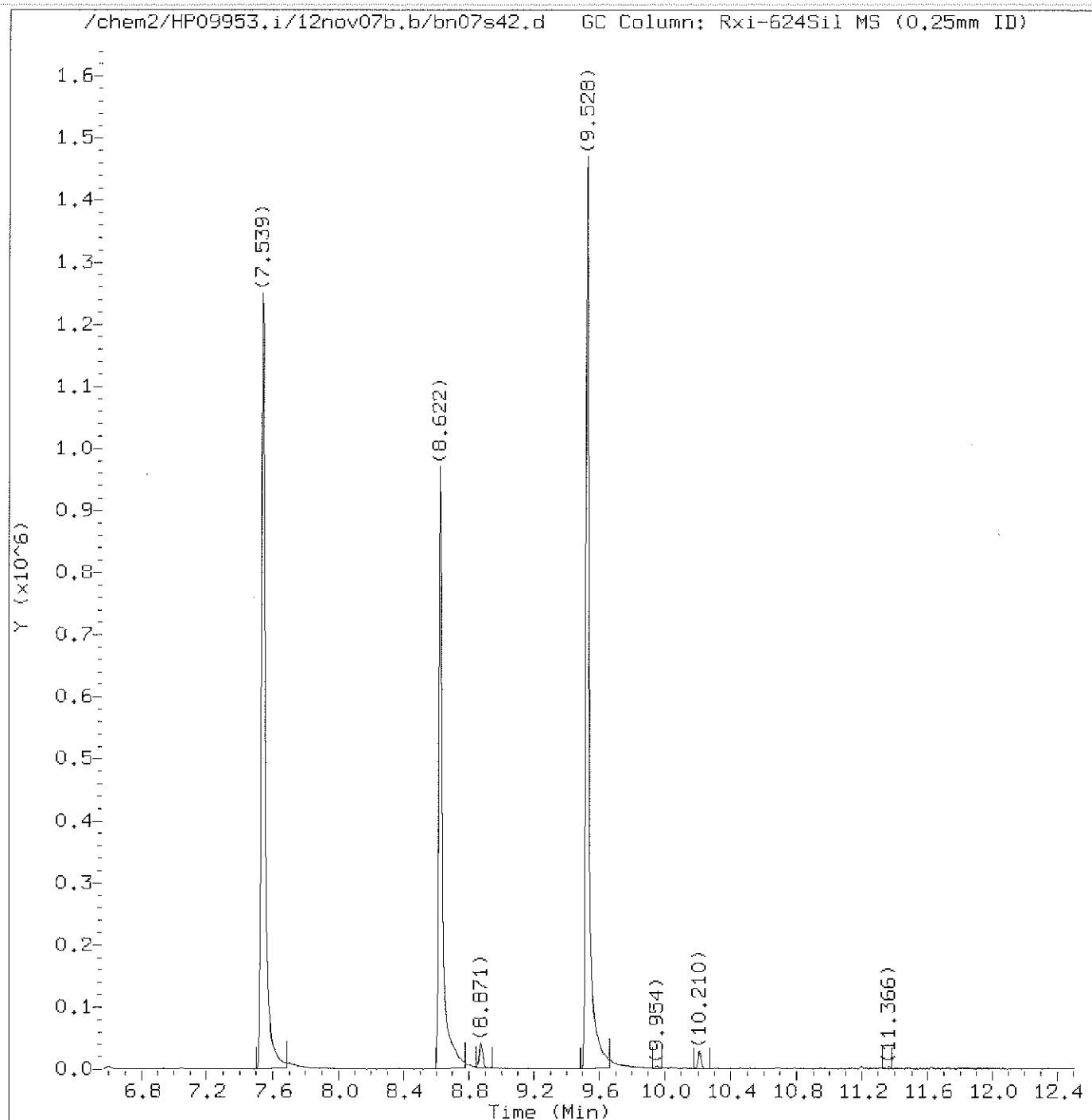
Lab Sample ID: 6850752

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 08:38.

Target 3.5 esignature user ID: ads01731

TAP03 Page 296 of 2648

page 1 of 2



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s42.d

Injection date and time: 08-NOV-2012 06:53

Instrument ID: HP09953.i

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 10261

Calibration date and time: 07-NOV-2012 22:23

Date, time and analyst ID of latest file update: 08-Nov-2012 08:35 ads01731

Sample Name: NST22

Lab Sample ID: 6850752

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 08:38.

Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s42.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 06:53 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 08:35 ads01731

Sample Name: NST22 Lab Sample ID: 6850752

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30) *t-Butyl Alcohol-d10	(1)	2.216	65	119466	250.000
55) \$Dibromofluoromethane	(2)	3.706	113	261251	52.759
61) \$1,2-Dichloroethane-d4	(2)	4.023	102	52930	50.856
67) *Fluorobenzene	(2)	4.351	96	988899	50.000
86) \$Toluene-d8	(3)	5.988	98	936046	49.084
99) *Chlorobenzene-d5	(3)	7.539	117	665964	50.000
112) \$4-Bromofluorobenzene	(3)	8.622	95	319588	44.710
133) *1,4-Dichlorobenzene-d4	(4)	9.528	152	376941	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 08:38.
Target 3.5 esignature user ID: ads01731

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST23

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850754

Sample wt/vol: 5.28 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s43.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(mg/L or mg/Kg) mg/Kg	Q
75-01-4	Vinyl Chloride	0.005	U
75-69-4	Trichlorofluoromethane	0.005	U
75-35-4	1,1-Dichloroethene	0.005	U
67-64-1	Acetone	0.020	U
75-09-2	Methylene Chloride	0.005	U
1634-04-4	Methyl Tertiary Butyl Ether	0.005	U
156-60-5	trans-1,2-Dichloroethene	0.005	U
75-34-3	1,1-Dichloroethane	0.005	U
78-93-3	2-Butanone	0.010	U
156-59-2	cis-1,2-Dichloroethene	0.005	U
67-66-3	Chloroform	0.005	U
71-55-6	1,1,1-Trichloroethane	0.005	U
56-23-5	Carbon Tetrachloride	0.005	U
71-43-2	Benzene	0.005	U
107-06-2	1,2-Dichloroethane	0.005	U
79-01-6	Trichloroethene	0.005	U
123-91-1	1,4-Dioxane	0.240	U
108-88-3	Toluene	0.005	U
127-18-4	Tetrachloroethene	0.005	U
108-90-7	Chlorobenzene	0.005	U
100-41-4	Ethylbenzene	0.005	U
1330-20-7	Xylene (Total)	0.005	U
103-65-1	n-Propylbenzene	0.005	U
108-67-8	1,3,5-Trimethylbenzene	0.005	U
98-06-6	tert-Butylbenzene	0.005	U
95-63-6	1,2,4-Trimethylbenzene	0.005	U
135-98-8	sec-Butylbenzene	0.005	U
541-73-1	1,3-Dichlorobenzene	0.005	U
106-46-7	1,4-Dichlorobenzene	0.005	U
104-51-8	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST23

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850754

Sample wt/vol: 5.28 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s43.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----	1,2-Dichlorobenzene	0.005	U
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NST23

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850754

Data file: /chem2/HP09953.i/12nov07b.b/bn07s43.d

Injection date and time: 08-NOV-2012 07:16

Data file Sample Info. Line: NST23;6850754;2;0;;TAP03;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 08:36 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 0.95

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5.28 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	2.216(-0.006)	228	65	109469 (-22)	250.00	
67) Fluorobenzene	4.351(0.000)	579	96	1010560 (-13)	50.00	
99) Chlorobenzene-d5	7.545(-0.006)	1104	117	685935 (-15)	50.00	
133) 1,4-Dichlorobenzene-d4	9.528(-0.006)	1430	152	383686 (-25)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.712(-0.001)	113	272457	53.843	108%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.029(0.000)	102	54653	51.386	103%		54 - 135
86) Toluene-d8	(3)	5.988(0.000)	98	968550	49.309	99%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622(0.001)	95	336359	45.686	91%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
5) Vinyl Chloride	(2)			Not Detected					0.9	5
13) Trichlorofluoromethane	(2)			Not Detected					2	5
19) 1,1-Dichloroethene	(2)			Not Detected					0.9	5
20) Acetone	(2)			Not Detected					7	19
31) Methylene Chloride	(2)			Not Detected					2	5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5	5
35) trans-1,2-Dichloroethene	(2)			Not Detected					0.9	5
40) 1,1-Dichloroethane	(2)			Not Detected					0.9	5
45) 2-Butanone	(2)			Not Detected					4	9
46) cis-1,2-Dichloroethene	(2)			Not Detected					0.9	5
54) Chloroform	(2)			Not Detected					0.9	5
56) 1,1,1-Trichloroethane	(2)			Not Detected					0.9	5
59) Carbon Tetrachloride	(2)			Not Detected					0.9	5
62) Benzene	(2)			Not Detected					0.5	5
64) 1,2-Dichloroethane	(2)			Not Detected					0.9	5
72) Trichloroethene	(2)			Not Detected					0.9	5
77) 1,4-Dioxane	(1)			Not Detected					66	240
87) Toluene	(3)			Not Detected					0.9	5
92) Tetrachloroethene	(3)			Not Detected					0.9	5
100) Chlorobenzene	(3)			Not Detected					0.9	5
102) Ethylbenzene	(3)			Not Detected					0.9	5
103) m+p-Xylene	(3)			Not Detected					0.9	5
104) o-Xylene	(3)			Not Detected					0.9	5
105) Xylene (Total)	(3)			Not Detected					0.9	5
117) n-Propylbenzene	(4)			Not Detected					0.9	5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					0.9	5
126) tert-Butylbenzene	(4)			Not Detected					0.9	5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					0.9	5
129) sec-Butylbenzene	(4)			Not Detected					0.9	5
131) 1,3-Dichlorobenzene	(4)			Not Detected					0.9	5

NST23

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850754

Data file: /chem2/HP09953.i/12nov07b.b/bn07s43.d

Injection date and time: 08-NOV-2012 07:16

Data file Sample Info. Line: NST23;6850754;2;0;;TAP03;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 08:36 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 0.95

Volume Purged (Vt): 5 ml

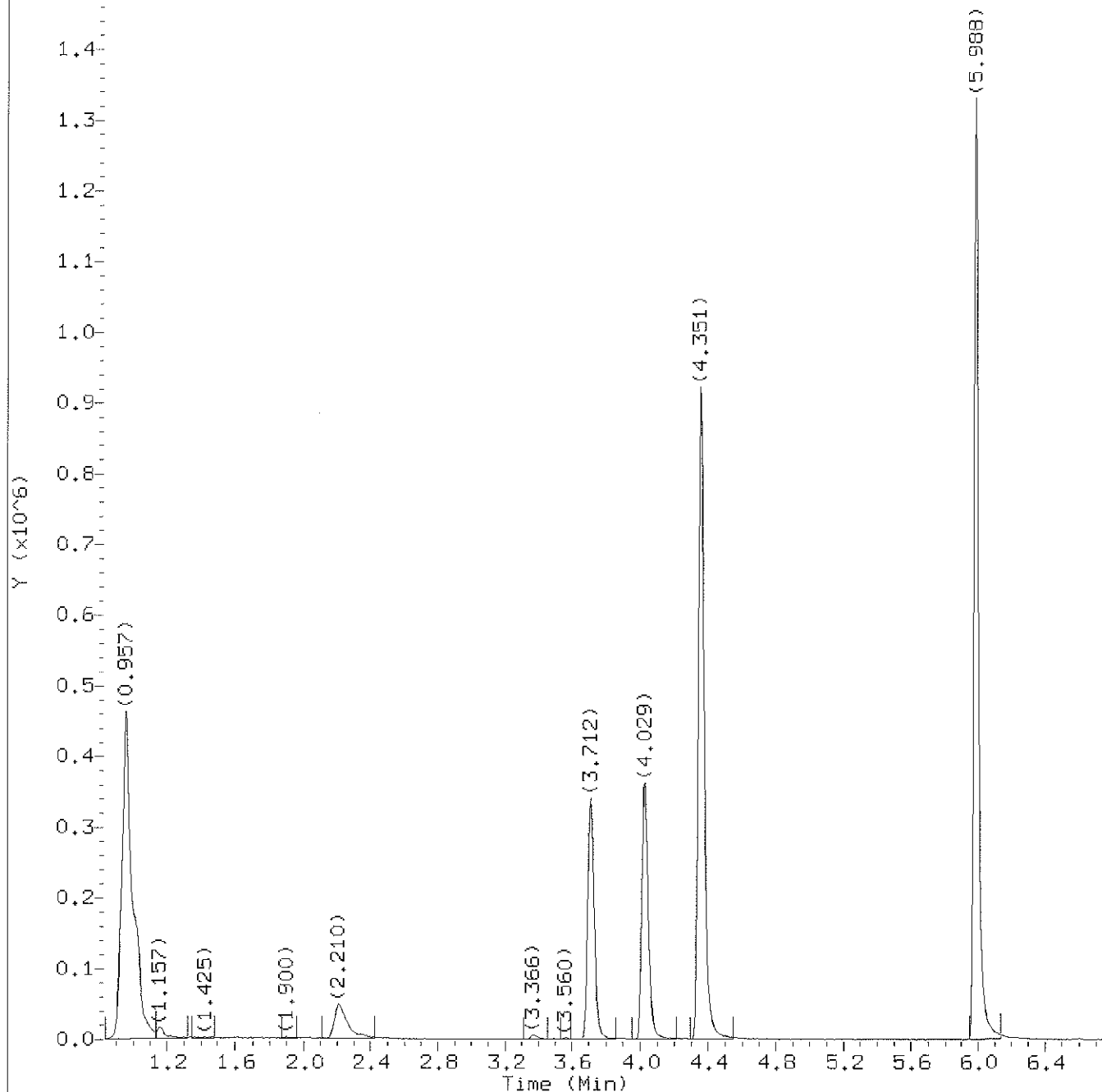
Sample Weight (Ws): 5.28 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
134) 1,4-Dichlorobenzene	(4)			Not Detected					0.9	5
139) n-Butylbenzene	(4)			Not Detected					0.9	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					0.9	5

Total number of targets = 33

Digitally signed by Angela D. Sneeringer on 11/08/2012 at 08:38. Target 3.5 esignature user ID: ads01731

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14. Parallax ID: ahu01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s43.d
Injection date and time: 08-NOV-2012 07:16

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m
Calibration date and time: 07-NOV-2012 22:23

Sublist used: 10261

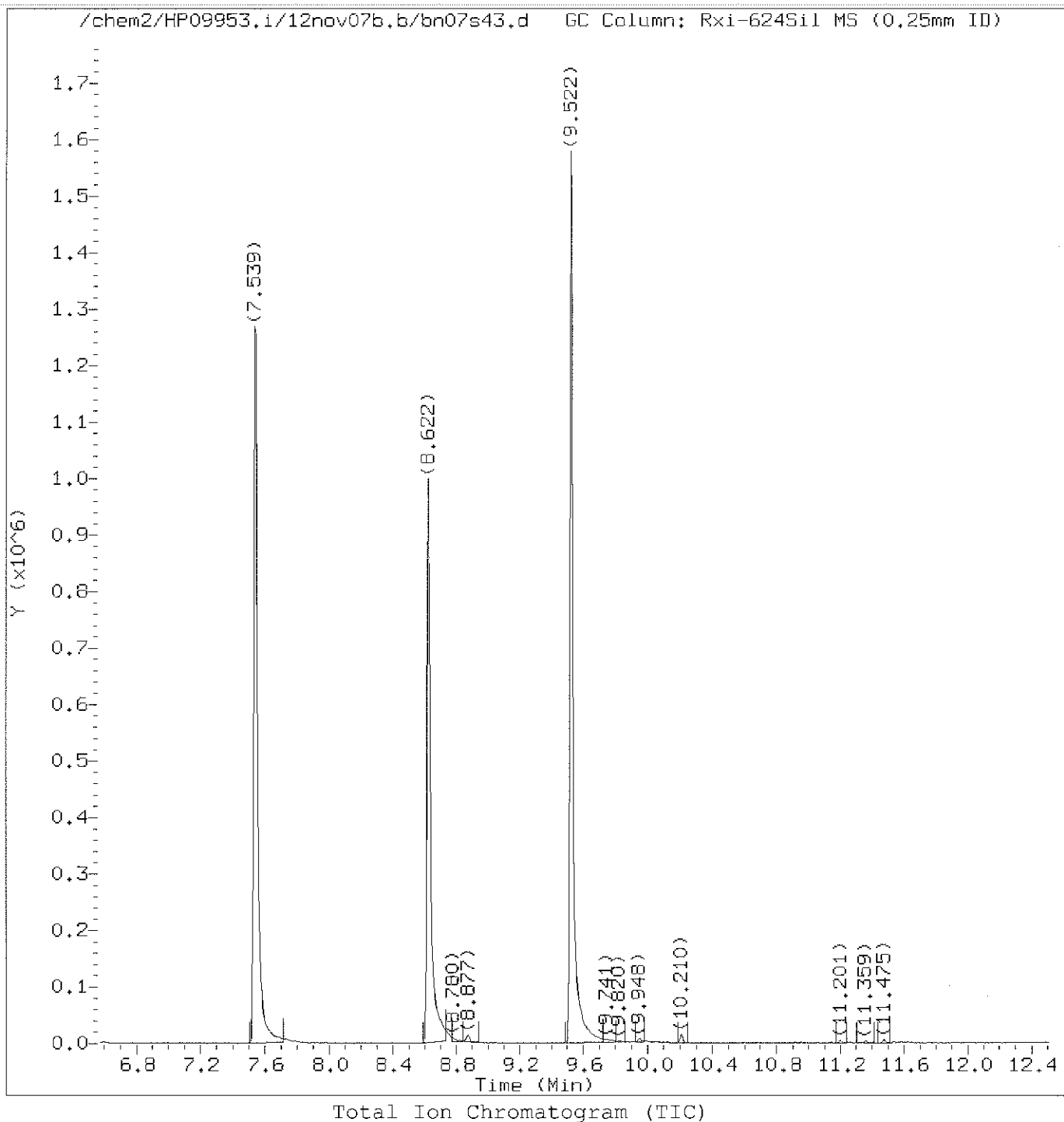
Date, time and analyst ID of latest file update: 08-Nov-2012 08:36 ads01731

Sample Name: NST23

Lab Sample ID: 6850754

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 08:38.

Target 3.5 esignature user ID: ads01731



Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s43.d
Injection date and time: 08-NOV-2012 07:16

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 08:36 ads01731

Sample Name: NST23

Lab Sample ID: 6850754

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 08:38.
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s43.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 07:16 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 08:36 ads01731

Sample Name: NST23

Lab Sample ID: 6850754

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30) *t-Butyl Alcohol-d10	(1)	2.216	65	109469	250.000
55) \$Dibromofluoromethane	(2)	3.712	113	272457	53.843
61) \$1,2-Dichloroethane-d4	(2)	4.029	102	54653	51.386
67) *Fluorobenzene	(2)	4.351	96	1010560	50.000
86) \$Toluene-d8	(3)	5.988	98	968550	49.309
99) *Chlorobenzene-d5	(3)	7.545	117	685935	50.000
112) \$4-Bromofluorobenzene	(3)	8.622	95	336359	45.686
133) *1,4-Dichlorobenzene-d4	(4)	9.528	152	383686	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 08:38.
Target 3.5 esignature user ID: ads01731

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST24

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850755

Sample wt/vol: 5.08 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s44.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.005	U
75-69-4-----	Trichlorofluoromethane	0.005	U
75-35-4-----	1,1-Dichloroethene	0.005	U
67-64-1-----	Acetone	0.020	U
75-09-2-----	Methylene Chloride	0.005	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.005	U
156-60-5-----	trans-1,2-Dichloroethene	0.005	U
75-34-3-----	1,1-Dichloroethane	0.005	U
78-93-3-----	2-Butanone	0.010	U
156-59-2-----	cis-1,2-Dichloroethene	0.005	U
67-66-3-----	Chloroform	0.005	U
71-55-6-----	1,1,1-Trichloroethane	0.005	U
56-23-5-----	Carbon Tetrachloride	0.005	U
71-43-2-----	Benzene	0.005	U
107-06-2-----	1,2-Dichloroethane	0.005	U
79-01-6-----	Trichloroethene	0.005	U
123-91-1-----	1,4-Dioxane	0.250	U
108-88-3-----	Toluene	0.005	U
127-18-4-----	Tetrachloroethene	0.005	U
108-90-7-----	Chlorobenzene	0.005	U
100-41-4-----	Ethylbenzene	0.005	U
1330-20-7-----	Xylene (Total)	0.005	U
103-65-1-----	n-Propylbenzene	0.005	U
108-67-8-----	1,3,5-Trimethylbenzene	0.005	U
98-06-6-----	tert-Butylbenzene	0.005	U
95-63-6-----	1,2,4-Trimethylbenzene	0.005	U
135-98-8-----	sec-Butylbenzene	0.005	U
541-73-1-----	1,3-Dichlorobenzene	0.005	U
106-46-7-----	1,4-Dichlorobenzene	0.005	U
104-51-8-----	n-Butylbenzene	0.005	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NST24

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850755

Sample wt/vol: 5.08 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s44.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.005	U
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NST24

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850755

Data file: /chem2/HP09953.i/12nov07b.b/bn07s44.d

Injection date and time: 08-NOV-2012 07:38

Data file Sample Info. Line: NST24;6850755;2;0;;TAP03;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 08:37 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150A Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 0.98

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5.08 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	2.204(0.006)	226	65	97836 (-31)	250.00	
67) Fluorobenzene	4.351(0.000)	579	96	992716 (-14)	50.00	
99) Chlorobenzene-d5	7.539(0.000)	1103	117	667223 (-17)	50.00	
133) 1,4-Dichlorobenzene-d4	9.528(-0.006)	1430	152	371499 (-27)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.706(0.000)	113	266543	53.621	107%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.029(0.000)	102	53156	50.876	102%		54 - 135
86) Toluene-d8	(3)	5.982(0.000)	98	943891	49.402	99%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622(0.000)	95	317797	44.376	89%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit LOQ (in sample)
5) Vinyl Chloride	(2)			Not Detected					1 5
13) Trichlorofluoromethane	(2)			Not Detected					2 5
19) 1,1-Dichloroethene	(2)			Not Detected					1 5
20) Acetone	(2)			Not Detected					7 20
31) Methylene Chloride	(2)			Not Detected					2 5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5 5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1 5
40) 1,1-Dichloroethane	(2)			Not Detected					1 5
45) 2-Butanone	(2)			Not Detected					4 10
46) cis-1,2-Dichloroethene	(2)			Not Detected					1 5
54) Chloroform	(2)			Not Detected					1 5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1 5
59) Carbon Tetrachloride	(2)			Not Detected					1 5
62) Benzene	(2)			Not Detected					0.5 5
64) 1,2-Dichloroethane	(2)			Not Detected					1 5
72) Trichloroethene	(2)			Not Detected					1 5
77) 1,4-Dioxane	(1)			Not Detected					69 250
87) Toluene	(3)			Not Detected					1 5
92) Tetrachloroethene	(3)			Not Detected					1 5
100) Chlorobenzene	(3)			Not Detected					1 5
102) Ethylbenzene	(3)			Not Detected					1 5
103) m+p-Xylene	(3)			Not Detected					1 5
104) o-Xylene	(3)			Not Detected					1 5
105) Xylene (Total)	(3)			Not Detected					1 5
117) n-Propylbenzene	(4)			Not Detected					1 5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1 5
126) tert-Butylbenzene	(4)			Not Detected					1 5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1 5
129) sec-Butylbenzene	(4)			Not Detected					1 5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1 5

NST24

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850755

Data file: /chem2/HP09953.i/12nov07b.b/bn07s44.d

Injection date and time: 08-NOV-2012 07:38

Data file Sample Info. Line: NST24;6850755;2;0;;TAP03;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 08:37 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150A

Matrix: SOIL

Level: Low

On-Column Amount units: ng

In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 0.98

Volume Purged (Vt): 5 ml

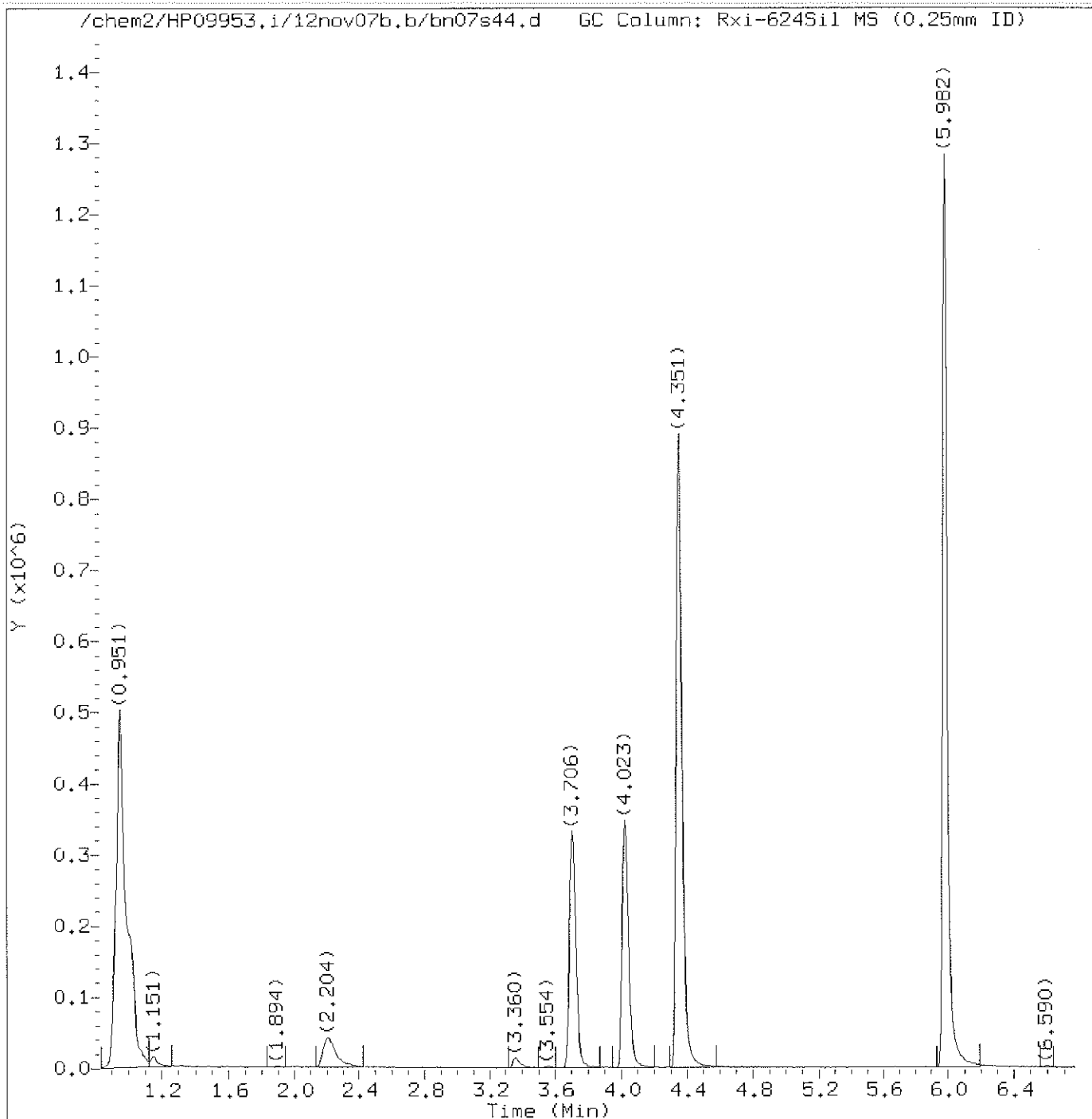
Sample Weight (Ws): 5.08 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit LOQ	
									(in sample)	
134) 1,4-Dichlorobenzene	(4)			Not Detected					1	5
139) n-Butylbenzene	(4)			Not Detected					1	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					1	5

Total number of targets = 33

Digitally signed by Angela D. Sneeringer on 11/08/2012 at 08:38. Target 3.5 esignature user ID: ads01731

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14. Parallax ID: ahu01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s44.d
Injection date and time: 08-NOV-2012 07:38

Instrument ID: HP09953.i
Analyst ID: AEL02861

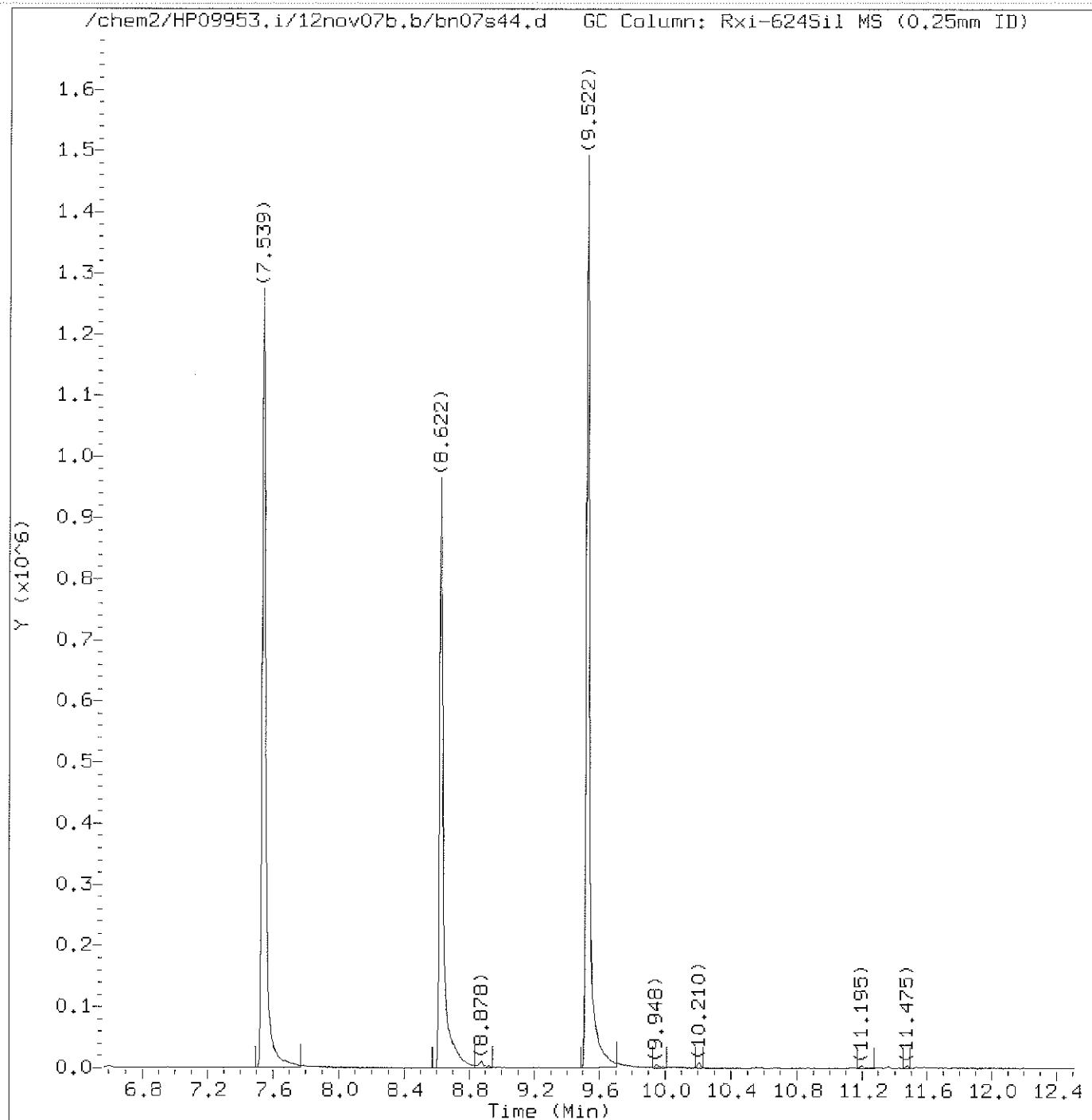
Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 08:37 ads01731

Sample Name: NST24

Lab Sample ID: 6850755

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 08:38.

Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s44.d

Instrument ID: HP09953.i

Injection date and time: 08-NOV-2012 07:38

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 10261

Calibration date and time: 07-NOV-2012 22:23

Date, time and analyst ID of latest file update: 08-Nov-2012 08:37 ads01731

Sample Name: NST24

Lab Sample ID: 6850755

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 08:38.

Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s44.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 07:38 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 08:37 ads01731

Sample Name: NST24

Lab Sample ID: 6850755

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30) *t-Butyl Alcohol-d10	(1)	2.204	65	97836	250.000
55) \$Dibromofluoromethane	(2)	3.706	113	266543	53.621
61) \$1,2-Dichloroethane-d4	(2)	4.029	102	53156	50.876
67) *Fluorobenzene	(2)	4.351	96	992716	50.000
86) \$Toluene-d8	(3)	5.982	98	943891	49.402
99) *Chlorobenzene-d5	(3)	7.539	117	667223	50.000
112) \$4-Bromofluorobenzene	(3)	8.622	95	317797	44.376
133) *1,4-Dichlorobenzene-d4	(4)	9.528	152	371499	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 08:38.
Target 3.5 esignature user ID: ads01731

VOLATILE ORGANICS ANALYSIS DATA SHEET

OCTS3

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850757

Sample wt/vol: 4.93 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s45.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.007	U
75-69-4-----	Trichlorofluoromethane	0.007	U
75-35-4-----	1,1-Dichloroethene	0.007	U
67-64-1-----	Acetone	0.026	U
75-09-2-----	Methylene Chloride	0.007	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.007	U
156-60-5-----	trans-1,2-Dichloroethene	0.007	U
75-34-3-----	1,1-Dichloroethane	0.007	U
78-93-3-----	2-Butanone	0.013	U
156-59-2-----	cis-1,2-Dichloroethene	0.007	U
67-66-3-----	Chloroform	0.007	U
71-55-6-----	1,1,1-Trichloroethane	0.007	U
56-23-5-----	Carbon Tetrachloride	0.007	U
71-43-2-----	Benzene	0.007	U
107-06-2-----	1,2-Dichloroethane	0.007	U
79-01-6-----	Trichloroethene	0.007	U
123-91-1-----	1,4-Dioxane	0.330	U
108-88-3-----	Toluene	0.007	U
127-18-4-----	Tetrachloroethene	0.007	U
108-90-7-----	Chlorobenzene	0.007	U
100-41-4-----	Ethylbenzene	0.007	U
1330-20-7-----	Xylene (Total)	0.007	U
103-65-1-----	n-Propylbenzene	0.007	U
108-67-8-----	1,3,5-Trimethylbenzene	0.007	U
98-06-6-----	tert-Butylbenzene	0.007	U
95-63-6-----	1,2,4-Trimethylbenzene	0.007	U
135-98-8-----	sec-Butylbenzene	0.007	U
541-73-1-----	1,3-Dichlorobenzene	0.007	U
106-46-7-----	1,4-Dichlorobenzene	0.007	U
104-51-8-----	n-Butylbenzene	0.007	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS3

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850757

Sample wt/vol: 4.93 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s45.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.007	U
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OCTS3

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850757

Data file: /chem2/HP09953.i/12nov07b.b/bn07s45.d

Injection date and time: 08-NOV-2012 08:01

Data file Sample Info. Line: OCTS3;6850757;2;0;;TAP03;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 08:38 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng

In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.01

Volume Purged (Vt): 5 ml

Sample Weight (Ws): 4.93 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	2.204(0.006)	226	65	139853 (-1)	250.00	
67) Fluorobenzene	4.351(0.000)	579	96	969315 (-16)	50.00	
99) Chlorobenzene-d5	7.539(0.000)	1103	117	652027 (-19)	50.00	
133) 1,4-Dichlorobenzene-d4	9.528(-0.006)	1430	152	356230 (-30)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.706(0.000)	113	267362	55.084	110%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.023(0.001)	102	55383	54.288	109%		54 - 135
86) Toluene-d8	(3)	5.988(-0.001)	98	918168	49.175	98%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622(0.000)	95	306456	43.789	88%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
5) Vinyl Chloride	(2)			Not Detected					1	5
13) Trichlorofluoromethane	(2)			Not Detected					2	5
19) 1,1-Dichloroethene	(2)			Not Detected					1	5
20) Acetone	(2)			Not Detected					7	20
31) Methylene Chloride	(2)			Not Detected					2	5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5	5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1	5
40) 1,1-Dichloroethane	(2)			Not Detected					1	5
45) 2-Butanone	(2)			Not Detected					4	10
46) cis-1,2-Dichloroethene	(2)			Not Detected					1	5
54) Chloroform	(2)			Not Detected					1	5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1	5
59) Carbon Tetrachloride	(2)			Not Detected					1	5
62) Benzene	(2)			Not Detected					0.5	5
64) 1,2-Dichloroethane	(2)			Not Detected					1	5
72) Trichloroethene	(2)			Not Detected					1	5
77) 1,4-Dioxane	(1)			Not Detected					71	250
87) Toluene	(3)			Not Detected					1	5
92) Tetrachloroethene	(3)			Not Detected					1	5
100) Chlorobenzene	(3)			Not Detected					1	5
102) Ethylbenzene	(3)			Not Detected					1	5
103) m+p-Xylene	(3)			Not Detected					1	5
104) o-Xylene	(3)			Not Detected					1	5
105) Xylene (Total)	(3)			Not Detected					1	5
117) n-Propylbenzene	(4)			Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1	5
126) tert-Butylbenzene	(4)			Not Detected					1	5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1	5
129) sec-Butylbenzene	(4)			Not Detected					1	5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1	5

OCTS3

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850757

Data file: /chem2/HP09953.i/12nov07b.b/bn07s45.d

Injection date and time: 08-NOV-2012 08:01

Data file Sample Info. Line: OCTS3;6850757;2;0;;TAP03;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 08:38 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.01

Volume Purged (Vt): 5 ml

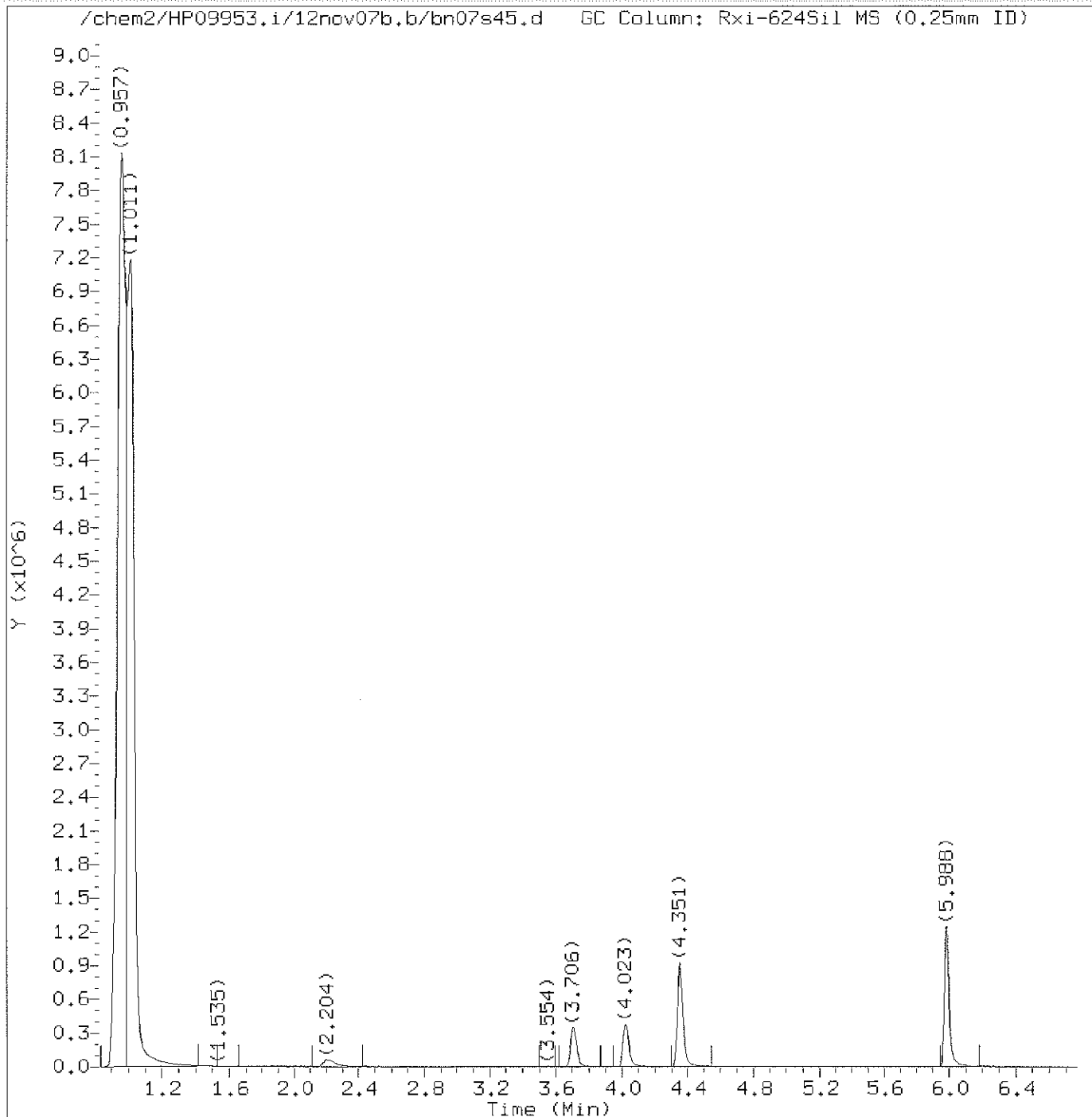
Sample Weight (Ws): 4.93 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit	LOQ
134) 1,4-Dichlorobenzene	(4)			Not Detected					1	5
139) n-Butylbenzene	(4)			Not Detected					1	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					1	5

Total number of targets = 33

Digitally signed by Angela D. Sheeringer on 11/08/2012 at 08:38. Target 3.5 esignature user ID: ads01731

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14. Parallax ID: ahu01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s45.d
Injection date and time: 08-NOV-2012 08:01

Instrument ID: HP09953.i
Analyst ID: AEL02861

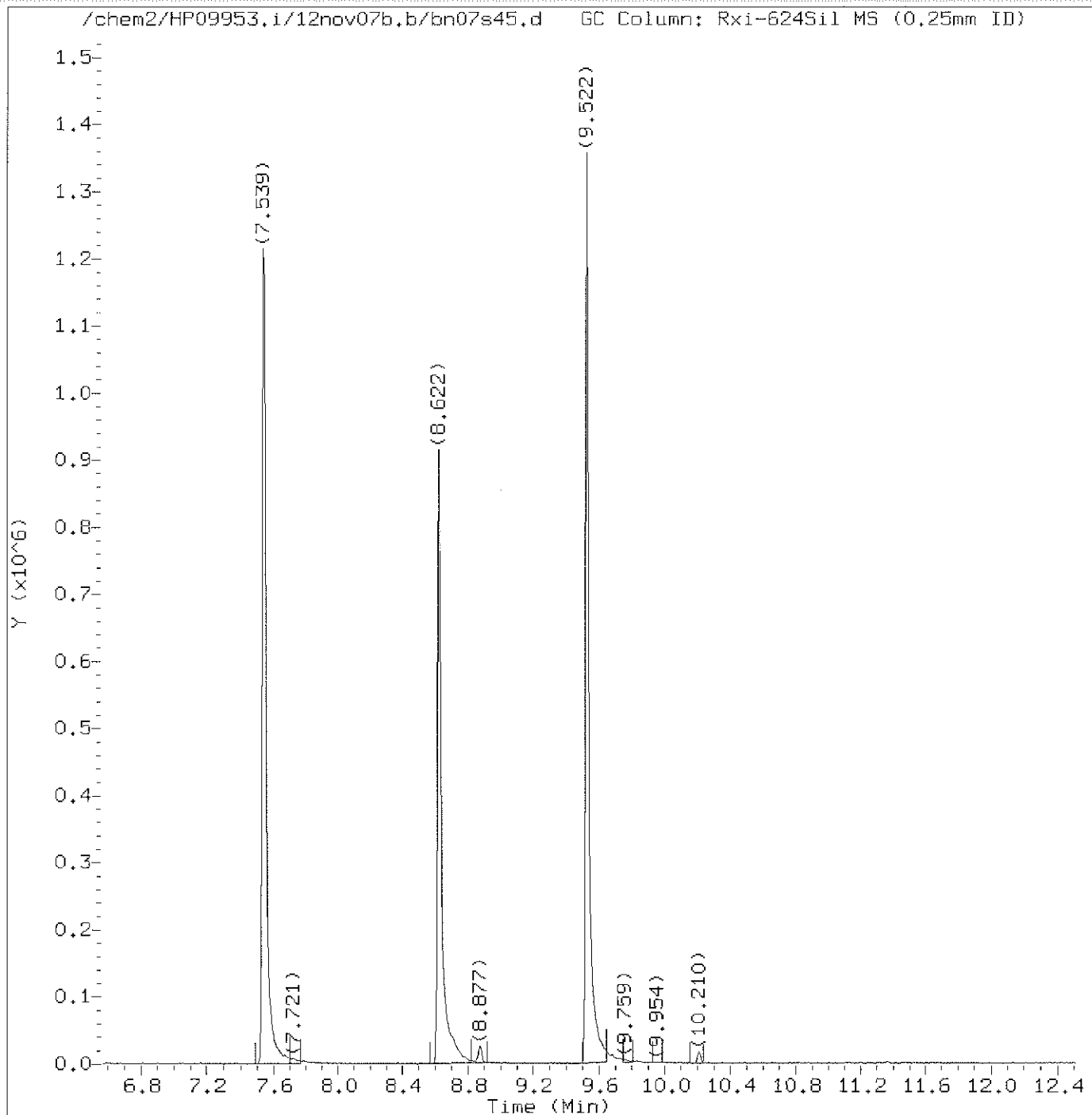
Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 08:38 ads01731

Sample Name: OCTS3

Lab Sample ID: 6850757

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 08:38.

Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s45.d
Injection date and time: 08-NOV-2012 08:01

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m
Calibration date and time: 07-NOV-2012 22:23

Sublist used: 10261

Date, time and analyst ID of latest file update: 08-Nov-2012 08:38 ads01731

Sample Name: OCTS3

Lab Sample ID: 6850757

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 08:38.

Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s45.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 08:01 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 08:38 ads01731

Sample Name: OCTS3 Lab Sample ID: 6850757

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
30) *t-Butyl Alcohol-d10	(1)	2.204	65	139853	250.000
55) \$Dibromofluoromethane	(2)	3.706	113	267362	55.084
61) \$1,2-Dichloroethane-d4	(2)	4.023	102	55383	54.288
67) *Fluorobenzene	(2)	4.351	96	969315	50.000
86) \$Toluene-d8	(3)	5.988	98	918168	49.175
99) *Chlorobenzene-d5	(3)	7.539	117	652027	50.000
112) \$4-Bromofluorobenzene	(3)	8.622	95	306456	43.789
133) *1,4-Dichlorobenzene-d4	(4)	9.528	152	356230	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 08:38.
Target 3.5 esignature user ID: ads01731

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS4

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850758

Sample wt/vol: 5.14 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s46.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.006	U
75-69-4-----	Trichlorofluoromethane	0.006	U
75-35-4-----	1,1-Dichloroethene	0.006	U
67-64-1-----	Acetone	0.025	U
75-09-2-----	Methylene Chloride	0.006	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.006	U
156-60-5-----	trans-1,2-Dichloroethene	0.006	U
75-34-3-----	1,1-Dichloroethane	0.006	U
78-93-3-----	2-Butanone	0.012	U
156-59-2-----	cis-1,2-Dichloroethene	0.006	U
67-66-3-----	Chloroform	0.006	U
71-55-6-----	1,1,1-Trichloroethane	0.006	U
56-23-5-----	Carbon Tetrachloride	0.006	U
71-43-2-----	Benzene	0.006	U
107-06-2-----	1,2-Dichloroethane	0.006	U
79-01-6-----	Trichloroethene	0.006	U
123-91-1-----	1,4-Dioxane	0.310	U
108-88-3-----	Toluene	0.006	U
127-18-4-----	Tetrachloroethene	0.006	U
108-90-7-----	Chlorobenzene	0.006	U
100-41-4-----	Ethylbenzene	0.006	U
1330-20-7-----	Xylene (Total)	0.006	U
103-65-1-----	n-Propylbenzene	0.006	U
108-67-8-----	1,3,5-Trimethylbenzene	0.006	U
98-06-6-----	tert-Butylbenzene	0.006	U
95-63-6-----	1,2,4-Trimethylbenzene	0.006	U
135-98-8-----	sec-Butylbenzene	0.006	U
541-73-1-----	1,3-Dichlorobenzene	0.006	U
106-46-7-----	1,4-Dichlorobenzene	0.006	U
104-51-8-----	n-Butylbenzene	0.006	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS4

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850758

Sample wt/vol: 5.14 (g/mL) g

Lab File ID: HP09953.i/12nov07h.b/bn07s46.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (mg/L or mg/Kg) mg/Kg	Q
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95-50-1-----	1,2-Dichlorobenzene	0.006	U
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OCTS4

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850758

Data file: /chem2/HP09953.i/12nov07b.b/bn07s46.d

Injection date and time: 08-NOV-2012 08:24

Data file Sample Info. Line: OCTS4;6850758;2;0;;TAP03;;bn07b10a;

Instrument ID: HP09953.i

Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 09:26 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150B

Matrix: SOIL

Level: Low

On-Column Amount units: ng

In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 0.97

Volume Purged (Vt): 5 ml

Sample Weight (Ws): 5.14 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	2.216(-0.006)	228	65	154406 (10)	250.00	
67) Fluorobenzene	4.351(0.000)	579	96	966051 (-17)	50.00	
99) Chlorobenzene-d5	7.545(-0.006)	1104	117	646957 (-19)	50.00	
133) 1,4-Dichlorobenzene-d4	9.528(-0.006)	1430	152	349445 (-31)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.713(-0.001)	113	267694	55.339	111%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.029(0.000)	102	56612	55.680	111%		54 - 135
86) Toluene-d8	(3)	5.988(0.000)	98	911129	49.181	98%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622(0.001)	95	305221	43.955	88%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit LOQ (in sample)
5) Vinyl Chloride	(2)			Not Detected					1 5
13) Trichlorofluoromethane	(2)			Not Detected					2 5
19) 1,1-Dichloroethene	(2)			Not Detected					1 5
20) Acetone	(2)			Not Detected					7 19
31) Methylene Chloride	(2)			Not Detected					2 5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5 5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1 5
40) 1,1-Dichloroethane	(2)			Not Detected					1 5
45) 2-Butanone	(2)			Not Detected					4 10
46) cis-1,2-Dichloroethene	(2)			Not Detected					1 5
54) Chloroform	(2)			Not Detected					1 5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1 5
59) Carbon Tetrachloride	(2)			Not Detected					1 5
62) Benzene	(2)			Not Detected					0.5 5
64) 1,2-Dichloroethane	(2)			Not Detected					1 5
72) Trichloroethene	(2)			Not Detected					1 5
77) 1,4-Dioxane	(1)			Not Detected					68 240
87) Toluene	(3)			Not Detected					1 5
92) Tetrachloroethene	(3)			Not Detected					1 5
100) Chlorobenzene	(3)			Not Detected					1 5
102) Ethylbenzene	(3)			Not Detected					1 5
103) m+p-Xylene	(3)			Not Detected					1 5
104) o-Xylene	(3)			Not Detected					1 5
105) Xylene (Total)	(3)			Not Detected					1 5
117) n-Propylbenzene	(4)			Not Detected					1 5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1 5
126) tert-Butylbenzene	(4)			Not Detected					1 5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1 5
129) sec-Butylbenzene	(4)			Not Detected					1 5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1 5

OCTS4

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850758

Data file: /chem2/HP09953.i/12nov07b.b/bn07s46.d

Injection date and time: 08-NOV-2012 08:24

Data file Sample Info. Line: OCTS4;6850758;2;0;;TAP03;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 09:26 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 0.97

Volume Purged (Vt): 5 ml

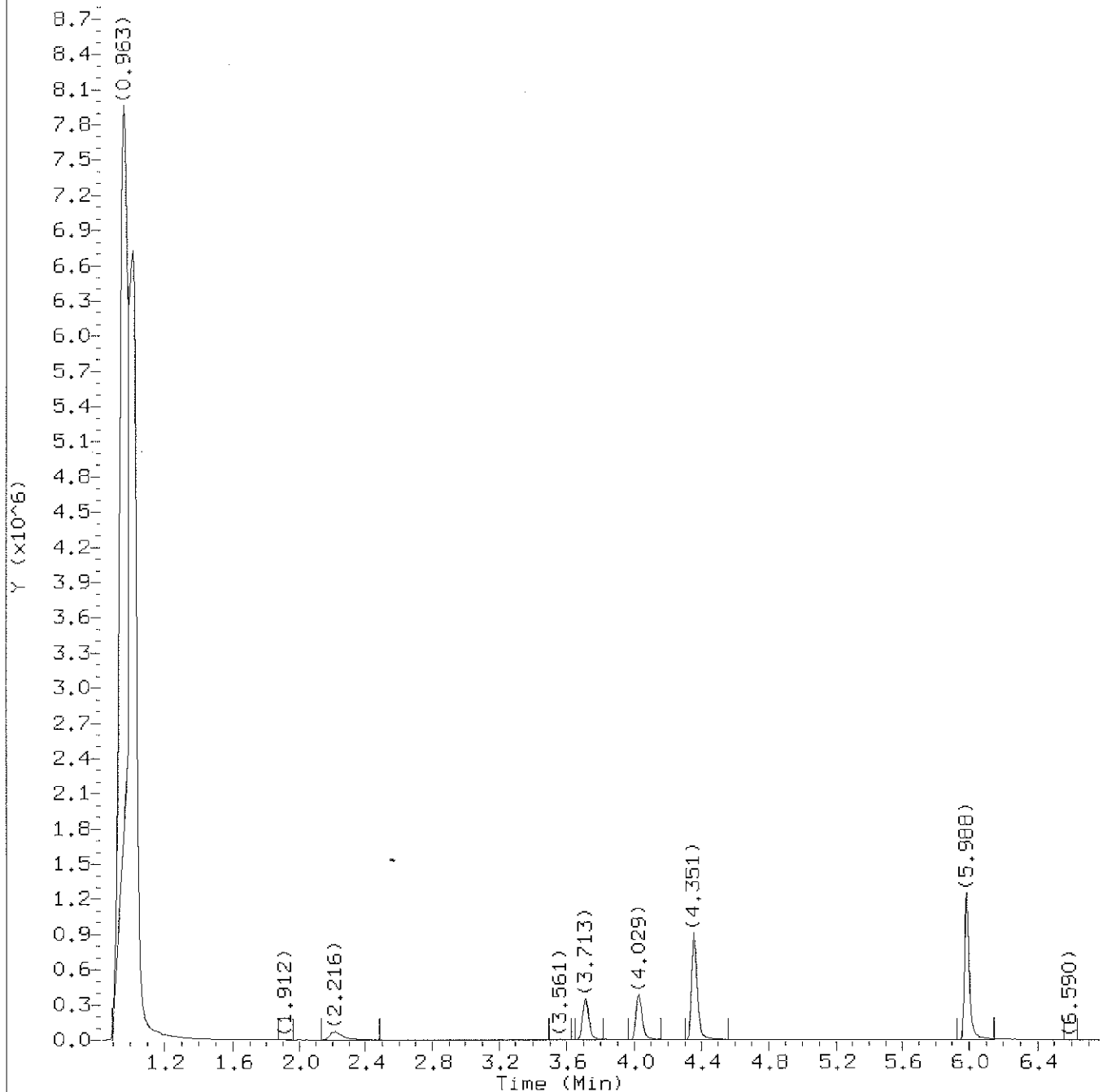
Sample Weight (Ws): 5.14 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit	LOQ
134) 1,4-Dichlorobenzene	(4)			Not Detected					1	5
139) n-Butylbenzene	(4)			Not Detected					1	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					1	5

Total number of targets = 33

Digitally signed by Angela D. Sneeringer on 11/08/2012 at 09:26. Target 3.5 esignature user ID: ads01731

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14. Parallax ID: ahu01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s46.d
Injection date and time: 08-NOV-2012 08:24

Instrument ID: HP09953.i
Analyst ID: AEL02861

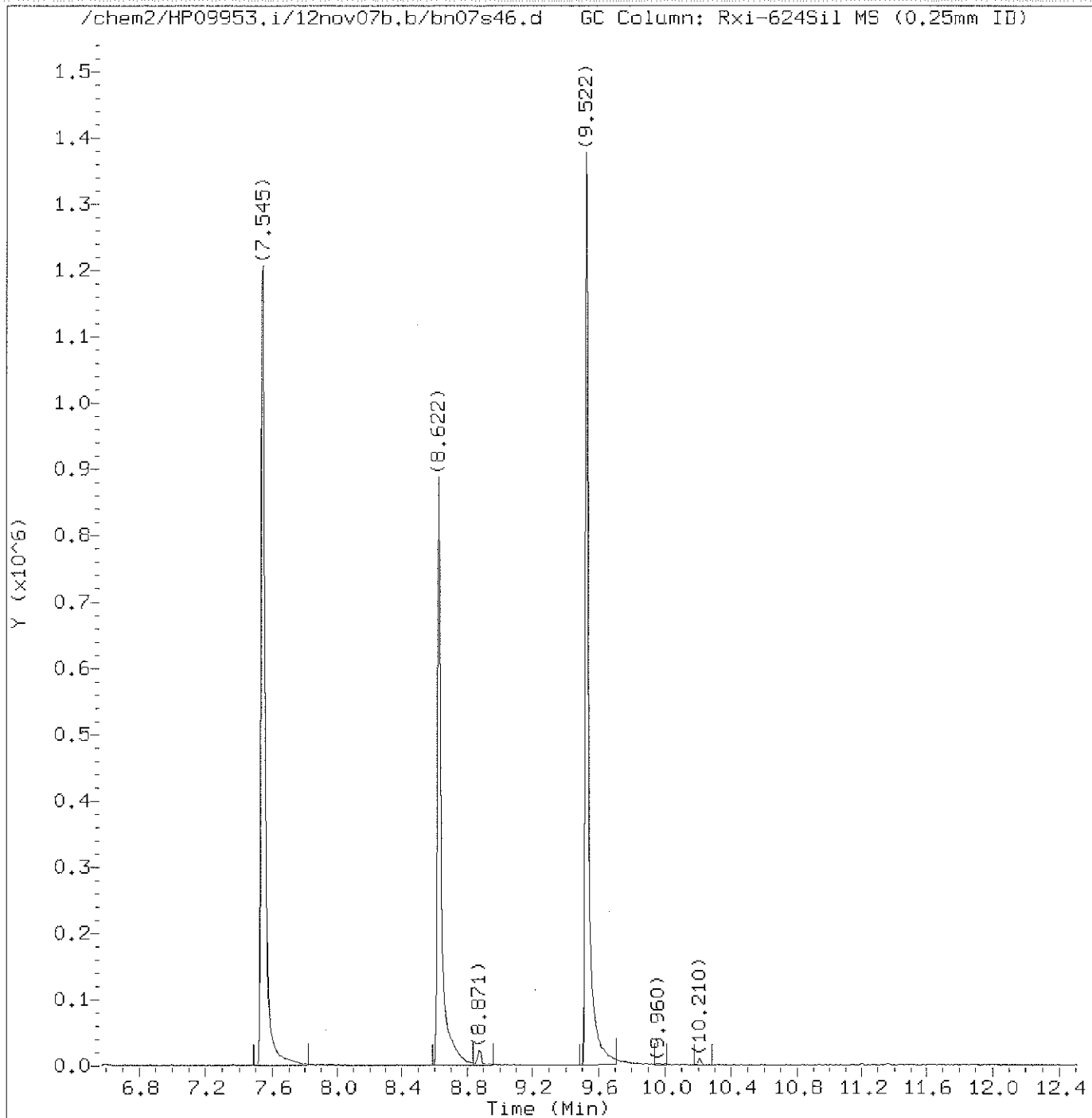
Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 09:26 ads01731

Sample Name: OCTS4

Lab Sample ID: 6850758

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 09:26.

Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s46.d
Injection date and time: 08-NOV-2012 08:24

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 09:26 ads01731

Sample Name: OCTS4

Lab Sample ID: 6850758

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 09:26.

Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s46.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 08:24 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 09:26 ads01731

Sample Name: OCTS4

Lab Sample ID: 6850758

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30)*t-Butyl Alcohol-d10	(1)	2.216	65	154406	250.000
55)\$Dibromofluoromethane	(2)	3.713	113	267694	55.339
61)\$1,2-Dichloroethane-d4	(2)	4.029	102	56612	55.680
67)*Fluorobenzene	(2)	4.351	96	966051	50.000
86)\$Toluene-d8	(3)	5.988	98	911129	49.181
99)*Chlorobenzene-d5	(3)	7.545	117	646957	50.000
112)\$4-Bromofluorobenzene	(3)	8.622	95	305221	43.955
133)*1,4-Dichlorobenzene-d4	(4)	9.528	152	349445	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 09:26.
Target 3.5 esignature user ID: ads01731

LA
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS5

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850760

Sample wt/vol: 5.39 (g/mL) g

Lab File ID: HP09953.i/12nov08a.b/bn08s05.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4	Vinyl Chloride	0.006	U
75-69-4	Trichlorofluoromethane	0.006	U
75-35-4	1,1-Dichloroethene	0.006	U
67-64-1	Acetone	0.024	U
75-09-2	Methylene Chloride	0.006	U
1634-04-4	Methyl Tertiary Butyl Ether	0.006	U
156-60-5	trans-1,2-Dichloroethene	0.006	U
75-34-3	1,1-Dichloroethane	0.006	U
78-93-3	2-Butanone	0.012	U
156-59-2	cis-1,2-Dichloroethene	0.006	U
67-66-3	Chloroform	0.006	U
71-55-6	1,1,1-Trichloroethane	0.006	U
56-23-5	Carbon Tetrachloride	0.006	U
71-43-2	Benzene	0.006	U
107-06-2	1,2-Dichloroethane	0.006	U
79-01-6	Trichloroethene	0.006	U
123-91-1	1,4-Dioxane	0.300	U
108-88-3	Toluene	0.006	U
127-18-4	Tetrachloroethene	0.006	U
108-90-7	Chlorobenzene	0.006	U
100-41-4	Ethylbenzene	0.006	U
1330-20-7	Xylene (Total)	0.006	U
103-65-1	n-Propylbenzene	0.006	U
108-67-8	1,3,5-Trimethylbenzene	0.006	U
98-06-6	tert-Butylbenzene	0.006	U
95-63-6	1,2,4-Trimethylbenzene	0.006	U
135-98-8	sec-Butylbenzene	0.006	U
541-73-1	1,3-Dichlorobenzene	0.006	U
106-46-7	1,4-Dichlorobenzene	0.006	U
104-51-8	n-Butylbenzene	0.006	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS5

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850760

Sample wt/vol: 5.39 (g/mL) g

Lab File ID: HP09953.i/12nov08a.b/bn08s05.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1	1,2-Dichlorobenzene	0.006	U
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OCTS5

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850760

Data file: /chem2/HP09953.i/12nov08a.b/bn08s05.d

Injection date and time: 08-NOV-2012 13:08

Data file Sample Info. Line: OCTS5;6850760;2;0;;TAP03;;bn08b01;

Instrument ID: HP09953.i Batch: B123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 14:09 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov08a.b/bn08b01.d

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 08-NOV-2012 12:18

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov08a.b/bn08c01.d

Bottle Code: 150A Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 0.93

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5.39 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	2.216(0.006)	228	65	122106 (-20)	250.00	
67) Fluorobenzene	4.357(0.000)	580	96	989749 (-9)	50.00	
99) Chlorobenzene-d5	7.545(-0.006)	1104	117	600148 (-21)	50.00	
133) 1,4-Dichlorobenzene-d4	9.528(-0.006)	1430	152	248679 (-49)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.713(0.000)	113	270353	54.550	109%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.035(-0.001)	102	55278	53.066	106%		54 - 135
86) Toluene-d8	(3)	5.988(0.001)	98	901174	52.437	105%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.628(0.000)	95	253945	39.423	79%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit LOQ (in sample)
5) Vinyl Chloride	(2)			Not Detected					0.9 5
13) Trichlorofluoromethane	(2)			Not Detected					2 5
19) 1,1-Dichloroethene	(2)			Not Detected					0.9 5
20) Acetone	(2)			Not Detected					6 19
31) Methylene Chloride	(2)			Not Detected					2 5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5 5
35) trans-1,2-Dichloroethene	(2)			Not Detected					0.9 5
40) 1,1-Dichloroethane	(2)			Not Detected					0.9 5
45) 2-Butanone	(2)			Not Detected					4 9
46) cis-1,2-Dichloroethene	(2)			Not Detected					0.9 5
54) Chloroform	(2)			Not Detected					0.9 5
56) 1,1,1-Trichloroethane	(2)			Not Detected					0.9 5
59) Carbon Tetrachloride	(2)			Not Detected					0.9 5
62) Benzene	(2)			Not Detected					0.5 5
64) 1,2-Dichloroethane	(2)			Not Detected					0.9 5
72) Trichloroethene	(2)			Not Detected					0.9 5
77) 1,4-Dioxane	(1)			Not Detected					65 230
87) Toluene	(3)			Not Detected					0.9 5
92) Tetrachloroethene	(3)			Not Detected					0.9 5
100) Chlorobenzene	(3)			Not Detected					0.9 5
102) Ethylbenzene	(3)			Not Detected					0.9 5
103) m+p-Xylene	(3)			Not Detected					0.9 5
104) o-Xylene	(3)			Not Detected					0.9 5
105) Xylene (Total)	(3)			Not Detected					0.9 5
117) n-Propylbenzene	(4)			Not Detected					0.9 5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					0.9 5
126) tert-Butylbenzene	(4)			Not Detected					0.9 5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					0.9 5
129) sec-Butylbenzene	(4)			Not Detected					0.9 5
131) 1,3-Dichlorobenzene	(4)			Not Detected					0.9 5

OCTS5

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850760

Data file: /chem2/HP09953.i/12nov08a.b/bn08s05.d

Injection date and time: 08-NOV-2012 13:08

Data file Sample Info. Line: OCTS5;6850760;2;0;;TAP03;;;bn08b01;

Instrument ID: HP09953.i Batch: B123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 14:09 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov08a.b/bn08b01.d

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 08-NOV-2012 12:18

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov08a.b/bn08c01.d

Bottle Code: 150A Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 0.93

Volume Purged (Vt): 5 ml

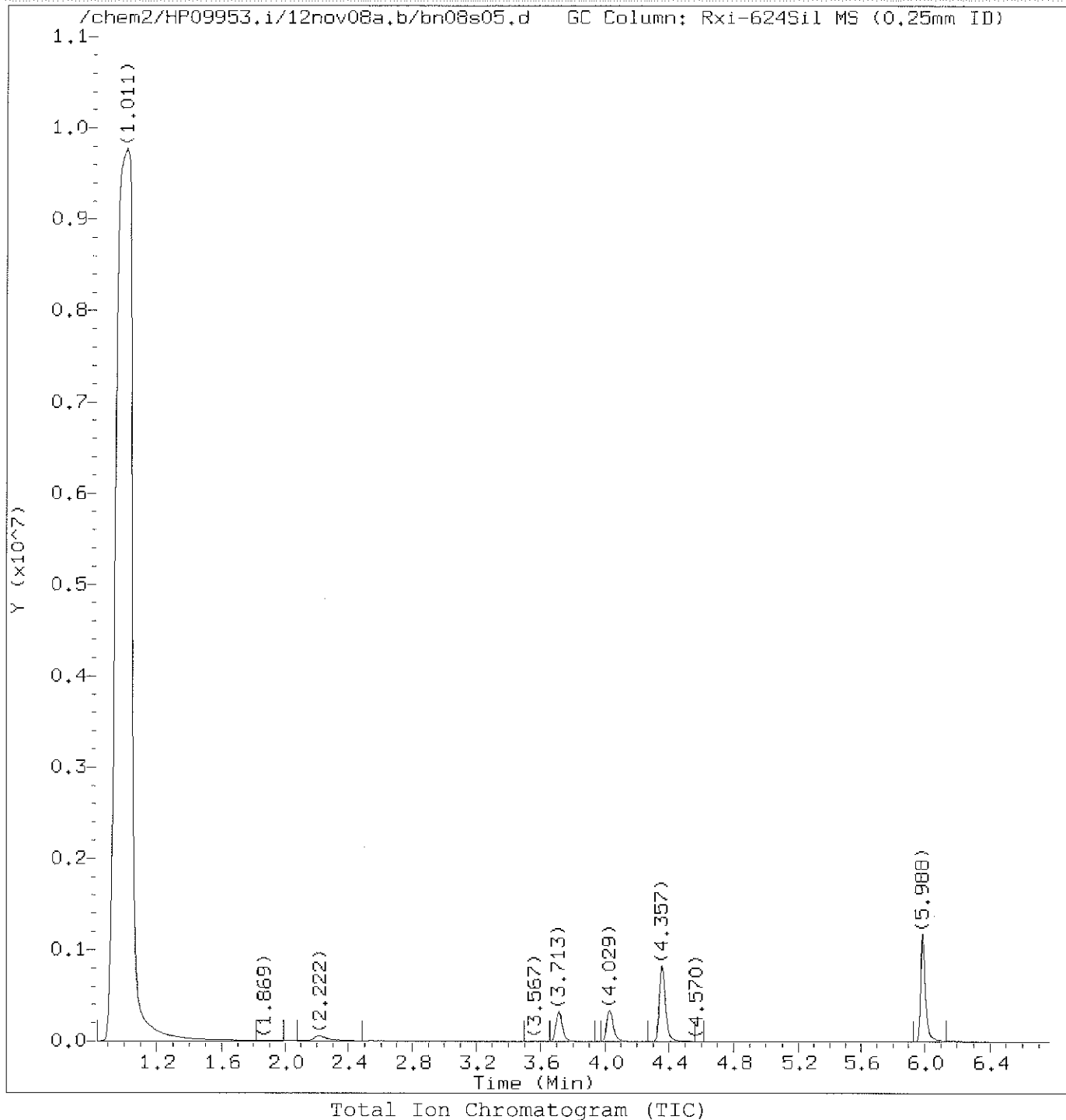
Sample Weight (Ws): 5.39 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit	LOQ
134) 1,4-Dichlorobenzene	(4)			Not Detected					0.9	5
139) n-Butylbenzene	(4)			Not Detected					0.9	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					0.9	5

Total number of targets = 33

Digitally signed by Angela D. Sneeringer on 11/08/2012 at 14:11. Target 3.5 esignature user ID: ads01731

Secondary review performed and digitally signed by Christine M. Dulaney on 11/08/2012 at 16:03. Parallax ID: cmd00448



Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08s05.d
Injection date and time: 08-NOV-2012 13:08

Instrument ID: HP09953.i
Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m
Calibration date and time: 08-NOV-2012 12:18

Sublist used: 10261

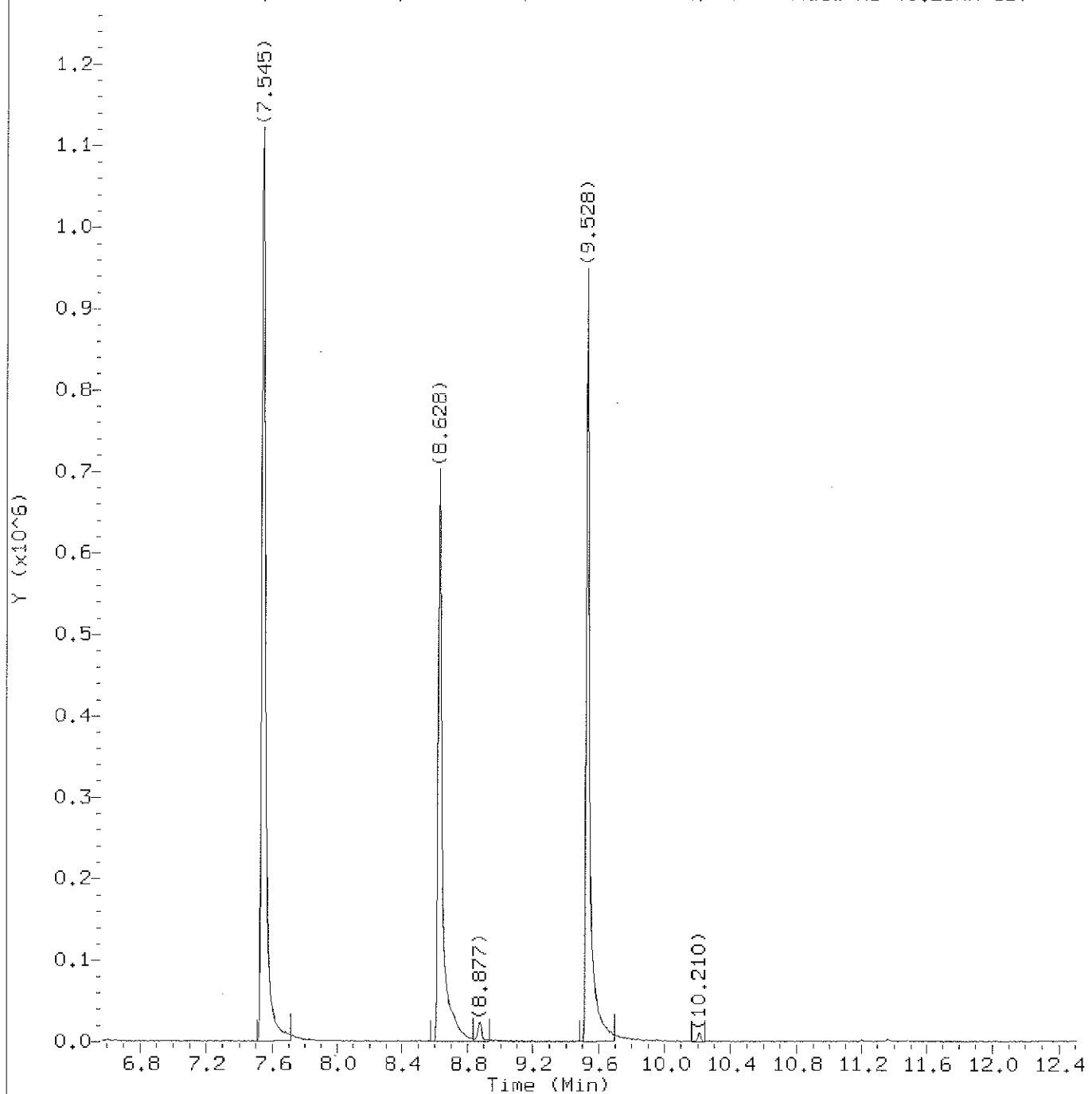
Date, time and analyst ID of latest file update: 08-Nov-2012 14:09 ads01731

Sample Name: OCTS5

Lab Sample ID: 6850760

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 14:11.

Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08s05.d
Injection date and time: 08-NOV-2012 13:08

Instrument ID: HP09953.i
Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m
Calibration date and time: 08-NOV-2012 12:18
Date, time and analyst ID of latest file update: 08-Nov-2012 14:09 ads01731

Sample Name: OCTS5

Lab Sample ID: 6850760

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 14:11.
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08s05.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 13:08 Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 12:18
Date, time and analyst ID of latest file update: 08-Nov-2012 14:09 ads01731

Sample Name: OCTS5

Lab Sample ID: 6850760

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30)*t-Butyl Alcohol-d10	(1)	2.216	65	122106	250.000
55)\$Dibromofluoromethane	(2)	3.713	113	270353	54.550
61)\$1,2-Dichloroethane-d4	(2)	4.035	102	55278	53.066
67)*Fluorobenzene	(2)	4.357	96	989749	50.000
86)\$Toluene-d8	(3)	5.988	98	901174	52.437
99)*Chlorobenzene-d5	(3)	7.545	117	600148	50.000
112)\$4-Bromofluorobenzene	(3)	8.628	95	253945	39.423
133)*1,4-Dichlorobenzene-d4	(4)	9.528	152	248679	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 14:11.
Target 3.5 esignature user ID: ads01731

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS6

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850761

Sample wt/vol: 5.45 (g/mL) g

Lab File ID: HP09953.i/12nov08a.b/bn08s26.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 21

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4	Vinyl Chloride	0.006	U
75-69-4	Trichlorofluoromethane	0.006	U
75-35-4	1,1-Dichloroethene	0.006	U
67-64-1	Acetone	0.023	U
75-09-2	Methylene Chloride	0.006	U
1634-04-4	Methyl Tertiary Butyl Ether	0.006	U
156-60-5	trans-1,2-Dichloroethene	0.006	U
75-34-3	1,1-Dichloroethane	0.006	U
78-93-3	2-Butanone	0.012	U
156-59-2	cis-1,2-Dichloroethene	0.006	U
67-66-3	Chloroform	0.006	U
71-55-6	1,1,1-Trichloroethane	0.006	U
56-23-5	Carbon Tetrachloride	0.006	U
71-43-2	Benzene	0.006	U
107-06-2	1,2-Dichloroethane	0.006	U
79-01-6	Trichloroethene	0.006	U
123-91-1	1,4-Dioxane	0.290	U
108-88-3	Toluene	0.006	U
127-18-4	Tetrachloroethene	0.006	U
108-90-7	Chlorobenzene	0.006	U
100-41-4	Ethylbenzene	0.006	U
1330-20-7	Xylene (Total)	0.006	U
103-65-1	n-Propylbenzene	0.006	U
108-67-8	1,3,5-Trimethylbenzene	0.006	U
98-06-6	tert-Butylbenzene	0.006	U
95-63-6	1,2,4-Trimethylbenzene	0.006	U
135-98-8	sec-Butylbenzene	0.006	U
541-73-1	1,3-Dichlorobenzene	0.006	U
106-46-7	1,4-Dichlorobenzene	0.006	U
104-51-8	n-Butylbenzene	0.006	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS6

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850761

Sample wt/vol: 5.45 (g/mL) g Lab File ID: HP09953.i/12nov08a.b/bn08s26.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 21 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----1,2-Dichlorobenzene	0.006	U
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OCTS6

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850761

Data file: /chem2/HP09953.i/12nov08a.b/bn08s26.d

Injection date and time: 08-NOV-2012 15:25

Data file Sample Info. Line: OCTS6;6850761;2;0;;TAP03;;bn08b01;

Instrument ID: HP09953.i Batch: B123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 16:12 ael02861

Blank Data file reference: /chem2/HP09953.i/12nov08a.b/bn08b01.d

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 08-NOV-2012 12:18

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov08a.b/bn08c01.d

Bottle Code: 150A Matrix: SOIL Level: Low

On-Column Amount units: ng

In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 0.92

Volume Purged (Vt): 5 ml

Sample Weight (Ws): 5.45 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	2.210(0.012)	227	65	151206 (-1)	250.00	
67) Fluorobenzene	4.351(0.006)	579	96	1018981 (-7)	50.00	
99) Chlorobenzene-d5	7.539(0.000)	1103	117	688694 (-9)	50.00	
133) 1,4-Dichlorobenzene-d4	9.528(-0.006)	1430	152	370322 (-24)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.707(0.000)	113	278242	54.532	109%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.029(-0.001)	102	60128	56.066	112%		54 - 135
86) Toluene-d8	(3)	5.988(0.000)	98	966225	48.994	98%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622(0.000)	95	326816	44.212	88%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit LOQ (in sample)
5) Vinyl Chloride	(2)			Not Detected					0.9 5
13) Trichlorofluoromethane	(2)			Not Detected					2 5
19) 1,1-Dichloroethene	(2)			Not Detected					0.9 5
20) Acetone	(2)			Not Detected					6 18
31) Methylene Chloride	(2)			Not Detected					2 5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5 5
35) trans-1,2-Dichloroethene	(2)			Not Detected					0.9 5
40) 1,1-Dichloroethane	(2)			Not Detected					0.9 5
45) 2-Butanone	(2)			Not Detected					4 9
46) cis-1,2-Dichloroethene	(2)			Not Detected					0.9 5
54) Chloroform	(2)			Not Detected					0.9 5
56) 1,1,1-Trichloroethane	(2)			Not Detected					0.9 5
59) Carbon Tetrachloride	(2)			Not Detected					0.9 5
62) Benzene	(2)			Not Detected					0.5 5
64) 1,2-Dichloroethane	(2)			Not Detected					0.9 5
72) Trichloroethene	(2)			Not Detected					0.9 5
77) 1,4-Dioxane	(1)			Not Detected					64 230
87) Toluene	(3)			Not Detected					0.9 5
92) Tetrachloroethene	(3)			Not Detected					0.9 5
100) Chlorobenzene	(3)			Not Detected					0.9 5
102) Ethylbenzene	(3)			Not Detected					0.9 5
103) m+p-Xylene	(3)			Not Detected					0.9 5
104) o-Xylene	(3)			Not Detected					0.9 5
105) Xylene (Total)	(3)			Not Detected					0.9 5
117) n-Propylbenzene	(4)			Not Detected					0.9 5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					0.9 5
126) tert-Butylbenzene	(4)			Not Detected					0.9 5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					0.9 5
129) sec-Butylbenzene	(4)			Not Detected					0.9 5
131) 1,3-Dichlorobenzene	(4)			Not Detected					0.9 5

OCTS6

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850761

Data file: /chem2/HP09953.i/12nov08a.b/bn08s26.d

Injection date and time: 08-NOV-2012 15:25

Data file Sample Info. Line: OCTS6;6850761;2;0;;TAP03;;;bn08b01;

Instrument ID: HP09953.i Batch: B123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 16:12 ael02861

Blank Data file reference: /chem2/HP09953.i/12nov08a.b/bn08b01.d

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m

Sublist used: 10261

Calibration date and time (Last Method Edit): 08-NOV-2012 12:18

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov08a.b/bn08c01.d

Bottle Code: 150A

Matrix: SOIL

Level: Low

On-Column Amount units: ng

In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 0.92

Volume Purged (Vt): 5 ml

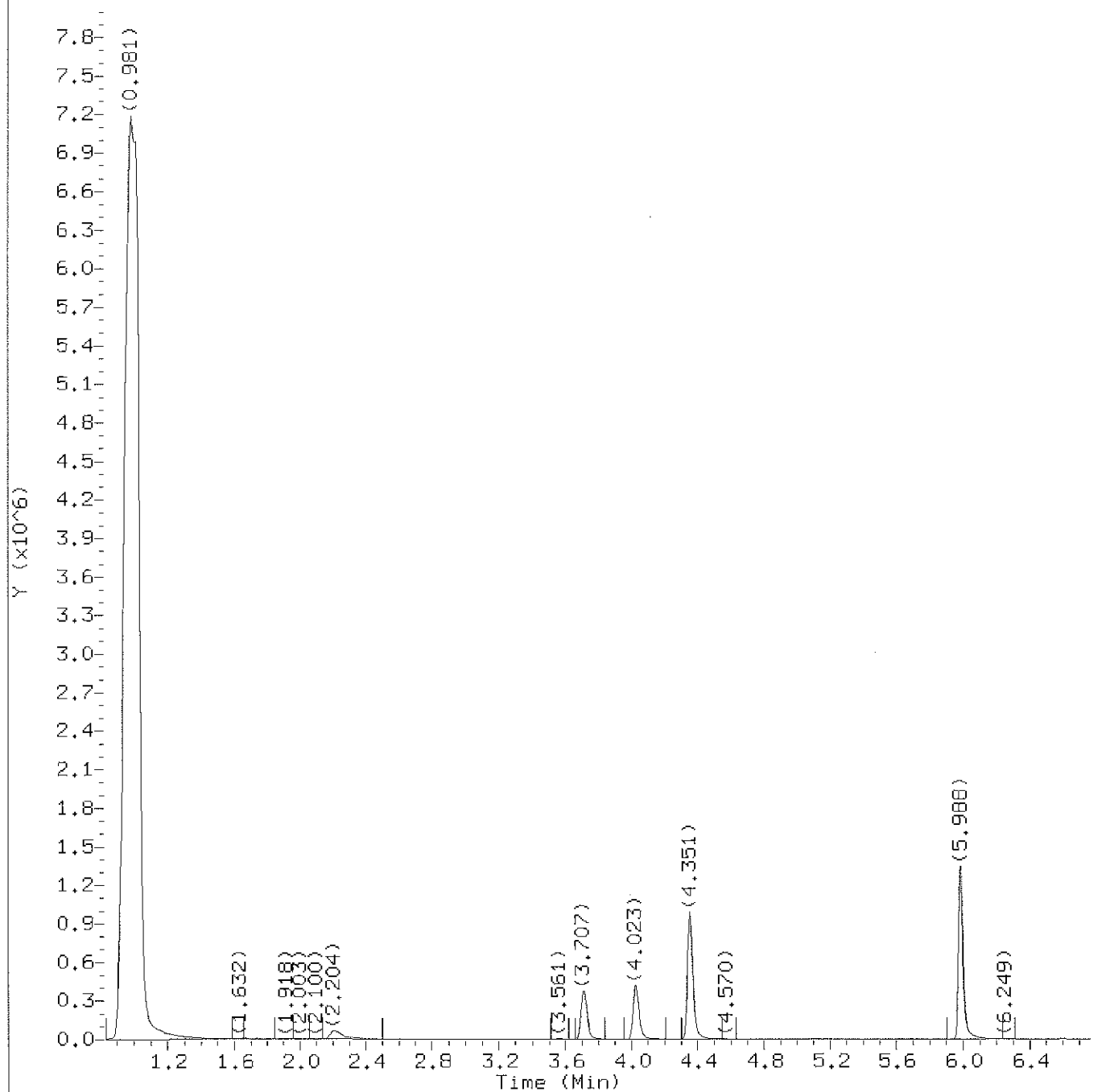
Sample Weight (Ws): 5.45 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
134) 1,4-Dichlorobenzene	(4)			Not Detected					0.9	5
139) n-Butylbenzene	(4)			Not Detected					0.9	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					0.9	5

Total number of targets = 33

Digitally signed by Andrea E. Lando on 11/08/2012 at 16:14. Target 3.5 esignature user ID: ael02861

Secondary review performed and digitally signed by Christine M. Dulaney on 11/08/2012 at 16:20. Parallax ID: cmd00448



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08s26.d
Injection date and time: 08-NOV-2012 15:25

Instrument ID: HP09953.i
Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m

Sublist used: 10261

Calibration date and time: 08-NOV-2012 12:18

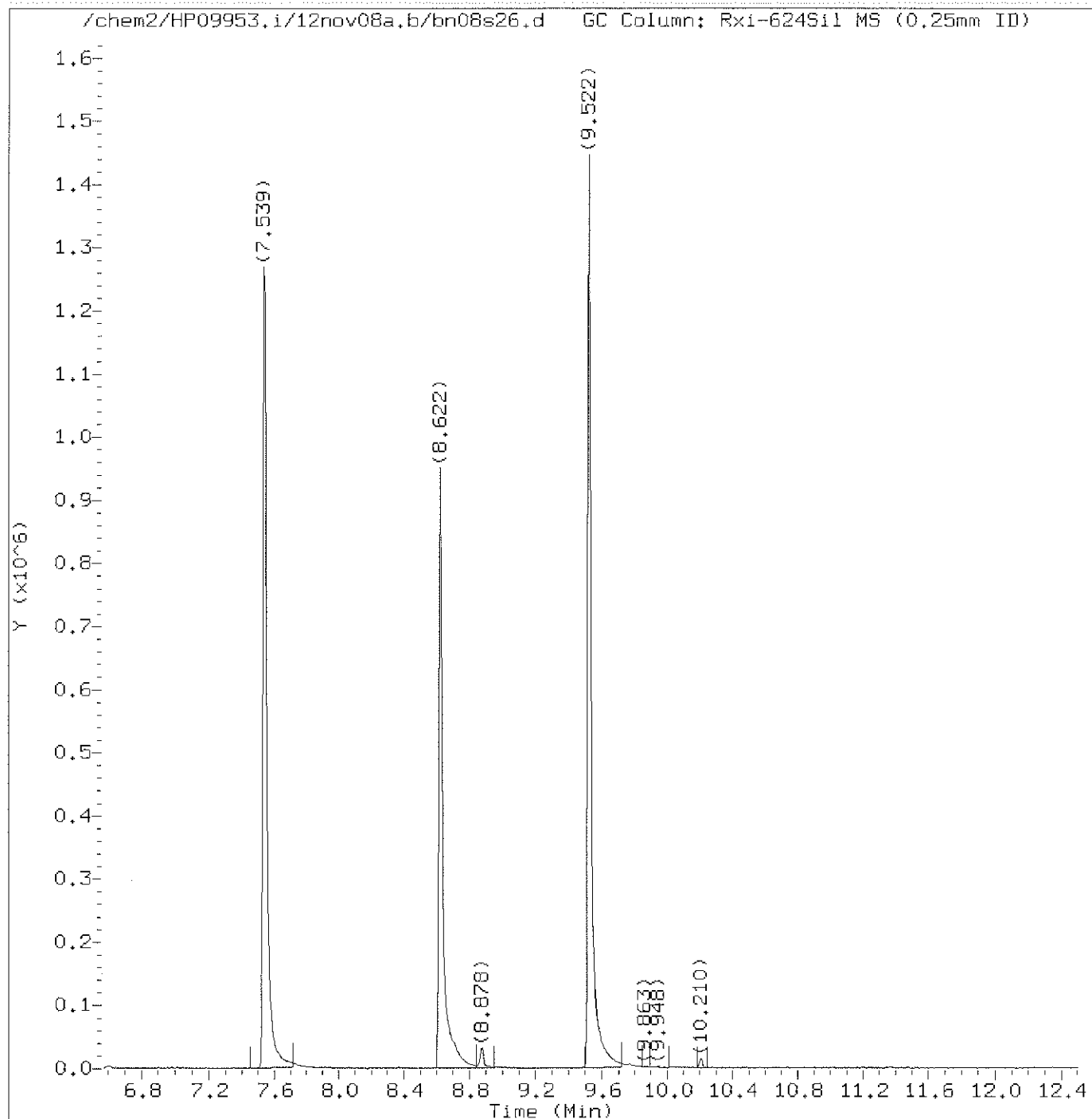
Date, time and analyst ID of latest file update: 08-Nov-2012 16:12 ael02861

Sample Name: OCTS6

Lab Sample ID: 6850761

Digitally signed by Andrea E. Lando
on 11/08/2012 at 16:14.

Target 3.5 esignature user ID: ael02861



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08s26.d
Injection date and time: 08-NOV-2012 15:25

Instrument ID: HP09953.i
Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m
Calibration date and time: 08-NOV-2012 12:18

Sublist used: 10261

Date, time and analyst ID of latest file update: 08-Nov-2012 16:12 ael02861

Sample Name: OCTS6

Lab Sample ID: 6850761

Digitally signed by Andrea E. Lando
on 11/08/2012 at 16:14.

Target 3.5 esignature user ID: ael02861

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08s26.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 15:25 Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 12:18
Date, time and analyst ID of latest file update: 08-Nov-2012 16:12 ael02861

Sample Name: OCTS6

Lab Sample ID: 6850761

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30)*t-Butyl Alcohol-d10	(1)	2.210	65	151206	250.000
55)\$Dibromofluoromethane	(2)	3.707	113	278242	54.532
61)\$1,2-Dichloroethane-d4	(2)	4.029	102	60128	56.066
67)*Fluorobenzene	(2)	4.351	96	1018981	50.000
86)\$Toluene-d8	(3)	5.988	98	966225	48.994
99)*Chlorobenzene-d5	(3)	7.539	117	688694	50.000
112)\$4-Bromofluorobenzene	(3)	8.622	95	326816	44.212
133)*1,4-Dichlorobenzene-d4	(4)	9.528	152	370322	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Andrea E. Lando
on 11/08/2012 at 16:14.
Target 3.5 esignature user ID: ael02861

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS7

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850762

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s01.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4	Vinyl Chloride	0.006	U
75-69-4	Trichlorofluoromethane	0.006	U
75-35-4	1,1-Dichloroethene	0.006	U
67-64-1	Acetone	0.026	U
75-09-2	Methylene Chloride	0.006	U
1634-04-4	Methyl Tertiary Butyl Ether	0.006	U
156-60-5	trans-1,2-Dichloroethene	0.006	U
75-34-3	1,1-Dichloroethane	0.006	U
78-93-3	2-Butanone	0.013	U
156-59-2	cis-1,2-Dichloroethene	0.006	U
67-66-3	Chloroform	0.006	U
71-55-6	1,1,1-Trichloroethane	0.006	U
56-23-5	Carbon Tetrachloride	0.006	U
71-43-2	Benzene	0.006	U
107-06-2	1,2-Dichloroethane	0.006	U
79-01-6	Trichloroethene	0.006	U
123-91-1	1,4-Dioxane	0.320	U
108-88-3	Toluene	0.006	U
127-18-4	Tetrachloroethene	0.006	U
108-90-7	Chlorobenzene	0.006	U
100-41-4	Ethylbenzene	0.006	U
1330-20-7	Xylene (Total)	0.006	U
103-65-1	n-Propylbenzene	0.006	U
108-67-8	1,3,5-Trimethylbenzene	0.006	U
98-06-6	tert-Butylbenzene	0.006	U
95-63-6	1,2,4-Trimethylbenzene	0.006	U
135-98-8	sec-Butylbenzene	0.006	U
541-73-1	1,3-Dichlorobenzene	0.006	U
106-46-7	1,4-Dichlorobenzene	0.006	U
104-51-8	n-Butylbenzene	0.006	U

EPA SAMPLE NO.

OCT57

Contract:

Case No. :

SAS No. :

SDG No. :

Lab Sample ID: 6850762

Lab File ID: HP09685.i/12nov08a.b/an08s01.d

Date Received: 11/07/12

Date Analyzed: 11/08/12

Dilution Factor: 1.0

CONCENTRATION UNITS:

COMPOUND

(mg/L or mg/Kg) mg/Kg

Q

0.006

U

OCTS7

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850762

Data file: /chem2/HP09685.i/12nov08a.b/an08s01.d

Injection date and time: 08-NOV-2012 03:35

Data file Sample Info. Line: OCTS7;6850762;2;0;;TAP03;;an08b01;

Instrument ID: HP09685.i Batch: A123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 05:58 sas00403

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 08-NOV-2012 00:53

Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: 150A Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	4.183(-0.006)	428	65	149793 (25)	250.00	
67) Fluorobenzene	7.687(0.000)	1004	96	1210263 (-3)	50.00	
99) Chlorobenzene-d5	11.179(0.000)	1578	117	861640 (-4)	50.00	
133) 1,4-Dichlorobenzene-d4	13.071(0.000)	1889	152	466760 (-9)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	6.787(0.000)	113	278549	48.164	96%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	7.255(0.000)	102	70784	52.854	106%		54 - 135
86) Toluene-d8	(3)	9.713(0.000)	98	1129708	49.028	98%		52 - 141
112) 4-Bromofluorobenzene	(3)	12.189(0.000)	95	402961	46.723	93%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit LOQ (in sample)
5) Vinyl Chloride	(2)			Not Detected					1 5
13) Trichlorofluoromethane	(2)			Not Detected					2 5
19) 1,1-Dichloroethene	(2)			Not Detected					1 5
20) Acetone	(2)			Not Detected					7 20
31) Methylene Chloride	(2)			Not Detected					2 5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5 5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1 5
40) 1,1-Dichloroethane	(2)			Not Detected					1 5
45) 2-Butanone	(2)			Not Detected					4 10
46) cis-1,2-Dichloroethene	(2)			Not Detected					1 5
54) Chloroform	(2)			Not Detected					1 5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1 5
59) Carbon Tetrachloride	(2)			Not Detected					1 5
62) Benzene	(2)			Not Detected					0.5 5
64) 1,2-Dichloroethane	(2)			Not Detected					1 5
72) Trichloroethene	(2)			Not Detected					1 5
77) 1,4-Dioxane	(1)			Not Detected					70 250
87) Toluene	(3)			Not Detected					1 5
92) Tetrachloroethene	(3)			Not Detected					1 5
100) Chlorobenzene	(3)			Not Detected					1 5
102) Ethylbenzene	(3)			Not Detected					1 5
103) m+p-Xylene	(3)			Not Detected					1 5
104) o-Xylene	(3)			Not Detected					1 5
105) Xylene (Total)	(3)			Not Detected					1 5
117) n-Propylbenzene	(4)			Not Detected					1 5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1 5
126) tert-Butylbenzene	(4)			Not Detected					1 5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1 5
129) sec-Butylbenzene	(4)			Not Detected					1 5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1 5

OCTS7

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850762

Data file: /chem2/HP09685.i/12nov08a.b/an08s01.d

Injection date and time: 08-NOV-2012 03:35

Data file Sample Info. Line: OCTS7;6850762;2;0;;TAP03;;;an08b01;

Instrument ID: HP09685.i Batch: A123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 05:58 sas00403

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m

Sublist used: 10261

Calibration date and time (Last Method Edit): 08-NOV-2012 00:53

Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: 150A

Matrix: SOIL

Level: Low

On-Column Amount units: ng

In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml

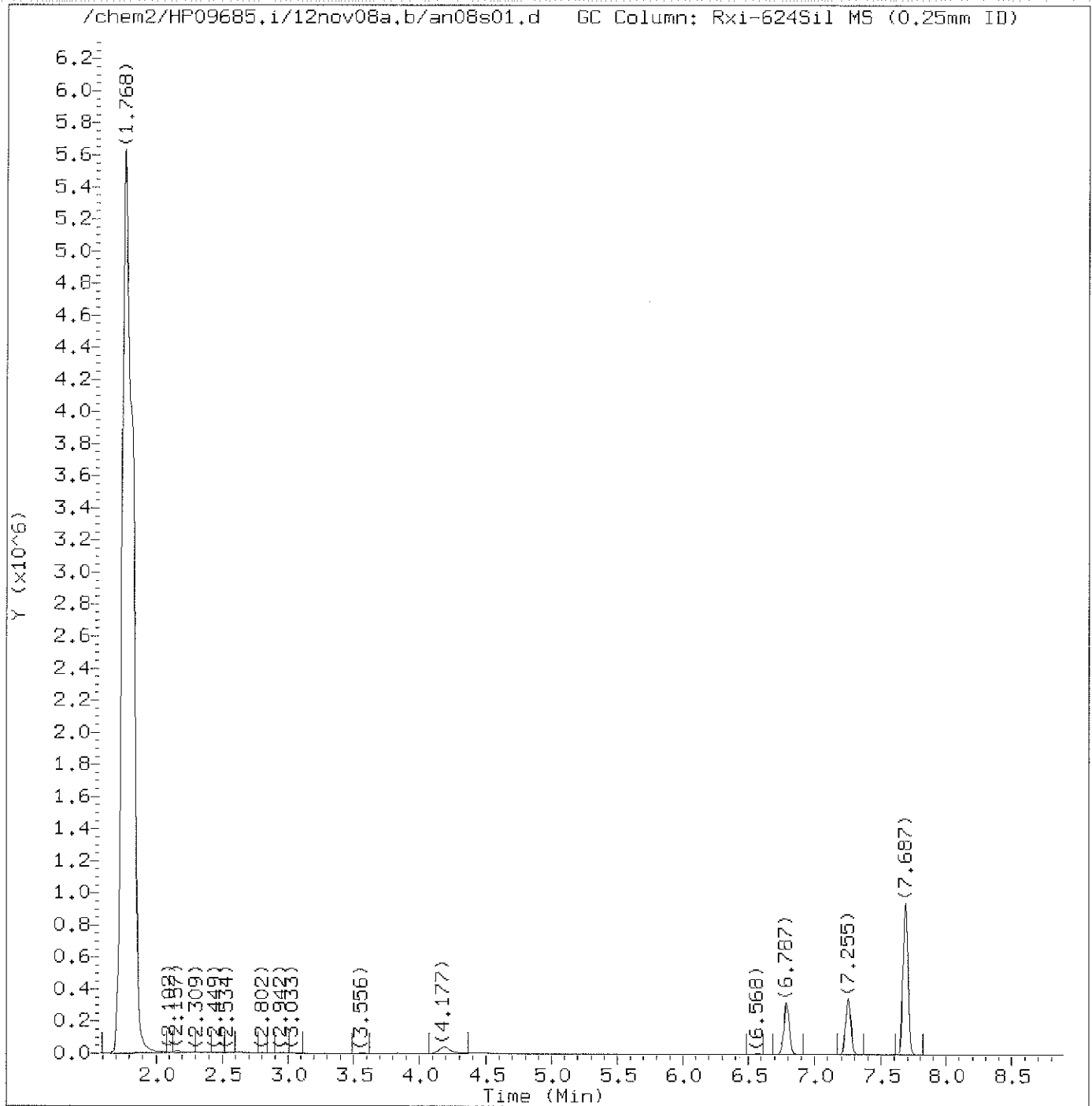
Sample Weight (Ws): 5 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
134) 1,4-Dichlorobenzene	(4)			Not Detected					1	5
139) n-Butylbenzene	(4)			Not Detected					1	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					1	5

Total number of targets = 33

Digitally signed by Stephanie A. Selis on 11/08/2012 at 05:58. Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:59. Parallax ID: abu01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08s01.d
Injection date and time: 08-NOV-2012 03:35

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m
Calibration date and time: 08-NOV-2012 00:53

Sublist used: 10261

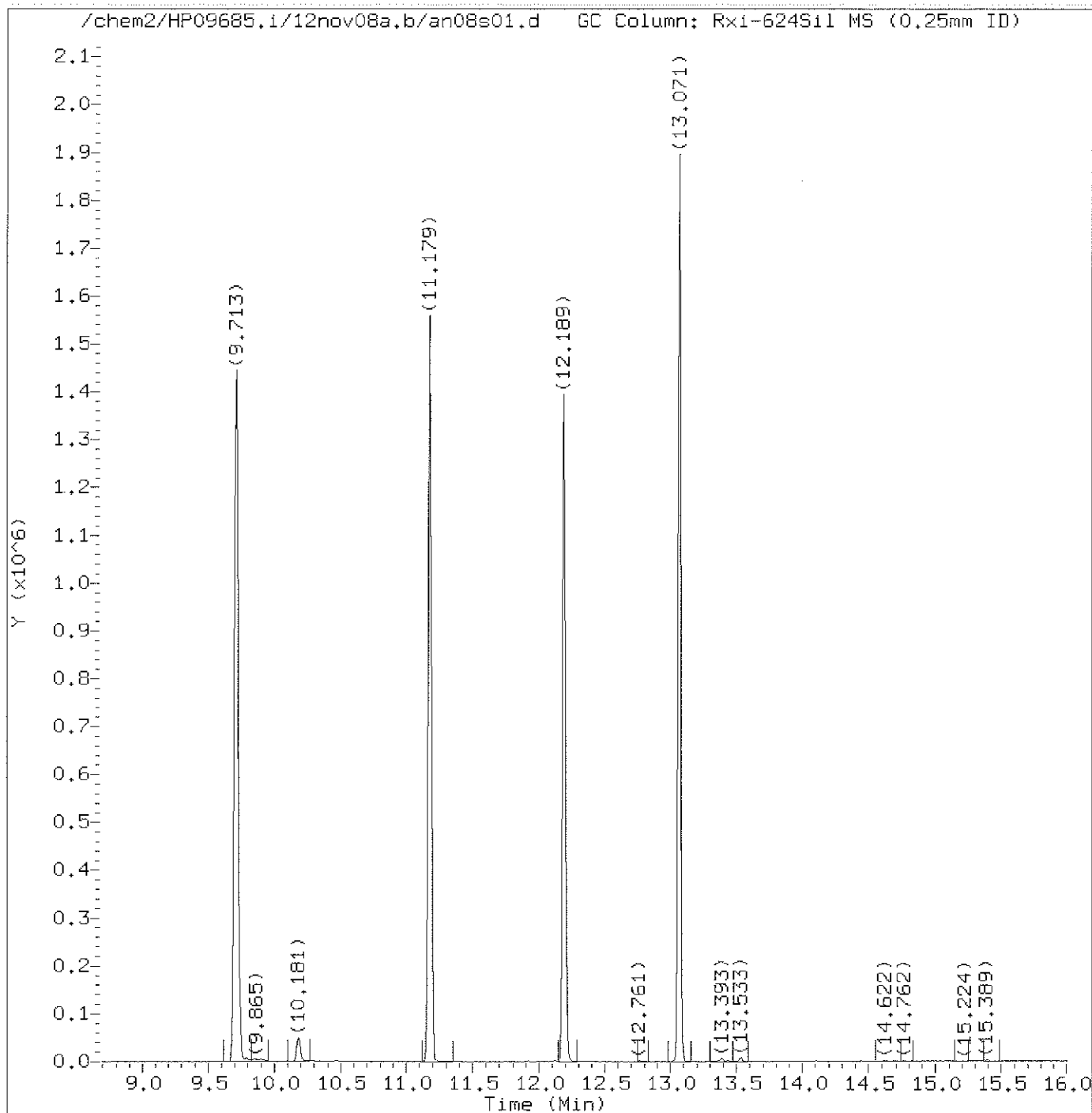
Date, time and analyst ID of latest file update: 08-Nov-2012 05:58 sas00403

Sample Name: OCTS7

Lab Sample ID: 6850762

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:58.

Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08s01.d
Injection date and time: 08-NOV-2012 03:35

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 05:58 sas00403

Sample Name: OCTS7

Lab Sample ID: 6850762

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:58.

Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08s01.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 03:35 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 05:58 sas00403

Sample Name: OCTS7

Lab Sample ID: 6850762

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30) *t-Butyl Alcohol-d10	(1)	4.183	65	149793	250.000
55) \$Dibromofluoromethane	(2)	6.787	113	278549	48.164
61) \$1,2-Dichloroethane-d4	(2)	7.255	102	70784	52.854
67) *Fluorobenzene	(2)	7.687	96	1210263	50.000
86) \$Toluene-d8	(3)	9.713	98	1129708	49.028
99) *Chlorobenzene-d5	(3)	11.179	117	861640	50.000
112) \$4-Bromofluorobenzene	(3)	12.189	95	402961	46.723
133) *1,4-Dichlorobenzene-d4	(4)	13.071	152	466760	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:58.
Target 3.5 esignature user ID: sas00403

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS8

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850763

Sample wt/vol: 4.74 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s02.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 23

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.007	U
75-69-4-----	Trichlorofluoromethane	0.007	U
75-35-4-----	1,1-Dichloroethene	0.007	U
67-64-1-----	Acetone	0.027	U
75-09-2-----	Methylene Chloride	0.007	U
1634-04-4-----	Methyl Tertiary Butyl Ether	0.007	U
156-60-5-----	trans-1,2-Dichloroethene	0.007	U
75-34-3-----	1,1-Dichloroethane	0.007	U
78-93-3-----	2-Butanone	0.014	U
156-59-2-----	cis-1,2-Dichloroethene	0.007	U
67-66-3-----	Chloroform	0.007	U
71-55-6-----	1,1,1-Trichloroethane	0.007	U
56-23-5-----	Carbon Tetrachloride	0.007	U
71-43-2-----	Benzene	0.007	U
107-06-2-----	1,2-Dichloroethane	0.007	U
79-01-6-----	Trichloroethene	0.007	U
123-91-1-----	1,4-Dioxane	0.340	U
108-88-3-----	Toluene	0.007	U
127-18-4-----	Tetrachloroethene	0.007	U
108-90-7-----	Chlorobenzene	0.007	U
100-41-4-----	Ethylbenzene	0.007	U
1330-20-7-----	Xylene (Total)	0.007	U
103-65-1-----	n-Propylbenzene	0.007	U
108-67-8-----	1,3,5-Trimethylbenzene	0.007	U
98-06-6-----	tert-Butylbenzene	0.007	U
95-63-6-----	1,2,4-Trimethylbenzene	0.007	U
135-98-8-----	sec-Butylbenzene	0.007	U
541-73-1-----	1,3-Dichlorobenzene	0.007	U
106-46-7-----	1,4-Dichlorobenzene	0.007	U
104-51-8-----	n-Butylbenzene	0.007	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS8

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850763

Sample wt/vol: 4.74 (g/mL) g Lab File ID: HP09685.i/12nov08a.b/an08s02.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 23 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----	1,2-Dichlorobenzene	0.007	U
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OCTS8

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850763

Data file: /chem2/HP09685.i/12nov08a.b/an08s02.d

Injection date and time: 08-NOV-2012 03:57

Data file Sample Info. Line: OCTS8;6850763;2;0;;TAP03;;;an08b01;

Instrument ID: HP09685.i Batch: A123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 05:49 sas00403

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 08-NOV-2012 00:53

Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.05

Volume Purged (Vt): 5 ml Sample Weight (Ws): 4.74 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	4.183(-0.006)	428	65	100283 (-16)	250.00	
67) Fluorobenzene	7.687(0.000)	1004	96	1110997 (-11)	50.00	
99) Chlorobenzene-d5	11.179(0.000)	1578	117	715443 (-21)	50.00	
133) 1,4-Dichlorobenzene-d4	13.071(0.000)	1889	152	291474 (-43)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	6.793(-0.001)	113	251919	47.452	95%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	7.261(-0.001)	102	60168	48.941	98%		54 - 135
86) Toluene-d8	(3)	9.713(0.000)	98	1010161	52.798	106%		52 - 141
112) 4-Bromofluorobenzene	(3)	12.189(0.000)	95	290144	40.517	81%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit LOQ (in sample)
5) Vinyl Chloride	(2)			Not Detected					1 5
13) Trichlorofluoromethane	(2)			Not Detected					2 5
19) 1,1-Dichloroethene	(2)			Not Detected					1 5
20) Acetone	(2)			Not Detected					7 21
31) Methylene Chloride	(2)			Not Detected					2 5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5 5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1 5
40) 1,1-Dichloroethane	(2)			Not Detected					1 5
45) 2-Butanone	(2)			Not Detected					4 11
46) cis-1,2-Dichloroethene	(2)			Not Detected					1 5
54) Chloroform	(2)			Not Detected					1 5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1 5
59) Carbon Tetrachloride	(2)			Not Detected					1 5
62) Benzene	(2)			Not Detected					0.5 5
64) 1,2-Dichloroethane	(2)			Not Detected					1 5
72) Trichloroethene	(2)			Not Detected					1 5
77) 1,4-Dioxane	(1)			Not Detected					74 260
87) Toluene	(3)			Not Detected					1 5
92) Tetrachloroethene	(3)			Not Detected					1 5
100) Chlorobenzene	(3)			Not Detected					1 5
102) Ethylbenzene	(3)			Not Detected					1 5
103) m+p-Xylene	(3)			Not Detected					1 5
104) o-Xylene	(3)			Not Detected					1 5
105) Xylene (Total)	(3)			Not Detected					1 5
117) n-Propylbenzene	(4)			Not Detected					1 5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1 5
126) tert-Butylbenzene	(4)			Not Detected					1 5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1 5
129) sec-Butylbenzene	(4)			Not Detected					1 5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1 5

OCTS8

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850763

Data file: /chem2/HP09685.i/12nov08a.b/an08s02.d

Injection date and time: 08-NOV-2012 03:57

Data file Sample Info. Line: OCTS8;6850763;2;0;;TAP03;;;an08b01;

Instrument ID: HP09685.i Batch: A123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 05:49 sas00403

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 08-NOV-2012 00:53

Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.05

Volume Purged (Vt): 5 ml

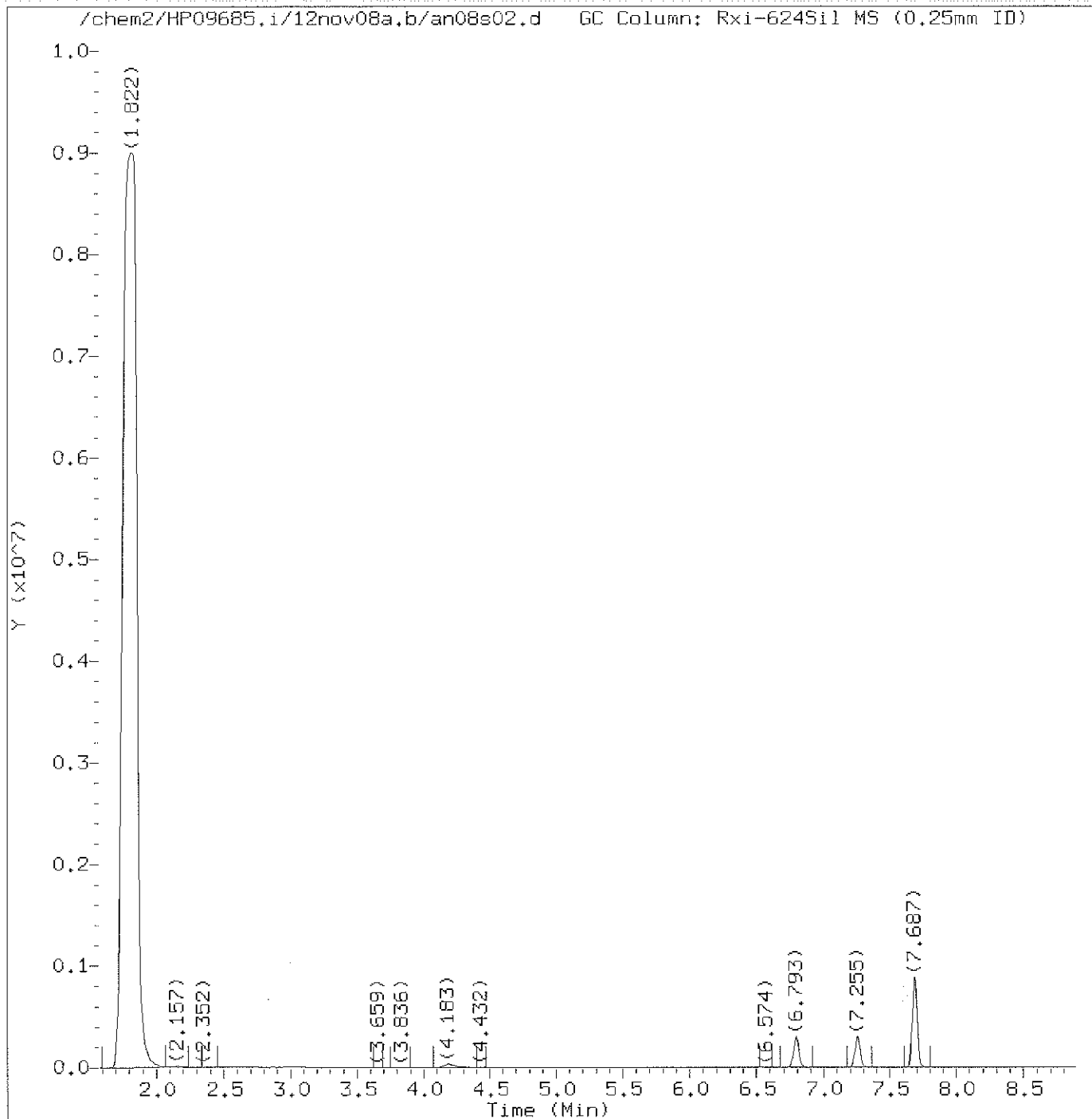
Sample Weight (Ws): 4.74 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
134) 1,4-Dichlorobenzene	(4)			Not Detected					1	5
139) n-Butylbenzene	(4)			Not Detected					1	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					1	5

Total number of targets = 33

Digitally signed by Stephanie A. Selis on 11/08/2012 at 05:50. Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/09/2012 at 10:59. Parallax ID: ahu01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08s02.d
 Injection date and time: 08-NOV-2012 03:57

Instrument ID: HP09685.i
 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m
 Calibration date and time: 08-NOV-2012 00:53
 Date, time and analyst ID of latest file update: 08-Nov-2012 05:49 sas00403

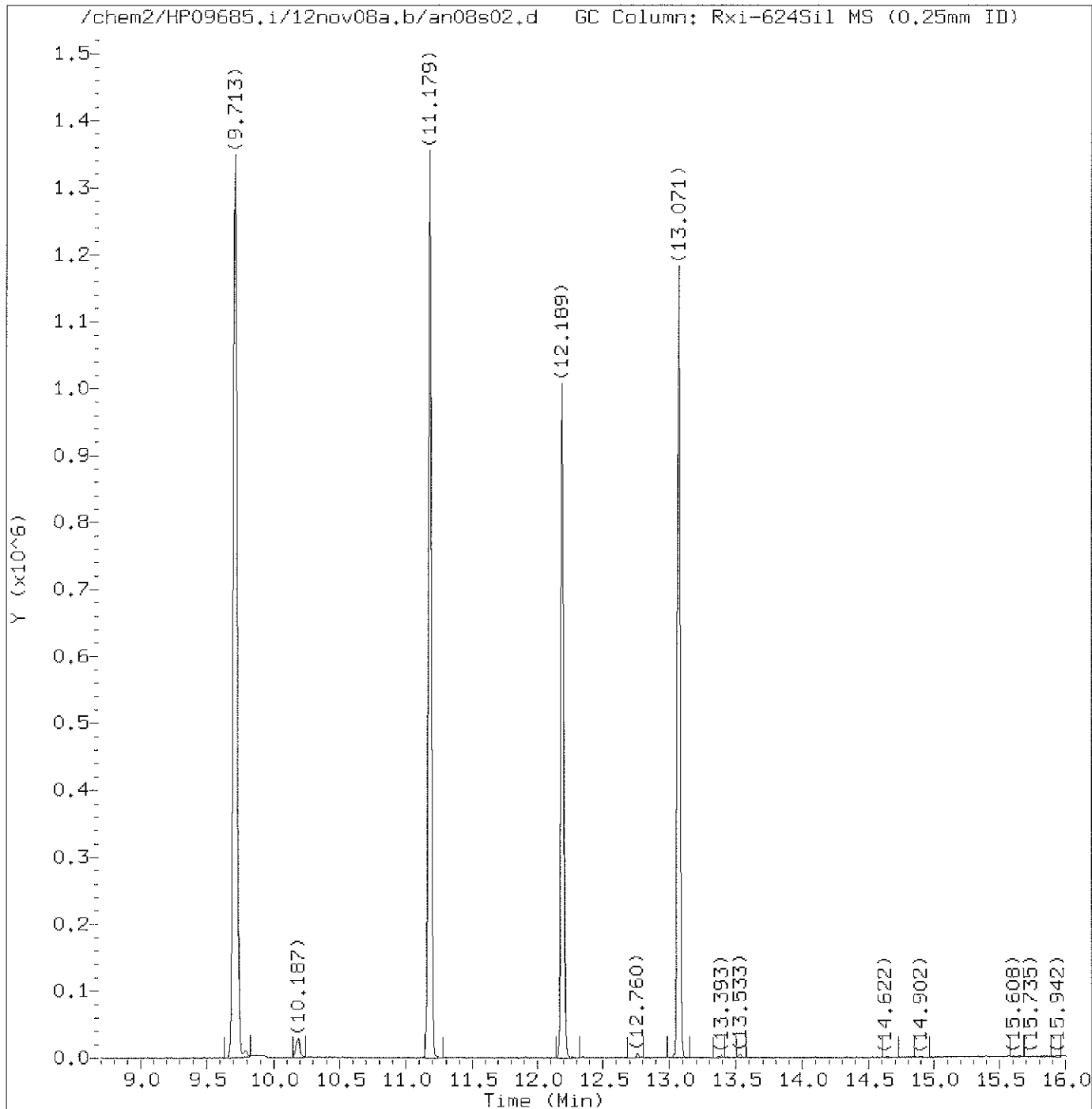
Sublist used: 10261

Sample Name: OCTS8

Lab Sample ID: 6850763

Digitally signed by Stephanie A. Selis
 on 11/08/2012 at 05:50.

Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08s02.d
Injection date and time: 08-NOV-2012 03:57

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m
Calibration date and time: 08-NOV-2012 00:53

Sublist used: 10261

Date, time and analyst ID of latest file update: 08-Nov-2012 05:49 sas00403

Sample Name: OCTS8

Lab Sample ID: 6850763

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:50.

Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08s02.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 03:57 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 05:49 sas00403

Sample Name: OCTS8

Lab Sample ID: 6850763

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30)*t-Butyl Alcohol-d10	(1)	4.183	65	100283	250.000
55)\$Dibromofluoromethane	(2)	6.793	113	251919	47.452
61)\$1,2-Dichloroethane-d4	(2)	7.261	102	60168	48.941
67)*Fluorobenzene	(2)	7.687	96	1110997	50.000
86)\$Toluene-d8	(3)	9.713	98	1010161	52.798
99)*Chlorobenzene-d5	(3)	11.179	117	715443	50.000
112)\$4-Bromofluorobenzene	(3)	12.189	95	290144	40.517
133)*1,4-Dichlorobenzene-d4	(4)	13.071	152	291474	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:50.
Target 3.5 esignature user ID: sas00403

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCT89

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850766

Sample wt/vol: 5.06 (g/mL) g

Lab File ID: HP09685.i/12nov08a,b/an08s03.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 23

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4	Vinyl Chloride	0.006	U
75-69-4	Trichlorofluoromethane	0.006	U
75-35-4	1,1-Dichloroethene	0.006	U
67-64-1	Acetone	0.026	U
75-09-2	Methylene Chloride	0.006	U
1634-04-4	Methyl Tertiary Butyl Ether	0.006	U
156-60-5	trans-1,2-Dichloroethene	0.006	U
75-34-3	1,1-Dichloroethane	0.006	U
78-93-3	2-Butanone	0.013	U
156-59-2	cis-1,2-Dichloroethene	0.006	U
67-66-3	Chloroform	0.006	U
71-55-6	1,1,1-Trichloroethane	0.006	U
56-23-5	Carbon Tetrachloride	0.006	U
71-43-2	Benzene	0.006	U
107-06-2	1,2-Dichloroethane	0.006	U
79-01-6	Trichloroethene	0.006	U
123-91-1	1,4-Dioxane	0.320	U
108-88-3	Toluene	0.006	U
127-18-4	Tetrachloroethene	0.006	U
108-90-7	Chlorobenzene	0.006	U
100-41-4	Ethylbenzene	0.006	U
1330-20-7	Xylene (Total)	0.006	U
103-65-1	n-Propylbenzene	0.006	U
108-67-8	1,3,5-Trimethylbenzene	0.006	U
98-06-6	tert-Butylbenzene	0.006	U
95-63-6	1,2,4-Trimethylbenzene	0.006	U
135-98-8	sec-Butylbenzene	0.006	U
541-73-1	1,3-Dichlorobenzene	0.006	U
106-46-7	1,4-Dichlorobenzene	0.006	U
104-51-8	n-Butylbenzene	0.006	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS9

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850766

Sample wt/vol: 5.06 (g/mL) g Lab File ID: HP09685.i/12nov08a.b/an08s03.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 23 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(mg/L or mg/Kg)	mg/Kg
95-50-1-----	1,2-Dichlorobenzene	0.006	U

OCTS9

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850766

Data file: /chem2/HP09685.i/12nov08a.b/an08s03.d

Injection date and time: 08-NOV-2012 04:20

Data file Sample Info. Line: OCTS9;6850766;2;0;;TAP03;;an08b01;

Instrument ID: HP09685.i Batch: A123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 05:49 sas00403

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 08-NOV-2012 00:53

Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: 150A Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 0.99

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5.06 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	4.171(0.006)	426	65	135945 (14)	250.00	
67) Fluorobenzene	7.687(0.000)	1004	96	1161589 (-7)	50.00	
99) Chlorobenzene-d5	11.179(0.000)	1578	117	833646 (-7)	50.00	
133) 1,4-Dichlorobenzene-d4	13.071(0.000)	1889	152	454290 (-11)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	6.793(-0.001)	113	269606	48.571	97%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	7.255(0.000)	102	66951	52.087	104%		54 - 135
86) Toluene-d8	(3)	9.713(0.000)	98	1090776	48.928	98%		52 - 141
112) 4-Bromofluorobenzene	(3)	12.189(0.000)	95	386417	46.309	93%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit LOQ (in sample)
5) Vinyl Chloride	(2)			Not Detected					1 5
13) Trichlorofluoromethane	(2)			Not Detected					2 5
19) 1,1-Dichloroethene	(2)			Not Detected					1 5
20) Acetone	(2)			Not Detected					7 20
31) Methylene Chloride	(2)			Not Detected					2 5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5 5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1 5
40) 1,1-Dichloroethane	(2)			Not Detected					1 5
45) 2-Butanone	(2)			Not Detected					4 10
46) cis-1,2-Dichloroethene	(2)			Not Detected					1 5
54) Chloroform	(2)			Not Detected					1 5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1 5
59) Carbon Tetrachloride	(2)			Not Detected					1 5
62) Benzene	(2)			Not Detected					0.5 5
64) 1,2-Dichloroethane	(2)			Not Detected					1 5
72) Trichloroethene	(2)			Not Detected					1 5
77) 1,4-Dioxane	(1)			Not Detected					69 250
87) Toluene	(3)			Not Detected					1 5
92) Tetrachloroethene	(3)			Not Detected					1 5
100) Chlorobenzene	(3)			Not Detected					1 5
102) Ethylbenzene	(3)			Not Detected					1 5
103) m+p-Xylene	(3)			Not Detected					1 5
104) o-Xylene	(3)			Not Detected					1 5
105) Xylene (Total)	(3)			Not Detected					1 5
117) n-Propylbenzene	(4)			Not Detected					1 5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1 5
126) tert-Butylbenzene	(4)			Not Detected					1 5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1 5
129) sec-Butylbenzene	(4)			Not Detected					1 5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1 5

OCTS9

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850766

Data file: /chem2/HP09685.i/12nov08a.b/an08s03.d

Injection date and time: 08-NOV-2012 04:20

Data file Sample Info. Line: OCTS9;6850766;2;0;;TAP03;;an08b01;

Instrument ID: HP09685.i Batch: A123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 05:49 sas00403

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 08-NOV-2012 00:53

Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: 150A Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 0.99

Volume Purged (Vt): 5 ml

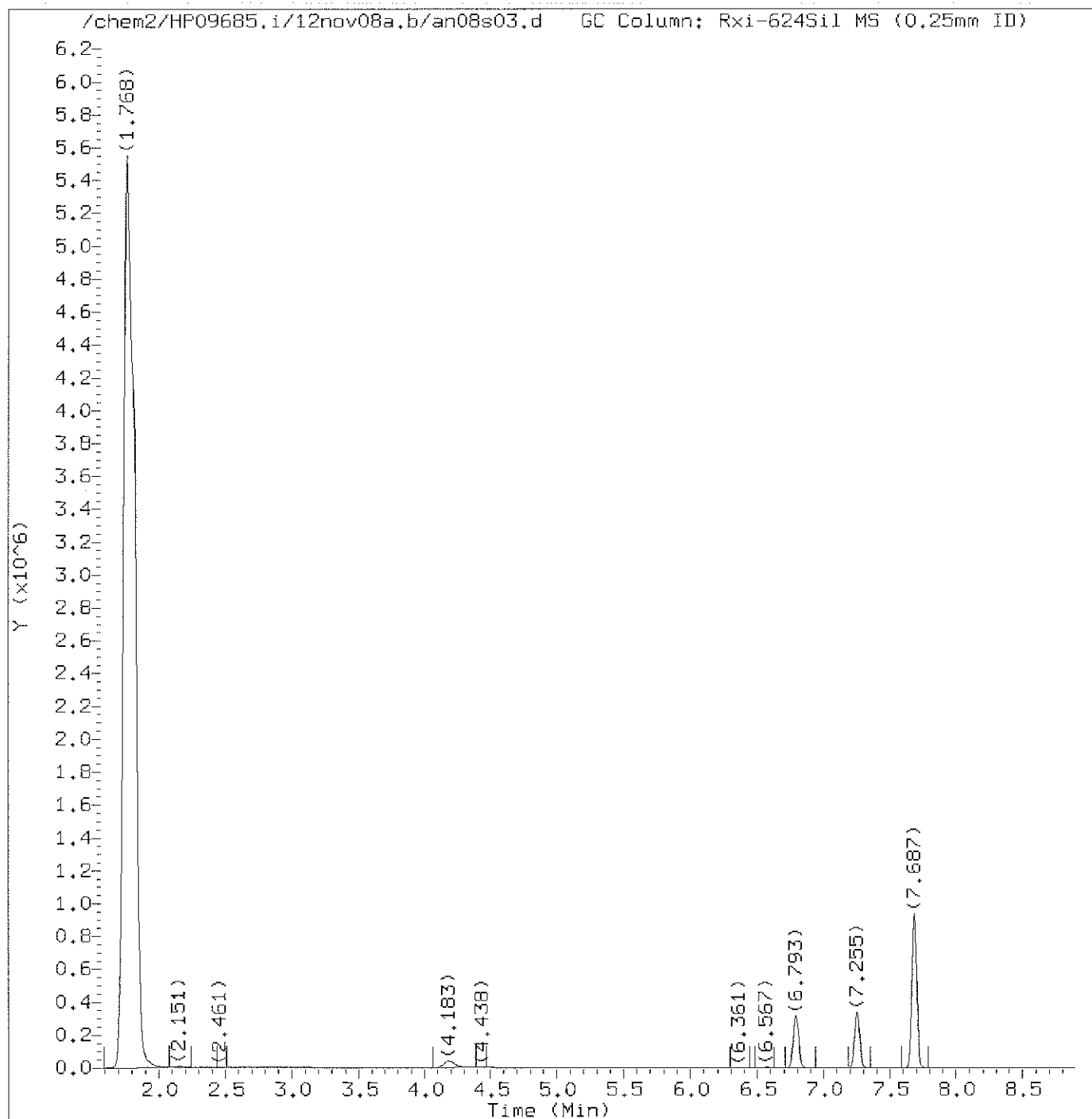
Sample Weight (Ws): 5.06 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
134) 1,4-Dichlorobenzene	(4)			Not Detected					1	5
139) n-Butylbenzene	(4)			Not Detected					1	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					1	5

Total number of targets = 33

Digitally signed by Stephanie A. Selis on 11/08/2012 at 05:51. Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:59. Parallax ID: ahu01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08s03.d

Instrument ID: HP09685.i

Injection date and time: 08-NOV-2012 04:20

Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m

Sublist used: 10261

Calibration date and time: 08-NOV-2012 00:53

Date, time and analyst ID of latest file update: 08-Nov-2012 05:49 sas00403

Sample Name: OCTS9

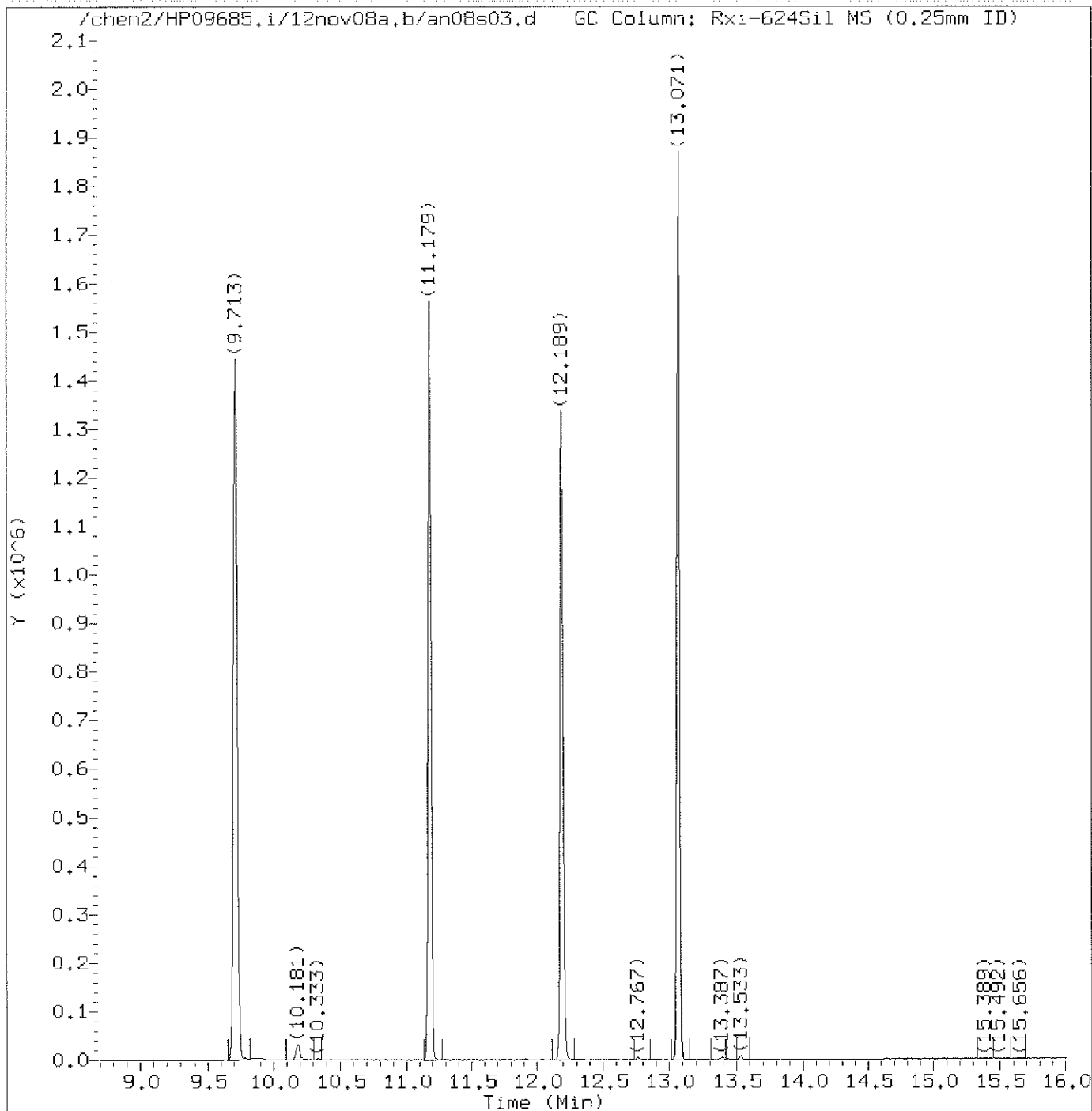
Lab Sample ID: 6850766

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:51.

Target 3.5 esignature user ID: sas00403

TAP03 Page 359 of 2648

page 1 of 2



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08s03.d
Injection date and time: 08-NOV-2012 04:20

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 05:49 sas00403

Sample Name: OCTS9

Lab Sample ID: 6850766

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:51.

Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08s03.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 04:20 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 05:49 sas00403

Sample Name: OCTS9

Lab Sample ID: 6850766

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30)*t-Butyl Alcohol-d10	(1)	4.171	65	135945	250.000
55)\$Dibromofluoromethane	(2)	6.793	113	269606	48.571
61)\$1,2-Dichloroethane-d4	(2)	7.255	102	66951	52.087
67)*Fluorobenzene	(2)	7.687	96	1161589	50.000
86)\$Toluene-d8	(3)	9.713	98	1090776	48.928
99)*Chlorobenzene-d5	(3)	11.179	117	833646	50.000
112)\$4-Bromofluorobenzene	(3)	12.189	95	386417	46.309
133)*1,4-Dichlorobenzene-d4	(4)	13.071	152	454290	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:51.
Target 3.5 esignature user ID: sas00403

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CTS10

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850767

Sample wt/vol: 5.40 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s22.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4	Vinyl Chloride	0.006	U
75-69-4	Trichlorofluoromethane	0.006	U
75-35-4	1,1-Dichloroethene	0.006	U
67-64-1	Acetone	0.024	U
75-09-2	Methylene Chloride	0.006	U
1634-04-4	Methyl Tertiary Butyl Ether	0.006	U
156-60-5	trans-1,2-Dichloroethene	0.006	U
75-34-3	1,1-Dichloroethane	0.006	U
78-93-3	2-Butanone	0.012	U
156-59-2	cis-1,2-Dichloroethene	0.006	U
67-66-3	Chloroform	0.006	U
71-55-6	1,1,1-Trichloroethane	0.006	U
56-23-5	Carbon Tetrachloride	0.006	U
71-43-2	Benzene	0.006	U
107-06-2	1,2-Dichloroethane	0.006	U
79-01-6	Trichloroethene	0.006	U
123-91-1	1,4-Dioxane	0.300	U
108-88-3	Toluene	0.006	U
127-18-4	Tetrachloroethene	0.006	U
108-90-7	Chlorobenzene	0.006	U
100-41-4	Ethylbenzene	0.006	U
1330-20-7	Xylene (Total)	0.006	U
103-65-1	n-Propylbenzene	0.006	U
108-67-8	1,3,5-Trimethylbenzene	0.006	U
98-06-6	tert-Butylbenzene	0.006	U
95-63-6	1,2,4-Trimethylbenzene	0.006	U
135-98-8	sec-Butylbenzene	0.006	U
541-73-1	1,3-Dichlorobenzene	0.006	U
106-46-7	1,4-Dichlorobenzene	0.006	U
104-51-8	n-Butylbenzene	0.006	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Lancaster Laboratories

Contract: _____

CTS10

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850767

Sample wt/vol: 5.40 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s22.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(mg/L or mg/Kg) mg/Kg	Q
95-50-1-----	1,2-Dichlorobenzene	0.006	U

CTS10

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850767

Data file: /chem2/HP09685.i/12nov08a.b/an08s22.d

Injection date and time: 08-NOV-2012 06:36

Data file Sample Info. Line: CTS10;6850767;2;0;;TAP03;;;an08b01;

Instrument ID: HP09685.i Batch: A123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 09:13 cbs01947

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 08-NOV-2012 00:53

Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: 150A Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 0.93

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5.4 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	4.183(-0.006)	428	65	102467 (-14)	250.00	
67) Fluorobenzene	7.687(0.000)	1004	96	1054810 (-16)	50.00	
99) Chlorobenzene-d5	11.179(0.000)	1578	117	668740 (-26)	50.00	
133) 1,4-Dichlorobenzene-d4	13.071(0.000)	1889	152	261719 (-49)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	6.786(0.000)	113	246154	48.836	98%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	7.255(0.000)	102	58132	49.804	100%		54 - 135
86) Toluene-d8	(3)	9.713(0.000)	98	955907	53.452	107%		52 - 141
112) 4-Bromofluorobenzene	(3)	12.189(0.000)	95	265101	39.605	79%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit LOQ (in sample)
5) Vinyl Chloride	(2)			Not Detected					0.9 5
13) Trichlorofluoromethane	(2)			Not Detected					2 5
19) 1,1-Dichloroethene	(2)			Not Detected					0.9 5
20) Acetone	(2)			Not Detected					6 19
31) Methylene Chloride	(2)			Not Detected					2 5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5 5
35) trans-1,2-Dichloroethene	(2)			Not Detected					0.9 5
40) 1,1-Dichloroethane	(2)			Not Detected					0.9 5
45) 2-Butanone	(2)			Not Detected					4 9
46) cis-1,2-Dichloroethene	(2)			Not Detected					0.9 5
54) Chloroform	(2)			Not Detected					0.9 5
56) 1,1,1-Trichloroethane	(2)			Not Detected					0.9 5
59) Carbon Tetrachloride	(2)			Not Detected					0.9 5
62) Benzene	(2)			Not Detected					0.5 5
64) 1,2-Dichloroethane	(2)			Not Detected					0.9 5
72) Trichloroethene	(2)			Not Detected					0.9 5
77) 1,4-Dioxane	(1)			Not Detected					65 230
87) Toluene	(3)			Not Detected					0.9 5
92) Tetrachloroethene	(3)			Not Detected					0.9 5
100) Chlorobenzene	(3)			Not Detected					0.9 5
102) Ethylbenzene	(3)			Not Detected					0.9 5
103) m+p-Xylene	(3)			Not Detected					0.9 5
104) o-Xylene	(3)			Not Detected					0.9 5
105) Xylene (Total)	(3)			Not Detected					0.9 5
117) n-Propylbenzene	(4)			Not Detected					0.9 5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					0.9 5
126) tert-Butylbenzene	(4)			Not Detected					0.9 5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					0.9 5
129) sec-Butylbenzene	(4)			Not Detected					0.9 5
131) 1,3-Dichlorobenzene	(4)			Not Detected					0.9 5

CTS10

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 6850767

Data file: /chem2/HP09685.i/12nov08a.b/an08s22.d Injection date and time: 08-NOV-2012 06:36
Data file Sample Info. Line: CTS10;6850767;2;0;;TAP03;;;an08b01; Instrument ID: HP09685.i Batch: A123131AA
Date, time and analyst ID of latest file update: 08-Nov-2012 09:13 cbs01947

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time (Last Method Edit): 08-NOV-2012 00:53
Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: 150A Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 0.93

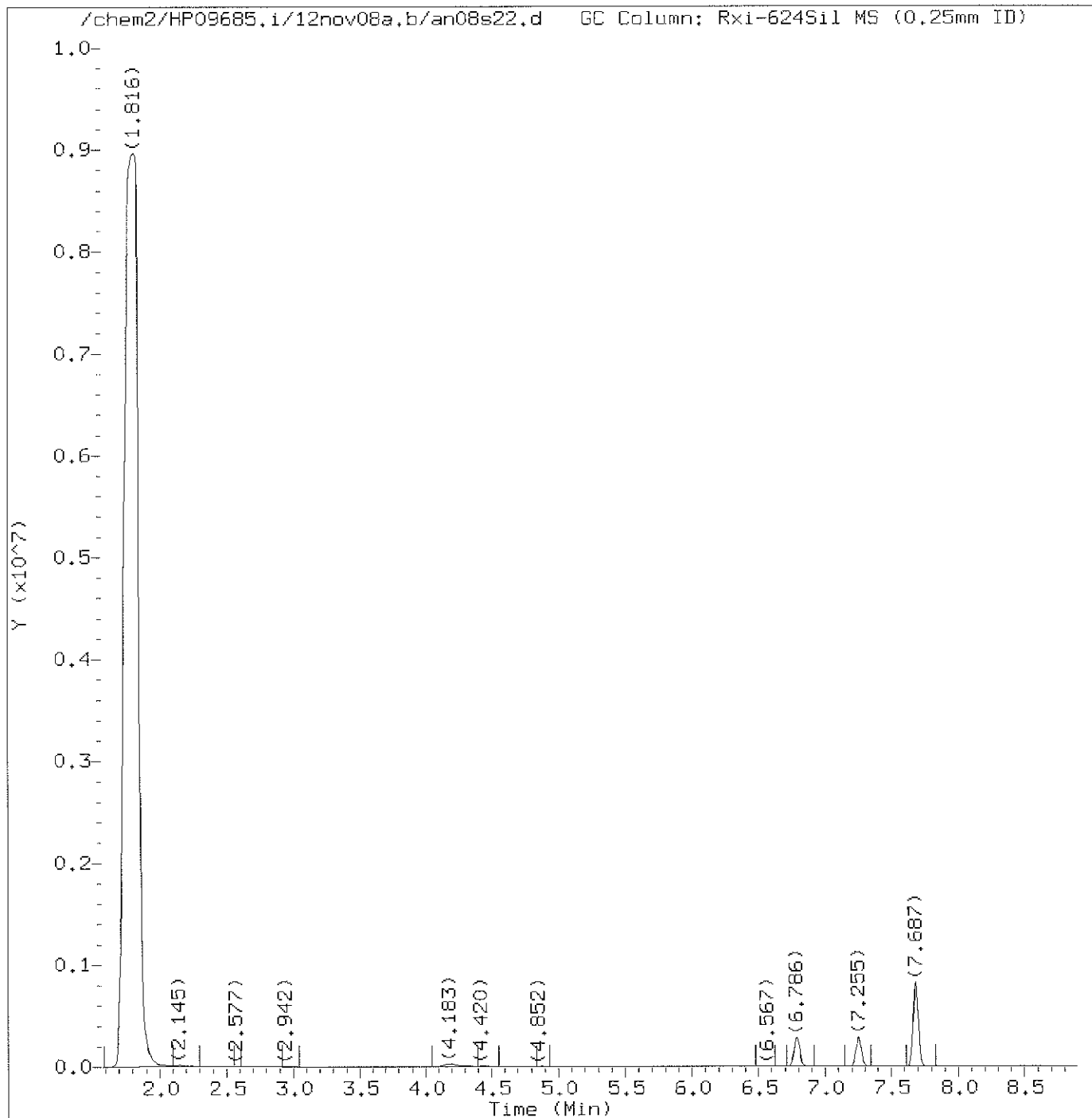
Volume Purged (Vt): 5 ml Sample Weight (Ws): 5.4 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit	LOQ
									(in sample)	
134) 1,4-Dichlorobenzene	(4)			Not Detected					0.9	5
139) n-Butylbenzene	(4)			Not Detected					0.9	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					0.9	5

Total number of targets = 33

Digitally signed by Chelsea B. Stong on 11/08/2012 at 09:13. Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:59. Parallax ID: ahu01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a,b/an08s22.d
Injection date and time: 08-NOV-2012 06:36

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a,b/di8260b.m
Calibration date and time: 08-NOV-2012 00:53

Sublist used: 10261

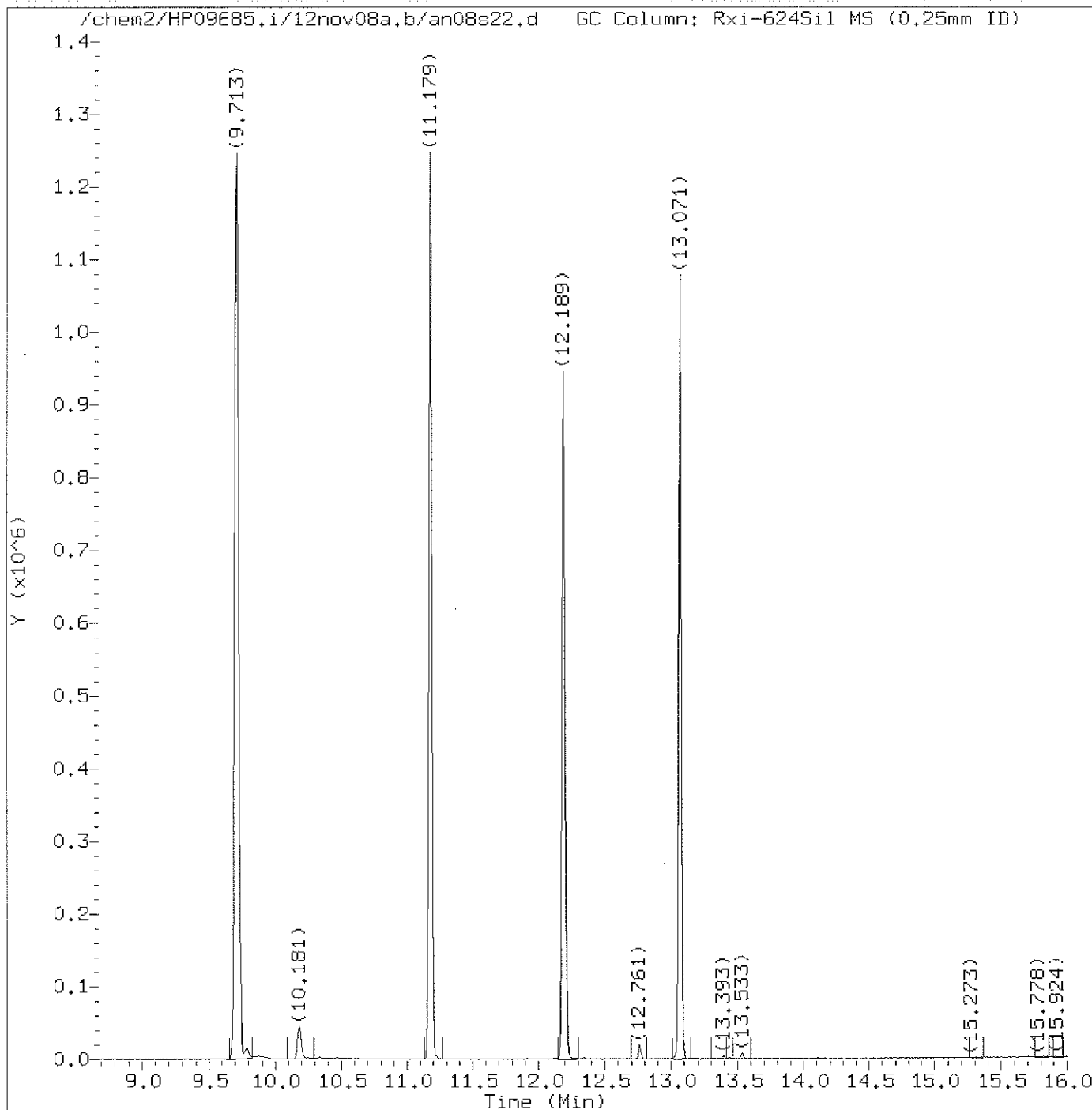
Date, time and analyst ID of latest file update: 08-Nov-2012 09:13 cbs01947

Sample Name: CTS10

Lab Sample ID: 6850767

Digitally signed by Chelsea B. Stong
on 11/08/2012 at 09:13.

Target 3.5 esignature user ID: cbs01947



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08s22.d
Injection date and time: 08-NOV-2012 06:36

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 09:13 cbs01947

Sample Name: CTS10

Lab Sample ID: 6850767

Digitally signed by Chelsea B. Stong
on 11/08/2012 at 09:13.

Target 3.5 esignature user ID: cbs01947

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08s22.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 06:36 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 09:13 cbs01947

Sample Name: CTS10

Lab Sample ID: 6850767

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30) *t-Butyl Alcohol-d10	(1)	4.183	65	102467	250.000
55) \$Dibromofluoromethane	(2)	6.786	113	246154	48.836
61) \$1,2-Dichloroethane-d4	(2)	7.255	102	58132	49.804
67) *Fluorobenzene	(2)	7.687	96	1054810	50.000
86) \$Toluene-d8	(3)	9.713	98	955907	53.452
99) *Chlorobenzene-d5	(3)	11.179	117	668740	50.000
112) \$4-Bromofluorobenzene	(3)	12.189	95	265101	39.605
133) *1,4-Dichlorobenzene-d4	(4)	13.071	152	261719	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

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on 11/08/2012 at 09:13.
Target 3.5 esignature user ID: cbs01947

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CTS11

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850768

Sample wt/vol: 4.95 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s05.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4	Vinyl Chloride	0.006	U
75-69-4	Trichlorofluoromethane	0.006	U
75-35-4	1,1-Dichloroethene	0.006	U
67-64-1	Acetone	0.026	U
75-09-2	Methylene Chloride	0.006	U
1634-04-4	Methyl Tertiary Butyl Ether	0.006	U
156-60-5	trans-1,2-Dichloroethene	0.006	U
75-34-3	1,1-Dichloroethane	0.006	U
78-93-3	2-Butanone	0.013	U
156-59-2	cis-1,2-Dichloroethene	0.006	U
67-66-3	Chloroform	0.006	U
71-55-6	1,1,1-Trichloroethane	0.006	U
56-23-5	Carbon Tetrachloride	0.006	U
71-43-2	Benzene	0.006	U
107-06-2	1,2-Dichloroethane	0.006	U
79-01-6	Trichloroethene	0.006	U
123-91-1	1,4-Dioxane	0.320	U
108-88-3	Toluene	0.006	U
127-18-4	Tetrachloroethene	0.006	U
108-90-7	Chlorobenzene	0.006	U
100-41-4	Ethylbenzene	0.006	U
1330-20-7	Xylene (Total)	0.006	U
103-65-1	n-Propylbenzene	0.006	U
108-67-8	1,3,5-Trimethylbenzene	0.006	U
98-06-6	tert-Butylbenzene	0.006	U
95-63-6	1,2,4-Trimethylbenzene	0.006	U
135-98-8	sec-Butylbenzene	0.006	U
541-73-1	1,3-Dichlorobenzene	0.006	U
106-46-7	1,4-Dichlorobenzene	0.006	U
104-51-8	n-Butylbenzene	0.006	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CTS11

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850768

Sample wt/vol: 4.95 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s05.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(mg/L or mg/Kg) mg/Kg	Q
95-50-1-----	1,2-Dichlorobenzene	0.006	U

CTS11

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850768

Data file: /chem2/HP09685.i/12nov08a.b/an08s05.d

Injection date and time: 08-NOV-2012 05:05

Data file Sample Info. Line: CTS11;6850768;2;0;;TAP03;;;an08b01;

Instrument ID: HP09685.i Batch: A123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 05:50 sas00403

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 08-NOV-2012 00:53

Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.01

Volume Purged (Vt): 5 ml Sample Weight (Ws): 4.95 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	4.189(-0.012)	429	65	88962 (-26)	250.00	
67) Fluorobenzene	7.687(0.000)	1004	96	1058009 (-15)	50.00	
99) Chlorobenzene-d5	11.179(0.000)	1578	117	660538 (-27)	50.00	
133) 1,4-Dichlorobenzene-d4	13.071(0.000)	1889	152	257660 (-50)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	6.793(-0.001)	113	245936	48.645	97%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	7.255(0.000)	102	57148	48.813	98%		54 - 135
86) Toluene-d8	(3)	9.713(0.000)	98	944063	53.445	107%		52 - 141
112) 4-Bromofluorobenzene	(3)	12.189(0.000)	95	261531	39.557	79%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit LOQ (in sample)
5) Vinyl Chloride	(2)			Not Detected					1 5
13) Trichlorofluoromethane	(2)			Not Detected					2 5
19) 1,1-Dichloroethene	(2)			Not Detected					1 5
20) Acetone	(2)			Not Detected					7 20
31) Methylene Chloride	(2)			Not Detected					2 5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5 5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1 5
40) 1,1-Dichloroethane	(2)			Not Detected					1 5
45) 2-Butanone	(2)			Not Detected					4 10
46) cis-1,2-Dichloroethene	(2)			Not Detected					1 5
54) Chloroform	(2)			Not Detected					1 5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1 5
59) Carbon Tetrachloride	(2)			Not Detected					1 5
62) Benzene	(2)			Not Detected					0.5 5
64) 1,2-Dichloroethane	(2)			Not Detected					1 5
72) Trichloroethene	(2)			Not Detected					1 5
77) 1,4-Dioxane	(1)			Not Detected					71 250
87) Toluene	(3)			Not Detected					1 5
92) Tetrachloroethene	(3)			Not Detected					1 5
100) Chlorobenzene	(3)			Not Detected					1 5
102) Ethylbenzene	(3)			Not Detected					1 5
103) m+p-Xylene	(3)			Not Detected					1 5
104) o-Xylene	(3)			Not Detected					1 5
105) Xylene (Total)	(3)			Not Detected					1 5
117) n-Propylbenzene	(4)			Not Detected					1 5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1 5
126) tert-Butylbenzene	(4)			Not Detected					1 5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1 5
129) sec-Butylbenzene	(4)			Not Detected					1 5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1 5

CTS11

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850768

Data file: /chem2/HP09685.i/12nov08a.b/an08s05.d

Injection date and time: 08-NOV-2012 05:05

Data file Sample Info. Line: CTS11;6850768;2;0;;TAP03;;;an08b01;

Instrument ID: HP09685.i Batch: A123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 05:50 sas00403

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 08-NOV-2012 00:53

Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.01

Volume Purged (Vt): 5 ml

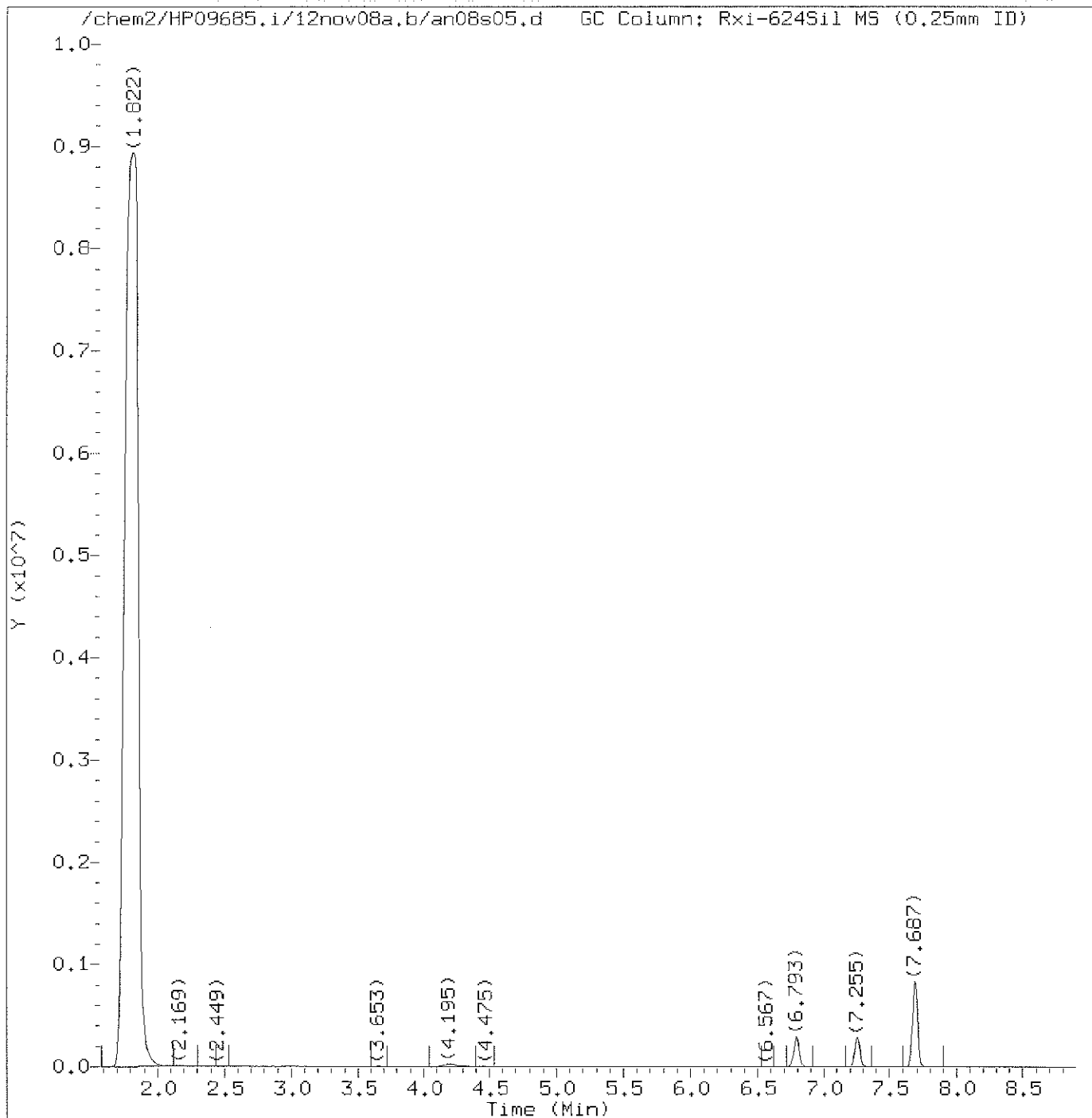
Sample Weight (Ws): 4.95 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
134) 1,4-Dichlorobenzene	(4)			Not Detected					1	5
139) n-Butylbenzene	(4)			Not Detected					1	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					1	5

Total number of targets = 33

Digitally signed by Stephanie A. Sellis on 11/08/2012 at 05:51. Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:59. Parallax ID: ahu01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08s05.d
Injection date and time: 08-NOV-2012 05:05

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m
Calibration date and time: 08-NOV-2012 00:53

Sublist used: 10261

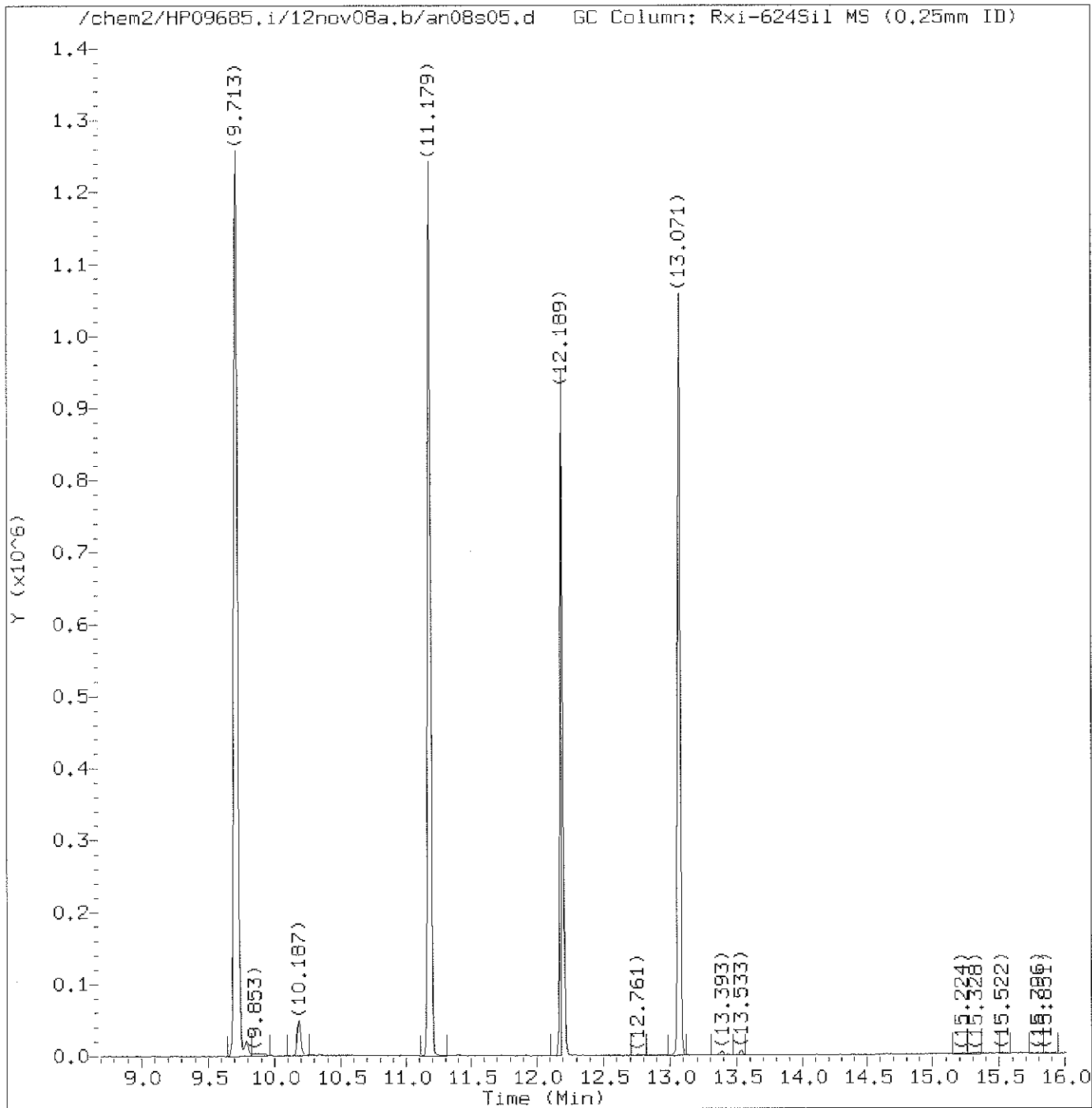
Date, time and analyst ID of latest file update: 08-Nov-2012 05:50 sas00403

Sample Name: CTS11

Lab Sample ID: 6850768

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:51.

Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08s05.d
Injection date and time: 08-NOV-2012 05:05

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 05:50 sas00403

Sample Name: CTS11

Lab Sample ID: 6850768

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:51.

Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08s05.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 05:05 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 05:50 sas00403

Sample Name: CTS11

Lab Sample ID: 6850768

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30)*t-Butyl Alcohol-d10	(1)	4.189	65	88962	250.000
55)\$Dibromofluoromethane	(2)	6.793	113	245936	48.645
61)\$1,2-Dichloroethane-d4	(2)	7.255	102	57148	48.813
67)*Fluorobenzene	(2)	7.687	96	1058009	50.000
86)\$Toluene-d8	(3)	9.713	98	944063	53.445
99)*Chlorobenzene-d5	(3)	11.179	117	660538	50.000
112)\$4-Bromofluorobenzene	(3)	12.189	95	261531	39.557
133)*1,4-Dichlorobenzene-d4	(4)	13.071	152	257660	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:51.
Target 3.5 esignature user ID: sas00403

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CTS12

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850769

Sample wt/vol: 5.40 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s23.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 21

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4	Vinyl Chloride	0.006	U
75-69-4	Trichlorofluoromethane	0.006	U
75-35-4	1,1-Dichloroethene	0.006	U
67-64-1	Acetone	0.023	U
75-09-2	Methylene Chloride	0.006	U
1634-04-4	Methyl Tertiary Butyl Ether	0.006	U
156-60-5	trans-1,2-Dichloroethene	0.006	U
75-34-3	1,1-Dichloroethane	0.006	U
78-93-3	2-Butanone	0.012	U
156-59-2	cis-1,2-Dichloroethene	0.006	U
67-66-3	Chloroform	0.006	U
71-55-6	1,1,1-Trichloroethane	0.006	U
56-23-5	Carbon Tetrachloride	0.006	U
71-43-2	Benzene	0.006	U
107-06-2	1,2-Dichloroethane	0.006	U
79-01-6	Trichloroethene	0.006	U
123-91-1	1,4-Dioxane	0.290	U
108-88-3	Toluene	0.001	J
127-18-4	Tetrachloroethene	0.006	U
108-90-7	Chlorobenzene	0.006	U
100-41-4	Ethylbenzene	0.006	U
1330-20-7	Xylene (Total)	0.006	U
103-65-1	n-Propylbenzene	0.006	U
108-67-8	1,3,5-Trimethylbenzene	0.006	U
98-06-6	tert-Butylbenzene	0.006	U
95-63-6	1,2,4-Trimethylbenzene	0.006	U
135-98-8	sec-Butylbenzene	0.006	U
541-73-1	1,3-Dichlorobenzene	0.006	U
106-46-7	1,4-Dichlorobenzene	0.006	U
104-51-8	n-Butylbenzene	0.006	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CTS12

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850769

Sample wt/vol: 5.40 (g/mL) g Lab File ID: HP09685.i/12nov08a.b/an08s23.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 21 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----	1,2-Dichlorobenzene	0.006	U
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CTS12

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850769

Data file: /chem2/HP09685.i/12nov08a.b/an08s23.d

Injection date and time: 08-NOV-2012 07:28

Data file Sample Info. Line: CTS12;6850769;2;0;;TAP03;;an08b01;

Instrument ID: HP09685.i Batch: A123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 11:14 cbs01947

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261

Calibration date and time (last Method Edit): 08-NOV-2012 00:53

Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 0.93

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5.4 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	4.170(0.006)	426	65	116965 (-2)	250.00	
67) Fluorobenzene	7.681(0.006)	1003	96	1091658 (-13)	50.00	
99) Chlorobenzene-d5	11.179(0.000)	1578	117	684989 (-24)	50.00	
133) 1,4-Dichlorobenzene-d4	13.071(0.000)	1889	152	258379 (-49)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	6.786(-0.001)	113	256213	49.116	98%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	7.249(0.000)	102	61422	50.847	102%		54 - 135
86) Toluene-d8	(3)	9.707(0.001)	98	972996	53.117	106%		52 - 141
112) 4-Bromofluorobenzene	(3)	12.189(0.000)	95	266330	38.845	78%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit LOQ (in sample)
5) Vinyl Chloride	(2)			Not Detected					0.9 5
13) Trichlorofluoromethane	(2)			Not Detected					2 5
19) 1,1-Dichloroethene	(2)			Not Detected					0.9 5
20) Acetone	(2)			Not Detected					6 19
31) Methylene Chloride	(2)			Not Detected					2 5
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5 5
35) trans-1,2-Dichloroethene	(2)			Not Detected					0.9 5
40) 1,1-Dichloroethane	(2)			Not Detected					0.9 5
45) 2-Butanone	(2)			Not Detected					4 9
46) cis-1,2-Dichloroethene	(2)			Not Detected					0.9 5
54) Chloroform	(2)			Not Detected					0.9 5
56) 1,1,1-Trichloroethane	(2)			Not Detected					0.9 5
59) Carbon Tetrachloride	(2)			Not Detected					0.9 5
62) Benzene	(2)			Not Detected					0.5 5
64) 1,2-Dichloroethane	(2)			Not Detected					0.9 5
72) Trichloroethene	(2)			Not Detected					0.9 5
77) 1,4-Dioxane	(1)			Not Detected					65 230
87) Toluene	(3)	9.786(0.000)	92	15448	1.159	1.07		J	0.9 5
92) Tetrachloroethene	(3)			Not Detected					0.9 5
100) Chlorobenzene	(3)			Not Detected					0.9 5
102) Ethylbenzene	(3)			Not Detected					0.9 5
103) m+p-Xylene	(3)			Not Detected					0.9 5
104) o-Xylene	(3)			Not Detected					0.9 5
105) Xylene (Total)	(3)			Not Detected					0.9 5
117) n-Propylbenzene	(4)			Not Detected					0.9 5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					0.9 5
126) tert-Butylbenzene	(4)			Not Detected					0.9 5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					0.9 5
129) sec-Butylbenzene	(4)			Not Detected					0.9 5
131) 1,3-Dichlorobenzene	(4)			Not Detected					0.9 5

CTS12

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850769

Data file: /chem2/HP09685.i/12nov08a.b/an08s23.d

Injection date and time: 08-NOV-2012 07:28

Data file Sample Info. Line: CTS12;6850769;2;0;;TAP03;;;an08b01;

Instrument ID: HP09685.i Batch: A123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 11:14 cbs01947

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 08-NOV-2012 00:53

Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 0.93

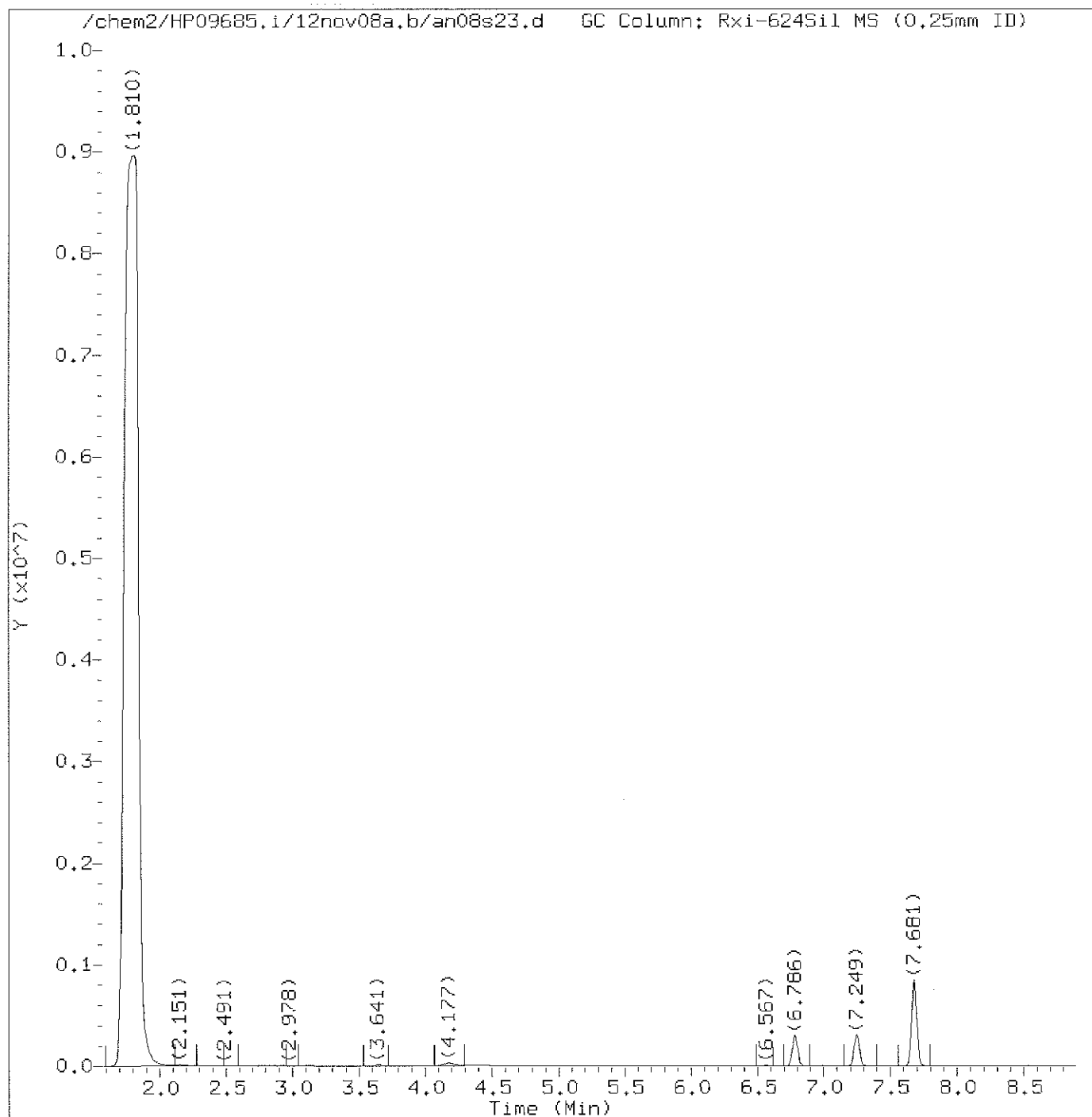
Volume Purged (Vt): 5 ml Sample Weight (Ws): 5.4 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
134) 1,4-Dichlorobenzene	(4)			Not Detected					0.9	5
139) n-Butylbenzene	(4)			Not Detected					0.9	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					0.9	5

Total number of targets = 33

Digitally signed by Chelsea B. Stong on 11/08/2012 at 11:14 Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 11:18 Parallax ID: ahu01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08s23.d
Injection date and time: 08-NOV-2012 07:28

Instrument ID: HP09685.i
Analyst ID: SAS00403

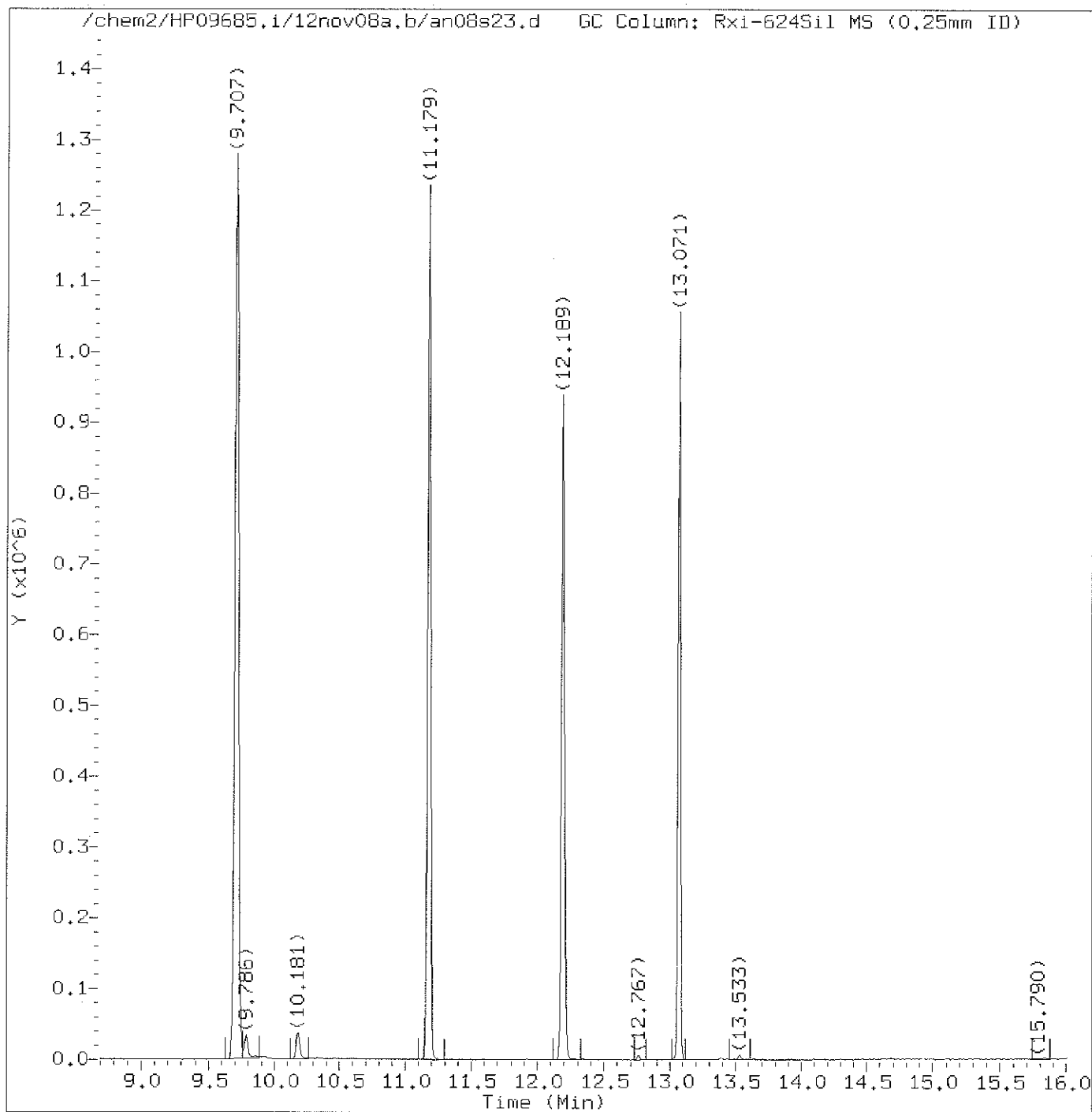
Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 11:14 cbs01947

Sample Name: CTS12

Lab Sample ID: 6850769

Digitally signed by Chelsea B. Stong
on 11/08/2012 at 11:14.

Target 3.5 esignature user ID: cbs01947



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08s23.d
Injection date and time: 08-NOV-2012 07:28

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 11:14 cbs01947

Sample Name: CTS12

Lab Sample ID: 6850769

Digitally signed by Chelsea B. Stong
on 11/08/2012 at 11:14.

Target 3.5 esignature user ID: cbs01947

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08s23.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 07:28 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 11:14 cbs01947

Sample Name: CTS12 Lab Sample ID: 6850769

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
30) *t-Butyl Alcohol-d10	(1)	4.170	65	116965	250.000
55) \$Dibromofluoromethane	(2)	6.786	113	256213	49.116
61) \$1,2-Dichloroethane-d4	(2)	7.249	102	61422	50.847
67) *Fluorobenzene	(2)	7.681	96	1091658	50.000
86) \$Toluene-d8	(3)	9.707	98	972996	53.117
87) Toluene	(3)	9.786	92	15448	1.159
99) *Chlorobenzene-d5	(3)	11.179	117	684989	50.000
112) \$4-Bromofluorobenzene	(3)	12.189	95	266330	38.845
133) *1,4-Dichlorobenzene-d4	(4)	13.071	152	258379	50.000

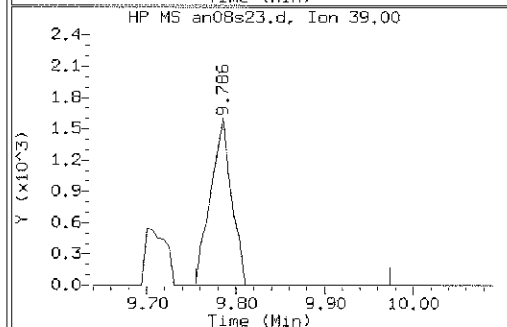
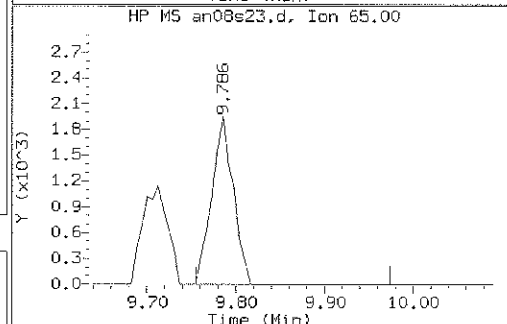
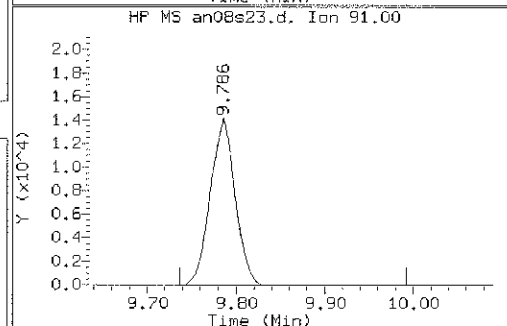
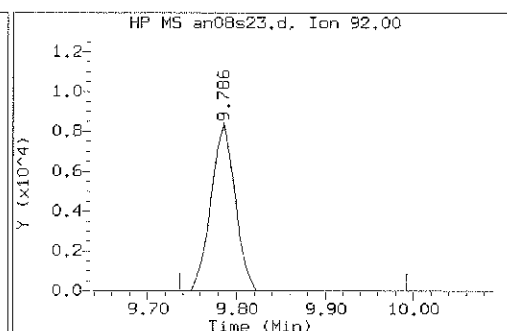
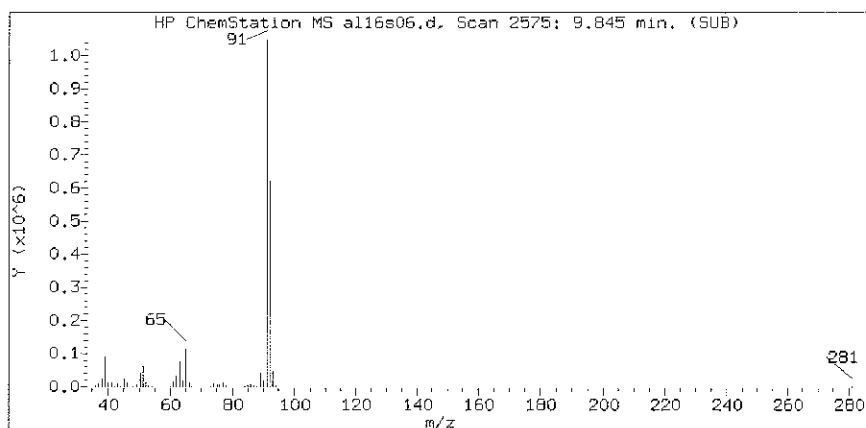
* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

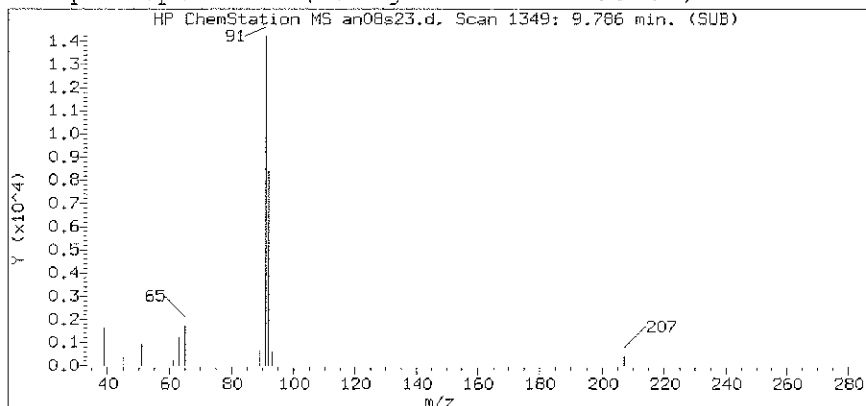
page 1 of 1

Digitally signed by Chelsea B. Stong
on 11/08/2012 at 11:14.
Target 3.5 esignature user ID: cbs01947

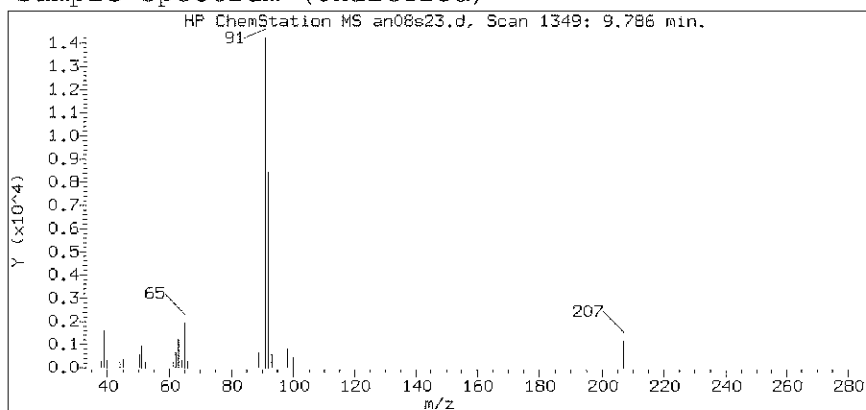
Reference Standard Spectrum for Toluene



Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)



Data File: /chem2/HP09685.i/12nov08a.b/an08s23.d
Injection date and time: 08-NOV-2012 07:28

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 11:14 cbs01947

Sample Name: CTS12

Lab Sample ID: 6850769

Compound Number : 87
Compound Name : Toluene
Scan Number : 1349
Retention Time (minutes): 9.786
Relative Retention Time : 0.00000
Quant Ion : 92.00
Area (flag) : 15448
On-Column Amount (ng) : 1.1591

Digitally signed by Chelsea B. Stong on 11/08/2012 at 11:14.
Target 3.5 esignature user ID: cbs01947

Standards Data

Volatiles by GC/MS

Lancaster Laboratories
Runlog for Hewelet Packard GC/MS System HP09685 **HP #22**

** Shift #1 Analyst: CBE ** Shift #2 Analyst: ** Shift #3 Analyst:

Comment Code: R = Reinjection necessary X = Sample sent to be reextracted
 S = Surrogate problem I = Internal Standard problem
 NU = Not used F = Further dilution required
 MR = Meets requirements IUO = Internal use only
 Cz = Confirms z, (z = S, I or X) T = Injected outside valid tune period

Other problems or comments are as follows:

* _____ *

* _____ *

* _____ *

* _____ *

Data Directory Path is - D:\data\12OCT09A\

FILE	SAMPLE	LLI#	DATE	TIME	BATCH	D.F.	NOTES
AC09X05.D	CLNBLK	CLNBLK	09 Oct 12	09:42			NU
AC09X06.D	CLNBLK	CLNBLK	09 Oct 12	10:05			NU
AC09T01.D	BFBSEP25-12	50NGBFB	09 Oct 12	10:48			MR
AC09I01.D	VSTD300	VSTD300	09 Oct 12	11:14			MR
AC09I02.D	VSTD100	VSTD100	09 Oct 12	11:38			MR
AC09I03.D	VSTD050	VSTD050	09 Oct 12	12:04			MR
AC09I04.D	VSTD020	VSTD020	09 Oct 12	12:29			NU
AC09I05.D	VSTD010	VSTD010	09 Oct 12	12:59			NU
AC09I06.D	VSTD004	VSTD004	09 Oct 12	13:46			MR
AC09M01.D	VSTD001	VSTD001	09 Oct 12	14:27			MR
AC09X01.D	CLNBLK	CLNBLK	09 Oct 12	15:18			NU
AC09I07.D	VSTD020	VSTD020	09 Oct 12	15:43			MR
AC09I08.D	VSTD010	VSTD010	09 Oct 12	16:06			MR
AC09V01A.D	LCSAICV	LCSAICV	09 Oct 12	16:55			MR

Lancaster Laboratories
Runlog for Hewelet Packard GC/MS System HP09685 **HP #22**

** Shift #1 Analyst: CBE ** Shift #2 Analyst: ** Shift #3 Analyst: SAS *

Comment Code: R = Reinjection necessary X = Sample sent to be reextracted
S = Surrogate problem I = Internal Standard problem
NU = Not used F = Further dilution required
MR = Meets requirements IUO = Internal use only
Cz = Confirms z, (z = S, I or X) T = Injected outside valid tune period

Other problems or comments are as follows:

Data Directory Path is - D:\DATA\12NOV08A\

FILE	SAMPLE	LLI#	DATE	TIME	BATCH	D.F.	NOTES
AN08T01.D	BFBSEP25-12	50NGBFB	08 Nov 12	00:08			MR
AN08C01.D	VSTD050	VSTD050	08 Nov 12	00:31	A123131AA		MR
AN08B00.D	VLKA25	VLKA25	08 Nov 12	00:54	A123131AA		NU
AN08B01.D	VLKA25	VLKA25	08 Nov 12	01:17	A123131AA		MR
AN08L01.D	LCSA25	LCSA25	08 Nov 12	01:39	A123131AA		MR
AN08L02.D	LCDA25	LCDA25	08 Nov 12	02:02	A123131AA		MR
AN08S01.D	OCTS7	6850762	08 Nov 12	03:35	A123131AA		MR
AN08S02.D	OCTS8	6850763	08 Nov 12	03:57	A123131AA		MR
AN08S03.D	OCTS9	6850766	08 Nov 12	04:20	A123131AA		MR
AN08S04.D	CTS10	6850767	08 Nov 12	04:42	A123131AA		I, NU
AN08S05.D	CTS11	6850768	08 Nov 12	05:05	A123131AA		MR
AN08S06.D	CTS12	6850769	08 Nov 12	05:28	A123131AA		I, NU
AN08S07.D	8B-15	6847382	08 Nov 12	05:51	A123131AA		MR
AN08S21.D	OCTS7MS	6850762MS	08 Nov 12	06:14	A123131AA		MR
AN08S22.D	CTS10	6850767	08 Nov 12	06:36	A123131AA		MR#
AN08S23.D	CTS12	6850769	08 Nov 12	07:28	A123131AA		MR#
AN08S08.D	8B295	6847386	08 Nov 12	07:50	A123131AA		MR
AN08S09.D	8B28-	6847387	08 Nov 12	08:13	A123131AA		MR
AN08S10.D	13-15	6847389	08 Nov 12	08:35	A123131AA		MR
AN08S11.D	13-19	6847390	08 Nov 12	08:58	A123131AA		MR
AN08S12.D	13265	6847392	08 Nov 12	09:21	A123131AA		MR
AN08S13.D	1329-	6847393	08 Nov 12	09:43	A123131AA		MR
AN08S14.D	945--	6847384	08 Nov 12	10:06	A123131AA		MR
AN08S15.D	97---	6847385	08 Nov 12	10:29	A123131AA		MR
AN08S16.D	1310-	6847388	08 Nov 12	10:51	A123131AA		MR
AN08S17.D	9-10-	6847394	08 Nov 12	11:14	A123131AA		MR
AN08S19.D	1345-	6846160	08 Nov 12	11:37	A123131AA		MR
AN08S20.D	SPN03	6847259	08 Nov 12	11:59	A123131AA		MR

Lancaster Laboratories
Runlog for Hewelet Packard GC/MS System HP09953 **HP #24**

** Shift #1 Analyst: ERS ** Shift #2 Analyst: _____ ** Shift #3 Analyst: _____ *

Comment Code: R = Reinjection necessary X = Sample sent to be reextracted
 S = Surrogate problem I = Internal Standard problem
 NU = Not used F = Further dilution required
 MR = Meets requirements IUO = Internal use only
 Cz = Confirms z, (z = S, I or X) T = Injected outside valid tune period

Other problems or comments are as follows:

* _____ *

* 8260B LOW SOILS - DI8260B LOW SOILS LARGE ICAL *

* _____ *

* _____ *

Data Directory Path is - C:\MSDCHEM\1\data\12OCT04B\

FILE	SAMPLE	LLI#	DATE	TIME	BATCH	D.F.	NOTES
BC04T01.D	BFB SEP 25-12	50 ug BFB	04 Oct 2012	15:01			MR
BC04I01.D	VSTD300	VSTD300	04 Oct 2012	15:15			MR
BC04I02.D	VSTD100	VSTD100	04 Oct 2012	15:38			MR
BC04I03.D	VSTD050	VSTD050	04 Oct 2012	16:31			MR
BC04I04.D	VSTD020	VSTD020	04 Oct 2012	16:55			MR
BC04I05.D	VSTD010	VSTD010	04 Oct 2012	17:21			MR
BC04I06.D	VSTD004	VSTD004	04 Oct 2012	17:43			MR
BC04M01.D	MDL001	MDL001	04 Oct 2012	18:21			MR
BC04V01.D	LGBICV	LGBICV	04 Oct 2012	18:46			MR

Lancaster Laboratories
Runlog for Hewelet Packard GC/MS System HP09953 **HP #24**

** Shift #1 Analyst: ADS ** Shift #2 Analyst: _____ ** Shift #3 Analyst: _____ *

Comment Code: R = Reinjection necessary X = Sample sent to be reextracted
 S = Surrogate problem I = Internal Standard problem
 NU = Not used F = Further dilution required
 MR = Meets requirements IUO = Internal use only
 Cz = Confirms z, (z = S, I or X) T = Injected outside valid tune period

Other problems or comments are as follows:

Data Directory Path is - C:\MSDCHEM\1\DATA\12NOV07B\

FILE	SAMPLE	LLI#	DATE	TIME	BATCH	D.F.	NOTES
BN07T11.D	BFB	50NGBFB	07 Nov 2012	20:48	B123122AA		MR
BN07C10.D	VSTD050	VSTD050	07 Nov 2012	21:09	B123122AA		NU
BN07B10.D	VBLKB84	VBLKB84	07 Nov 2012	21:32	B123122AA		NU
BN07C11.D	VSTD050	VSTD050	07 Nov 2012	21:58	B123122AA		MR
BN07B10A.D	VBLKB84	VBLKB84	07 Nov 2012	22:21	B123122AA		MR
BN07L10.D	LCSB84	LCSB84	07 Nov 2012	22:44	B123122AA		MR
BN07L11.D	LCDB84	LCDB84	07 Nov 2012	23:07	B123122AA		MR
BN07S30.D	CNST9	6850733	07 Nov 2012	23:51	B123122AA		MR
BN07S31.D	NST10	6850734	08 Nov 2012	00:14	B123122AA		MR
BN07S32.D	NST11	6850735	08 Nov 2012	00:36	B123122AA		MR
BN07S33.D	NST12	6850736	08 Nov 2012	00:59	B123122AA		MR
BN07S34.D	NST13	6850739	08 Nov 2012	01:22	B123122AA		I
BN07S50.D	CNST9MS	6850733MS	08 Nov 2012	01:45	B123122AA		MR
BN07S35.D	NST14	6850740	08 Nov 2012	02:07	B123122AA		MR
BN07S36.D	NST15	6850742	08 Nov 2012	02:30	B123122AA		MR
BN07S37.D	NST16	6850743	08 Nov 2012	02:53	B123122AA		MR
BN07S38.D	NST18	6850746	08 Nov 2012	03:15	B123122AA		MR
BN07S39.D	NST19	6850748	08 Nov 2012	05:45	B123122AA		MR
BN07S40.D	NST20	6850749	08 Nov 2012	06:08	B123122AA		MR
BN07S41.D	NST21	6850751	08 Nov 2012	06:30	B123122AA		MR
BN07S42.D	NST22	6850752	08 Nov 2012	06:53	B123122AA		MR
BN07S43.D	NST23	6850754	08 Nov 2012	07:16	B123122AA		MR
BN07S44.D	NST24	6850755	08 Nov 2012	07:38	B123122AA		MR
BN07S45.D	OCTS3	6850757	08 Nov 2012	08:01	B123122AA		MR
BN07S46.D	OCTS4	6850758	08 Nov 2012	08:24	B123122AA		MR

Lancaster Laboratories
Runlog for Hewelet Packard GC/MS System HP09953 **HP #24**

** Shift #1 Analyst: ADS ** Shift #2 Analyst: AEL ** Shift #3 Analyst: _____ *

Comment Code: R = Reinjection necessary X = Sample sent to be reextracted
S = Surrogate problem I = Internal Standard problem
NU = Not used F = Further dilution required
MR = Meets requirements IUO = Internal use only
Cz = Confirms z, (z = S, I or X) T = Injected outside valid tune period

Other problems or comments are as follows:

* _____ *

* _____ *

* _____ *

* _____ *

* *LINE WAS MANUALLY EDITED _____ *

Data Directory Path is - C:\MSDCHEM\1\DATA\12NOV08A\

**③NU/251
11/9/12*

FILE	SAMPLE	LLI#	DATE	TIME	BATCH	D.F.	NOTES
BN08T01.D	BFB SEP25-12	50 ug BFB	08 Nov 2012	09:15			MR
BN08C01.D	VSTD050	VSTD050	08 Nov 2012	09:38	B123131AA		MR
BN08C02.D	VSTD050	VSTD050	08 Nov 2012	10:01	B123131AA		MR NU
BN08B01.D	VLKB85	VLKB85	08 Nov 2012	10:24	B123131AA		MR
BN08S01.D	LCSB85	LCSB85	08 Nov 2012	10:53	B123131AA		MR
BN08S02.D	LCSB86	LCSB86	08 Nov 2012	11:34	B123131AA		MR NU
BN08S03.D	LCDB86	LCDB86	08 Nov 2012	11:57	B123131AA		MR NU
BN08S04.D	NST13*	6850739*	08 Nov 2012	12:37	B123131AA		MR
BN08S05.D	OCTS5	6850760	08 Nov 2012	13:08	B123131AA		MR
BN08S06.D	OCTS6	6850761	08 Nov 2012	13:31	B123131AA		NU
BN08S07.D	NST17	6850745	08 Nov 2012	13:54	B123131AA		MR
BN08S08.D	13-5-	6847401	08 Nov 2012	14:16	B123131AA		MR
BN08S09.D	13-5-MS	6847401MS	08 Nov 2012	14:39	B123131AA		MR
BN08S10.D	13-5-MSD	6847401MSD	08 Nov 2012	15:02	B123131AA		MR
BN08S26.D	OCTS6	6850761	08 Nov 2012	15:25	B123131AA		MR*
BN08S11.D	R0703RE	6845401RE	08 Nov 2012	15:48	B123131AA		CI
BN08S12.D	9155-	6847395	08 Nov 2012	16:10	B123131AA		MR
BN08S13.D	13-2-	6847402	08 Nov 2012	16:33	B123131AA		MR
BN08S14.D	725--	6847403	08 Nov 2012	16:56	B123131AA		MR
BN08S15.D	7--5-	6847404	08 Nov 2012	17:19	B123131AA		MR
BN08S16.D	1025-	6847405	08 Nov 2012	17:41	B123131AA		MR
BN08S17.D	105--	6847406	08 Nov 2012	18:04	B123131AA		NU, LEAK
BN08S18.D	-1125	6847408	08 Nov 2012	18:27	B123131AA		MR
BN08S19.D	-115-	6847409	08 Nov 2012	18:50	B123131AA		I
BN08S20.D	CMW35	6847410	08 Nov 2012	19:12	B123131AA		MR
BN08S21.D	9-29-	6847411	08 Nov 2012	19:35	B123131AA		MR
BN08S22.D	CM311	6847414	08 Nov 2012	19:58	B123131AA		MR
BN08S24.D	8A45-	6847407	08 Nov 2012	20:20	B123131AA		MR
BN08S25.D	925--	6847398	08 Nov 2012	20:43	B123131AA		MR

Data File: /chem2/HP09685.i/12oct09a,b/ac09t01.d

Page 1

Date : 09-OCT-2012 10:48

Client ID: BFBSEP25-12

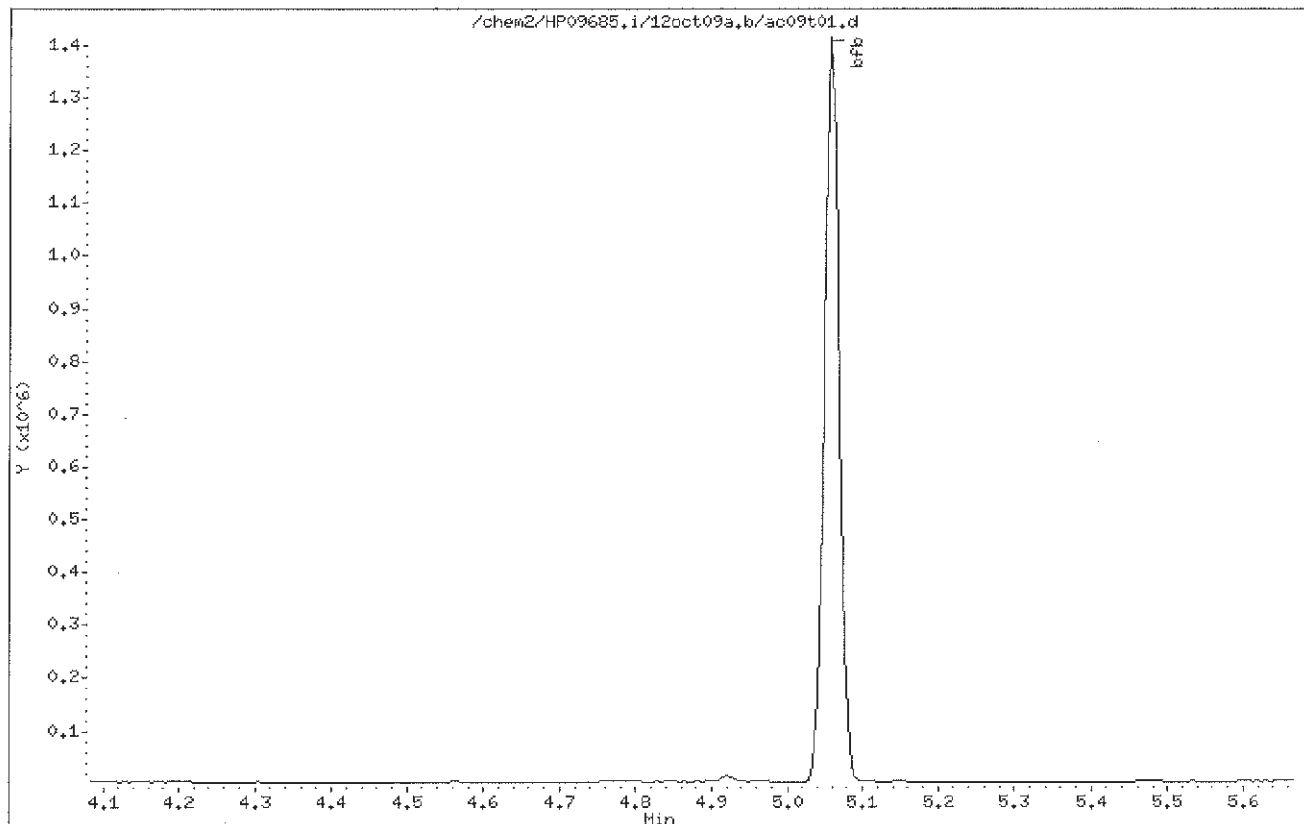
Instrument: HP09685.i

Sample Info: BFBSEP25-12;50NGFB;2;3;+;+;

Operator: CBE01947

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Digitally signed by Chelsea B. Eastep on 10/09/2012 at 16:33.
Target 3.5 esignature user ID: cbe01947

Date : 09-OCT-2012 10:48

Client ID: BFBSEP25-12

Instrument: HP09685.i

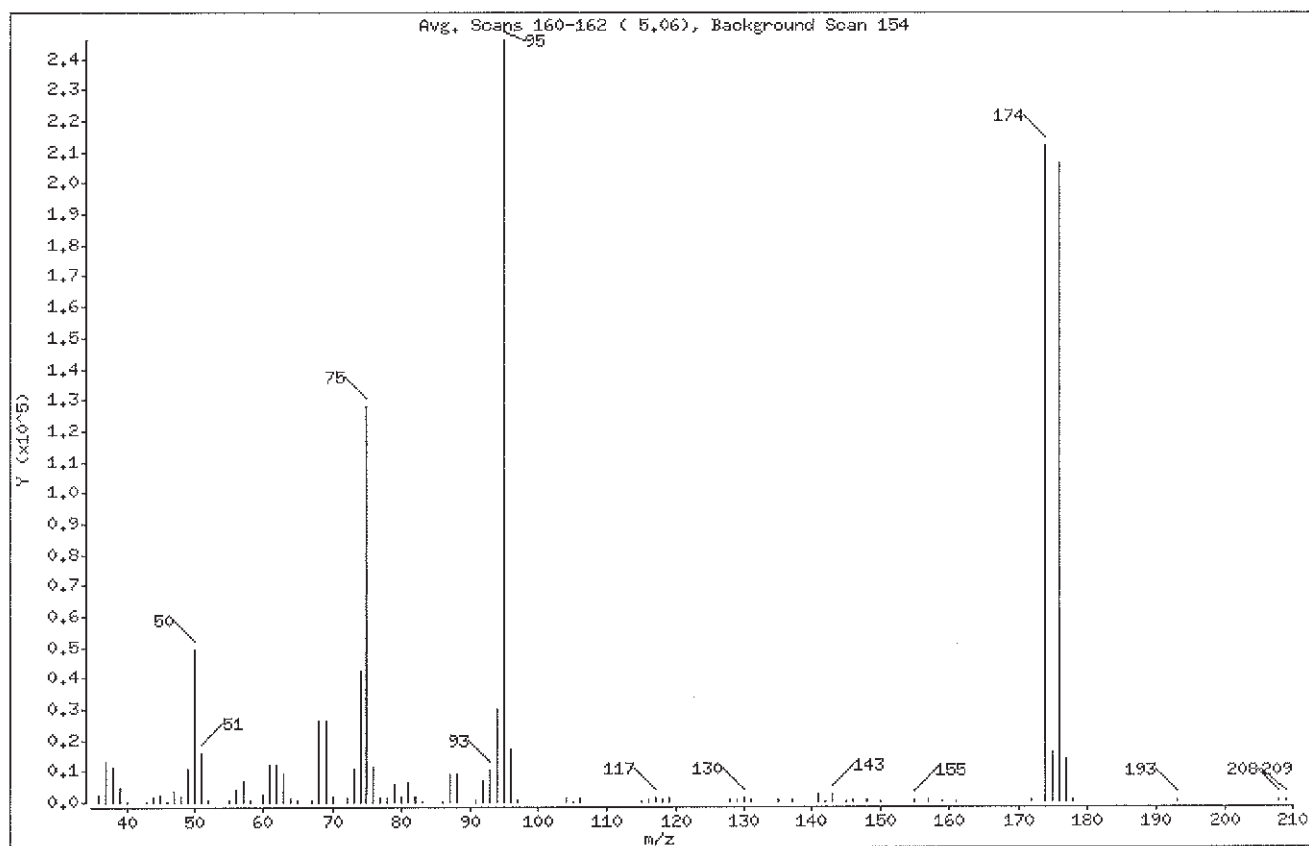
Sample Info: BFBSEP25-12;50NGBFB;2;3;:::

Operator: CBE01947

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.07
75	30.00 - 60.00% of mass 95	51.89
96	5.00 - 9.00% of mass 95	6.95
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	86.23
175	5.00 - 9.00% of mass 174	6.32 (7.33)
176	95.00 - 101.00% of mass 174	83.89 (97.29)
177	5.00 - 9.00% of mass 176	5.59 (6.67)

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Target 3.5 esignature user ID: cbe01947

Data File: /chem2/HP09685.i/12oct09a.b/ac09t01.d

Page 3

Date : 09-OCT-2012 10:48

Client ID: BFBSEP25-12

Instrument: HP09685.i

Sample Info: BFBSEP25-12;50HGBFB;2;3;:::

Operator: CBE01947

Column phase: Rxi-624Sil MS

Column diameter: 0.25

Data File: ac09t01.d

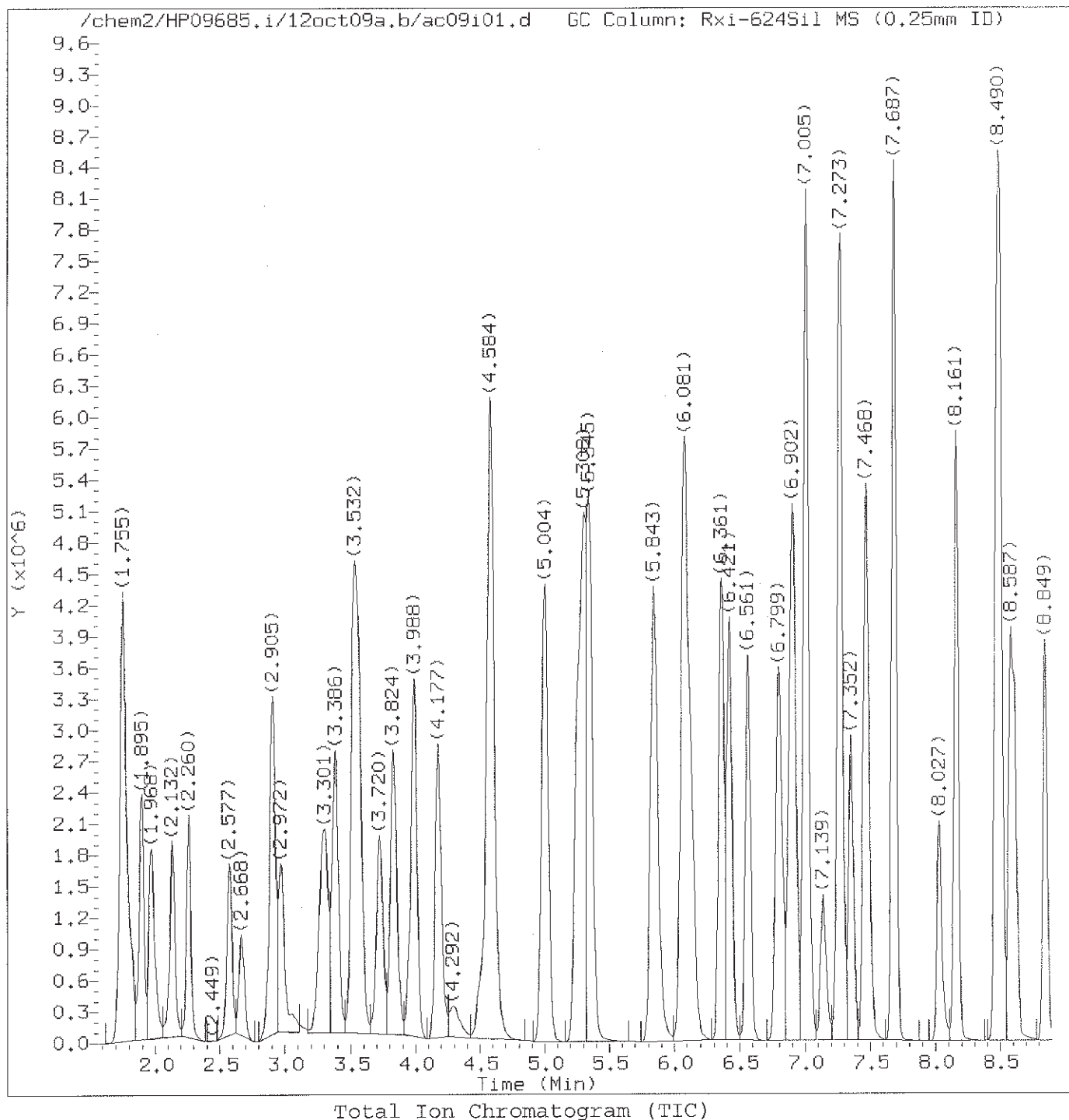
Spectrum: Avg. Scans 160-162 (5.06), Background Scan 154

Location of Maximum: 95.00

Number of points: 85

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36.00	2330	63.00	8940	91.00	791	142.00	133
37.00	13174	64.00	905	92.00	6771	143.00	2258
38.00	11269	65.00	382	93.00	10431	145.00	94
39.00	4410	67.00	521	94.00	29752	146.00	343
40.00	165	68.00	25912	95.00	246080	148.00	531
43.00	169	69.00	26192	96.00	17104	150.00	235
44.00	1682	70.00	1895	97.00	540	155.00	597
45.00	2190	72.00	1313	104.00	929	157.00	409
46.00	85	73.00	10872	105.00	233	159.00	229
47.00	3319	74.00	42704	106.00	900	161.00	178
48.00	1692	75.00	127704	115.00	199	172.00	671
49.00	10928	76.00	11115	116.00	807	174.00	212224
50.00	49400	77.00	1403	117.00	1348	175.00	15561
51.00	15592	78.00	964	118.00	812	176.00	206464
52.00	708	79.00	5934	119.00	1146	177.00	13761
55.00	643	80.00	1809	128.00	794	178.00	401
56.00	3700	81.00	6002	129.00	430	193.00	380
57.00	6667	82.00	1435	130.00	926	208.00	326
58.00	291	83.00	91	131.00	331	209.00	339
60.00	2213	86.00	214	135.00	445		
61.00	11841	87.00	9277	137.00	356		
62.00	11619	88.00	8866	141.00	2221		

Digitally signed by Chelsea B. Eastep on 10/09/2012 at 16:33.
Target 3.5 esignature user ID: cbe01947



Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i01.d
Injection date and time: 09-OCT-2012 11:14

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m
Calibration date and time: 09-OCT-2012 13:33
Date, time and analyst ID of latest file update: 09-Oct-2012 13:33 rvn00349

Sublist used: 8260S-2C

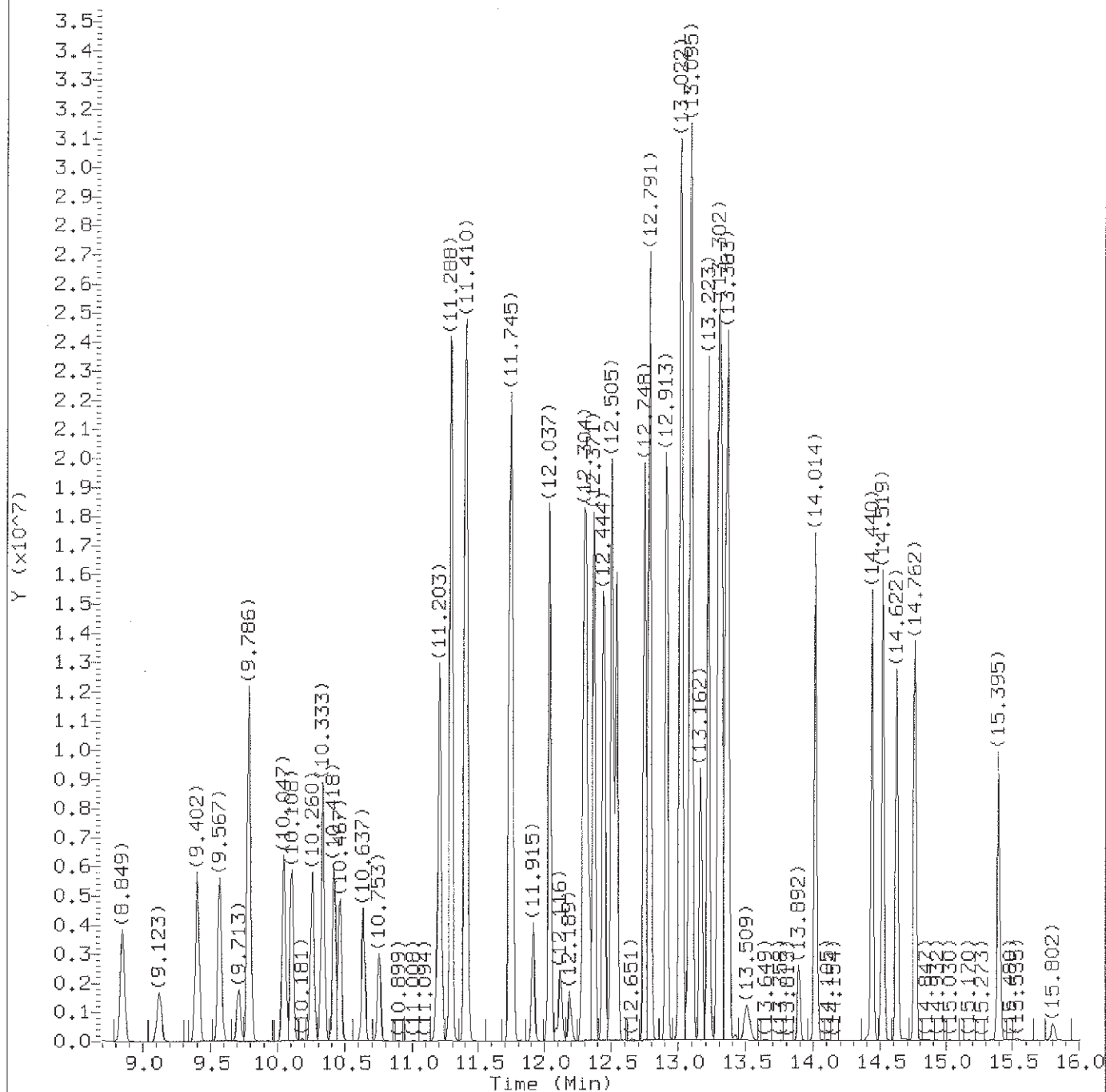
Sample Name: VSTD300

Lab Sample ID: VSTD300

Digitally signed by Chelsea B. Eastep
on 10/09/2012 at 16:30.

Target 3.5 esignature user ID: cbe01947

page 1 of 2



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a,b/ac09i01.d
 Injection date and time: 09-OCT-2012 11:14

Instrument ID: HP09685.i
 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a,b/di8260b.m Sublist used: 8260S-2C
 Calibration date and time: 09-OCT-2012 13:33
 Date, time and analyst ID of latest file update: 09-Oct-2012 13:33 rvn00349

Sample Name: VSTD300

Lab Sample ID: VSTD300

Digitally signed by Chelsea B. Eastep
 on 10/09/2012 at 16:30.

Target 3.5 esignature user ID: cbe01947

page 2 of 2

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i01.d
Injection date and time: 09-OCT-2012 11:14

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:33

Date, time and analyst ID of latest file update: 11-Oct-2012 15:08 cbe01947

Sample Name: VSTD300

Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.968	85	3826438	310.360
4) Chloromethane	(2)	2.132	50	3285347	299.456
5) Vinyl Chloride	(2)	2.260	62	3180186	300.951
9) Bromomethane	(2)	2.577	94	1872168	282.459
10) Chloroethane	(2)	2.668	64	1570763	276.818
11) Dichlorofluoromethane	(2)	2.905	67	4244282	297.360
13) Trichlorofluoromethane	(2)	2.972	101	3896830	308.344
15) Ethanol	(1)	3.069	45	1417734M	18387.142
17) Freon 123a	(2)	3.294	67	2782734	300.704
18) Acrolein	(1)	3.386	56	4291185	2908.443
19) 1,1-Dichloroethene	(2)	3.520	96	2017242	307.707
20) Acetone	(2)	3.544	58	425928	485.909
22) Freon 113	(2)	3.562	101	2286532	316.171
23) 2-Propanol	(1)	3.696	45	795206	1473.349
24) Methyl Iodide	(2)	3.720	142	3788230	309.667
25) Carbon Disulfide	(2)	3.824	76	7335434	306.152
27) Methyl Acetate	(2)	3.951	43	1538561	255.022
29) Allyl Chloride	(2)	3.994	41	3620333	307.073
30)*t-Butyl alcohol-d10	(1)	4.170	65	153804	250.000
31) Methylene Chloride	(2)	4.177	84	2282872	281.166
32) t-Butyl alcohol	(1)	4.292	59	1220351	1475.047
33) Acrylonitrile	(2)	4.499	53	871190	271.224
34) Methyl Tertiary Butyl Ether	(2)	4.578	73	6672265	292.142
35) trans-1,2-Dichloroethene	(2)	4.590	96	2276870	306.002
38) n-Hexane	(2)	5.004	57	3914861	326.404
40) 1,1-Dichloroethane	(2)	5.253	63	4477464	305.358
41) di-Isopropyl ether	(2)	5.302	45	8151770	299.698
42) 2-Chloro-1,3-butadiene	(2)	5.351	53	3999635	328.088
44) Ethyl t-butyl ether	(2)	5.843	59	7298400	305.164
45) 2-Butanone	(2)	6.050	43	2119516	517.439
46) cis-1,2-Dichloroethene	(2)	6.075	96	2458144	306.193
47) 1,2-Dichloroethene (Total)	(2)		96	4735014	612.195
48) 2,2-Dichloropropane	(2)	6.111	77	3723736	321.849
50) Propionitrile	(1)	6.142	54	1563729	1460.166
51) Methacrylonitrile	(2)	6.361	67	2230400	684.092
52) Bromochloromethane	(2)	6.415	128	1099771	297.538
53) Tetrahydrofuran	(1)	6.427	71	524395	596.230
54) Chloroform	(2)	6.567	83	4185449	296.247

M = Compound was manually integrated.

* = Compound is an internal standard.

page 1 of 4

Digitally signed by Chelsea B. Eastep

on 10/11/2012 at 15:08.

Target 3.5 esignature user ID: cbe01947

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i01.d
Injection date and time: 09-OCT-2012 11:14

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:33

Date, time and analyst ID of latest file update: 11-Oct-2012 15:08 cbe01947

Sample Name: VSTD300

Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
55) \$Dibromofluoromethane	(2)	6.786	113	327222	50.734
55) \$Dibromofluoromethane	(2)	6.780	111	337054	50.972
56) 1,1,1-Trichloroethane	(2)	6.799	97	3933586	306.529
57) Cyclohexane	(2)	6.902	56	4510165	324.661
57) Cyclohexane	(2)	6.902	84	3636641	327.659
57) Cyclohexane	(2)	6.902	69	1333743	330.632
58) 1,1-Dichloropropene	(2)	7.005	75	3454687	318.404
59) Carbon Tetrachloride	(2)	7.011	117	3378636	332.454
60) Isobutyl Alcohol	(1)	7.139	41	1098305	3617.083
61) \$1,2-Dichloroethane-d4	(2)	7.255	102	73640	49.305
61) \$1,2-Dichloroethane-d4	(2)	7.249	65	401367	49.214
61) \$1,2-Dichloroethane-d4	(2)	7.249	104	46981	49.445
62) Benzene	(2)	7.273	78	9256422	296.783
64) 1,2-Dichloroethane	(2)	7.352	62	3279112	295.099
64) 1,2-Dichloroethane	(2)	7.352	98	274055	301.584
65) t-Amyl methyl ether	(2)	7.468	73	6504254	304.570
67) *Fluorobenzene	(2)	7.681	96	1349744	50.000
69) n-Heptane	(2)	7.687	43	4280908	320.904
70) n-Butanol	(1)	8.027	56	1756856	7524.581
72) Trichloroethene	(2)	8.161	95	2467557	314.164
73) Methylcyclohexane	(2)	8.478	83	4026947	319.553
74) 1,2-Dichloropropane	(2)	8.508	63	2545271	301.743
76) Methyl Methacrylate	(2)	8.581	69	1641724	302.847
77) 1,4-Dioxane	(1)	8.599	88	311617	4155.498
78) Dibromomethane	(2)	8.618	93	1427403	297.128
81) Bromodichloromethane	(2)	8.849	83	3148810	327.566
82) 2-Nitropropane	(1)	9.123	41	1316141	668.061
84) cis-1,3-Dichloropropene	(2)	9.402	75	3827481	326.271
85) 4-Methyl-2-pentanone	(2)	9.567	43	4499879	529.413
86) \$Toluene-d8	(3)	9.713	98	1328912	49.787
86) \$Toluene-d8	(3)	9.713	100	870077	49.763
87) Toluene	(3)	9.786	92	5830945	300.256
88) trans-1,3-Dichloropropene	(3)	10.047	75	3642849	320.062
89) Ethyl Methacrylate	(3)	10.108	69	3031954	311.203
90) 1,1,2-Trichloroethane	(3)	10.260	97	1892347	291.097
92) Tetrachloroethene	(3)	10.339	166	2847969	319.195
93) 1,3-Dichloropropane	(3)	10.418	76	3459301	291.381
95) 2-Hexanone	(3)	10.467	43	3253934	506.707

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 2 of 4

Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:08.
Target 3.5 esignature user ID: cbe01947

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i01.d
Injection date and time: 09-OCT-2012 11:14

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 13:33
Date, time and analyst ID of latest file update: 11-Oct-2012 15:08 cbe01947

Sample Name: VSTD300

Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
97) Dibromochloromethane	(3)	10.637	129	2372813	330.217
98) 1,2-Dibromoethane	(3)	10.753	107	2010648	299.999
99) *Chlorobenzene-d5	(3)	11.179	117	998125	50.000
100) Chlorobenzene	(3)	11.203	112	6600773	301.379
101) 1,1,1,2-Tetrachloroethane	(3)	11.288	131	2410233	318.535
102) Ethylbenzene	(3)	11.294	91	10901053	295.562
103) m+p-Xylene	(3)	11.410	106	8711933	608.491
104) o-Xylene	(3)	11.738	106	4308458	312.541
105) Xylene (Total)	(3)		106	13020391	921.033
106) Styrene	(3)	11.757	104	7106423	319.193
107) Bromoform	(3)	11.915	173	1699039	342.456
108) Isopropylbenzene	(3)	12.037	105	10936939	304.408
111) Cyclohexanone	(1)	12.116	55	1014045	3300.077
112) \$4-Bromofluorobenzene	(3)	12.183	95	500974	50.145
112) \$4-Bromofluorobenzene	(3)	12.189	174	448907	50.490
113) 1,1,2,2-Tetrachloroethane	(4)	12.286	83	2556860	275.221
114) Bromobenzene	(4)	12.304	156	3073152	303.632
115) trans-1,4-Dichloro-2-butene	(4)	12.310	53	1951459	690.114
116) 1,2,3-Trichloropropane	(4)	12.335	110	748015	272.763
117) n-Propylbenzene	(4)	12.371	91	12259656	276.263
119) 2-Chlorotoluene	(4)	12.450	126	2894331	310.259
122) 1,3,5-Trimethylbenzene	(4)	12.505	105	9534559	299.480
123) 4-Chlorotoluene	(4)	12.541	126	2993459	307.535
126) tert-Butylbenzene	(4)	12.748	134	2240571M	300.668
127) Pentachloroethane	(4)	12.785	167	2111288	319.692
128) 1,2,4-Trimethylbenzene	(4)	12.791	105	9807525	295.016
129) sec-Butylbenzene	(4)	12.913	105	11672715	292.345
131) 1,3-Dichlorobenzene	(4)	13.016	146	5719825	296.102
132) p-Isopropyltoluene	(4)	13.022	119	10679341	298.233
133) *1,4-Dichlorobenzene-d4	(4)	13.071	152	596035	50.000
134) 1,4-Dichlorobenzene	(4)	13.089	146	5786548	293.185
135) 1,2,3-Trimethylbenzene	(4)	13.095	105	9805874	281.476
136) Benzyl Chloride	(4)	13.162	126	1282174	299.308
137) 1,3-Diethylbenzene	(4)	13.223	119	6758561	300.283
138) 1,4-Diethylbenzene	(4)	13.296	119	6900080	296.118
139) n-Butylbenzene	(4)	13.314	92	5579473M	306.432
140) 1,2-Dichlorobenzene	(4)	13.344	146	5421300	296.381
141) 1,2-Diethylbenzene	(4)	13.369	119	5703447	296.944

M = Compound was manually integrated.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

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on 10/11/2012 at 15:08.
Target 3.5 esignature user ID: cbe01947

page 3 of 4

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i01.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 11:14 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 13:33
Date, time and analyst ID of latest file update: 11-Oct-2012 15:08 cbe01947

Sample Name: VSTD300

Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,2-Dibromo-3-chloropropane	(4)	13.892	75	539324	300.073
145) 1,3,5-Trichlorobenzene	(4)	14.014	180	4945912	312.378
146) 1,2,4-Trichlorobenzene	(4)	14.440	180	4330721	318.502
147) Hexachlorobutadiene	(4)	14.519	225	2764767	342.098
148) Naphthalene	(4)	14.622	128	8409456	297.091
149) 1,2,3-Trichlorobenzene	(4)	14.762	180	3901892	305.248
150) 2-Methylnaphthalene	(4)	15.395	142	4626346	297.334

page 4 of 4

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Target 3.5 esignature user ID: cbe01947

HP ChemStation MS ac09101.d, Scan 245: 3.063 min, (SUB)

Mass spectrum plot showing relative intensity Y (x10⁵) versus m/z. The x-axis ranges from 40 to 210 m/z. The y-axis ranges from 0.0 to 1.1 x10⁵. The base peak is at m/z 45. Other labeled peaks are at m/z 65 and 207.

HP MS ac09i01.d, Ion 45.00

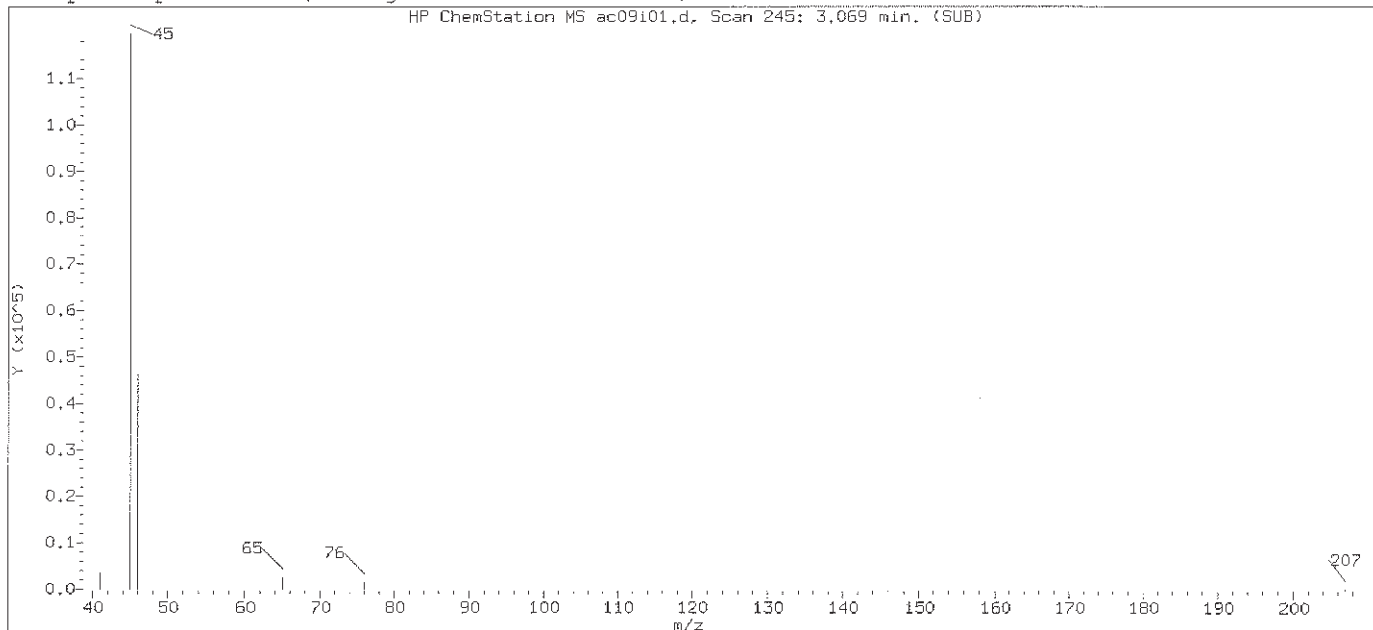
Y (x10⁵)

3.069

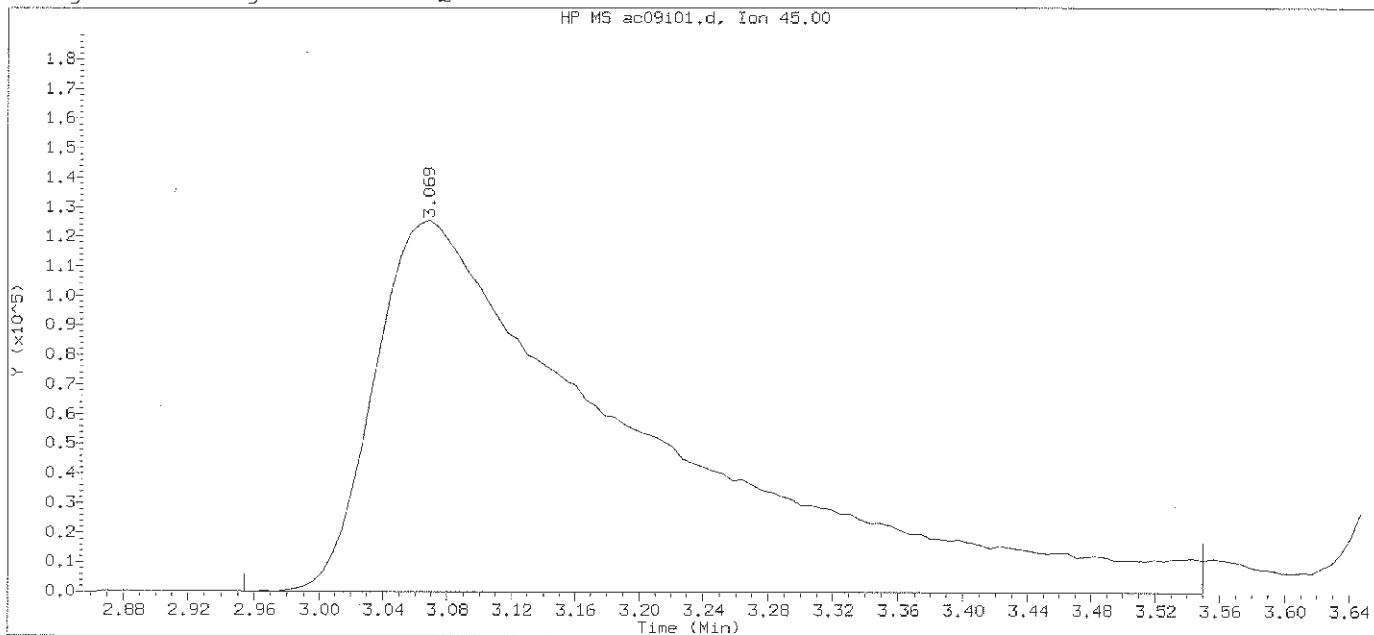
Time (Min)

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Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i01.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 11:14

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:33

Date, time and analyst ID of latest file update: 09-Oct-2012 14:26 cbe01947

Sample Name: VSTD300

Lab Sample ID: VSTD300

Compound Number : 15

Compound Name : Ethanol

Scan Number : 245

Retention Time (minutes): 3.069

Quant Ion : 45.00

Area : 1447829

On-column Amount (ng) : 15000.0000

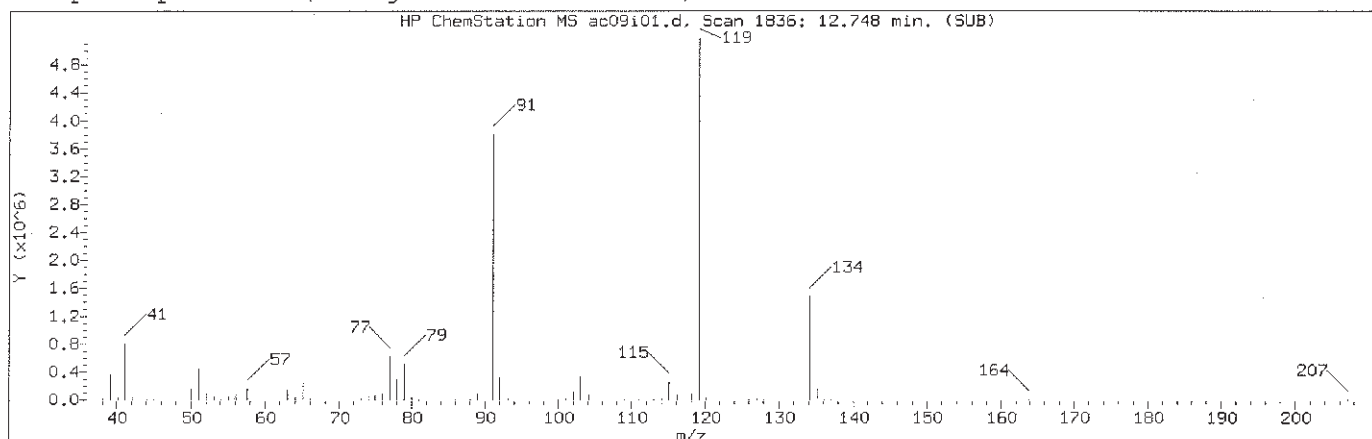
Integration start scan : 225 Integration stop scan: 323

Y at integration start : 0 Y at integration end: 0

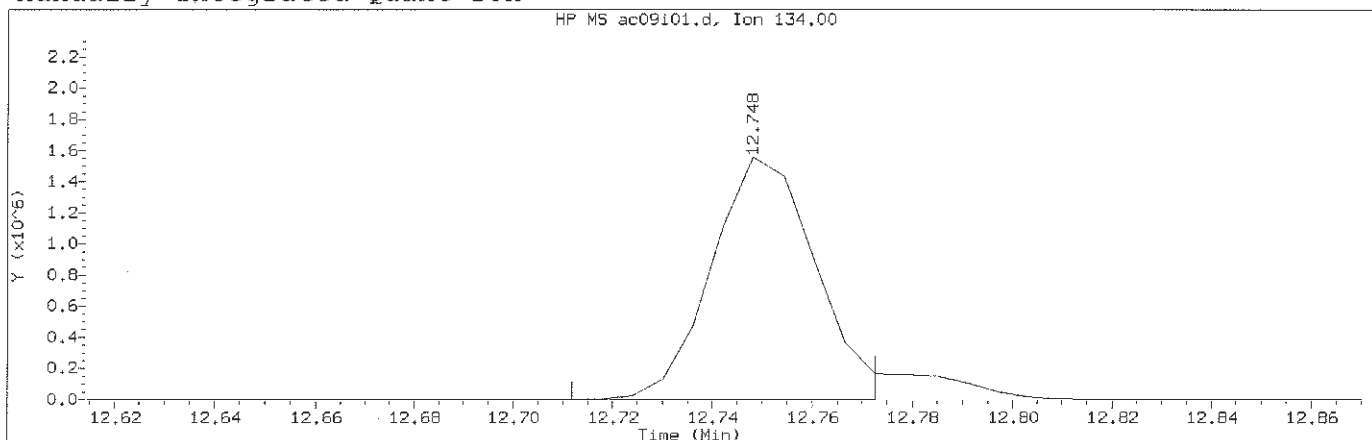
Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:08.

Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i01.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 11:14

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:33

Date, time and analyst ID of latest file update: 11-Oct-2012 15:08 cbe01947

Sample Name: VSTD300

Lab Sample ID: VSTD300

Compound Number : 126

Compound Name : tert-Butylbenzene

Scan Number : 1836

Retention Time (minutes): 12.748

Quant Ion : 134.00

Area (flag) : 2240571M

On-Column Amount (ng) : 300.6681

Integration start scan : 1829 Integration stop scan: 1839

Y at integration start : 0 Y at integration end: 0

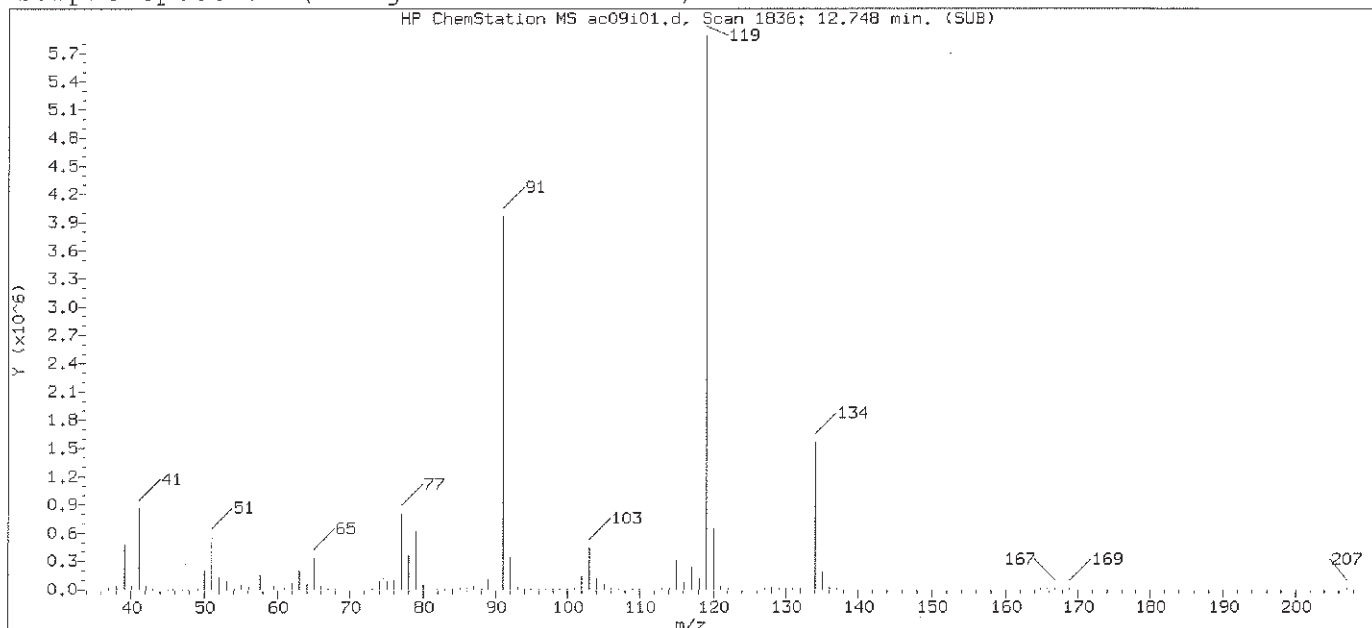
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:08.

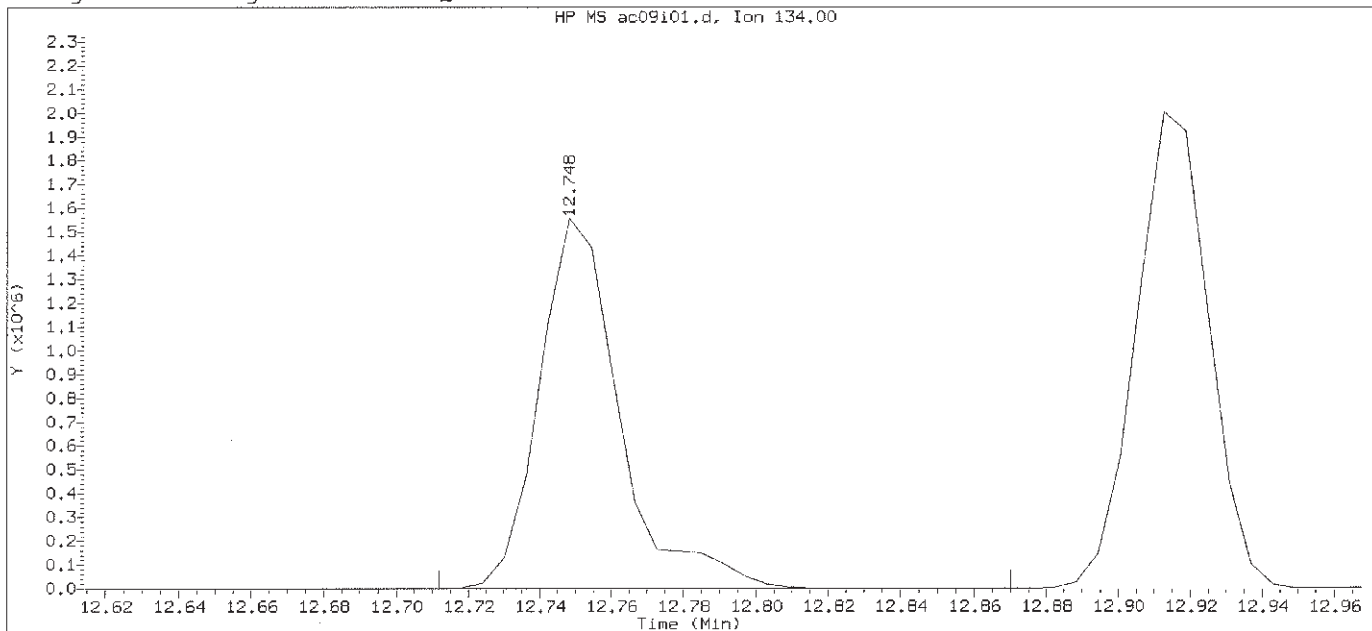
Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: *[Signature]* 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i01.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 11:14

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:33

Date, time and analyst ID of latest file update: 09-Oct-2012 14:26 cbe01947

Sample Name: VSTD300

Lab Sample ID: VSTD300

Compound Number : 126

Compound Name : tert-Butylbenzene

Scan Number : 1836

Retention Time (minutes): 12.748

Quant Ion : 134.00

Area : 2416331

On-column Amount (ng) : 300.0000

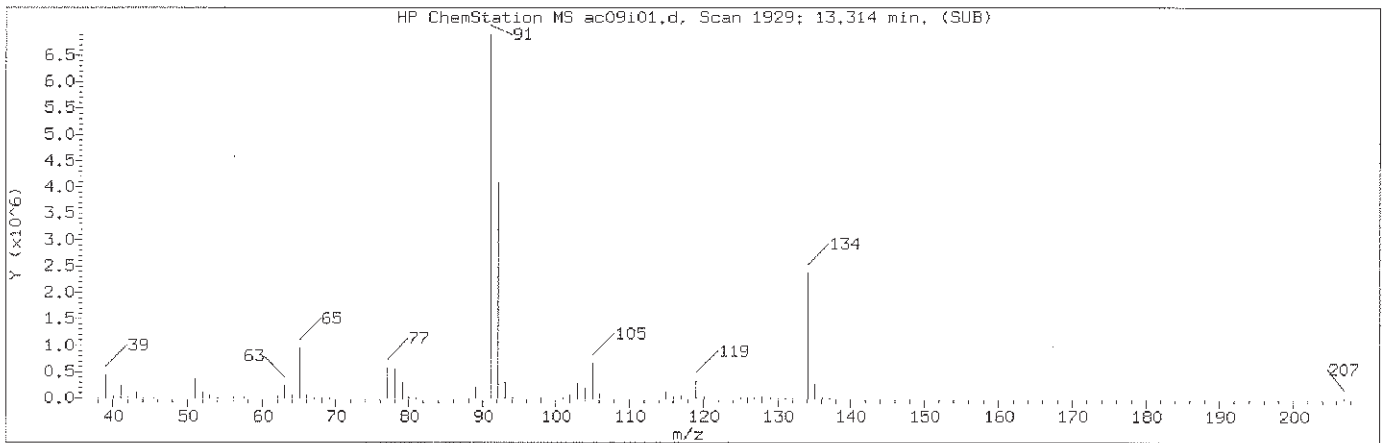
Integration start scan : 1829 Integration stop scan: 1855

Y at integration start : 0 Y at integration end: 0

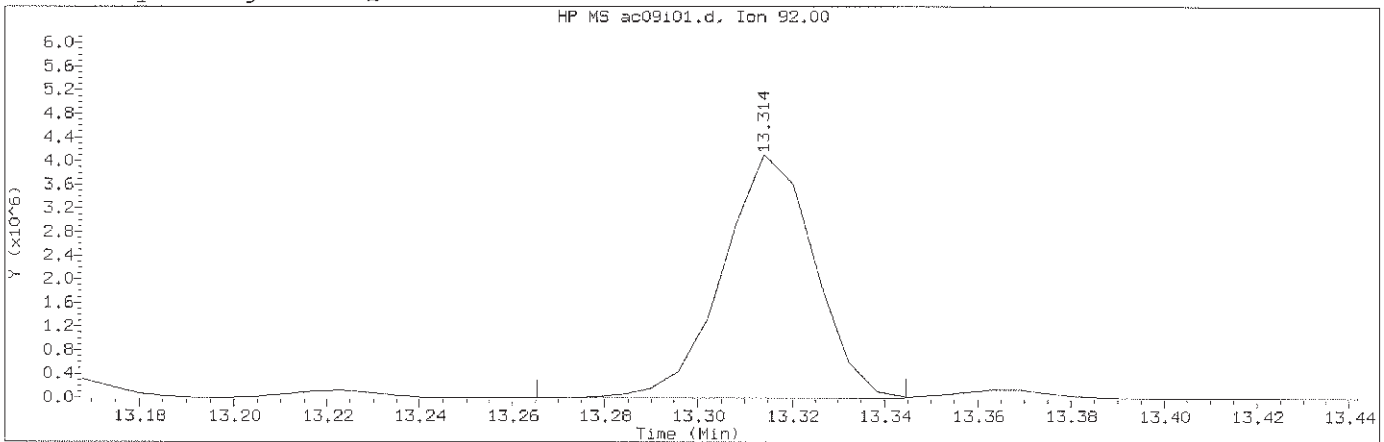
Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:08.

Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i01.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 11:14 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 13:33
Date, time and analyst ID of latest file update: 11-Oct-2012 15:08 cbe01947

Sample Name: VSTD300 Lab Sample ID: VSTD300

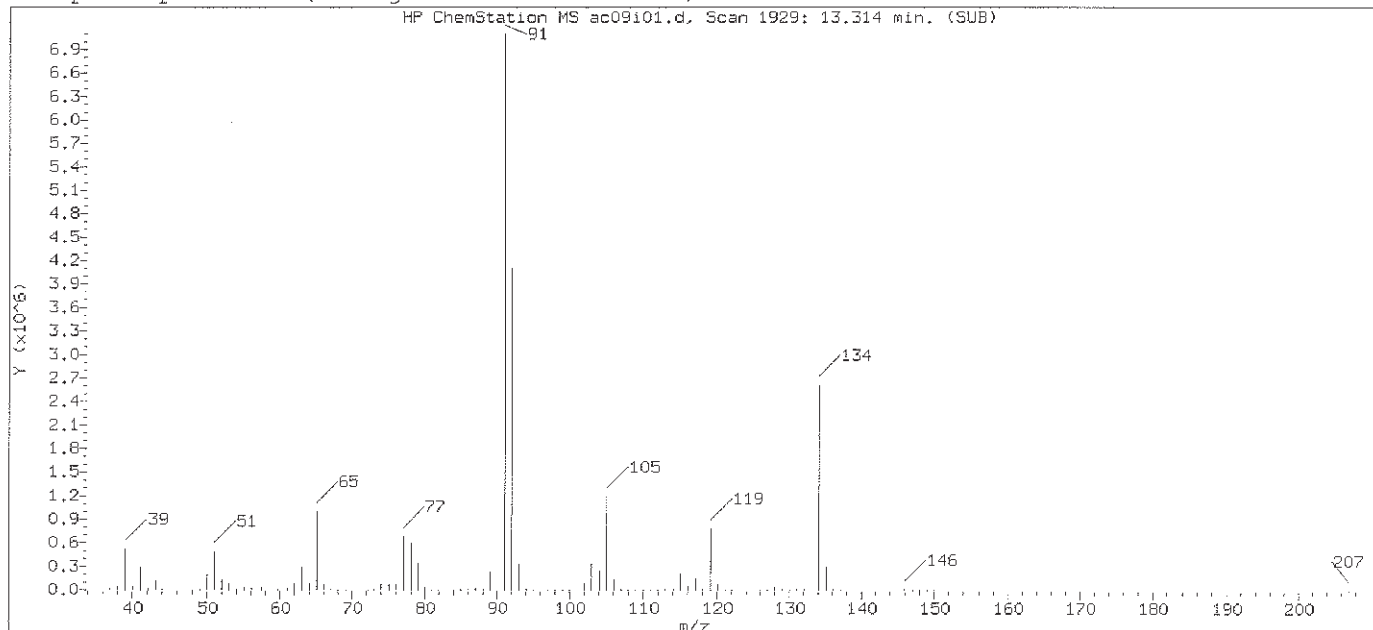
Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1929
Retention Time (minutes): 13.314
Quant Ion : 92.00
Area (flag) : 5579473M
On-Column Amount (ng) : 306.4317
Integration start scan : 1920 Integration stop scan: 1933
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

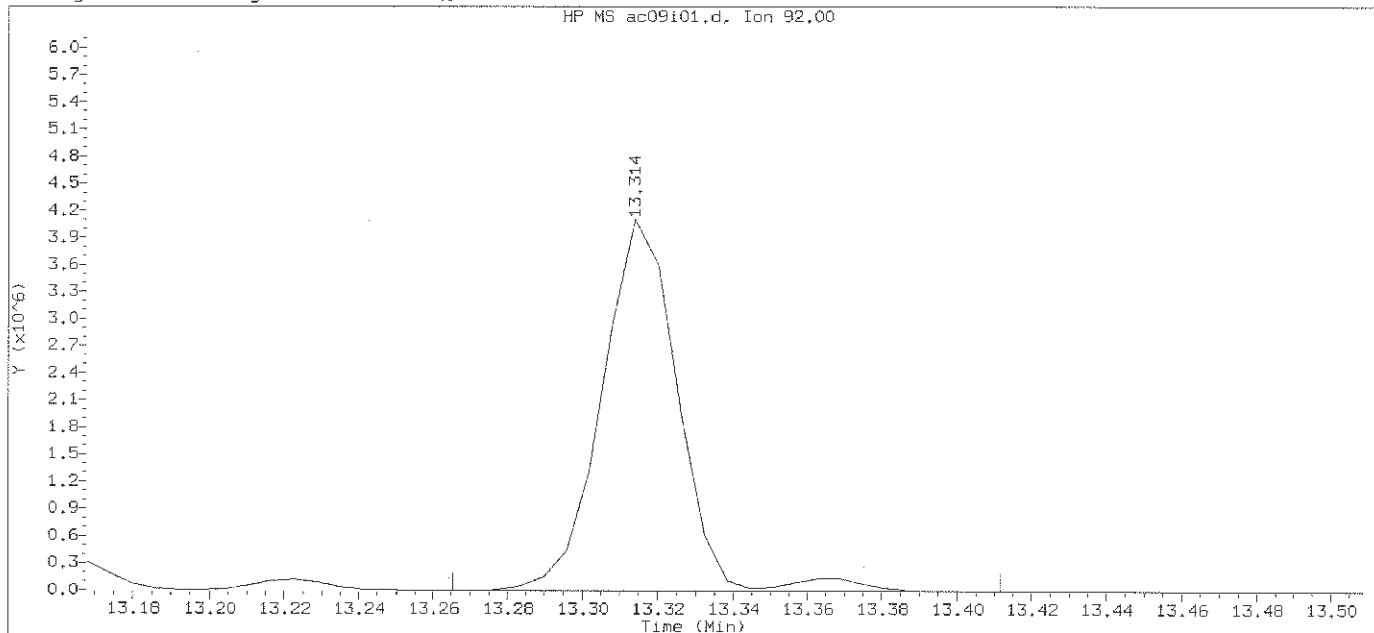
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:08.
Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: *[Signature]* 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i01.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 11:14

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:33

Date, time and analyst ID of latest file update: 09-Oct-2012 14:26 cbe01947

Sample Name: VSTD300

Lab Sample ID: VSTD300

Compound Number : 139

Compound Name : n-Butylbenzene

Scan Number : 1929

Retention Time (minutes): 13.314

Quant Ion : 92.00

Area : 5768782

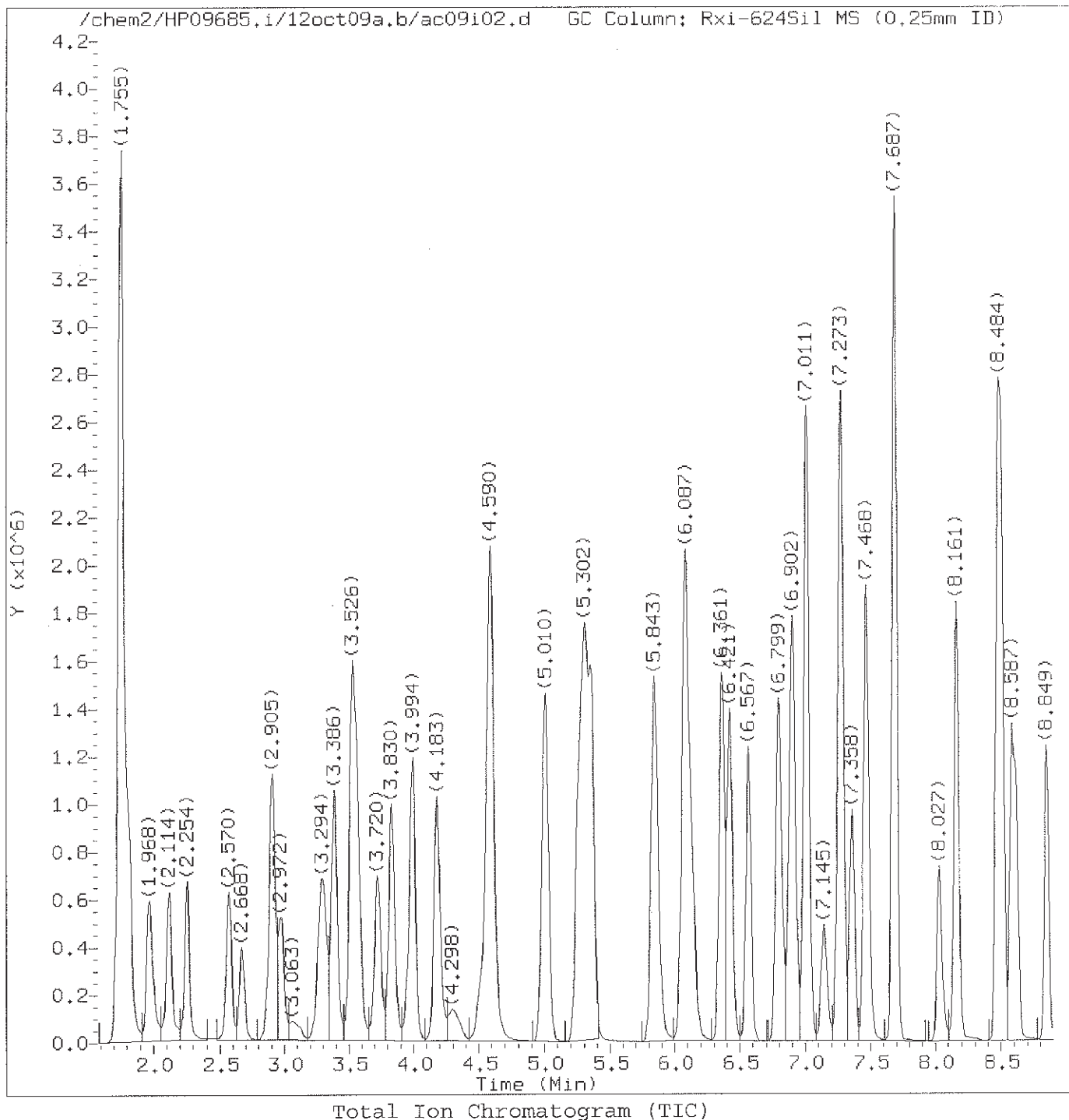
On-column Amount (ng) : 300.0000

Integration start scan : 1920 Integration stop scan: 1944

Y at integration start : 0 Y at integration end: 0

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Target 3.5 esignature user ID: cbe01947



Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i02.d
Injection date and time: 09-OCT-2012 11:38

Instrument ID: HP09685.i
Analyst ID: CBE01947

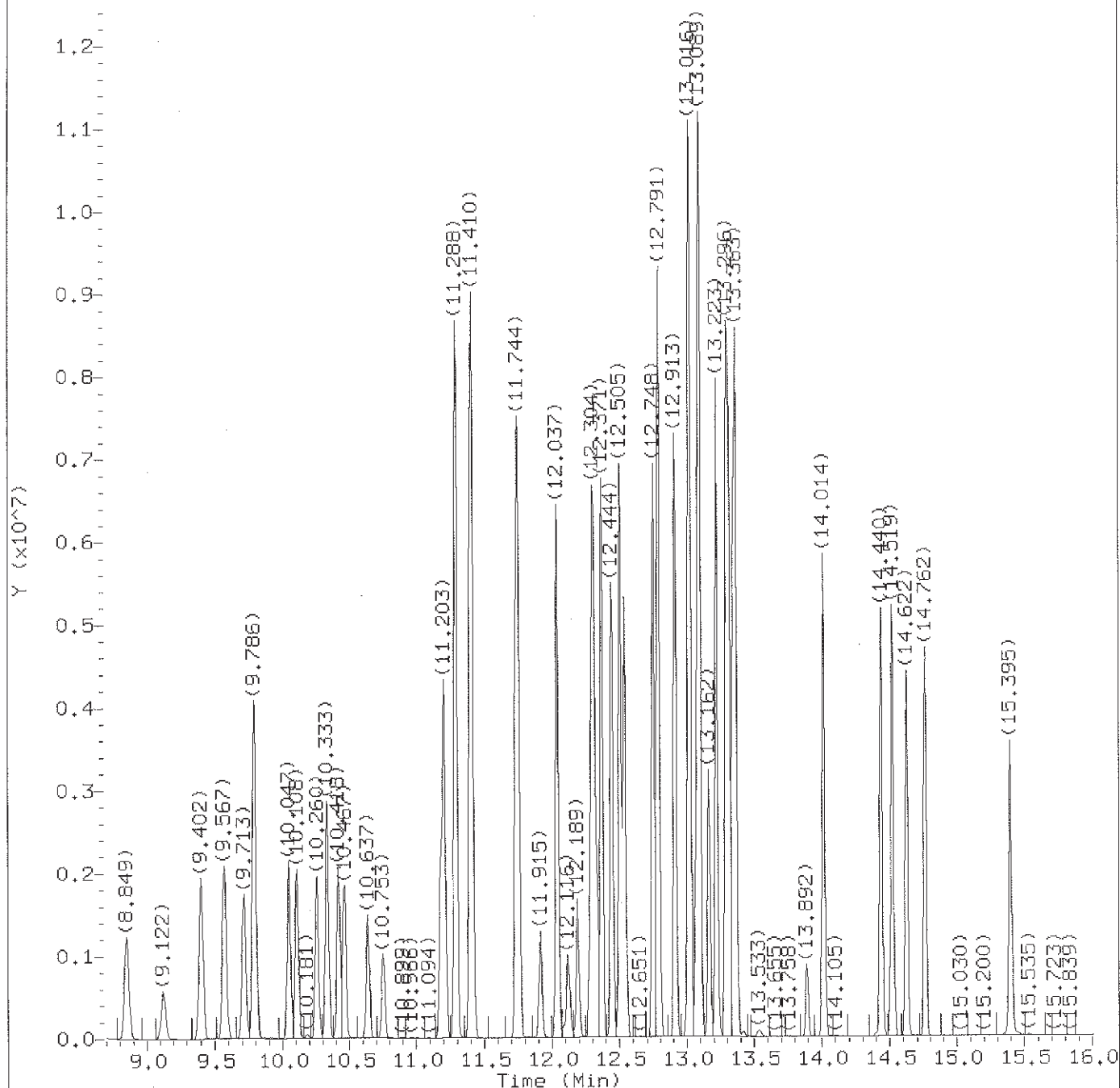
Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 13:33
Date, time and analyst ID of latest file update: 09-Oct-2012 14:17 rvn00349

Sample Name: VSTD100

Lab Sample ID: VSTD100

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Target 3.5 esignature user ID: cbe01947

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Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i02.d
Injection date and time: 09-OCT-2012 11:38

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m
Calibration date and time: 09-OCT-2012 13:33
Date, time and analyst ID of latest file update: 09-Oct-2012 14:17 rvm00349

Sublist used: 8260S-2C

Sample Name: VSTD100

Lab Sample ID: VSTD100

Digitally signed by Chelsea B. Eastep
on 10/09/2012 at 16:30.
Target 3.5 esignature user ID: cbe01947

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i02.d
Injection date and time: 09-OCT-2012 11:38

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:33

Date, time and analyst ID of latest file update: 11-Oct-2012 15:09 cbe01947

Sample Name: VSTD100

Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.968	85	1219386	98.956
4) Chloromethane	(2)	2.120	50	1020497	93.066
5) Vinyl Chloride	(2)	2.254	62	1014479	96.054
9) Bromomethane	(2)	2.570	94	677354	102.248
10) Chloroethane	(2)	2.668	64	565388	99.692
11) Dichlorofluoromethane	(2)	2.905	67	1413359	99.074
13) Trichlorofluoromethane	(2)	2.978	101	1284523	101.694
15) Ethanol	(1)	3.081	45	365085M	4442.668
17) Freon 123a	(2)	3.294	67	910593	98.451
18) Acrolein	(1)	3.386	56	1562785	993.832
19) 1,1-Dichloroethene	(2)	3.526	96	657744	100.384
20) Acetone	(2)	3.550	58	159976	182.601
22) Freon 113	(2)	3.562	101	751223	103.930
23) 2-Propanol	(1)	3.696	45	287475M	499.754
24) Methyl Iodide	(2)	3.726	142	1243822	101.729
25) Carbon Disulfide	(2)	3.830	76	2402194	100.311
27) Methyl Acetate	(2)	3.964	43	567108	94.050
29) Allyl Chloride	(2)	3.994	41	1211955	102.851
30) *t-Butyl alcohol-d10	(1)	4.177	65	163922	250.000
31) Methylene Chloride	(2)	4.183	84	767801	94.615
32) t-Butyl alcohol	(1)	4.304	59	450275M	510.657
33) Acrylonitrile	(2)	4.505	53	308169	95.991
34) Methyl Tertiary Butyl Ether	(2)	4.578	73	2314804	101.406
35) trans-1,2-Dichloroethene	(2)	4.596	96	756154	101.678
38) n-Hexane	(2)	5.010	57	1305029	108.865
40) 1,1-Dichloroethane	(2)	5.253	63	1487686	101.512
41) di-Isopropyl ether	(2)	5.302	45	2792680	102.726
42) 2-Chloro-1,3-butadiene	(2)	5.357	53	1297495	106.489
44) Ethyl t-butyl ether	(2)	5.843	59	2497559	104.484
45) 2-Butanone	(2)	6.056	43	791182	193.254
46) cis-1,2-Dichloroethene	(2)	6.081	96	818794	102.045
47) 1,2-Dichloroethene (Total)	(2)		96	1574948	203.722
48) 2,2-Dichloropropane	(2)	6.105	77	1217825	105.314
50) Propionitrile	(1)	6.142	54	577820	506.248
51) Methacrylonitrile	(2)	6.361	67	799646	245.391
52) Bromochloromethane	(2)	6.421	128	372617	100.863
53) Tetrahydrofuran	(1)	6.427	71	189401	202.054
54) Chloroform	(2)	6.567	83	1389633	98.410

M = Compound was manually integrated.

* = Compound is an internal standard.

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on 10/11/2012 at 15:09.
Target 3.5 esignature user ID: cbe01947

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i02.d
Injection date and time: 09-OCT-2012 11:38

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 13:33
Date, time and analyst ID of latest file update: 11-Oct-2012 15:09 cbe01947

Sample Name: VSTD100

Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
55) \$Dibromofluoromethane	(2)	6.786	113	321237	49.832
55) \$Dibromofluoromethane	(2)	6.786	111	331216	50.115
56) 1,1,1-Trichloroethane	(2)	6.799	97	1268932	98.935
57) Cyclohexane	(2)	6.902	56	1491282	107.405
57) Cyclohexane	(2)	6.902	84	1193567	107.596
57) Cyclohexane	(2)	6.902	69	434954	107.881
59) Carbon Tetrachloride	(2)	7.011	117	1075156	105.850
58) 1,1-Dichloropropene	(2)	7.011	75	1133672	104.541
60) Isobutyl Alcohol	(1)	7.139	41	414192	1279.875
61) \$1,2-Dichloroethane-d4	(2)	7.255	102	75381	50.497
61) \$1,2-Dichloroethane-d4	(2)	7.255	65	403210	49.466
61) \$1,2-Dichloroethane-d4	(2)	7.255	104	47506	50.024
62) Benzene	(2)	7.279	78	3154903	101.207
64) 1,2-Dichloroethane	(2)	7.358	62	1107006	99.676
64) 1,2-Dichloroethane	(2)	7.358	98	90561	99.710
65) t-Amyl methyl ether	(2)	7.468	73	2230023	104.479
67) *Fluorobenzene	(2)	7.687	96	1349034	50.000
69) n-Heptane	(2)	7.687	43	1488244	111.620
70) n-Butanol	(1)	8.027	56	673223	2705.425
72) Trichloroethene	(2)	8.161	95	804369	102.464
73) Methylcyclohexane	(2)	8.478	83	1347545	106.989
74) 1,2-Dichloropropane	(2)	8.508	63	860295	102.042
76) Methyl Methacrylate	(2)	8.581	69	567343	104.712
77) 1,4-Dioxane	(1)	8.593	88	98739	1235.438
78) Dibromomethane	(2)	8.618	93	484683	100.945
81) Bromodichloromethane	(2)	8.849	83	1023353	106.514
82) 2-Nitropropane	(1)	9.122	41	463184	220.596
84) cis-1,3-Dichloropropene	(2)	9.402	75	1269846	108.304
85) 4-Methyl-2-pentanone	(2)	9.567	43	1710647	201.364
86) \$Toluene-d8	(3)	9.713	98	1323960	49.990
86) \$Toluene-d8	(3)	9.713	100	868475	50.060
87) Toluene	(3)	9.786	92	1955651	101.492
88) trans-1,3-Dichloropropene	(3)	10.047	75	1211203	107.250
89) Ethyl Methacrylate	(3)	10.108	69	1053847	109.014
90) 1,1,2-Trichloroethane	(3)	10.260	97	641554	99.462
92) Tetrachloroethene	(3)	10.339	166	919389	103.850
93) 1,3-Dichloropropane	(3)	10.418	76	1188031	100.852
95) 2-Hexanone	(3)	10.467	43	1258843	197.563

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

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on 10/11/2012 at 15:09.

Target 3.5 esignature user ID: cbe01947

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i02.d
Injection date and time: 09-OCT-2012 11:38

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 13:33
Date, time and analyst ID of latest file update: 11-Oct-2012 15:09 cbe01947

Sample Name: VSTD100

Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
97) Dibromochloromethane	(3)	10.637	129	765929	107.426
98) 1,2-Dibromoethane	(3)	10.753	107	677733	101.913
99)*Chlorobenzene-d5	(3)	11.179	117	990374	50.000
100) Chlorobenzene	(3)	11.203	112	2217932	102.059
101) 1,1,1,2-Tetrachloroethane	(3)	11.288	131	798313	106.330
102) Ethylbenzene	(3)	11.288	91	3860733	105.496
103) m+p-Xylene	(3)	11.410	106	2970209	209.080
104) o-Xylene	(3)	11.738	106	1450045	106.011
105) Xylene (Total)	(3)		106	4420254	315.092
106) Styrene	(3)	11.751	104	2412851	109.224
107) Bromoform	(3)	11.915	173	542935	110.290
108) Isopropylbenzene	(3)	12.037	105	3829725	107.427
111) Cyclohexanone	(1)	12.116	55	451206	1377.755
112)\$4-Bromofluorobenzene	(3)	12.189	95	493880	49.822
112)\$4-Bromofluorobenzene	(3)	12.189	174	437594	49.603
113) 1,1,2,2-Tetrachloroethane	(4)	12.286	83	891328M	98.376
114) Bromobenzene	(4)	12.304	156	1005057	101.819
115) trans-1,4-Dichloro-2-butene	(4)	12.310	53	702535	254.745
116) 1,2,3-Trichloropropane	(4)	12.335	110	260202	97.289
117) n-Propylbenzene	(4)	12.371	91	4544958	105.015
119) 2-Chlorotoluene	(4)	12.444	126	942442	103.587
122) 1,3,5-Trimethylbenzene	(4)	12.505	105	3292823	106.050
123) 4-Chlorotoluene	(4)	12.541	126	978822	103.110
126) tert-Butylbenzene	(4)	12.748	134	737277M	102.808
127) Pentachloroethane	(4)	12.785	167	679708	105.532
128) 1,2,4-Trimethylbenzene	(4)	12.791	105	3426792	105.694
129) sec-Butylbenzene	(4)	12.913	105	4279845	109.908
131) 1,3-Dichlorobenzene	(4)	13.010	146	1938939	102.920
132) p-Isopropyltoluene	(4)	13.022	119	3856070	110.416
133)*1,4-Dichlorobenzene-d4	(4)	13.071	152	581294	50.000
134) 1,4-Dichlorobenzene	(4)	13.089	146	1964961	102.083
135) 1,2,3-Trimethylbenzene	(4)	13.095	105	3473886	102.246
136) Benzyl Chloride	(4)	13.162	126	421288	101.693
137) 1,3-Diethylbenzene	(4)	13.223	119	2302233	104.882
138) 1,4-Diethylbenzene	(4)	13.296	119	2376464	104.573
139) n-Butylbenzene	(4)	13.314	92	1917407	107.977
140) 1,2-Dichlorobenzene	(4)	13.344	146	1819380	101.987
141) 1,2-Diethylbenzene	(4)	13.363	119	1938902	103.507

M = Compound was manually integrated.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:09.
Target 3.5 esignature user ID: cbe01947

page 3 of 4

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i02.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 11:38 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 13:33
Date, time and analyst ID of latest file update: 11-Oct-2012 15:09 cbe01947

Sample Name: VSTD100

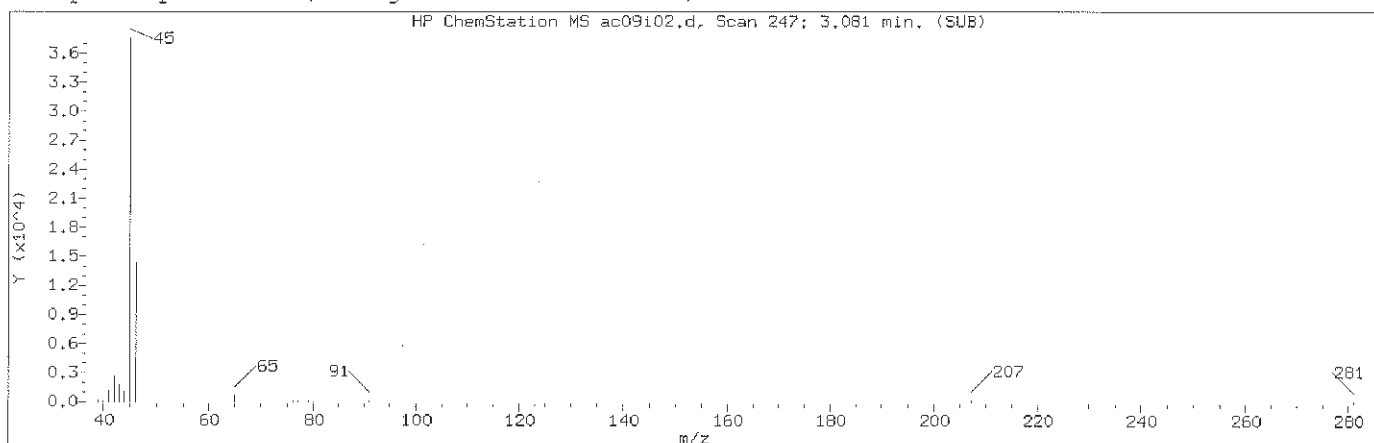
Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,2-Dibromo-3-chloropropane	(4)	13.892	75	184869	105.467
145) 1,3,5-Trichlorobenzene	(4)	14.014	180	1646676	106.640
146) 1,2,4-Trichlorobenzene	(4)	14.440	180	1441531	108.706
147) Hexachlorobutadiene	(4)	14.519	225	899157	114.078
148) Naphthalene	(4)	14.622	128	3024637	109.565
149) 1,2,3-Trichlorobenzene	(4)	14.762	180	1320096	105.891
150) 2-Methylnaphthalene	(4)	15.395	142	1611550	106.879

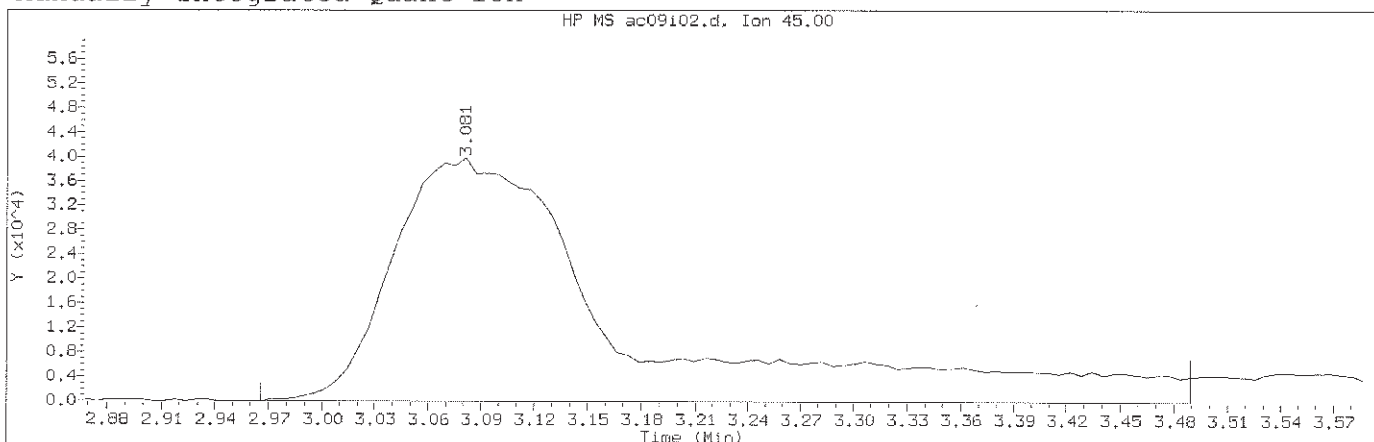
page 4 of 4

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on 10/11/2012 at 15:09.
Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09102.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 11:38

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:33

Date, time and analyst ID of latest file update: 11-Oct-2012 15:09 cbe01947

Sample Name: VSTD100

Lab Sample ID: VSTD100

Compound Number : 15
 Compound Name : Ethanol
 Scan Number : 247
 Retention Time (minutes): 3.081
 Quant Ion : 45.00
 Area (flag) : 365085M
 On-Column Amount (ng) : 4442.6678
 Integration start scan : 227 Integration stop scan: 313
 Y at integration start : 0 Y at integration end: 0

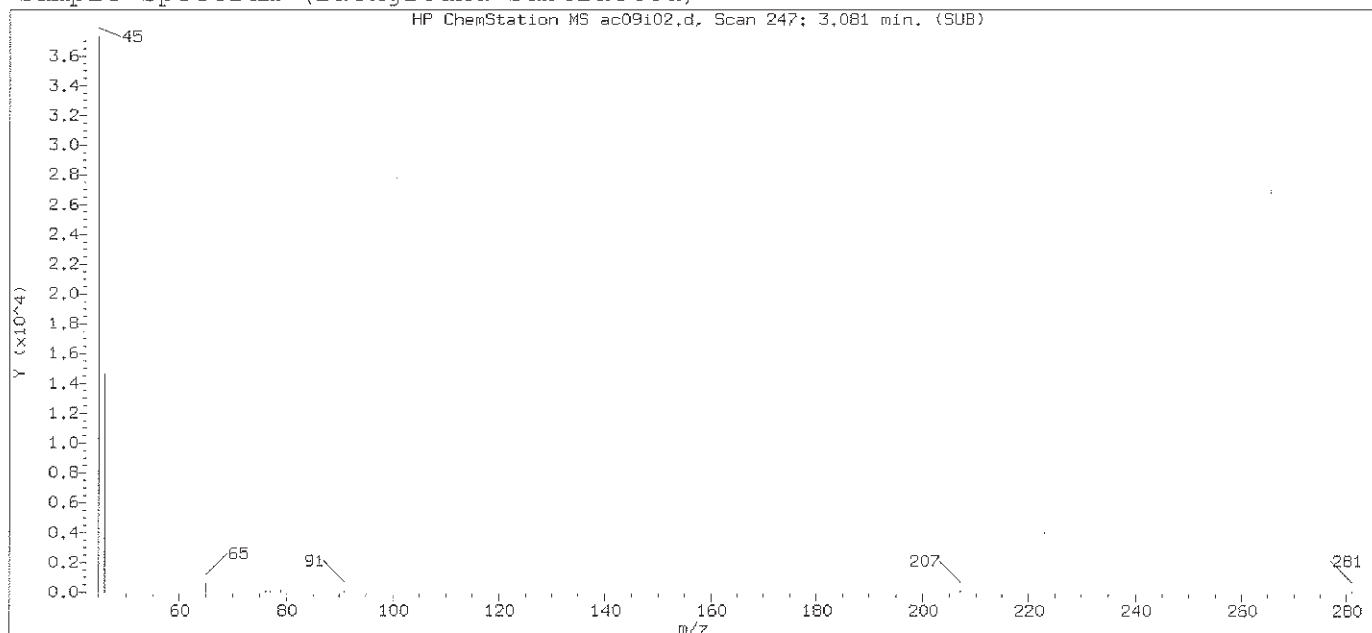
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Chelsea B. Eastep
 on 10/11/2012 at 15:09.
 Target 3.5 esignature user ID: cbe01947

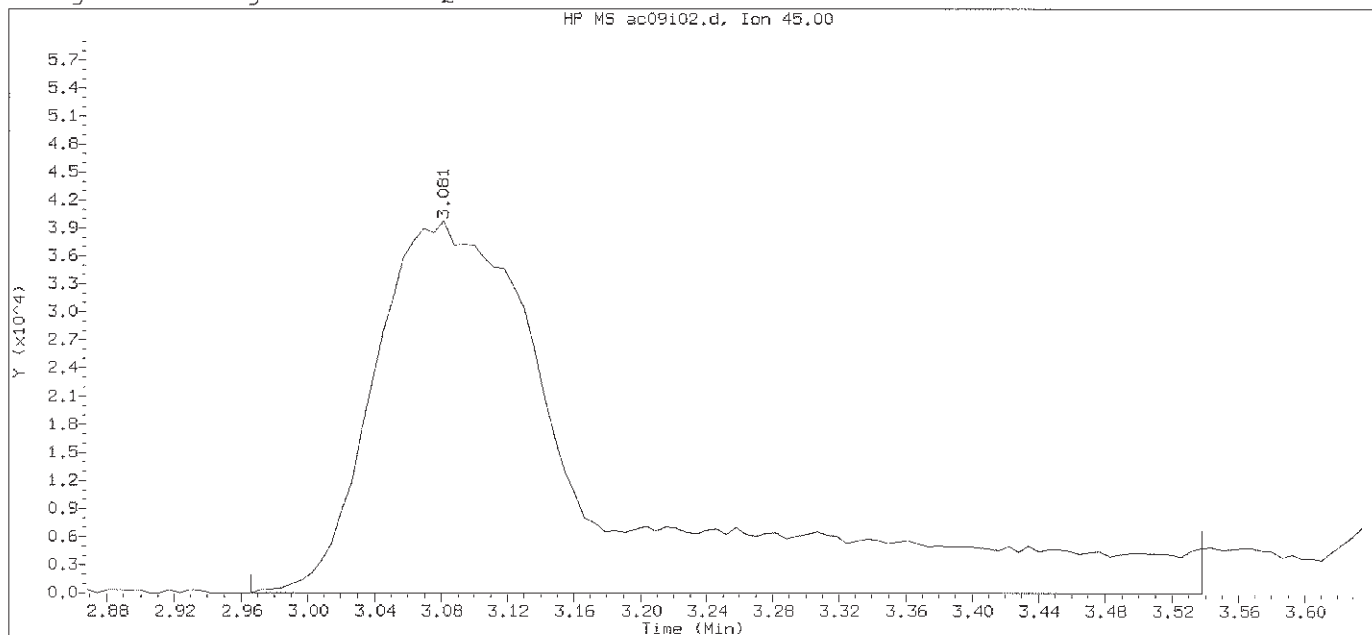
GC/MS audit/management approval:

Handwritten signature 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09102.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 11:38

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:33

Date, time and analyst ID of latest file update: 09-Oct-2012 14:27 cbe01947

Sample Name: VSTD100

Lab Sample ID: VSTD100

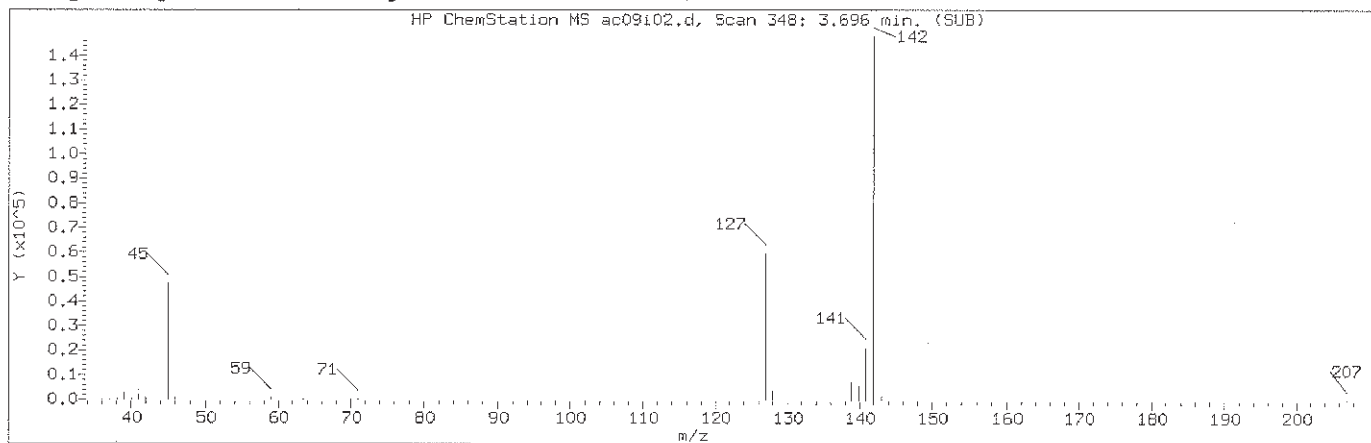
Compound Number : 15
 Compound Name : Ethanol
 Scan Number : 247
 Retention Time (minutes): 3.081
 Quant Ion : 45.00
 Area : 376794
 On-column Amount (ng) : 4228.1632
 Integration start scan : 227
 Y at integration start : 0

Integration stop scan: 321
 Y at integration end: 0

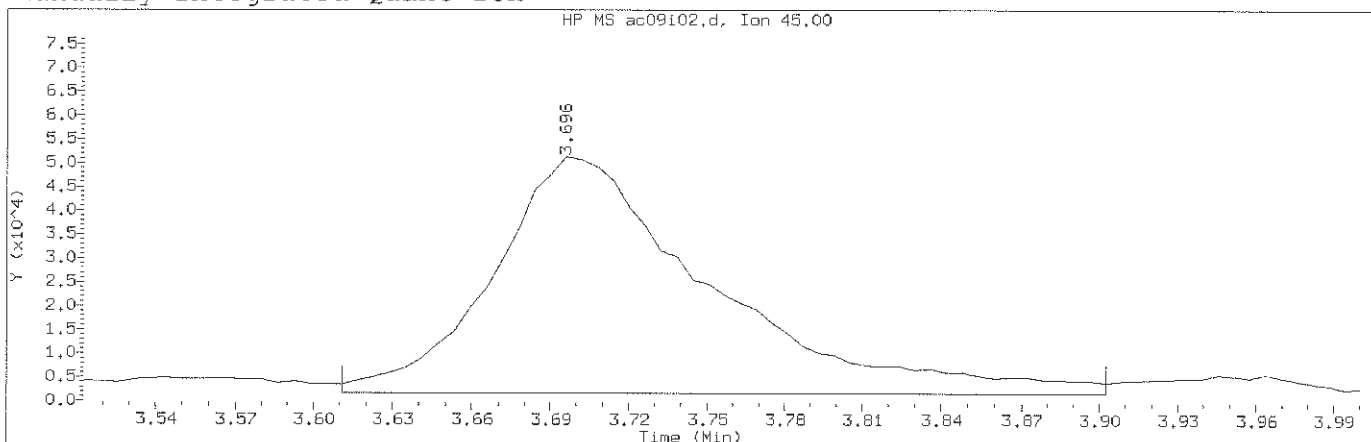
Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:09.

Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i02.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 11:38

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:33

Date, time and analyst ID of latest file update: 11-Oct-2012 15:09 cbe01947

Sample Name: VSTD100

Lab Sample ID: VSTD100

Compound Number : 23
 Compound Name : 2-Propanol
 Scan Number : 348
 Retention Time (minutes): 3.696
 Quant Ion : 45.00
 Area (flag) : 287475M
 On-Column Amount (ng) : 499.7541
 Integration start scan : 333
 Y at integration start : 1768

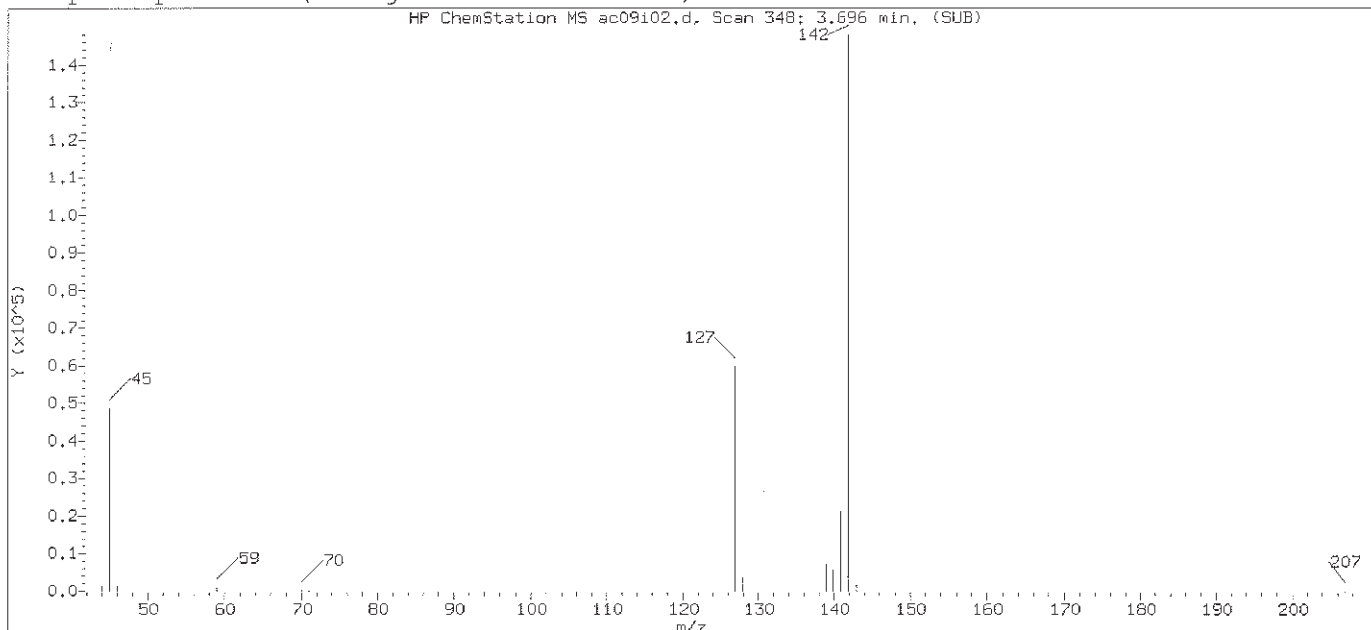
Integration stop scan: 381
 Y at integration end: 1768

Reason for manual integration: improper integration

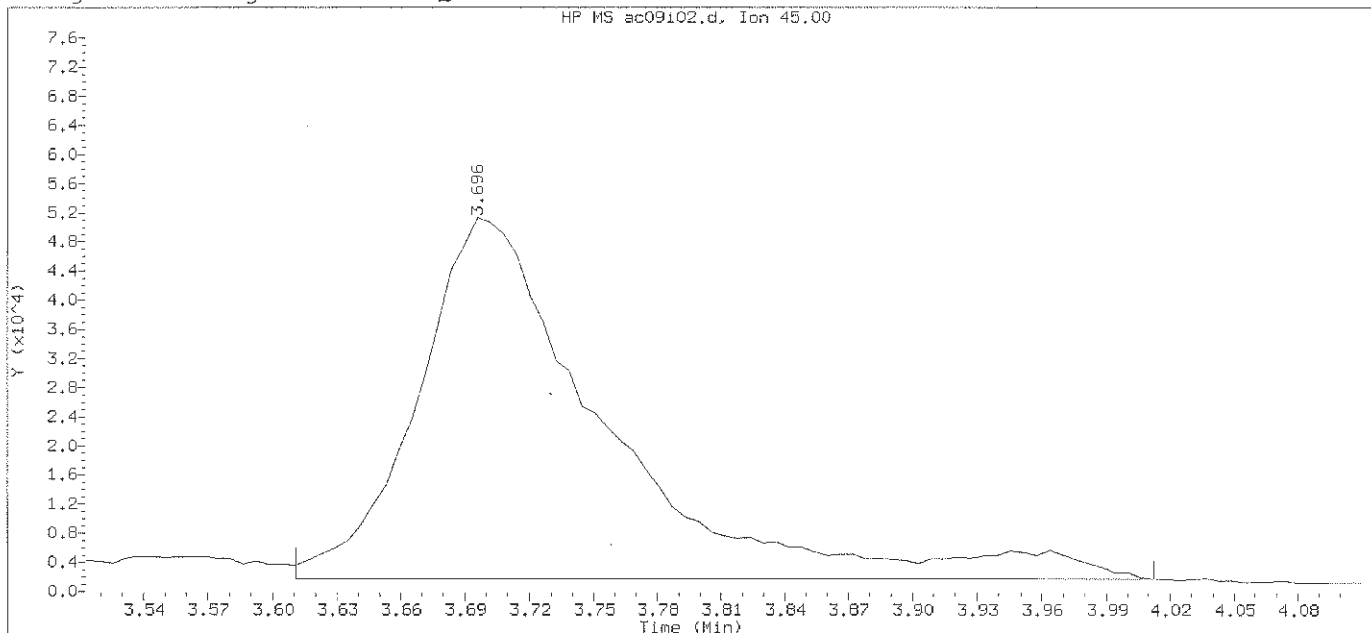
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
 on 10/11/2012 at 15:09.
 Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: mmg 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09102.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 11:38

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:33

Date, time and analyst ID of latest file update: 09-Oct-2012 14:27 cbe01947

Sample Name: VSTD100

Lab Sample ID: VSTD100

Compound Number : 23
 Compound Name : 2-Propanol
 Scan Number : 348
 Retention Time (minutes): 3.696
 Quant Ion : 45.00
 Area : 303052
 On-column Amount (ng) : 517.5430
 Integration start scan : 333
 Y at integration start : 1768

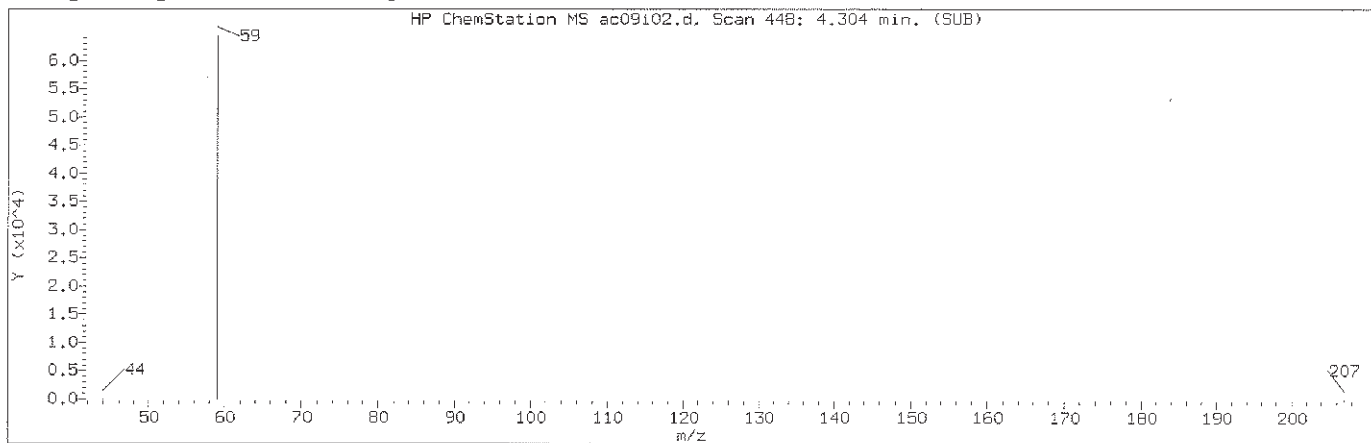
Integration stop scan: 399

Y at integration end: 1768

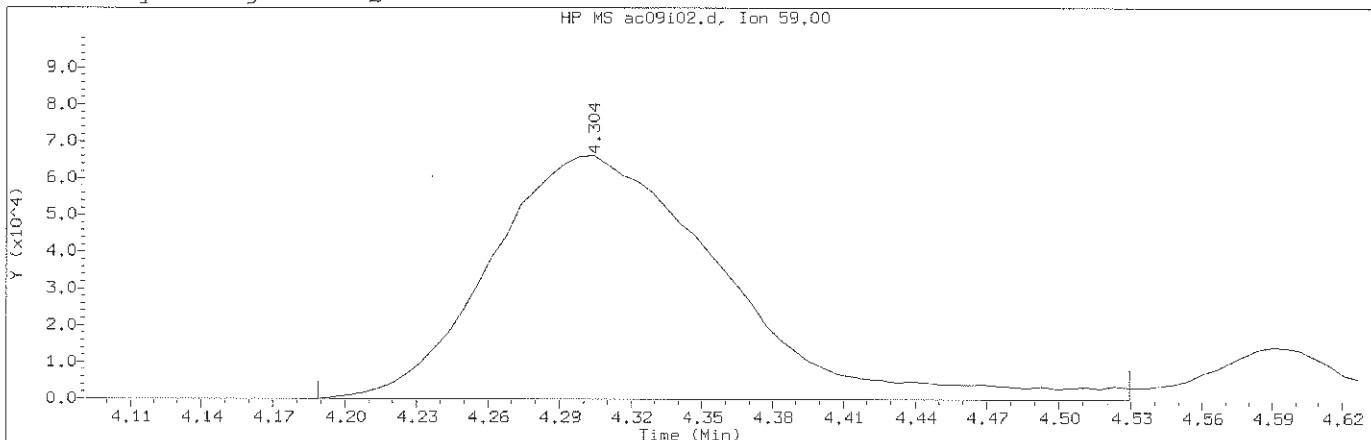
Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:09.

Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09102.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 11:38

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:33

Date, time and analyst ID of latest file update: 11-Oct-2012 15:09 cbe01947

Sample Name: VSTD100

Lab Sample ID: VSTD100

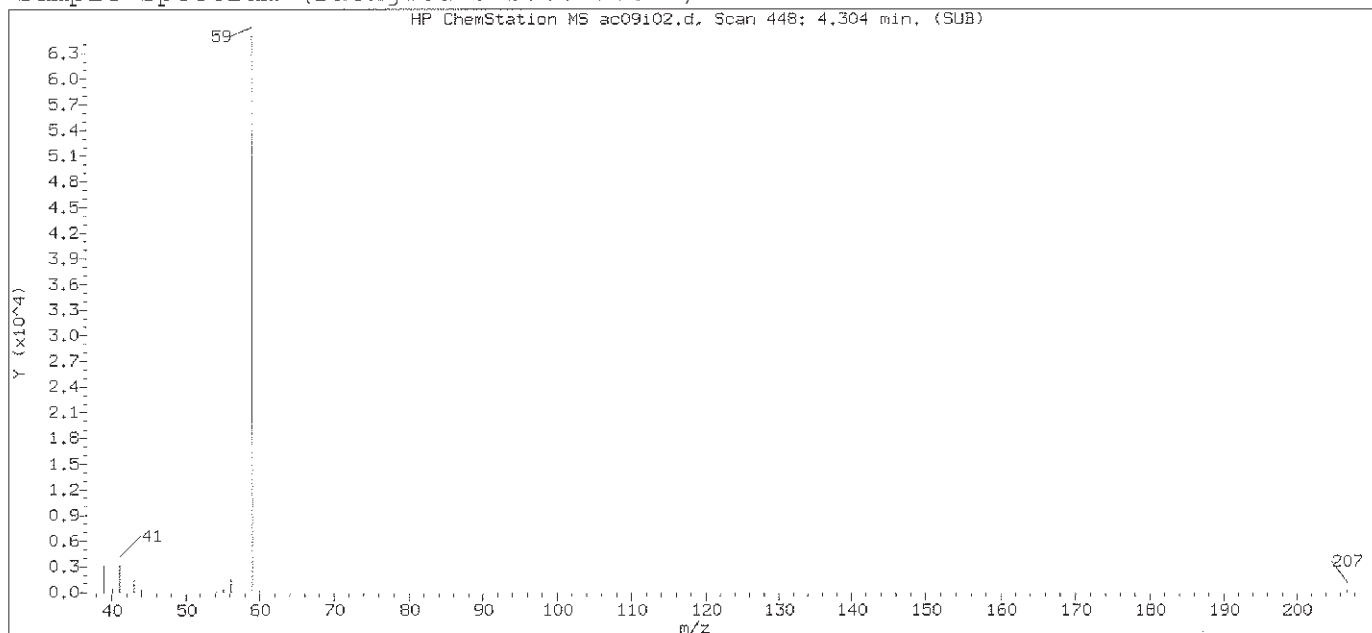
Compound Number : 32
 Compound Name : t-Butyl alcohol
 Scan Number : 448
 Retention Time (minutes): 4.304
 Quant Ion : 59.00
 Area (flag) : 450275M
 On-Column Amount (ng) : 510.6571
 Integration start scan : 428 Integration stop scan: 484
 Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

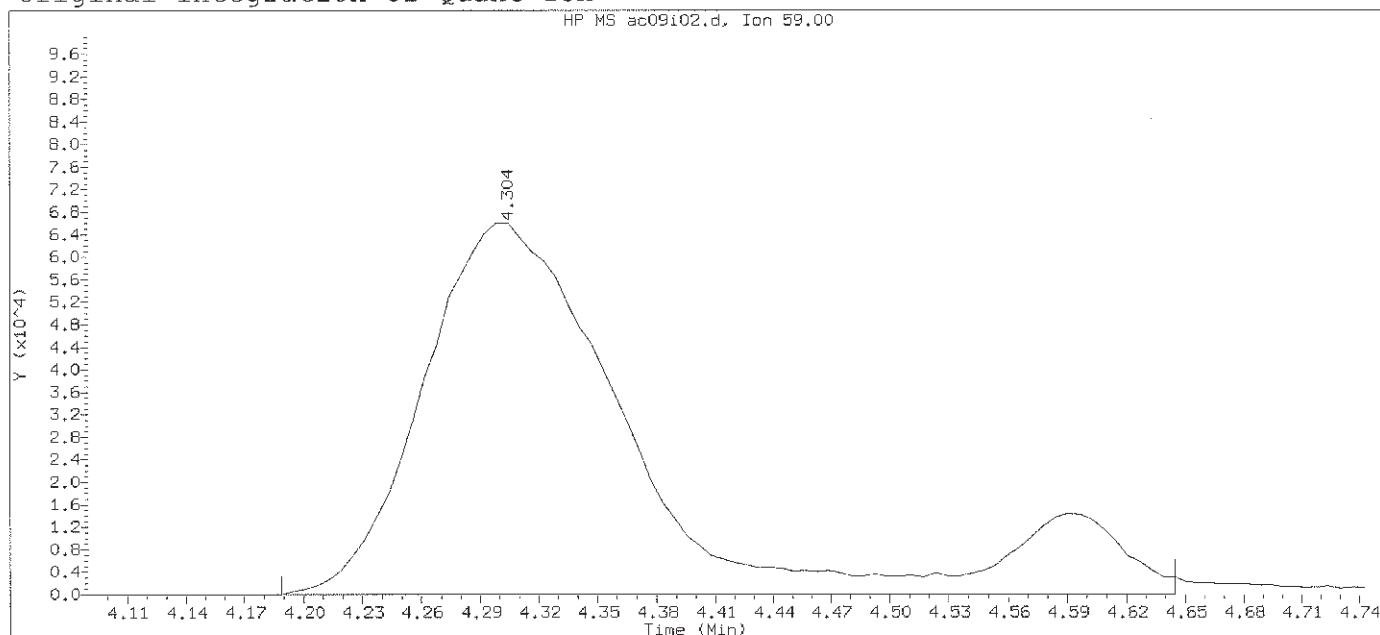
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
 on 10/11/2012 at 15:09.
 Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: mmg 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09102.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 11:38

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:33

Date, time and analyst ID of latest file update: 09-Oct-2012 14:27 cbe01947

Sample Name: VSTD100

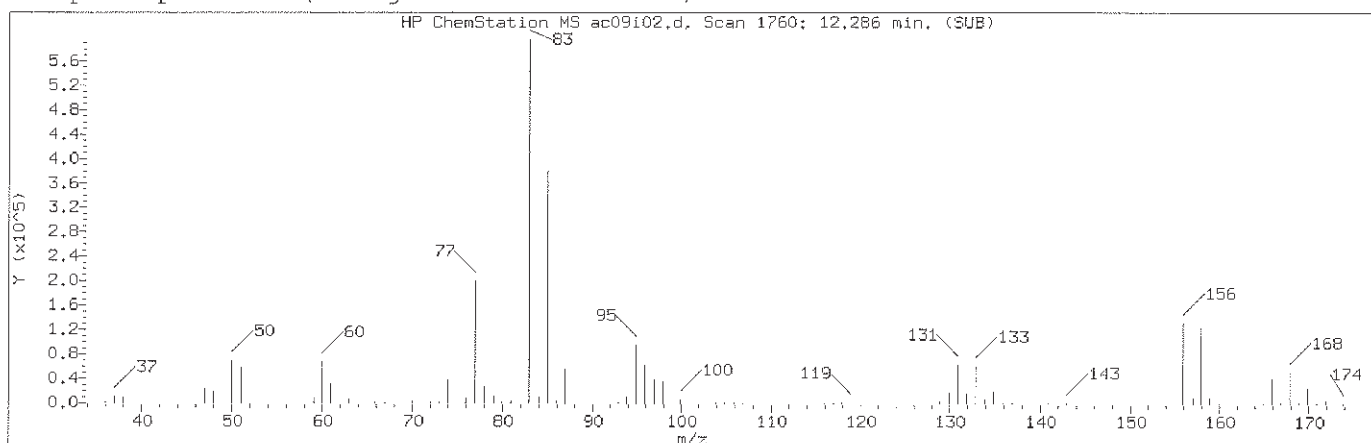
Lab Sample ID: VSTD100

Compound Number	: 32	
Compound Name	: t-Butyl alcohol	
Scan Number	: 448	
Retention Time (minutes)	: 4.304	
Quant Ion	: 59.00	
Area	: 505370	
On-column Amount (ng)	: 538.2489	
Integration start scan	: 428	Integration stop scan: 503
Y at integration start	: 0	Y at integration end: 0

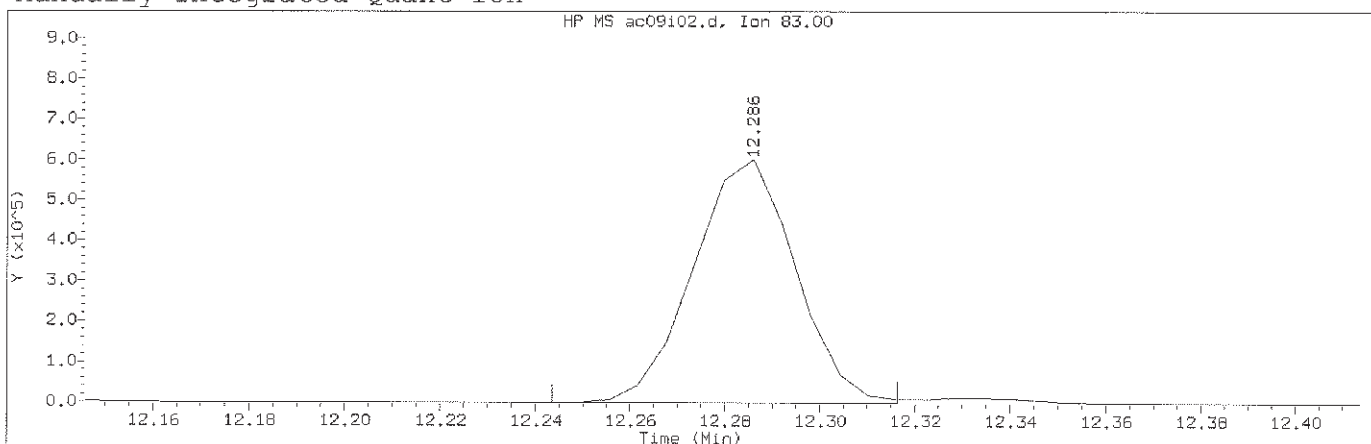
Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:09.

Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i02.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 11:38 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 13:33
Date, time and analyst ID of latest file update: 11-Oct-2012 15:09 cbe01947

Sample Name: VSTD100 Lab Sample ID: VSTD100

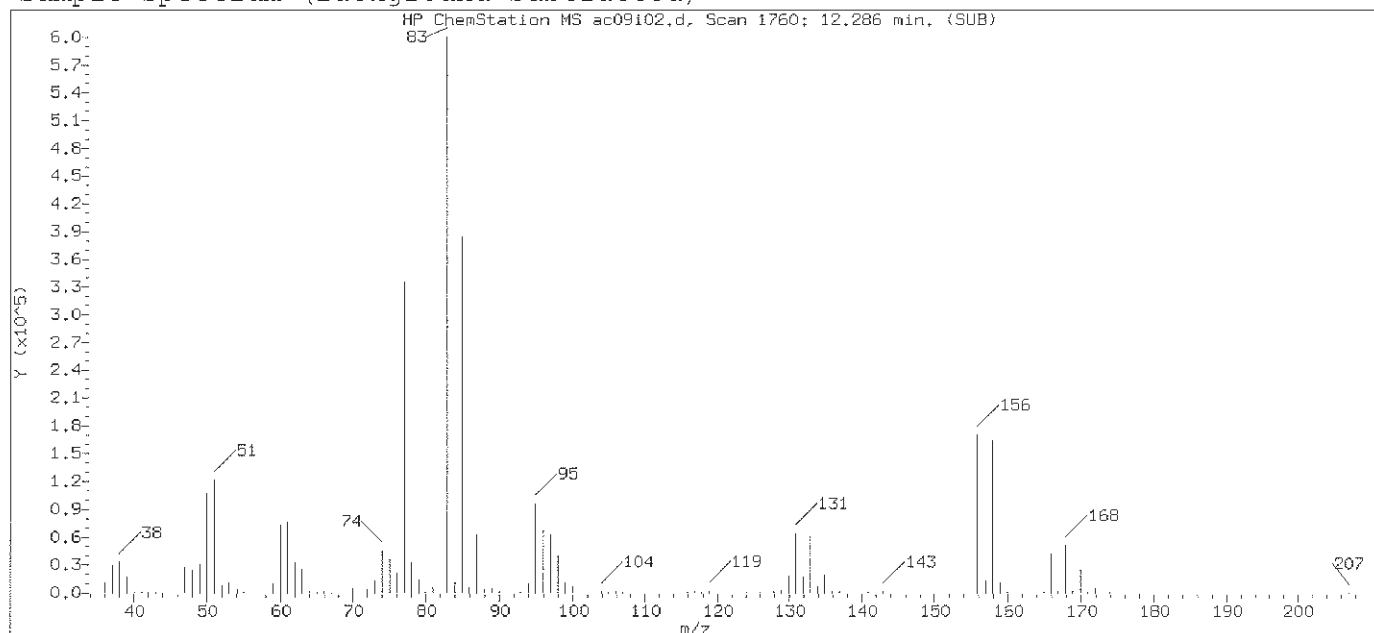
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1760
Retention Time (minutes): 12.286
Quant Ion : 83.00
Area (flag) : 891328M
On-Column Amount (ng) : 98.3758
Integration start scan : 1752 Integration stop scan: 1764
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

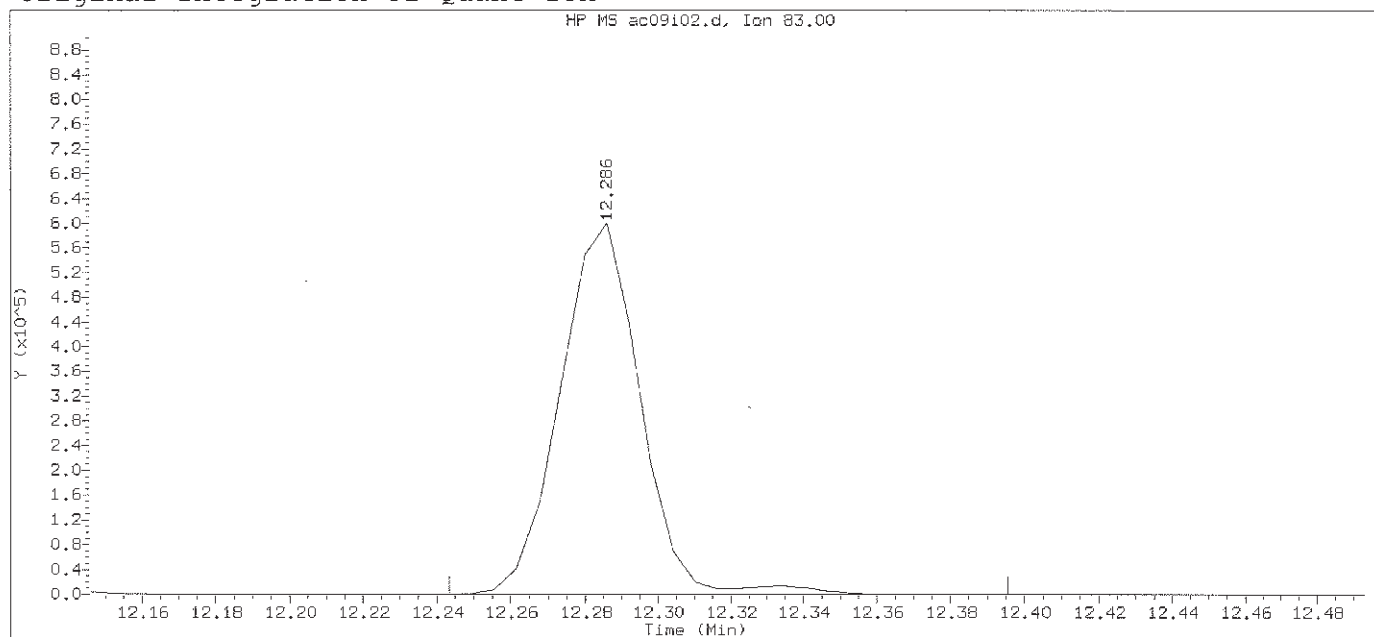
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:09.
Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: ammm 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09102.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 11:38

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:33

Date, time and analyst ID of latest file update: 09-Oct-2012 14:27 cbe01947

Sample Name: VSTD100

Lab Sample ID: VSTD100

Compound Number : 113

Compound Name : 1,1,2,2-Tetrachloroethane

Scan Number : 1760

Retention Time (minutes): 12.286

Quant Ion : 83.00

Area : 910531

On-column Amount (ng) : 104.5542

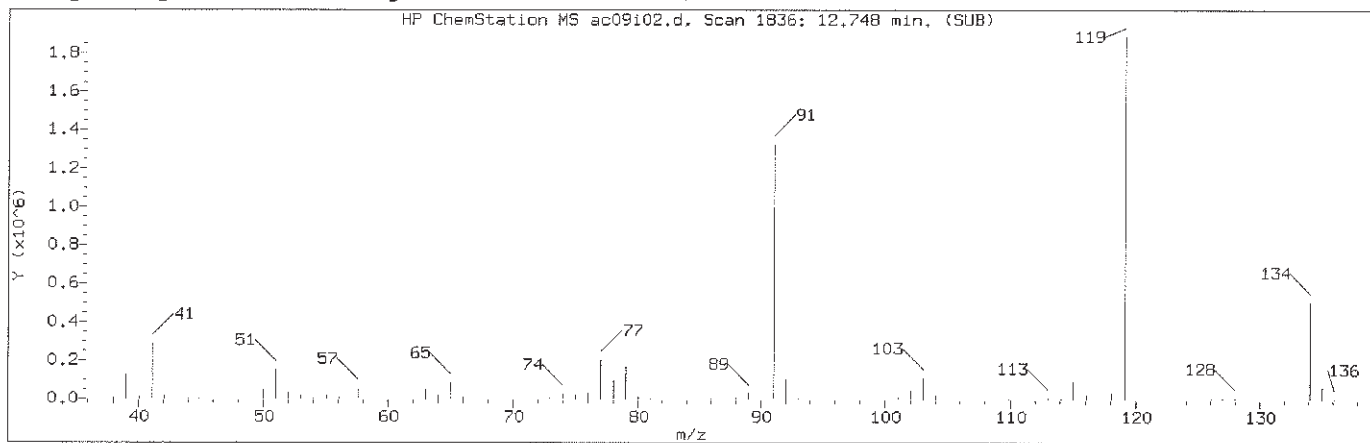
Integration start scan : 1752 Integration stop scan: 1777

Y at integration start : 0 Y at integration end: 0

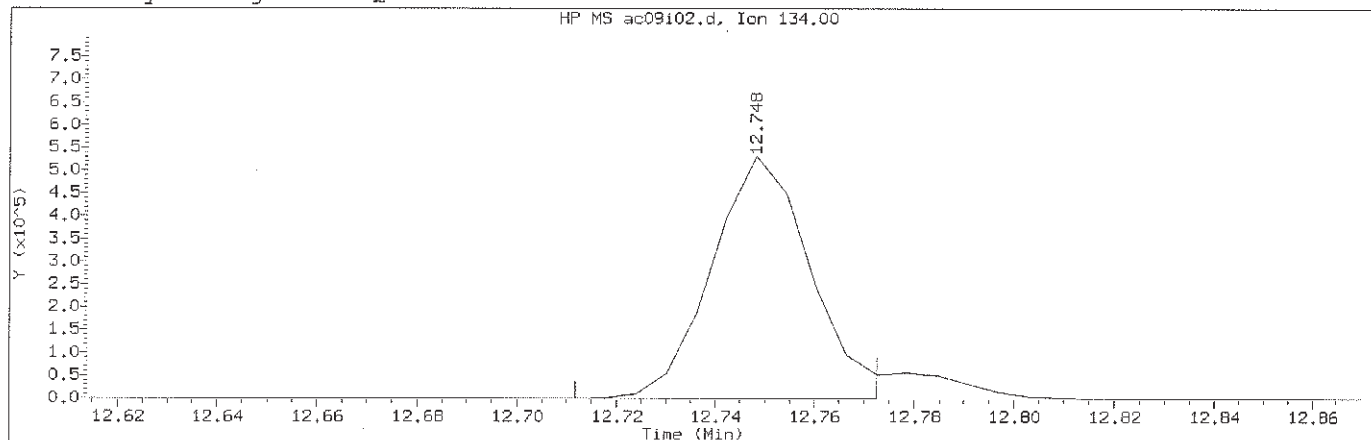
Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:09.

Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i02.d
Injection date and time: 09-OCT-2012 11:38

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 13:33
Date, time and analyst ID of latest file update: 11-Oct-2012 15:09 cbe01947

Sample Name: VSTD100

Lab Sample ID: VSTD100

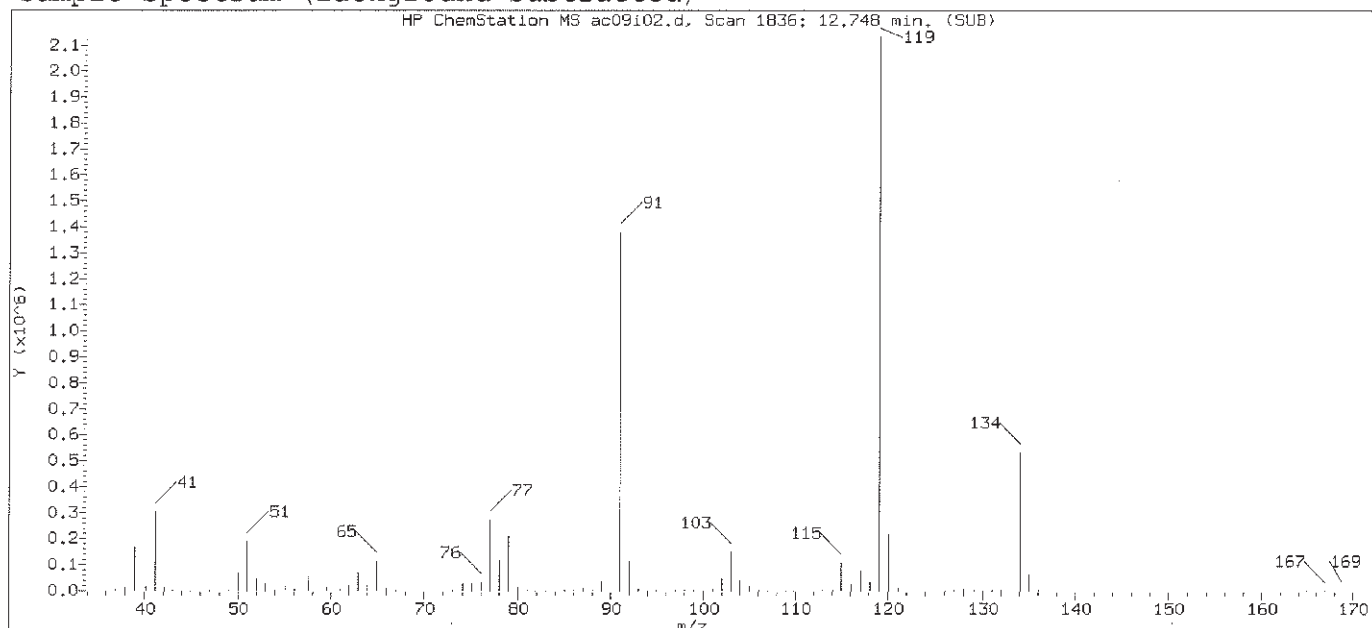
Compound Number : 126
Compound Name : tert-Butylbenzene
Scan Number : 1836
Retention Time (minutes): 12.748
Quant Ion : 134.00
Area (flag) : 737277M
On-Column Amount (ng) : 102.8082
Integration start scan : 1829 Integration stop scan: 1839
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

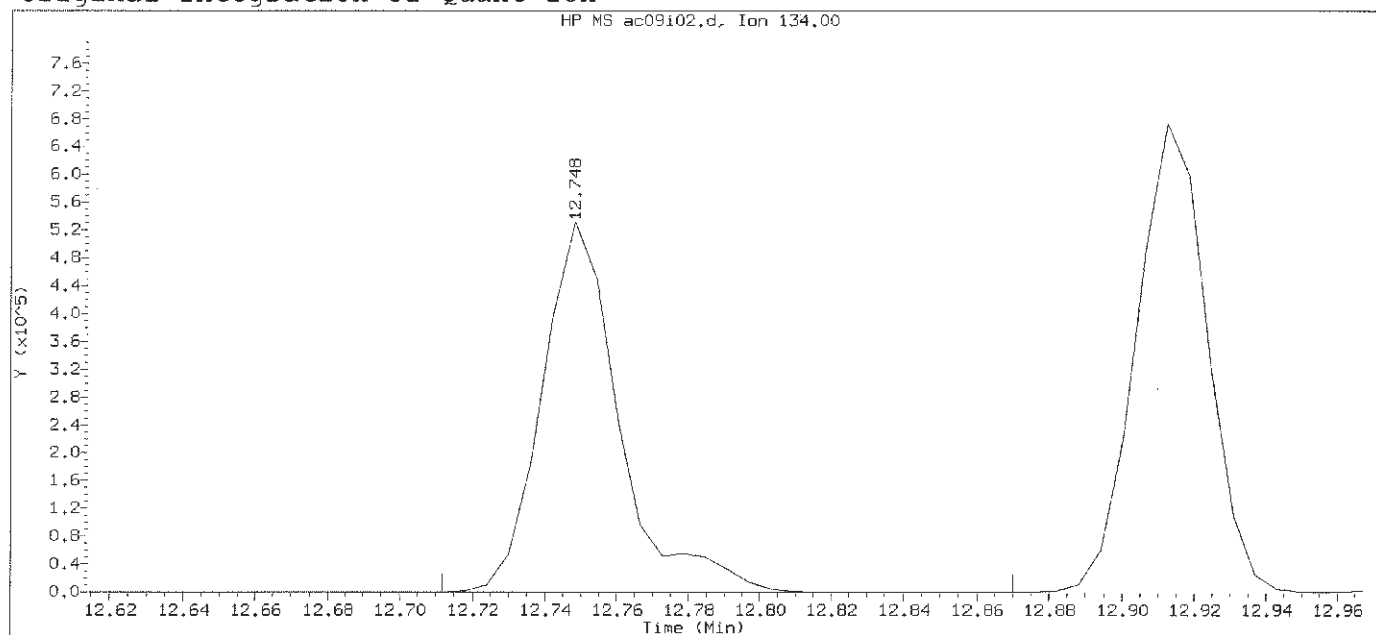
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:09.
Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: *CMB* 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09102.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 11:38

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:33

Date, time and analyst ID of latest file update: 09-Oct-2012 14:27 cbe01947

Sample Name: VSTD100

Lab Sample ID: VSTD100

Compound Number : 126

Compound Name : tert-Butylbenzene

Scan Number : 1836

Retention Time (minutes): 12.748

Quant Ion : 134.00

Area : 795049

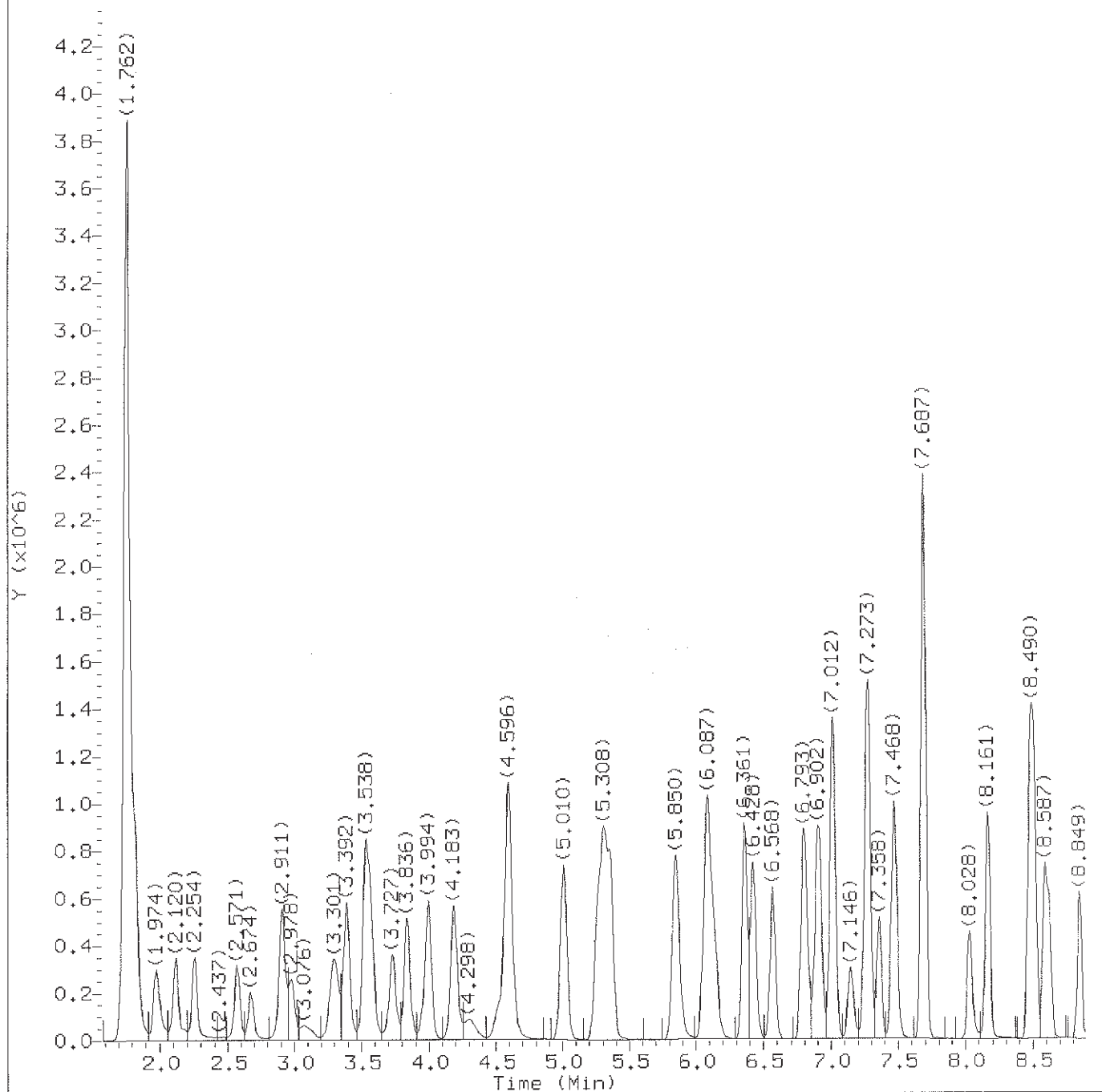
On-column Amount (ng) : 100.6027

Integration start scan : 1829 Integration stop scan: 1855

Y at integration start : 0 Y at integration end: 0

Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:09.

Target 3.5 esignature user ID: cbe01947



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i03.d
Injection date and time: 09-OCT-2012 12:04

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m
Calibration date and time: 09-OCT-2012 13:34

Sublist used: 8260S-2C

Date, time and analyst ID of latest file update: 09-Oct-2012 13:34 rvn00349

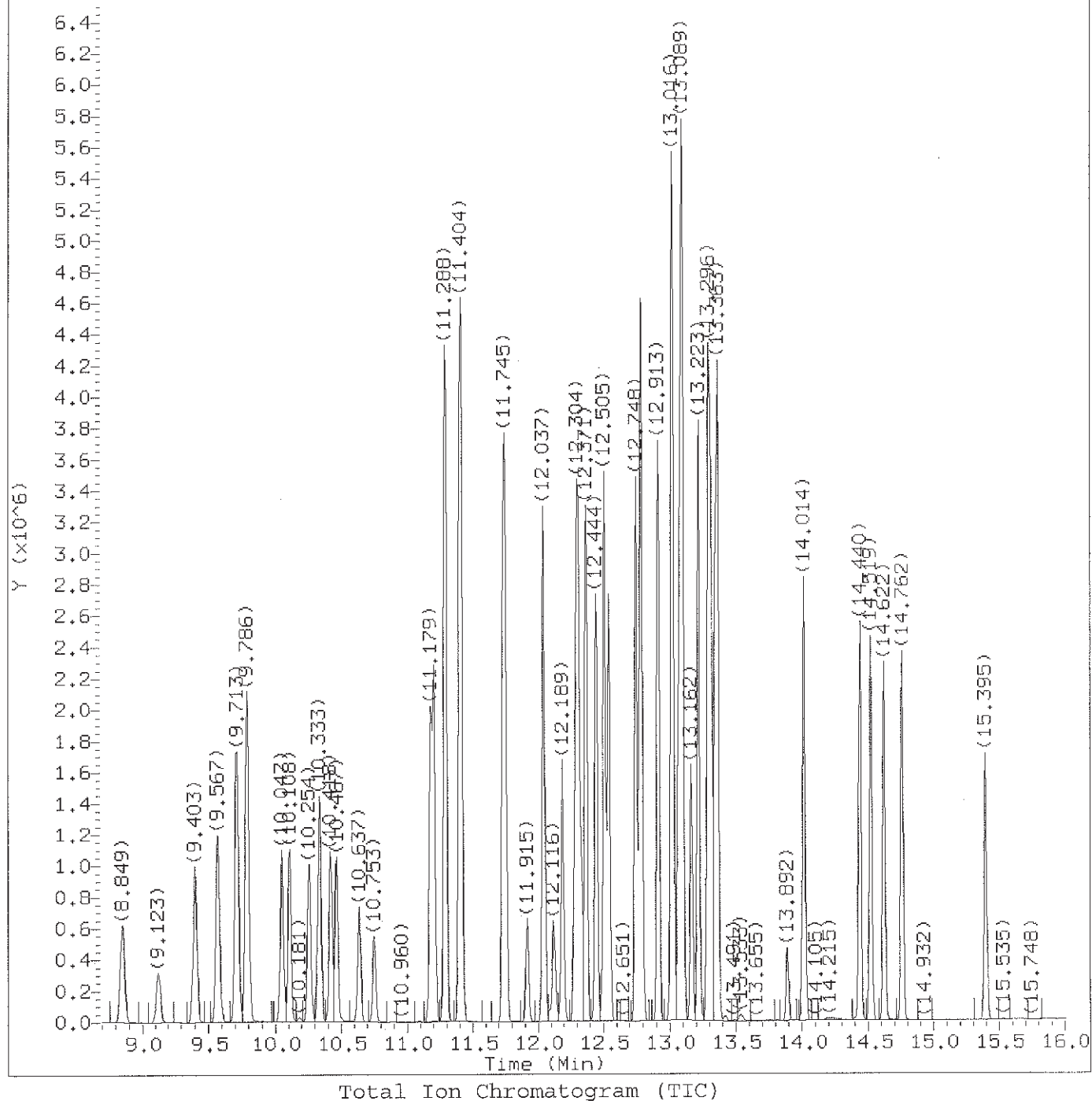
Sample Name: VSTD050

Lab Sample ID: VSTD050

Digitally signed by Chelsea B. Eastep
on 10/09/2012 at 16:31.

Target 3.5 esignature user ID: cbe01947

page 1 of 2



Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i03.d
 Injection date and time: 09-OCT-2012 12:04

Instrument ID: HP09685.i
 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
 Calibration date and time: 09-OCT-2012 13:34
 Date, time and analyst ID of latest file update: 09-Oct-2012 13:34 rvn00349

Sample Name: VSTD050

Lab Sample ID: VSTD050

Digitally signed by Chelsea B. Eastep
 on 10/09/2012 at 16:31.
 Target 3.5 esignature user ID: cbe01947

page 2 of 2

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i03.d
Injection date and time: 09-OCT-2012 12:04

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:34

Date, time and analyst ID of latest file update: 11-Oct-2012 15:09 cbe01947

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.974	85	597841	48.037
4) Chloromethane	(2)	2.120	50	528991	47.766
5) Vinyl Chloride	(2)	2.254	62	513500	48.140
9) Bromomethane	(2)	2.571	94	325538	48.655
10) Chloroethane	(2)	2.674	64	278378	48.600
11) Dichlorofluoromethane	(2)	2.905	67	698987	48.514
13) Trichlorofluoromethane	(2)	2.978	101	614449	48.165
15) Ethanol	(1)	3.076	45	236454	2269.738
17) Freon 123a	(2)	3.295	67	453717	48.570
18) Acrolein	(1)	3.392	56	881130	442.011
19) 1,1-Dichloroethene	(2)	3.526	96	335917	50.761
20) Acetone	(2)	3.556	58	89946	101.653
22) Freon 113	(2)	3.562	101	386071	52.885
23) 2-Propanol	(1)	3.702	45	173851M	238.403
24) Methyl Iodide	(2)	3.727	142	631736	51.158
25) Carbon Disulfide	(2)	3.836	76	1230666	50.883
27) Methyl Acetate	(2)	3.964	43	322396	52.938
29) Allyl Chloride	(2)	4.000	41	604481	50.792
30)*t-Butyl alcohol-d10	(1)	4.189	65	207806	250.000
31) Methylene Chloride	(2)	4.189	84	397075	48.448
32) t-Butyl alcohol	(1)	4.304	59	270125	241.655
33) Acrylonitrile	(2)	4.511	53	171986	53.043
34) Methyl Tertiary Butyl Ether	(2)	4.584	73	1213556	52.638
35) trans-1,2-Dichloroethene	(2)	4.596	96	378790	50.432
38) n-Hexane	(2)	5.010	57	652830	53.921
40) 1,1-Dichloroethane	(2)	5.260	63	755304	51.029
41) di-Isopropyl ether	(2)	5.308	45	1416923	51.606
42) 2-Chloro-1,3-butadiene	(2)	5.357	53	646611	52.545
44) Ethyl t-butyl ether	(2)	5.850	59	1275960	52.852
45) 2-Butanone	(2)	6.057	43	451559	109.208
46) cis-1,2-Dichloroethene	(2)	6.081	96	412253	50.871
47) 1,2-Dichloroethene (Total)	(2)		96	791043	101.303
48) 2,2-Dichloropropane	(2)	6.105	77	608330	52.087
50) Propionitrile	(1)	6.142	54	333062	230.184
51) Methacrylonitrile	(2)	6.361	67	445434	135.342
52) Bromochloromethane	(2)	6.422	128	187871	50.352
53) Tetrahydrofuran	(1)	6.434	71	109537	92.178
54) Chloroform	(2)	6.568	83	709053	49.717

M = Compound was manually integrated.

* = Compound is an internal standard.

page 1 of 4

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Target 3.5 esignature user ID: cbe01947

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i03.d
Injection date and time: 09-OCT-2012 12:04Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:34

Date, time and analyst ID of latest file update: 11-Oct-2012 15:09 cbe01947

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
55) \$Dibromofluoromethane	(2)	6.787	113	324816	49.889
55) \$Dibromofluoromethane	(2)	6.787	111	333159	49.911
56) 1,1,1-Trichloroethane	(2)	6.805	97	641311	49.507
57) Cyclohexane	(2)	6.902	56	755590	53.882
57) Cyclohexane	(2)	6.902	84	601367	53.676
57) Cyclohexane	(2)	6.902	69	221715	54.448
59) Carbon Tetrachloride	(2)	7.012	117	533801	52.034
58) 1,1-Dichloropropene	(2)	7.012	75	568977	51.950
60) Isobutyl Alcohol	(1)	7.139	41	241975	589.815
61) \$1,2-Dichloroethane-d4	(2)	7.255	102	76277M	50.592
61) \$1,2-Dichloroethane-d4	(2)	7.249	65	415675	50.492
61) \$1,2-Dichloroethane-d4	(2)	7.255	104	49288	51.388
62) Benzene	(2)	7.279	78	1603927	50.945
64) 1,2-Dichloroethane	(2)	7.358	62	570474	50.859
64) 1,2-Dichloroethane	(2)	7.358	98	47053	51.295
65) t-Amyl methyl ether	(2)	7.468	73	1149199	53.309
67) *Fluorobenzene	(2)	7.687	96	1362489	50.000
69) n-Heptane	(2)	7.687	43	732861	54.423
70) n-Butanol	(1)	8.028	56	380754	1206.980
72) Trichloroethene	(2)	8.161	95	407315	51.373
73) Methylcyclohexane	(2)	8.478	83	670328	52.695
74) 1,2-Dichloropropane	(2)	8.508	63	436576	51.272
76) Methyl Methacrylate	(2)	8.581	69	307873	56.262
77) 1,4-Dioxane	(1)	8.599	88	59113	583.438
78) Dibromomethane	(2)	8.618	93	250676M	51.693
81) Bromodichloromethane	(2)	8.849	83	505049	52.048
82) 2-Nitropropane	(1)	9.123	41	250237	94.010
84) cis-1,3-Dichloropropene	(2)	9.403	75	635395	53.657
85) 4-Methyl-2-pentanone	(2)	9.567	43	956139	111.438
86) \$Toluene-d8	(3)	9.713	98	1332138	49.802
86) \$Toluene-d8	(3)	9.713	100	875590	49.972
87) Toluene	(3)	9.786	92	994685	51.111
88) trans-1,3-Dichloropropene	(3)	10.047	75	613886	53.822
89) Ethyl Methacrylate	(3)	10.108	69	556328	56.981
90) 1,1,2-Trichloroethane	(3)	10.260	97	335884	51.559
92) Tetrachloroethene	(3)	10.333	166	461224	51.584
93) 1,3-Dichloropropane	(3)	10.418	76	615746	51.755
95) 2-Hexanone	(3)	10.467	43	715029	111.109

M = Compound was manually integrated.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

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Target 3.5 esignature user ID: cbe01947

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Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i03.d
Injection date and time: 09-OCT-2012 12:04

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:34

Date, time and analyst ID of latest file update: 11-Oct-2012 15:09 cbe01947

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
97) Dibromochloromethane	(3)	10.637	129	383686	53.283
98) 1,2-Dibromoethane	(3)	10.753	107	356219	53.037
99) *Chlorobenzene-d5	(3)	11.179	117	1000244	50.000
100) Chlorobenzene	(3)	11.203	112	1126019	51.303
101) 1,1,1,2-Tetrachloroethane	(3)	11.288	131	397258	52.390
102) Ethylbenzene	(3)	11.288	91	1950463	52.771
103) m+p-Xylene	(3)	11.404	106	1503858	104.816
104) o-Xylene	(3)	11.739	106	729948	52.839
105) Xylene (Total)	(3)		106	2233806	157.655
106) Styrene	(3)	11.751	104	1205307	54.023
107) Bromoform	(3)	11.915	173	273942	55.098
108) Isopropylbenzene	(3)	12.037	105	1920458	53.339
111) Cyclohexanone	(1)	12.116	55	274578	661.366
112) \$4-Bromofluorobenzene	(3)	12.189	95	499990	49.940
112) \$4-Bromofluorobenzene	(3)	12.189	174	443908	49.822
113) 1,1,2,2-Tetrachloroethane	(4)	12.280	83	477547M	52.404
114) Bromobenzene	(4)	12.304	156	503318	50.697
115) trans-1,4-Dichloro-2-butene	(4)	12.310	53	377781	136.199
116) 1,2,3-Trichloropropane	(4)	12.335	110	141271	52.517
117) n-Propylbenzene	(4)	12.371	91	2313253	53.142
119) 2-Chlorotoluene	(4)	12.444	126	470218	51.386
122) 1,3,5-Trimethylbenzene	(4)	12.505	105	1638920	52.480
123) 4-Chlorotoluene	(4)	12.542	126	489624	51.281
126) tert-Butylbenzene	(4)	12.748	134	361297M	50.765
127) Pentachloroethane	(4)	12.779	167	334339	51.611
128) 1,2,4-Trimethylbenzene	(4)	12.791	105	1706845	52.342
129) sec-Butylbenzene	(4)	12.913	105	2118035	54.079
131) 1,3-Dichlorobenzene	(4)	13.010	146	972817	51.341
132) p-Isopropyltoluene	(4)	13.022	119	1902361	54.160
133) *1,4-Dichlorobenzene-d4	(4)	13.071	152	584655	50.000
134) 1,4-Dichlorobenzene	(4)	13.089	146	984019	50.827
135) 1,2,3-Trimethylbenzene	(4)	13.095	105	1748519	51.168
136) Benzyl Chloride	(4)	13.162	126	211344	51.368
137) 1,3-Diethylbenzene	(4)	13.223	119	1141894	51.722
138) 1,4-Diethylbenzene	(4)	13.296	119	1174209	51.372
139) n-Butylbenzene	(4)	13.314	92	943616	52.833
140) 1,2-Dichlorobenzene	(4)	13.345	146	914172	50.950
141) 1,2-Diethylbenzene	(4)	13.363	119	949459	50.395

M = Compound was manually integrated.

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\$ = Compound is a surrogate standard.

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Target 3.5 esignature user ID: cbe01947

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Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i03.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 12:04 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 13:34
Date, time and analyst ID of latest file update: 11-Oct-2012 15:09 cbe01947

Sample Name: VSTD050

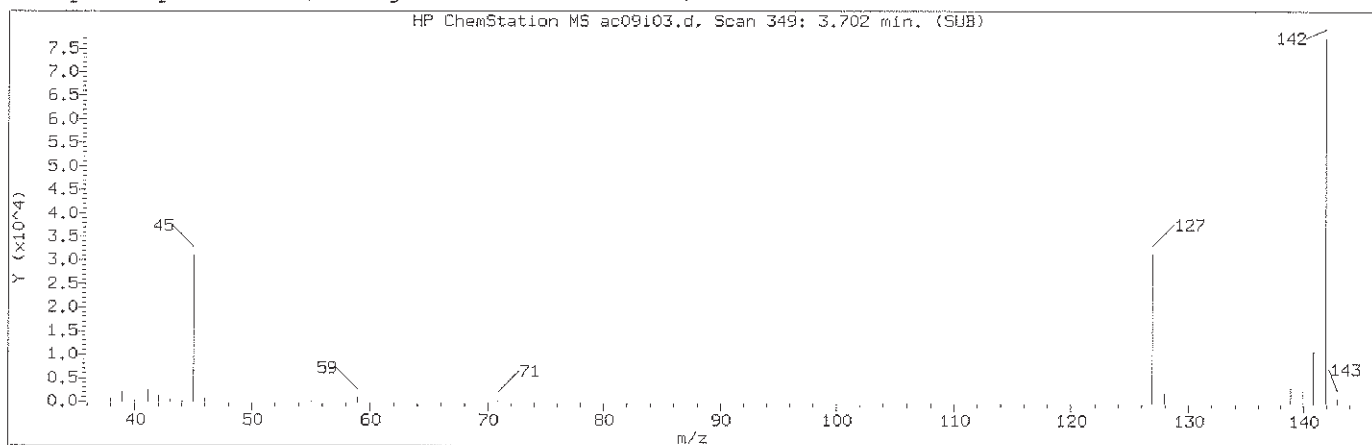
Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,2-Dibromo-3-chloropropane	(4)	13.892	75	98178	55.688
145) 1,3,5-Trichlorobenzene	(4)	14.014	180	798759	51.431
146) 1,2,4-Trichlorobenzene	(4)	14.440	180	705668	52.908
147) Hexachlorobutadiene	(4)	14.519	225	427771	53.960
148) Naphthalene	(4)	14.622	128	1563374	56.306
149) 1,2,3-Trichlorobenzene	(4)	14.762	180	658112	52.487
150) 2-Methylnaphthalene	(4)	15.395	142	790214	52.648

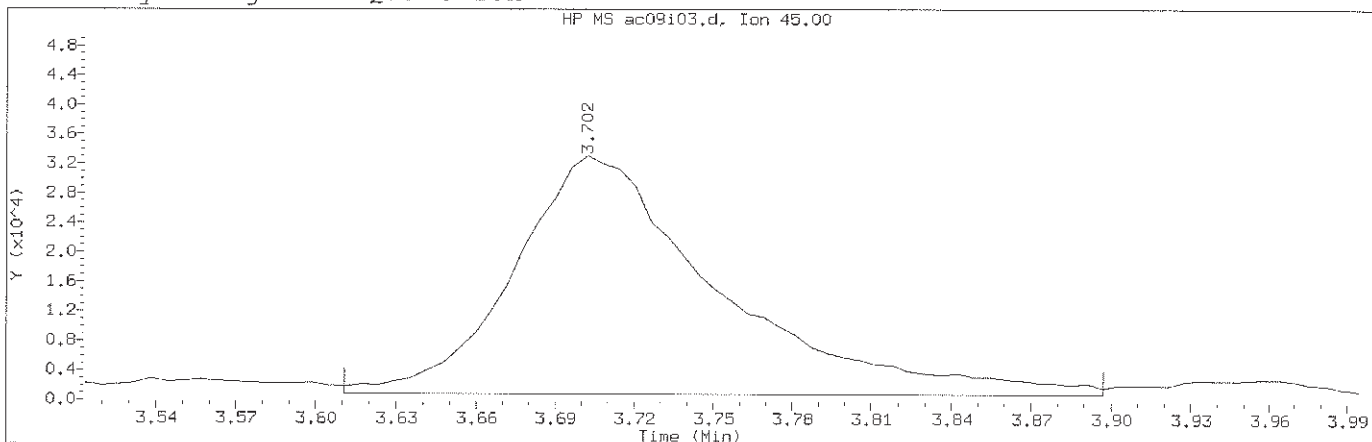
page 4 of 4

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Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i03.d
Injection date and time: 09-OCT-2012 12:04

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 13:34
Date, time and analyst ID of latest file update: 11-Oct-2012 15:09 cbe01947

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compound Number : 23
Compound Name : 2-Propanol
Scan Number : 349
Retention Time (minutes): 3.702
Quant Ion : 45.00
Area (flag) : 173851M
On-Column Amount (ng) : 238.4035
Integration start scan : 333 Integration stop scan: 380
Y at integration start : 904 Y at integration end: 904

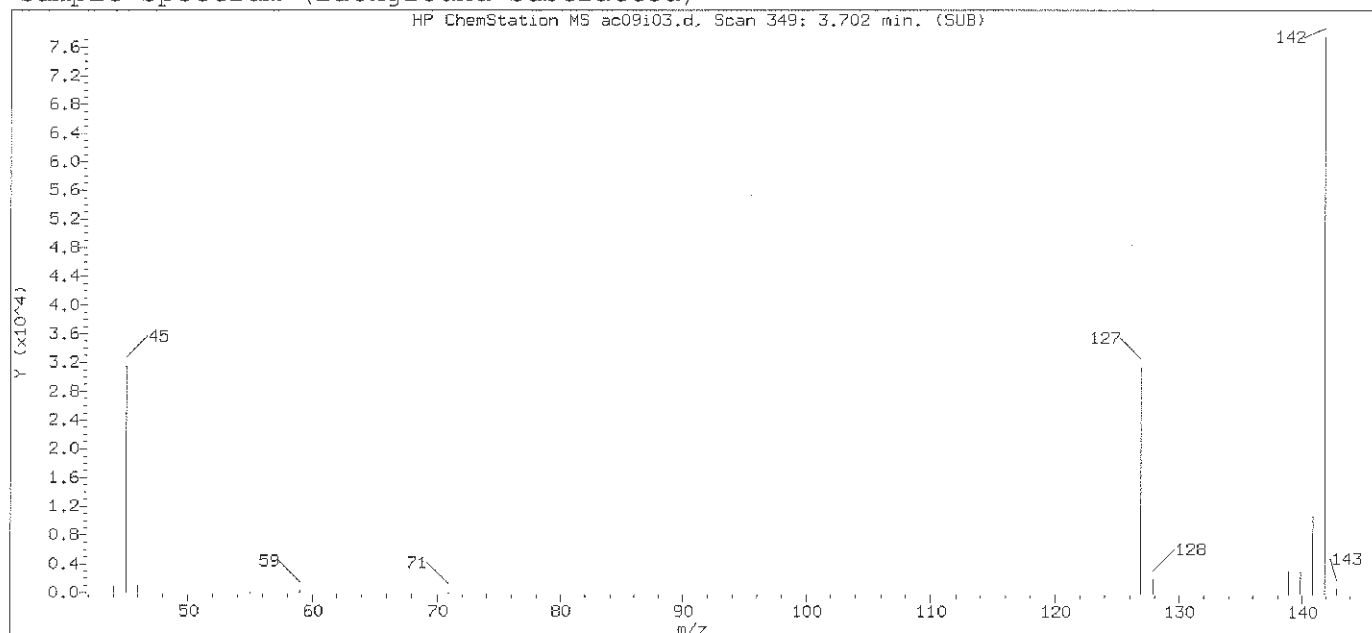
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:10.
Target 3.5 esignature user ID: cbe01947

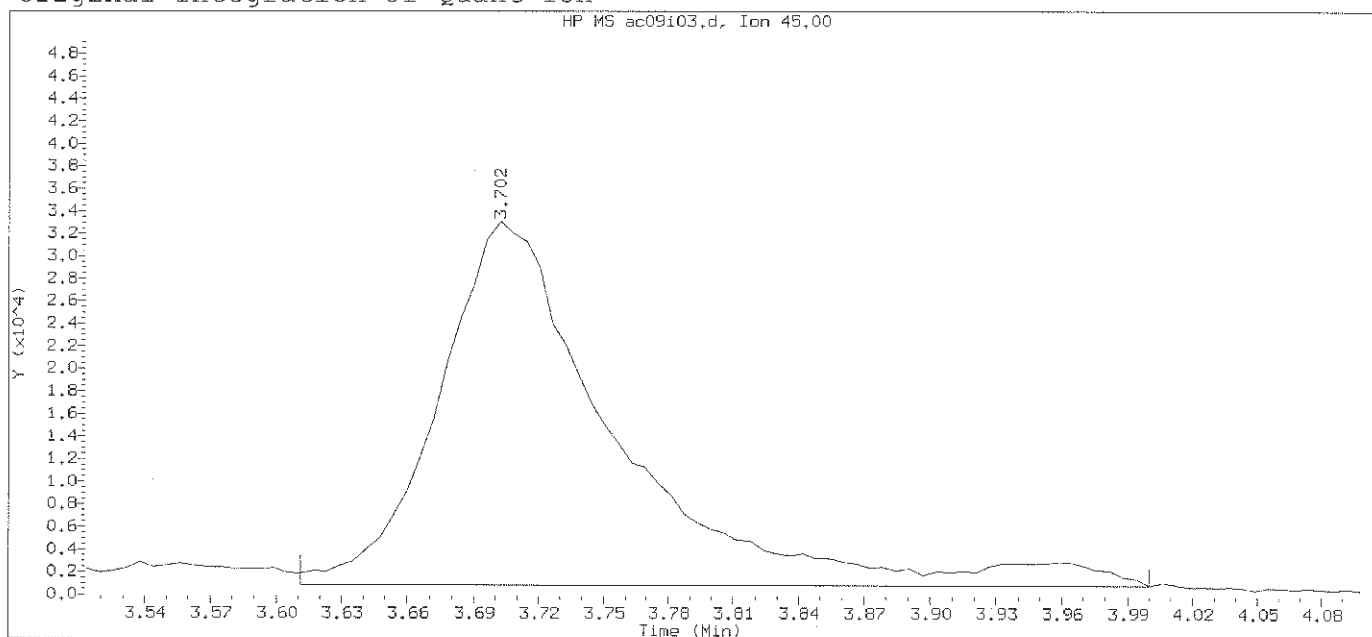
GC/MS audit/management approval:

mmg 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i03.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 12:04

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:34

Date, time and analyst ID of latest file update: 09-Oct-2012 14:27 cbe01947

Sample Name: VSTD050

Lab Sample ID: VSTD050

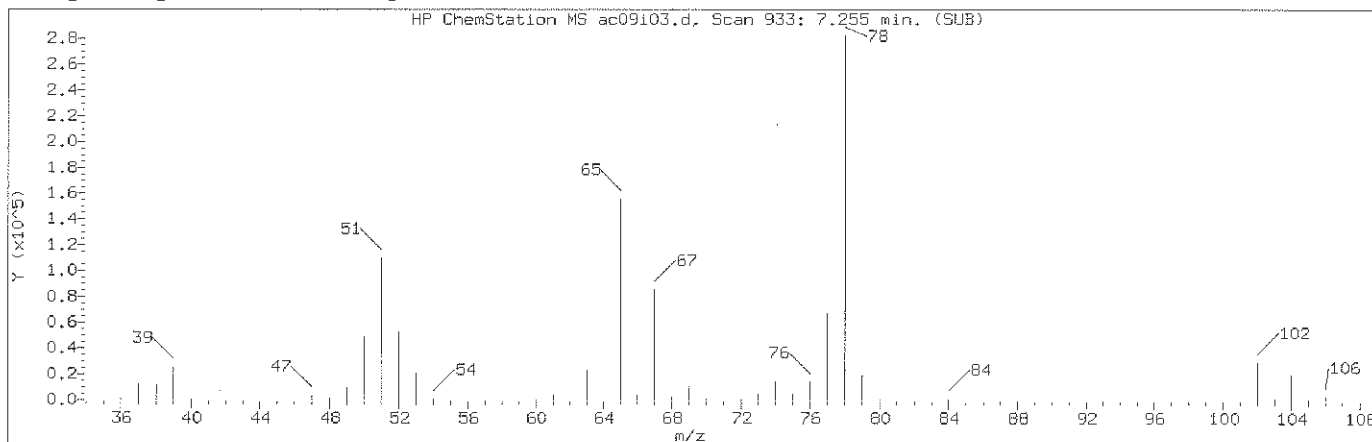
Compound Number : 23
 Compound Name : 2-Propanol
 Scan Number : 349
 Retention Time (minutes): 3.702
 Quant Ion : 45.00
 Area : 182345
 On-column Amount (ng) : 247.0781
 Integration start scan : 333
 Y at integration start : 904

Integration stop scan: 397
 Y at integration end: 904

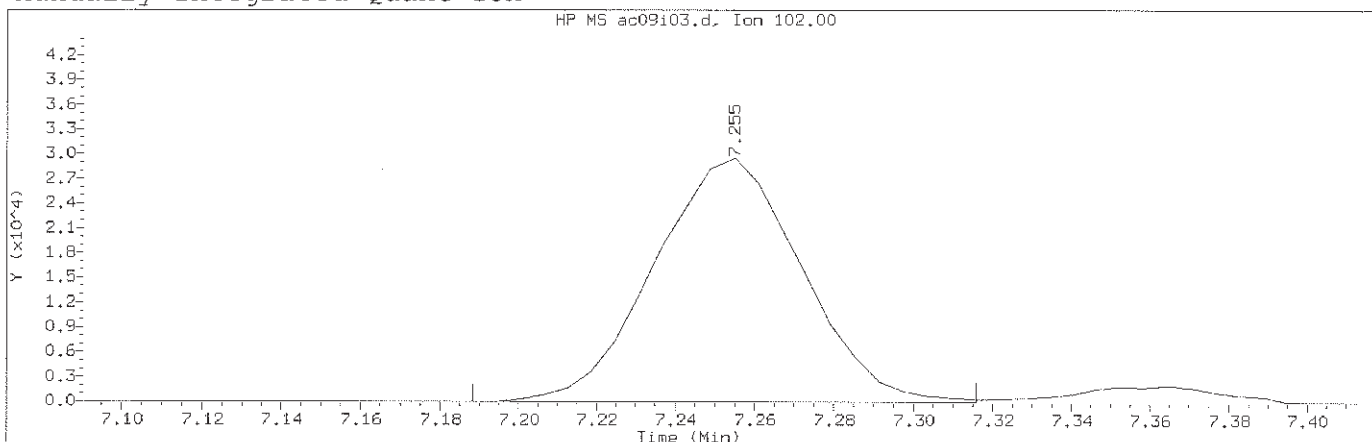
Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:10.

Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i03.d
Injection date and time: 09-OCT-2012 12:04

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 13:34
Date, time and analyst ID of latest file update: 11-Oct-2012 15:09 cbe01947

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compound Number	: 61	
Compound Name	: 1,2-Dichloroethane-d4	
Scan Number	: 933	
Retention Time (minutes)	: 7.255	
Quant Ion	: 102.00	
Area (flag)	: 76277M	
On-Column Amount (ng)	: 50.5924	
Integration start scan	: 921	Integration stop scan: 942
Y at integration start	: 0	Y at integration end: 0

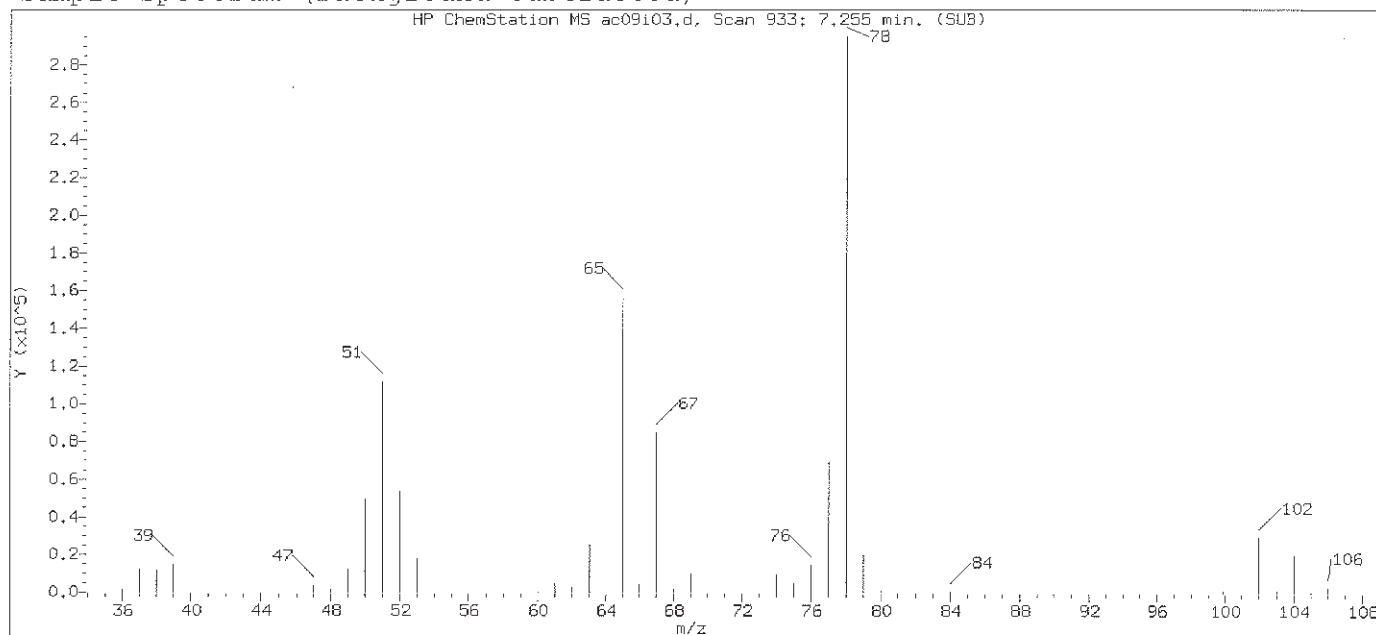
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:10.
Target 3.5 esignature user ID: cbe01947

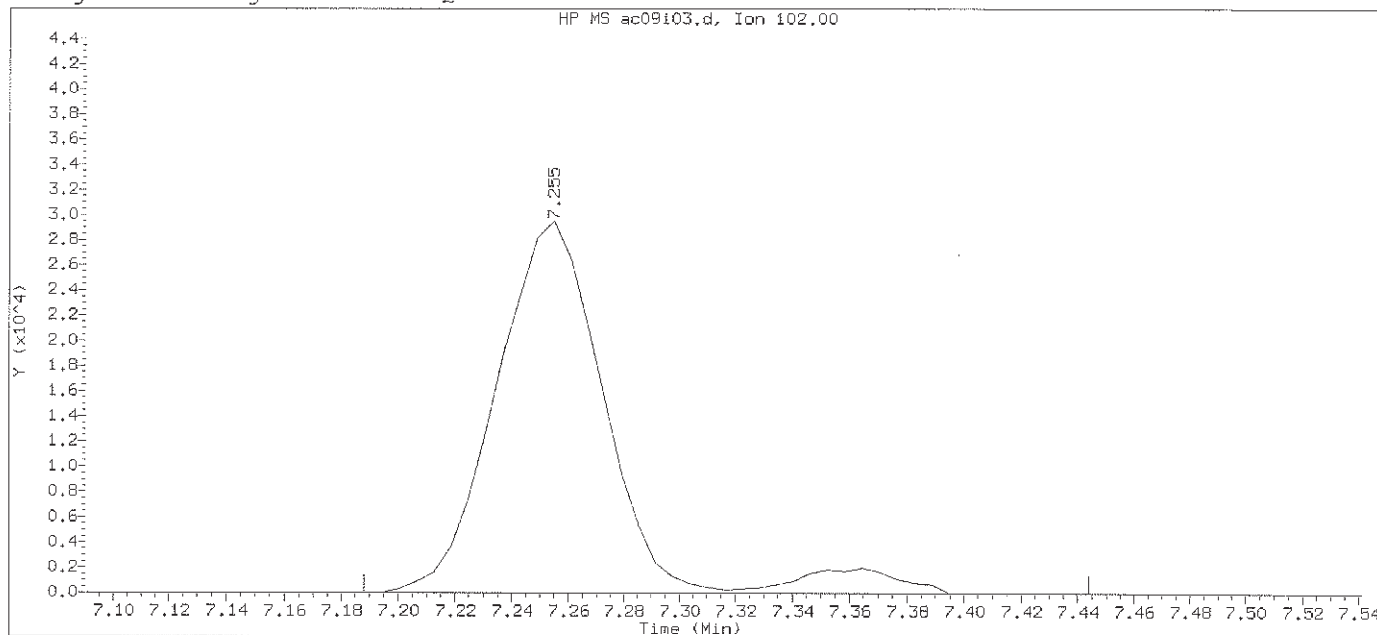
GC/MS audit/management approval:

Handwritten signature 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09103.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 12:04 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 13:34
Date, time and analyst ID of latest file update: 09-Oct-2012 14:27 cbe01947

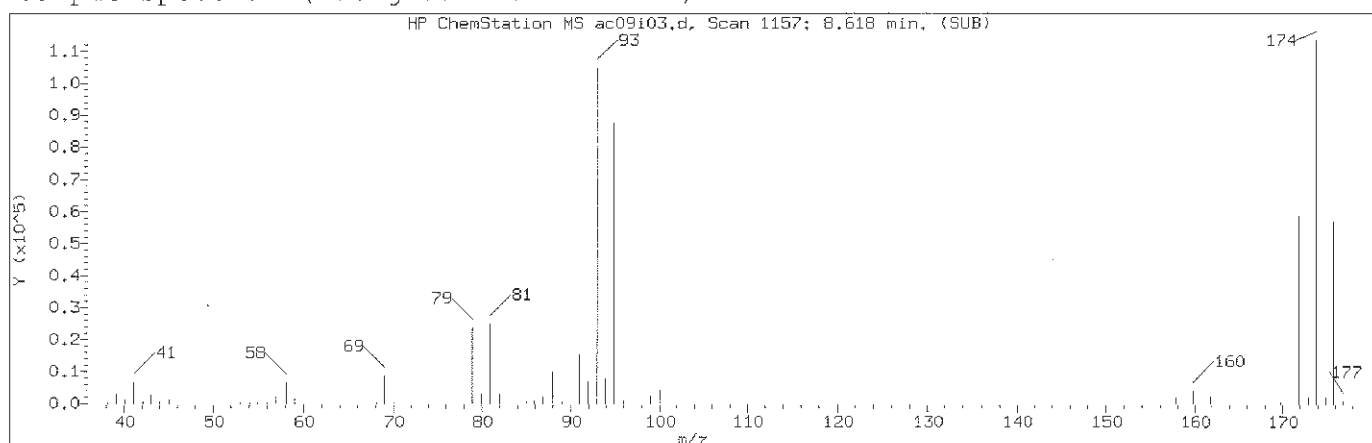
Sample Name: VSTD050

Lab Sample ID: VSTD050

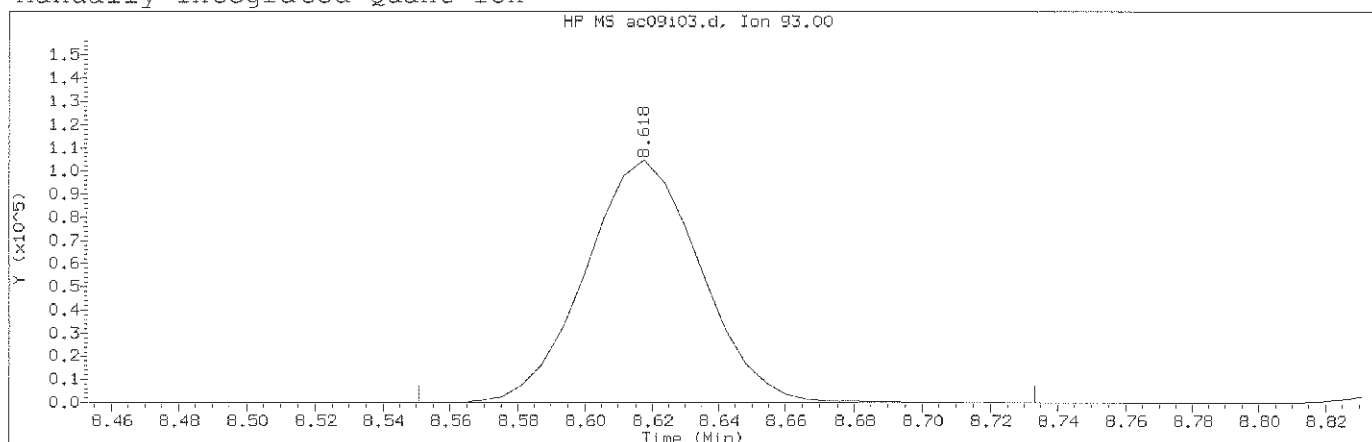
Compound Number : 61
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 933
Retention Time (minutes): 7.255
Quant Ion : 102.00
Area : 81283
On-column Amount (ng) : 52.6101
Integration start scan : 921 Integration stop scan: 963
Y at integration start : 0 Y at integration end: 0

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Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i03.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 12:04

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:34

Date, time and analyst ID of latest file update: 11-Oct-2012 15:09 cbe01947

Sample Name: VSTD050

Lab Sample ID: VSTD050

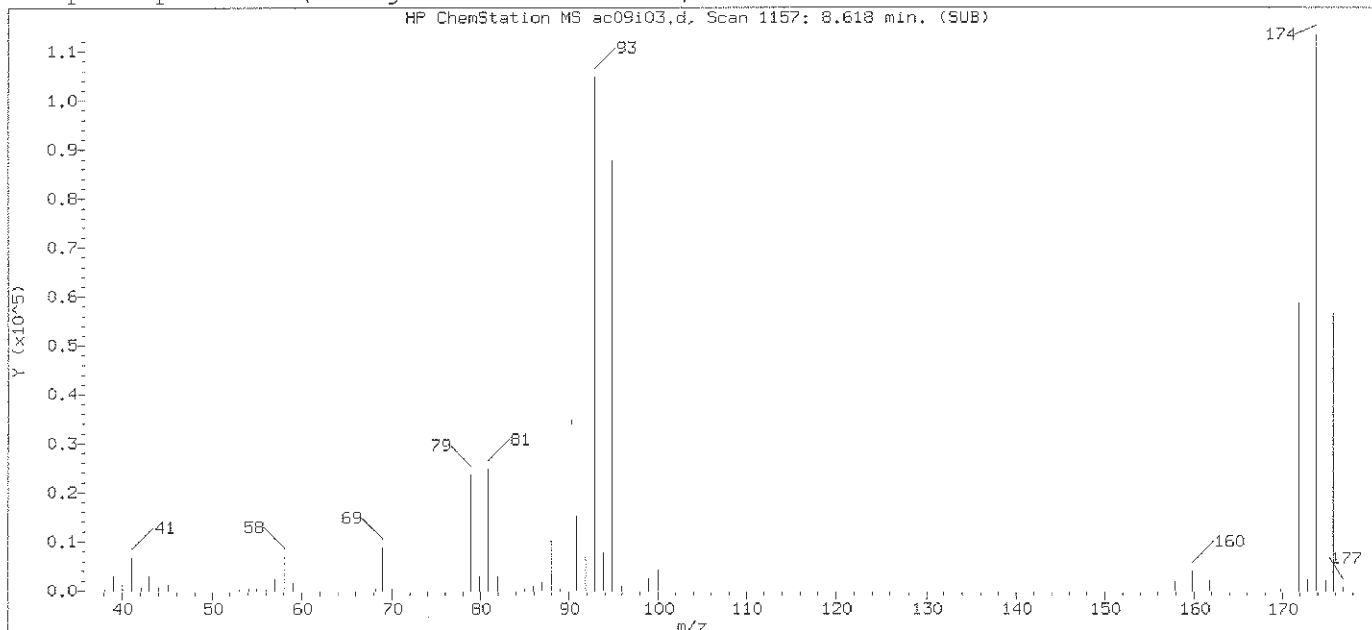
Compound Number : 78
 Compound Name : Dibromomethane
 Scan Number : 1157
 Retention Time (minutes): 8.618
 Quant Ion : 93.00
 Area (flag) : 250676M
 On-Column Amount (ng) : 51.6926
 Integration start scan : 1145 Integration stop scan: 1175
 Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

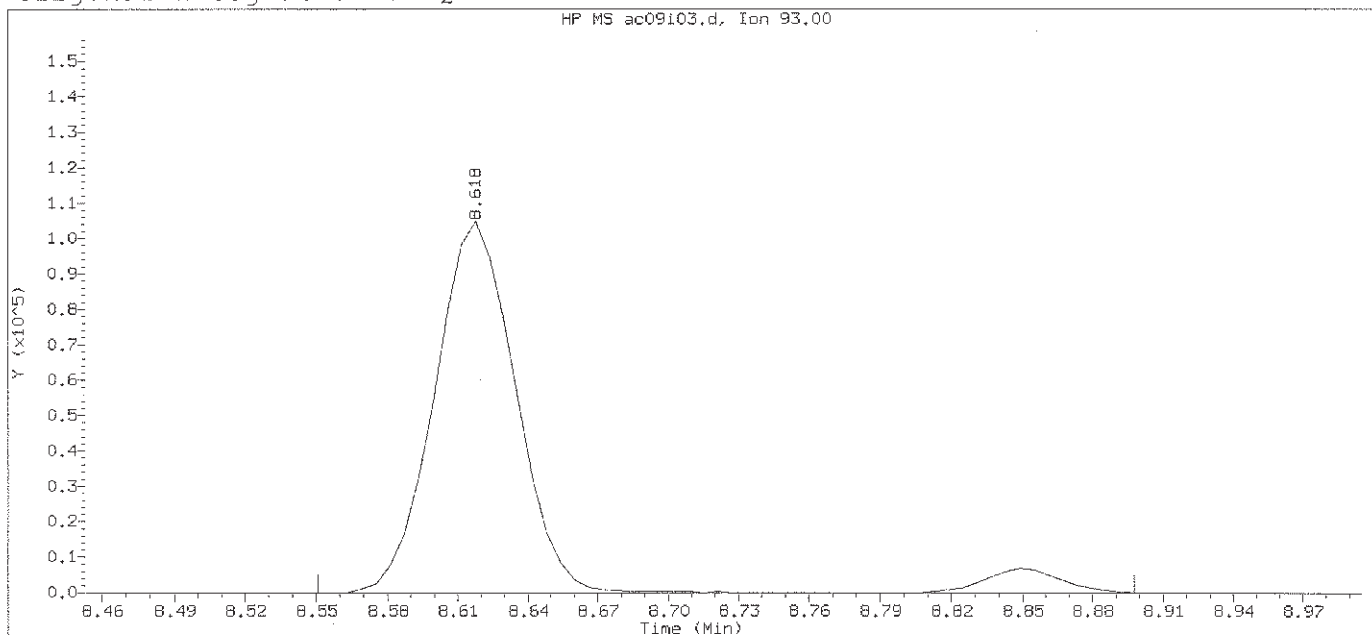
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
 on 10/11/2012 at 15:10.
 Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: mmg 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i03.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 12:04

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:34

Date, time and analyst ID of latest file update: 09-Oct-2012 14:27 cbe01947

Sample Name: VSTD050

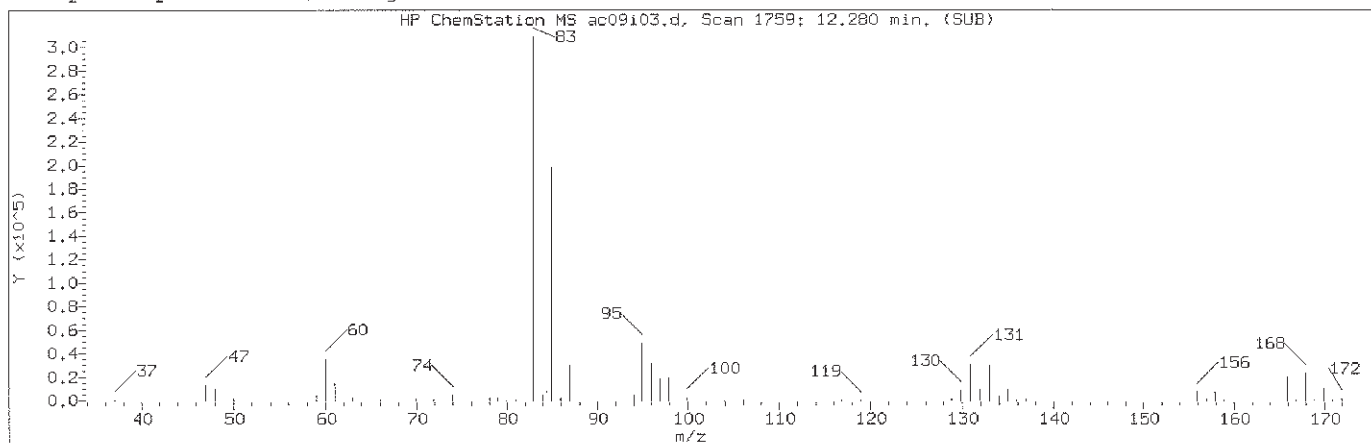
Lab Sample ID: VSTD050

Compound Number	: 78	
Compound Name	: Dibromomethane	
Scan Number	: 1157	
Retention Time (minutes)	: 8.618	
Quant Ion	: 93.00	
Area	: 266105	
On-column Amount (ng)	: 53.1494	
Integration start scan	: 1145	Integration stop scan: 1202
Y at integration start	: 0	Y at integration end: 0

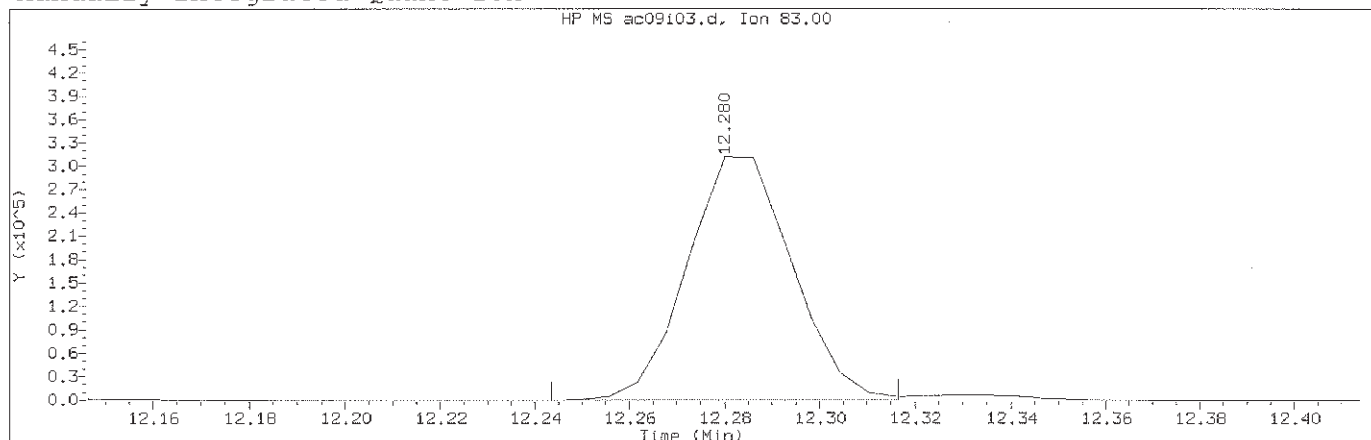
Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:10.

Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i03.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 12:04 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 13:34
Date, time and analyst ID of latest file update: 11-Oct-2012 15:09 cbe01947

Sample Name: VSTD050 Lab Sample ID: VSTD050

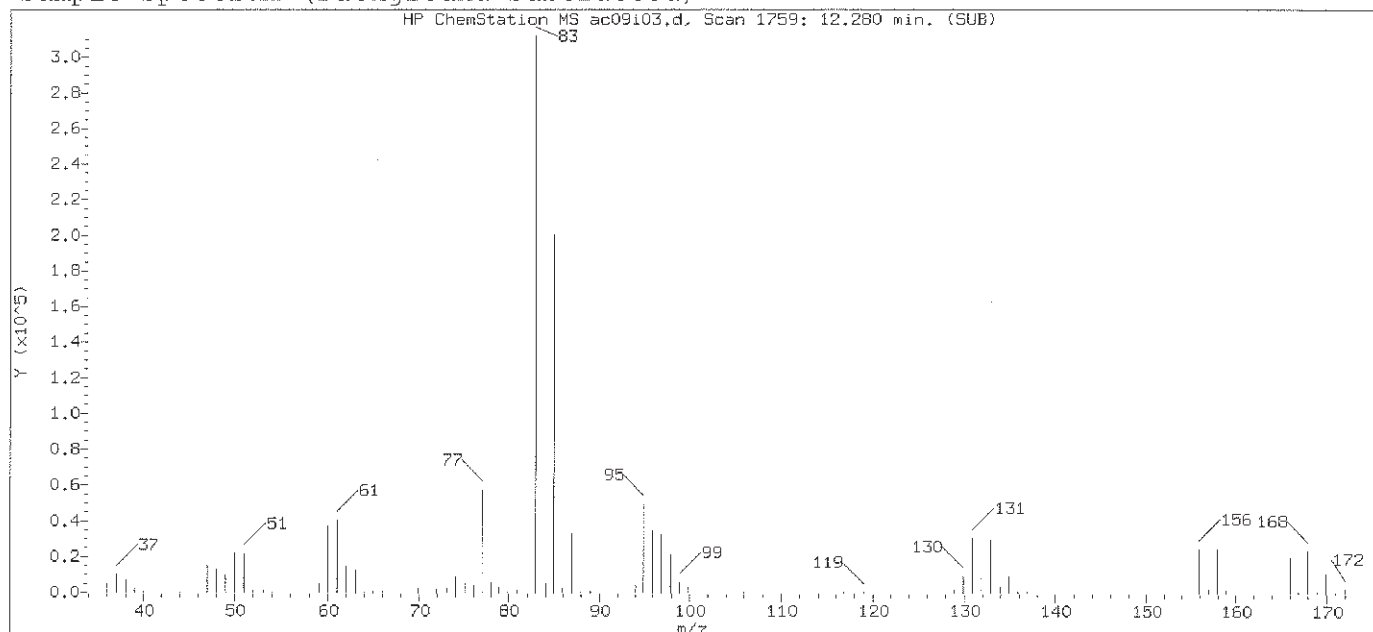
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1759
Retention Time (minutes): 12.280
Quant Ion : 83.00
Area (flag) : 477547M
On-Column Amount (ng) : 52.4038
Integration start scan : 1752 Integration stop scan: 1764
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

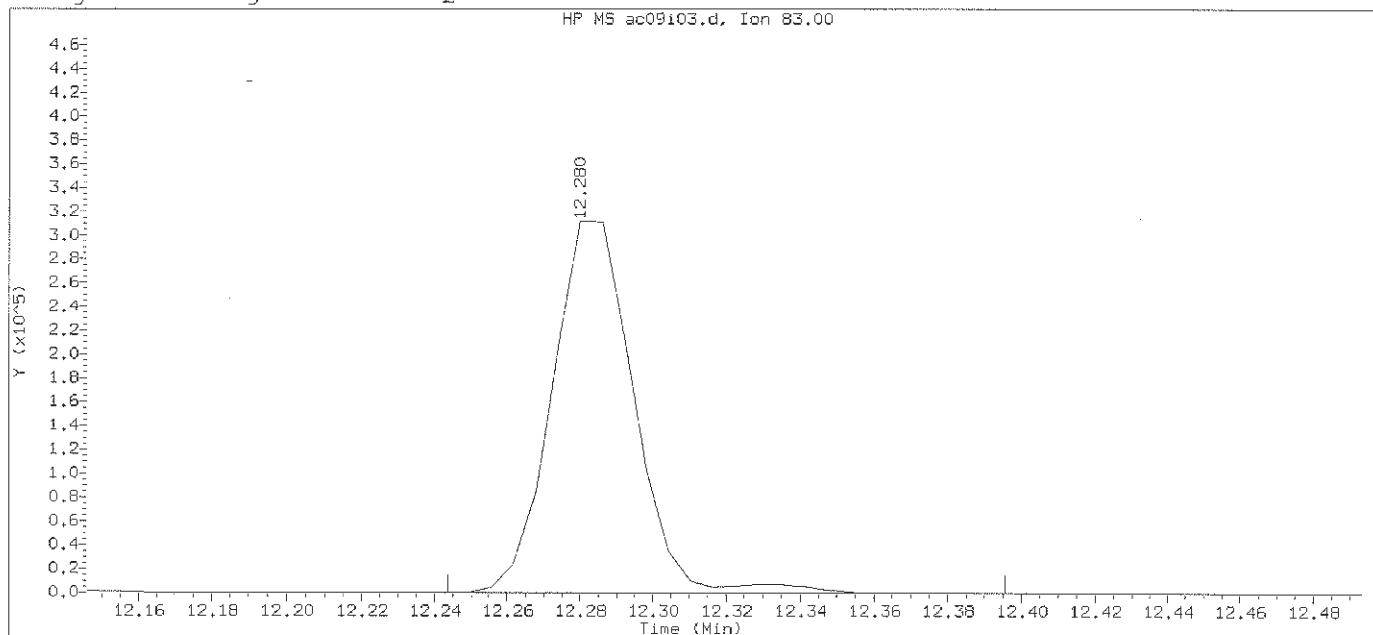
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:10.
Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: *Chase B. Eastep* 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09103.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 12:04 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 13:34
Date, time and analyst ID of latest file update: 09-Oct-2012 14:27 cbe01947

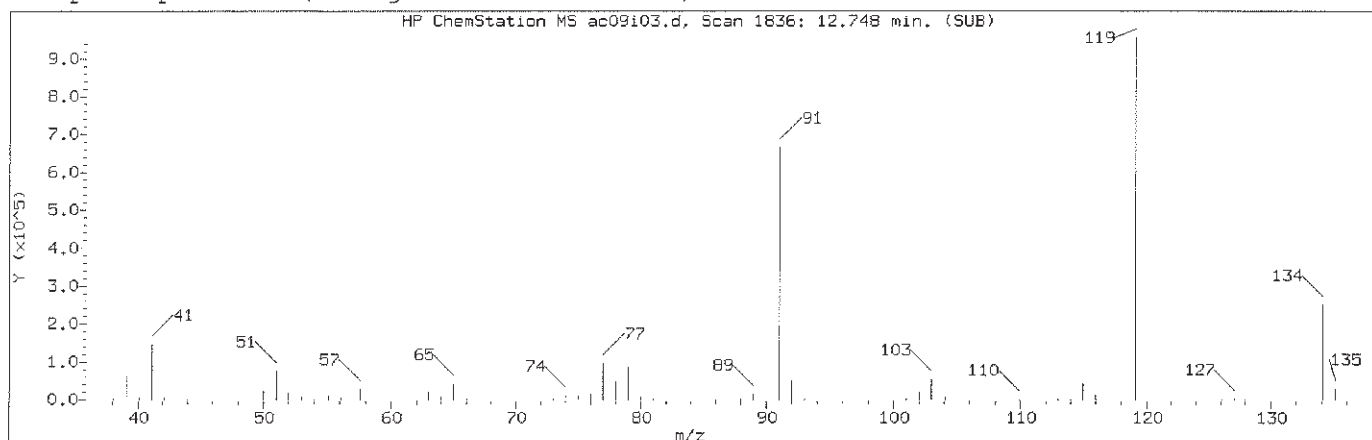
Sample Name: VSTD050

Lab Sample ID: VSTD050

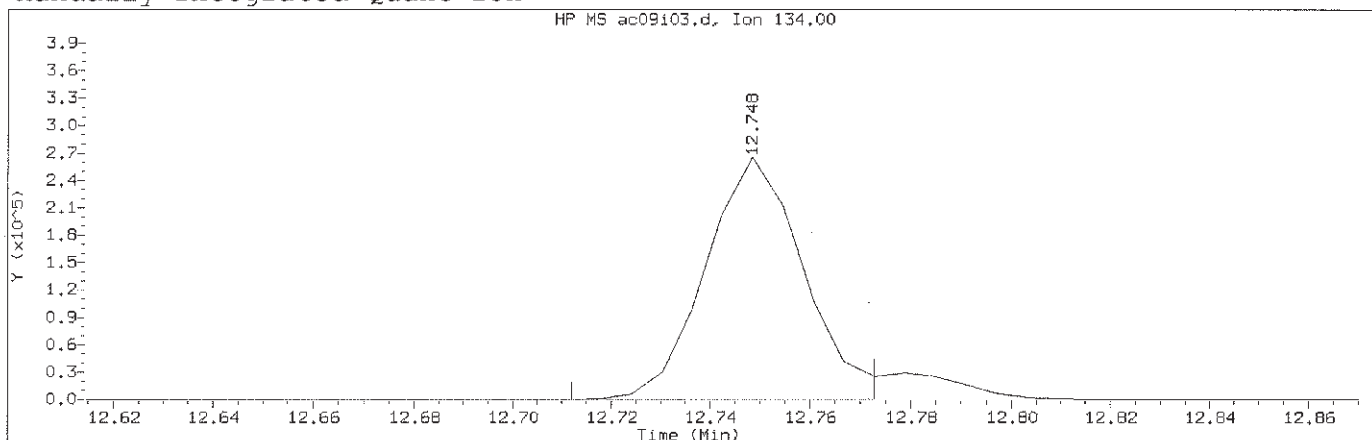
Compound Number : 113
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1759
Retention Time (minutes): 12.280
Quant Ion : 83.00
Area : 487836
On-column Amount (ng) : 53.6578
Integration start scan : 1752 Integration stop scan: 1777
Y at integration start : 0 Y at integration end: 0

Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:10.
Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i03.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 12:04

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:34

Date, time and analyst ID of latest file update: 11-Oct-2012 15:09 cbe01947

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compound Number	: 126
Compound Name	: tert-Butylbenzene
Scan Number	: 1836
Retention Time (minutes)	: 12.748
Quant Ion	: 134.00
Area (flag)	: 361297M
On-Column Amount (ng)	: 50.7653
Integration start scan	: 1829
Integration stop scan	: 1839
Y at integration start	: 0
Y at integration end	: 0

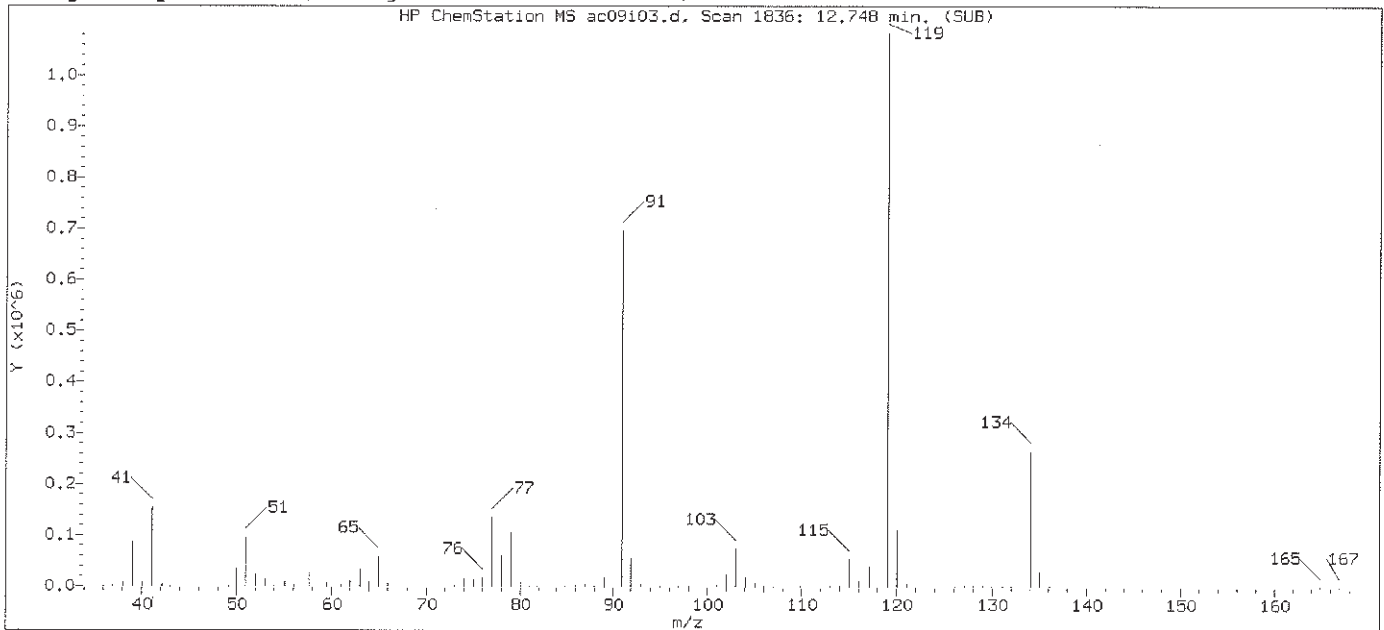
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:10.
Target 3.5 esignature user ID: cbe01947

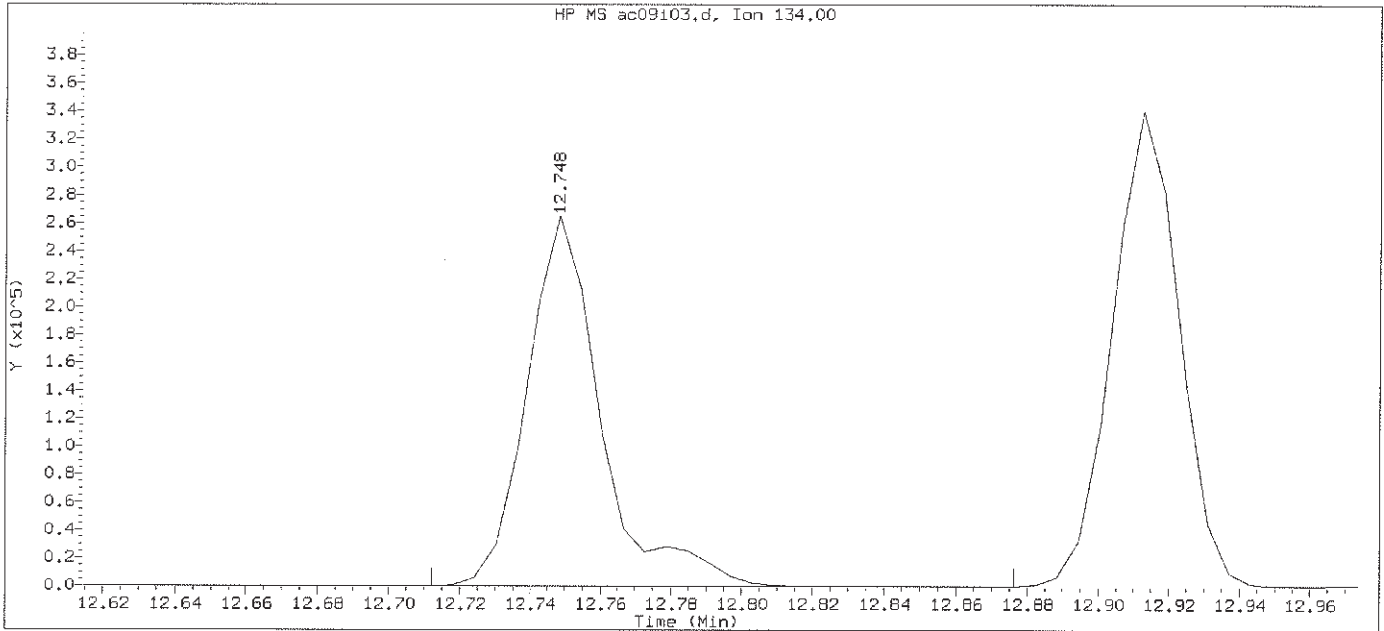
GC/MS audit/management approval:

Handwritten signature 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09103.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 12:04

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 13:34

Date, time and analyst ID of latest file update: 09-Oct-2012 14:27 cbe01947

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compound Number : 126

Compound Name : tert-Butylbenzene

Scan Number : 1836

Retention Time (minutes): 12.748

Quant Ion : 134.00

Area : 390046

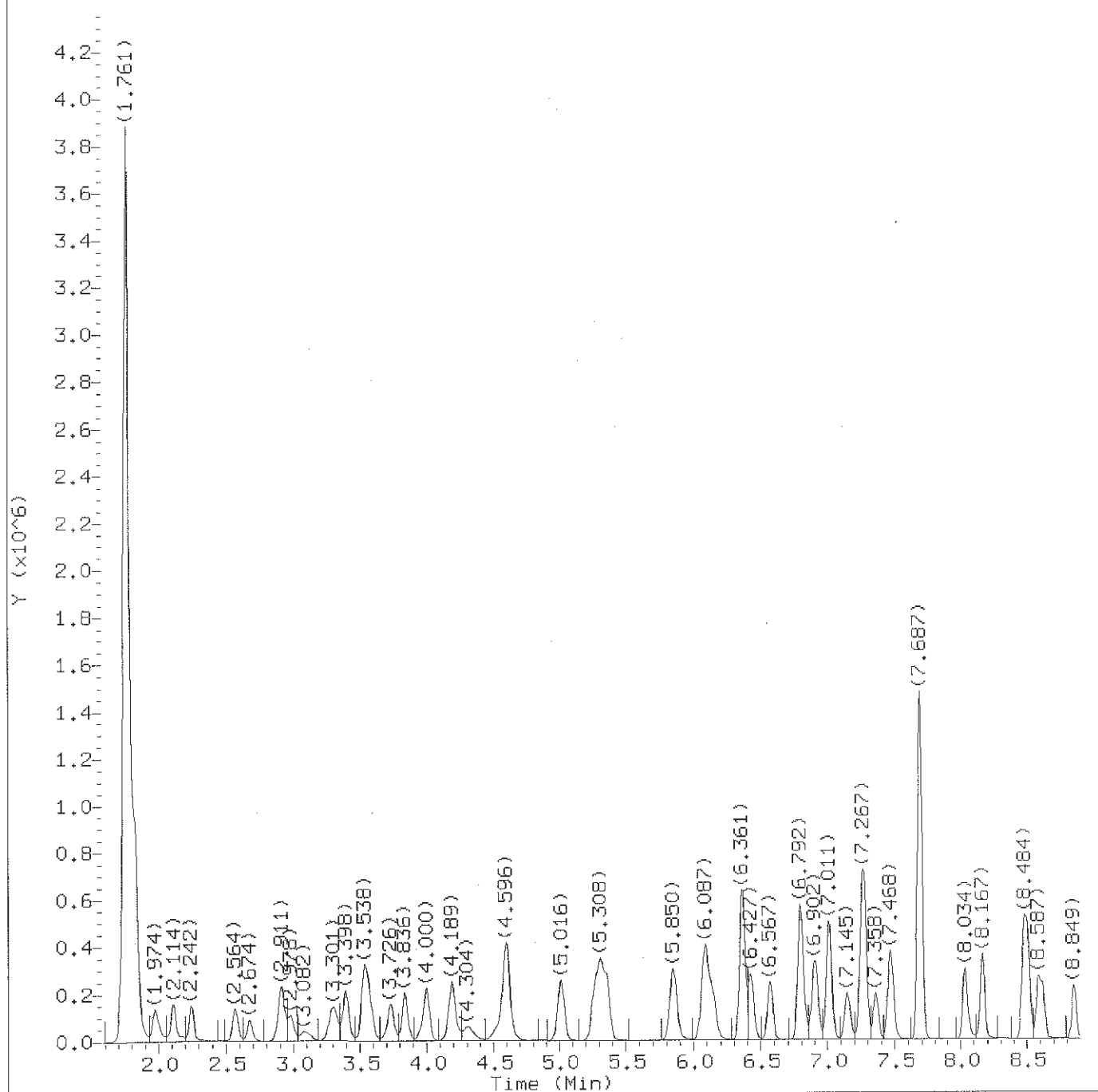
On-column Amount (ng) : 49.3770

Integration start scan : 1829 Integration stop scan: 1856

Y at integration start : 0 Y at integration end: 0

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Target 3.5 esignature user ID: cbe01947



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a,b/ac09i07.d
Injection date and time: 09-OCT-2012 15:43

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a,b/di8260b.m
Calibration date and time: 09-OCT-2012 16:02
Date, time and analyst ID of latest file update: 09-Oct-2012 16:13 cbe01947

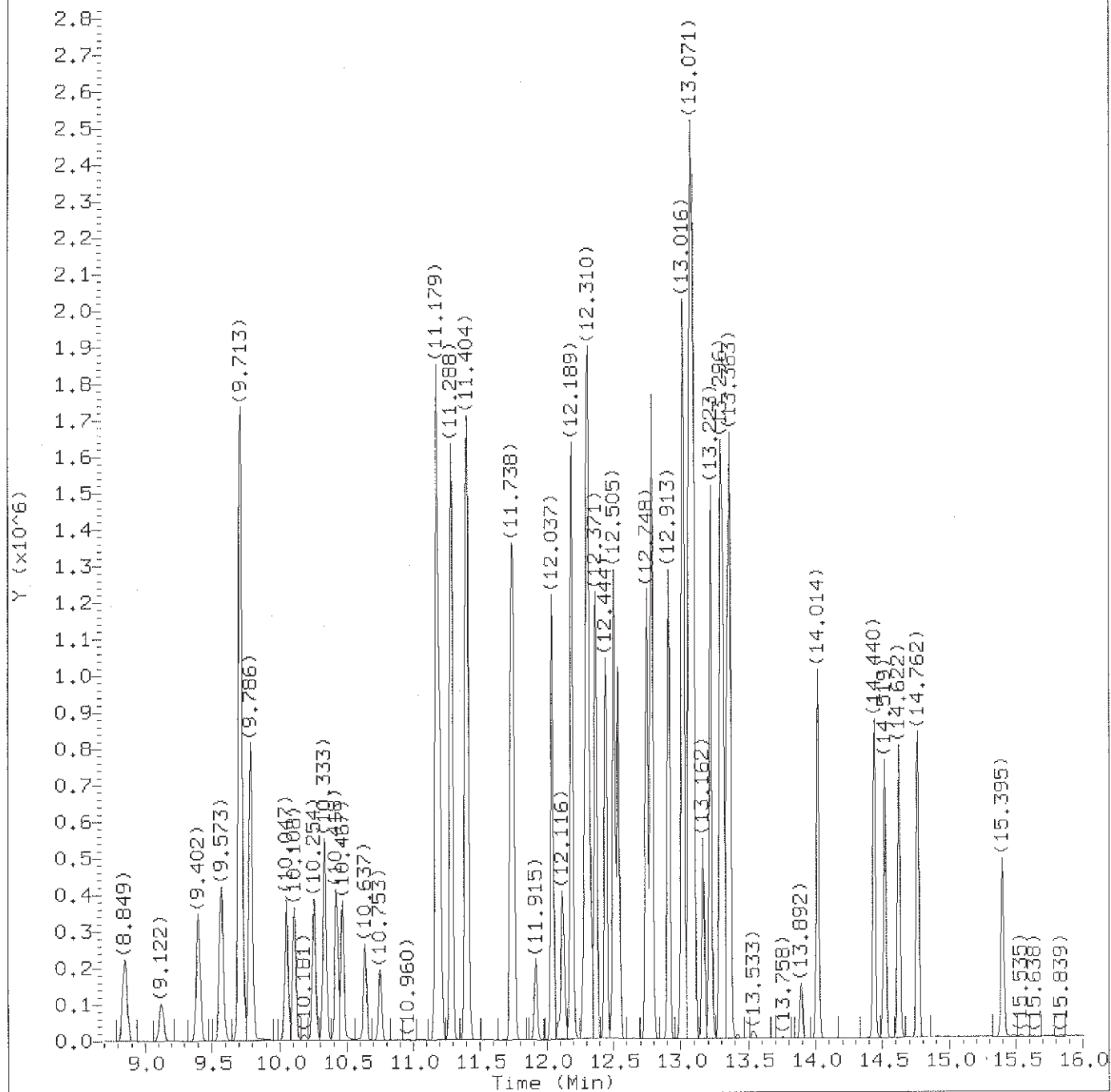
Sublist used: 8260S-2C

Sample Name: VSTD020

Lab Sample ID: VSTD020

Digitally signed by Chelsea B. Eastep
on 10/09/2012 at 16:31.

Target 3.5 esignature user ID: cbe01947



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i07.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 15:43

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 16:02

Date, time and analyst ID of latest file update: 09-Oct-2012 16:13 cbe01947

Sample Name: VSTD020

Lab Sample ID: VSTD020

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on 10/09/2012 at 16:31.

Target 3.5 esignature user ID: cbe01947

page 2 of 2

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i07.d
Injection date and time: 09-OCT-2012 15:43

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:02
Date, time and analyst ID of latest file update: 11-Oct-2012 15:10 cbe01947

Sample Name: VSTD020

Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
2) Dichlorodifluoromethane	(2)	1.974	85	267935	22.291
4) Chloromethane	(2)	2.114	50	238394	22.288
5) Vinyl Chloride	(2)	2.242	62	227419	22.075
9) Bromomethane	(2)	2.570	94	141581	21.910
10) Chloroethane	(2)	2.674	64	122471	22.138
11) Dichlorofluoromethane	(2)	2.905	67	293347	21.081
13) Trichlorofluoromethane	(2)	2.978	101	269874	21.903
15) Ethanol	(1)	3.082	45	163069M	2057.294
17) Freon 123a	(2)	3.301	67	189358	20.988
18) Acrolein	(1)	3.398	56	324653	214.047
19) 1,1-Dichloroethene	(2)	3.532	96	126388	19.775
20) Acetone	(2)	3.556	58	33914	39.685
22) Freon 113	(2)	3.568	101	143831	20.400
23) 2-Propanol	(1)	3.708	45	122265M	220.360
24) Methyl Iodide	(2)	3.726	142	239974	20.121
25) Carbon Disulfide	(2)	3.836	76	470572	20.145
27) Methyl Acetate	(2)	3.970	43	117157	19.918
29) Allyl Chloride	(2)	4.000	41	227706	19.810
31) Methylene Chloride	(2)	4.183	84	154542	19.523
30)*t-Butyl alcohol-d10	(1)	4.189	65	158111	250.000
32) t-Butyl alcohol	(1)	4.304	59	174348	204.995
33) Acrylonitrile	(2)	4.511	53	62294	19.892
34) Methyl Tertiary Butyl Ether	(2)	4.584	73	444376	19.957
35) trans-1,2-Dichloroethene	(2)	4.602	96	146420	20.184
38) n-Hexane	(2)	5.010	57	222757	19.050
40) 1,1-Dichloroethane	(2)	5.259	63	287929	20.141
41) di-Isopropyl ether	(2)	5.308	45	536745	20.241
42) 2-Chloro-1,3-butadiene	(2)	5.363	53	236223	19.875
44) Ethyl t-butyl ether	(2)	5.850	59	465067	19.945
45) 2-Butanone	(2)	6.062	43	157495	39.438
46) cis-1,2-Dichloroethene	(2)	6.087	96	157777	20.158
47) 1,2-Dichloroethene (Total)	(2)		96	304197	40.342
48) 2,2-Dichloropropane	(2)	6.111	77	220743	19.570
50) Propionitrile	(1)	6.142	54	237074	215.343
51) Methacrylonitrile	(2)	6.361	67	320133	100.713
52) Bromochloromethane	(2)	6.427	128	71136	19.740
53) Tetrahydrofuran	(1)	6.427	71	37836	41.847
54) Chloroform	(2)	6.567	83	275111	19.973

M = Compound was manually integrated.

* = Compound is an internal standard.

page 1 of 4

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Target 3.5 esignature user ID: cbe01947

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i07.d
Injection date and time: 09-OCT-2012 15:43

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 16:02

Date, time and analyst ID of latest file update: 11-Oct-2012 15:10 cbe01947

Sample Name: VSTD020

Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
55) \$Dibromofluoromethane	(2)	6.786	113	311838M	49.591
55) \$Dibromofluoromethane	(2)	6.792	111	317969	49.322
56) 1,1,1-Trichloroethane	(2)	6.799	97	251648	20.114
57) Cyclohexane	(2)	6.908	56	265905	19.633
57) Cyclohexane	(2)	6.902	84	212474	19.636
57) Cyclohexane	(2)	6.902	69	77701	19.757
59) Carbon Tetrachloride	(2)	7.011	117	195999	19.782
58) 1,1-Dichloropropene	(2)	7.011	75	209235	19.780
60) Isobutyl Alcohol	(1)	7.145	41	158720	508.479
61) \$1,2-Dichloroethane-d4	(2)	7.255	102	71719	49.253
61) \$1,2-Dichloroethane-d4	(2)	7.255	65	391267	49.209
61) \$1,2-Dichloroethane-d4	(2)	7.255	104	45581	49.205
62) Benzene	(2)	7.279	78	610953	20.092
64) 1,2-Dichloroethane	(2)	7.358	62	218727	20.190
64) 1,2-Dichloroethane	(2)	7.358	98	17955	20.267
65) t-Amyl methyl ether	(2)	7.468	73	411537	19.766
67) *Fluorobenzene	(2)	7.687	96	1315915	50.000
69) n-Heptane	(2)	7.687	43	232901	17.907
70) n-Butanol	(1)	8.034	56	242391	1009.876
72) Trichloroethene	(2)	8.167	95	152085	19.861
73) Methylcyclohexane	(2)	8.478	83	241173	19.630
74) 1,2-Dichloropropane	(2)	8.508	63	164248	19.972
76) Methyl Methacrylate	(2)	8.581	69	104477	19.768
77) 1,4-Dioxane	(1)	8.599	88	40693	527.870
78) Dibromomethane	(2)	8.618	93	94356	20.146
81) Bromodichloromethane	(2)	8.849	83	183939	19.627
82) 2-Nitropropane	(1)	9.122	41	83252	41.107
84) cis-1,3-Dichloropropene	(2)	9.402	75	224611	19.639
85) 4-Methyl-2-pentanone	(2)	9.573	43	336170	40.567
86) \$Toluene-d8	(3)	9.713	98	1287341	50.242
86) \$Toluene-d8	(3)	9.713	100	841431	50.133
87) Toluene	(3)	9.786	92	375696	20.153
88) trans-1,3-Dichloropropene	(3)	10.047	75	216168	19.785
89) Ethyl Methacrylate	(3)	10.108	69	184932	19.774
90) 1,1,2-Trichloroethane	(3)	10.254	97	126088	20.205
92) Tetrachloroethene	(3)	10.333	166	172120	20.096
93) 1,3-Dichloropropane	(3)	10.418	76	231386	20.303
95) 2-Hexanone	(3)	10.467	43	254580	41.298

M = Compound was manually integrated.

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Target 3.5 esignature user ID: cbe01947

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Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i07.d
Injection date and time: 09-OCT-2012 15:43

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:02
Date, time and analyst ID of latest file update: 11-Oct-2012 15:10 cbe01947

Sample Name: VSTD020

Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
97) Dibromochloromethane	(3)	10.637	129	136814	19.835
98) 1,2-Dibromoethane	(3)	10.753	107	128625	19.992
99) *Chlorobenzene-d5	(3)	11.179	117	958140	50.000
100) Chlorobenzene	(3)	11.203	112	426215	20.272
101) 1,1,1,2-Tetrachloroethane	(3)	11.288	131	145424	20.021
102) Ethylbenzene	(3)	11.288	91	724930	20.475
103) m+p-Xylene	(3)	11.410	106	560510	40.783
104) o-Xylene	(3)	11.738	106	270291	20.426
105) Xylene (Total)	(3)		106	830801	61.209
106) Styrene	(3)	11.757	104	437988	20.494
107) Bromoform	(3)	11.915	173	92862	19.498
108) Isopropylbenzene	(3)	12.037	105	699596	20.284
111) Cyclohexanone	(1)	12.116	55	171254	542.142
112) \$4-Bromofluorobenzene	(3)	12.189	95	478240	49.867
112) \$4-Bromofluorobenzene	(3)	12.189	174	429075	50.274
113) 1,1,2,2-Tetrachloroethane	(4)	12.286	83	177222	20.319
114) Bromobenzene	(4)	12.304	156	192530	20.261
115) trans-1,4-Dichloro-2-butene	(4)	12.310	53	266353	100.329
116) 1,2,3-Trichloropropane	(4)	12.335	110	51960	20.181
117) n-Propylbenzene	(4)	12.371	91	851693	20.443
119) 2-Chlorotoluene	(4)	12.444	126	176862	20.194
122) 1,3,5-Trimethylbenzene	(4)	12.505	105	604198	20.214
123) 4-Chlorotoluene	(4)	12.541	126	185054	20.250
126) tert-Butylbenzene	(4)	12.748	134	126782M	18.873
127) Pentachloroethane	(4)	12.785	167	125067	20.171
128) 1,2,4-Trimethylbenzene	(4)	12.791	105	627523	20.106
129) sec-Butylbenzene	(4)	12.913	105	738904	19.712
131) 1,3-Dichlorobenzene	(4)	13.010	146	369291	20.363
132) p-Isopropyltoluene	(4)	13.022	119	663068	19.723
133) *1,4-Dichlorobenzene-d4	(4)	13.071	152	559583	50.000
134) 1,4-Dichlorobenzene	(4)	13.089	146	373586	20.161
135) 1,2,3-Trimethylbenzene	(4)	13.095	105	670858	20.511
136) Benzyl Chloride	(4)	13.162	126	69560	18.509
137) 1,3-Diethylbenzene	(4)	13.223	119	436609	20.662
138) 1,4-Diethylbenzene	(4)	13.296	119	453089	20.711
139) n-Butylbenzene	(4)	13.314	92	332059M	19.425
140) 1,2-Dichlorobenzene	(4)	13.344	146	346531	20.179
141) 1,2-Diethylbenzene	(4)	13.363	119	369218M	20.475

M = Compound was manually integrated.

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Target 3.5 esignature user ID: cbe01947

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Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i07.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 15:43 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:02
Date, time and analyst ID of latest file update: 11-Oct-2012 15:10 cbe01947

Sample Name: VSTD020

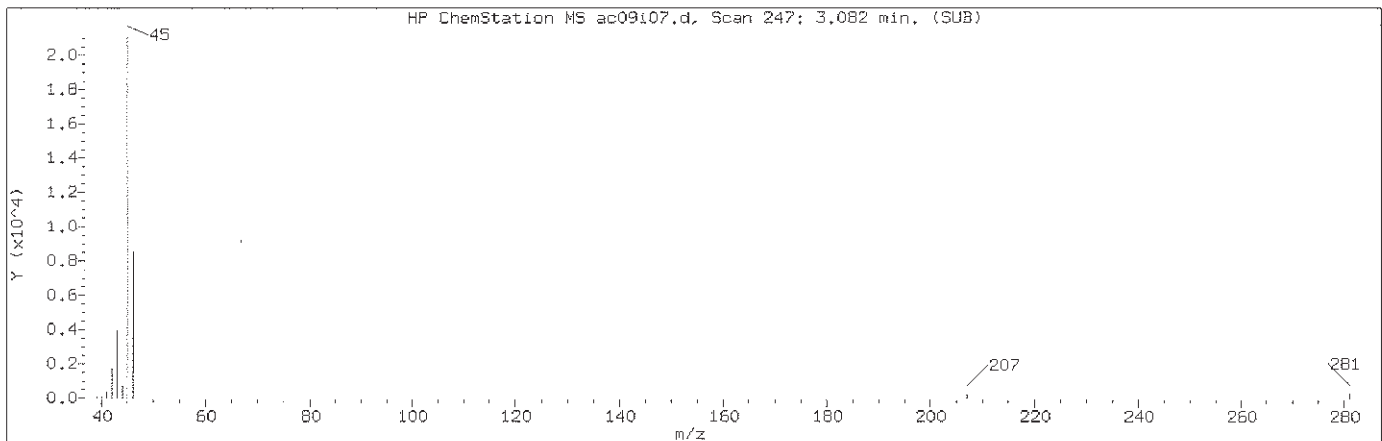
Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,2-Dibromo-3-chloropropane	(4)	13.892	75	32158	19.058
145) 1,3,5-Trichlorobenzene	(4)	14.014	180	285966	19.238
146) 1,2,4-Trichlorobenzene	(4)	14.440	180	246513	19.311
147) Hexachlorobutadiene	(4)	14.519	225	131269	17.301
148) Naphthalene	(4)	14.622	128	530572	19.965
149) 1,2,3-Trichlorobenzene	(4)	14.762	180	236363	19.695
150) 2-Methylnaphthalene	(4)	15.395	142	220753	16.115

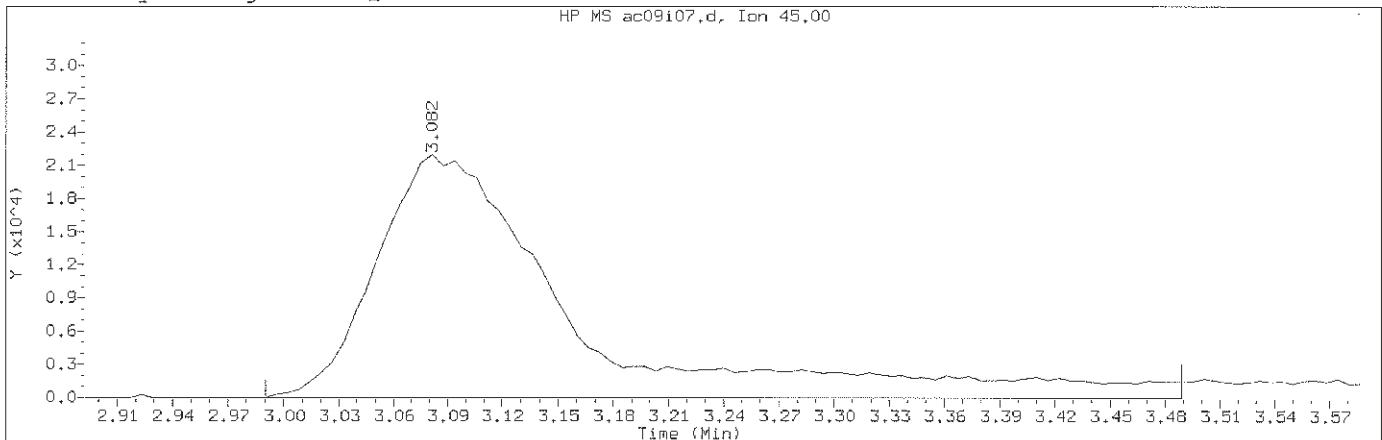
page 4 of 4

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Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i07.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 15:43

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 16:02

Date, time and analyst ID of latest file update: 11-Oct-2012 15:10 cbe01947

Sample Name: VSTD020

Lab Sample ID: VSTD020

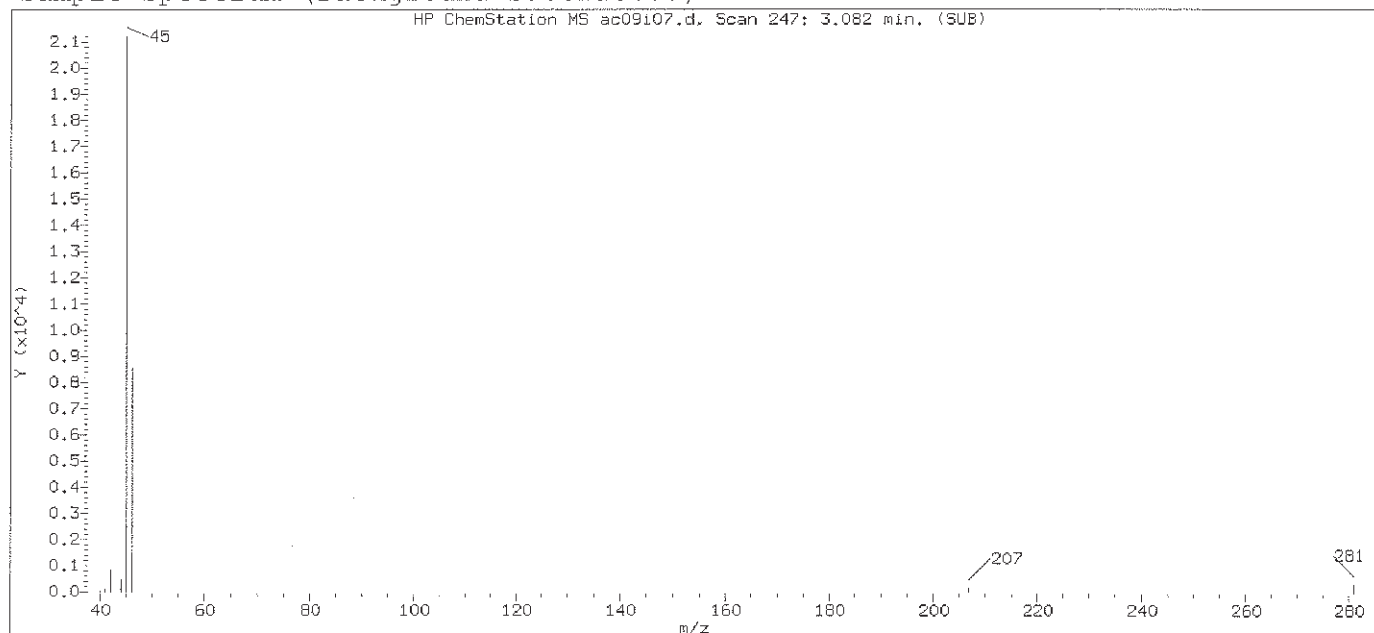
Compound Number : 15
 Compound Name : Ethanol
 Scan Number : 247
 Retention Time (minutes): 3.082
 Quant Ion : 45.00
 Area (flag) : 163069M
 On-Column Amount (ng) : 2057.2943
 Integration start scan : 231 Integration stop scan: 313
 Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

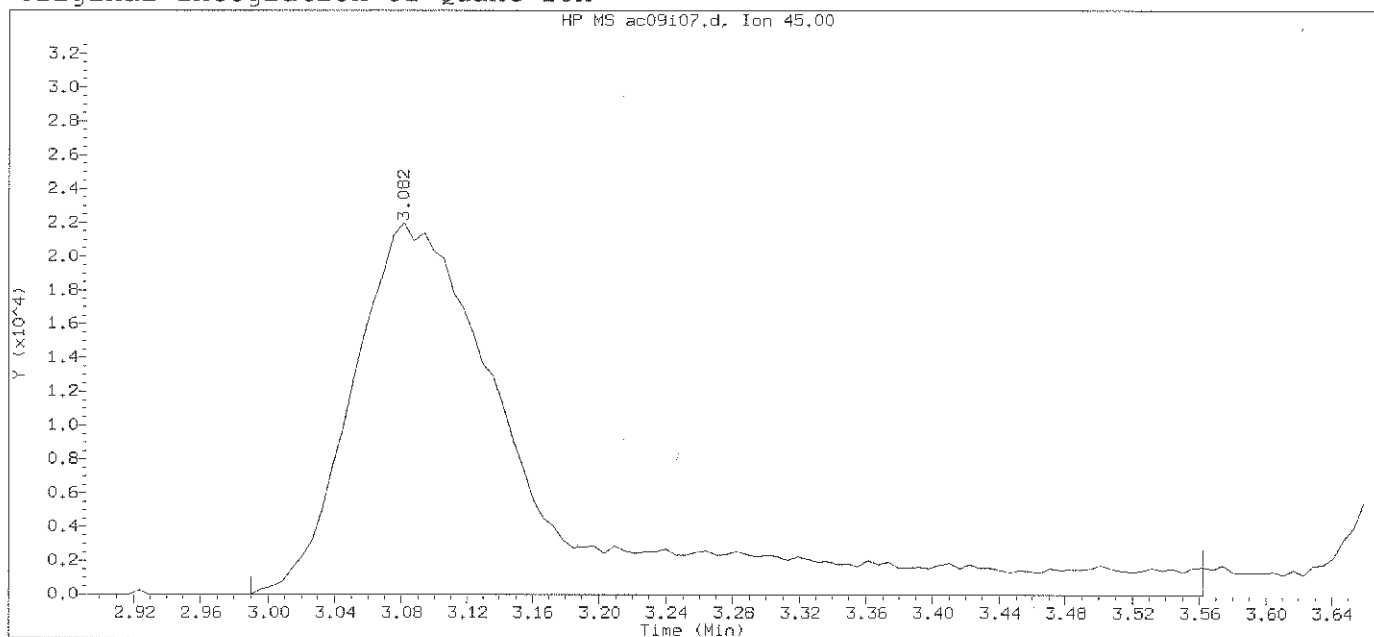
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
 on 10/11/2012 at 15:10.
 Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09107.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 15:43

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 16:02

Date, time and analyst ID of latest file update: 09-Oct-2012 16:02 Automation

Sample Name: VSTD020

Lab Sample ID: VSTD020

Compound Number : 15

Compound Name : Ethanol

Scan Number : 247

Retention Time (minutes): 3.082

Quant Ion : 45.00

Area : 169426

On-column Amount (ng) : 2118.7283

Integration start scan : 231

Integration stop scan: 325

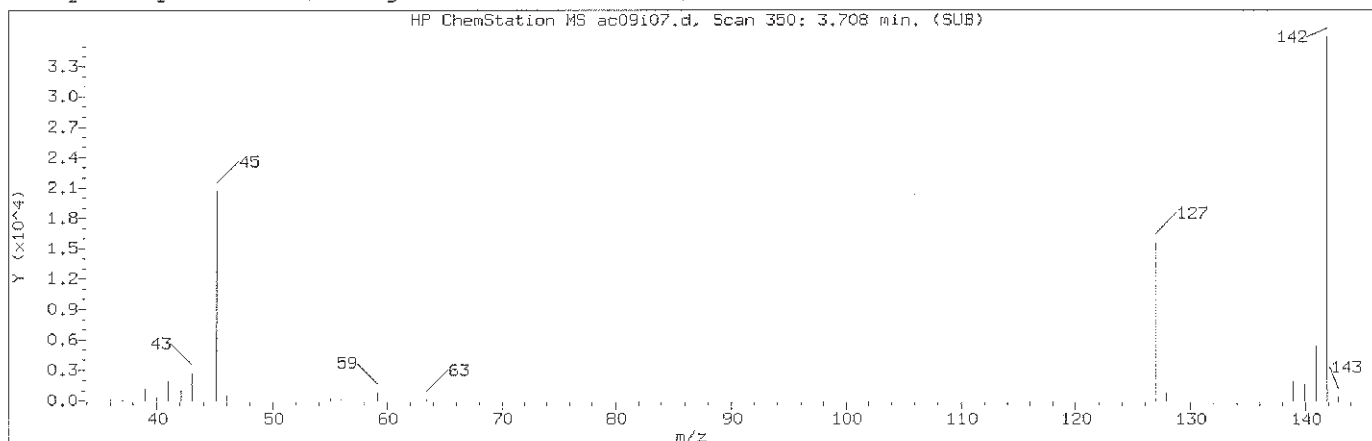
Y at integration start : 0

Y at integration end: 0

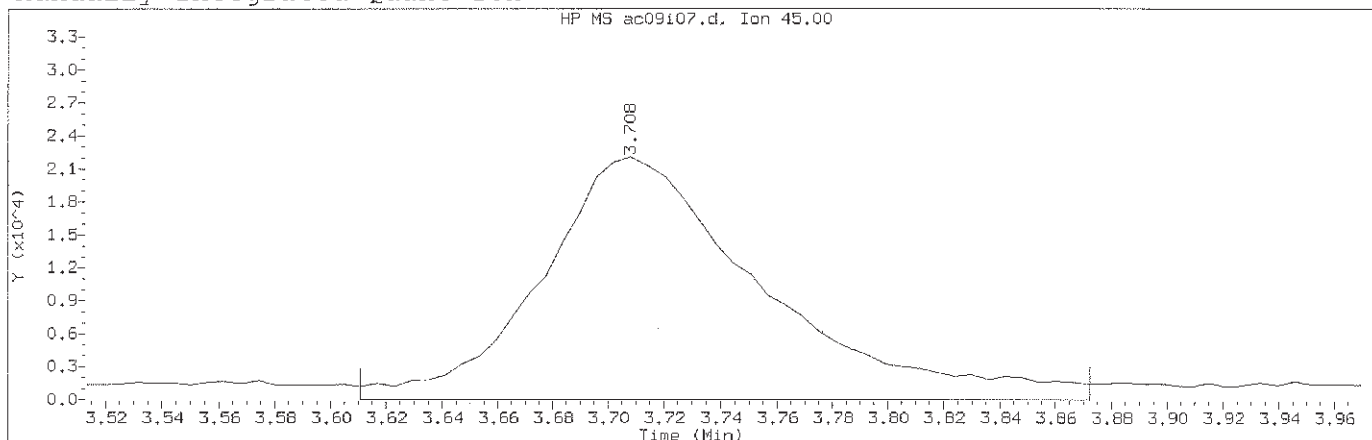
Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:10.

Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i07.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 15:43 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:02
Date, time and analyst ID of latest file update: 11-Oct-2012 15:10 cbe01947

Sample Name: VSTD020 Lab Sample ID: VSTD020

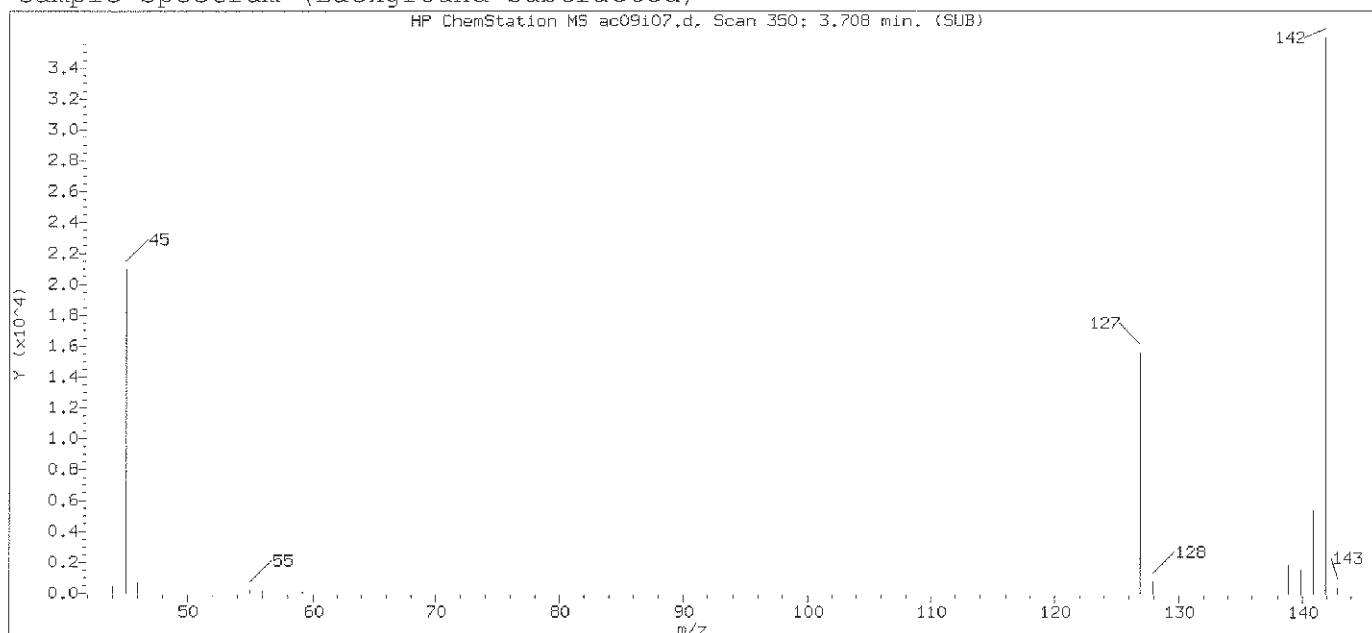
Compound Number : 23
Compound Name : 2-Propanol
Scan Number : 350
Retention Time (minutes): 3.708
Quant Ion : 45.00
Area (flag) : 122265M
On-Column Amount (ng) : 220.3604
Integration start scan : 333 Integration stop scan: 376
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

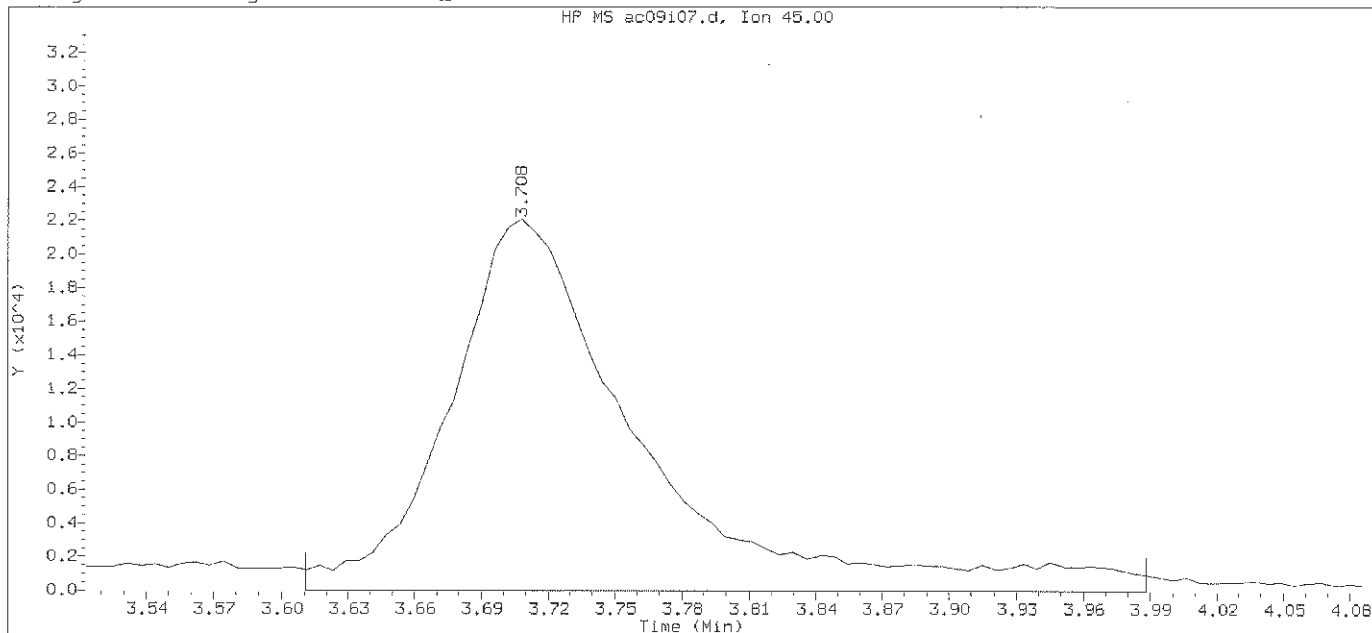
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:10.
Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: *mmg* 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09107.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 15:43

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 16:02

Date, time and analyst ID of latest file update: 09-Oct-2012 16:02 Automation

Sample Name: VSTD020

Lab Sample ID: VSTD020

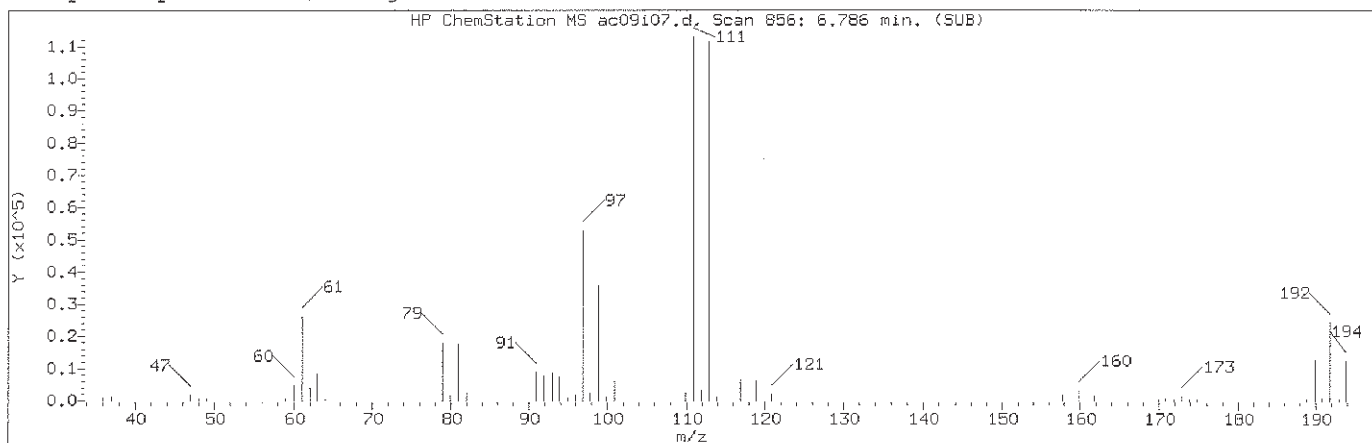
Compound Number : 23
 Compound Name : 2-Propanol
 Scan Number : 350
 Retention Time (minutes): 3.708
 Quant Ion : 45.00
 Area : 131426
 On-column Amount (ng) : 233.6078
 Integration start scan : 333
 Y at integration start : 0

Integration stop scan: 395
 Y at integration end: 0

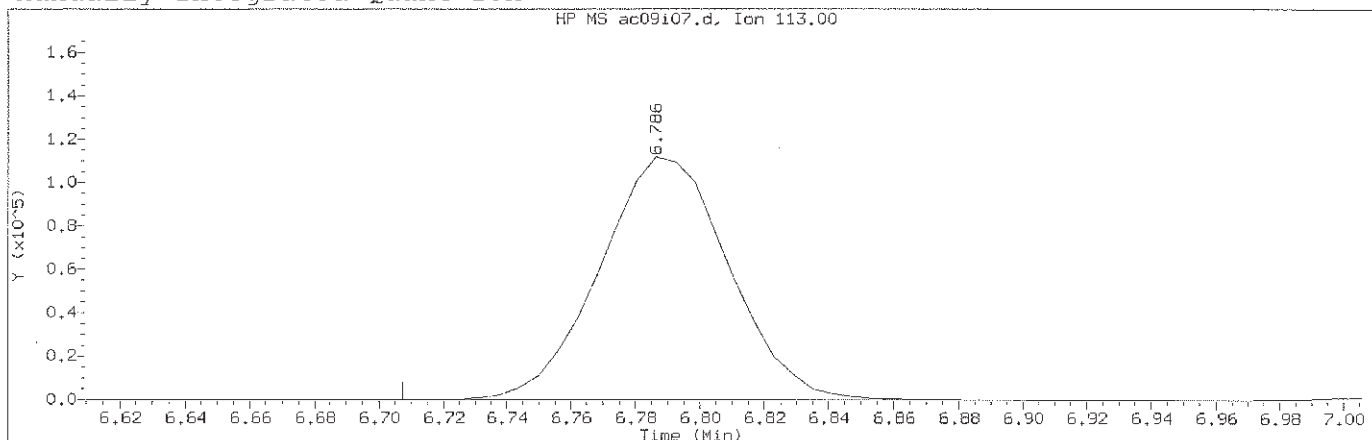
Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:10.

Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09107.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 15:43 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:02
Date, time and analyst ID of latest file update: 11-Oct-2012 15:10 cbe01947

Sample Name: VSTD020 Lab Sample ID: VSTD020

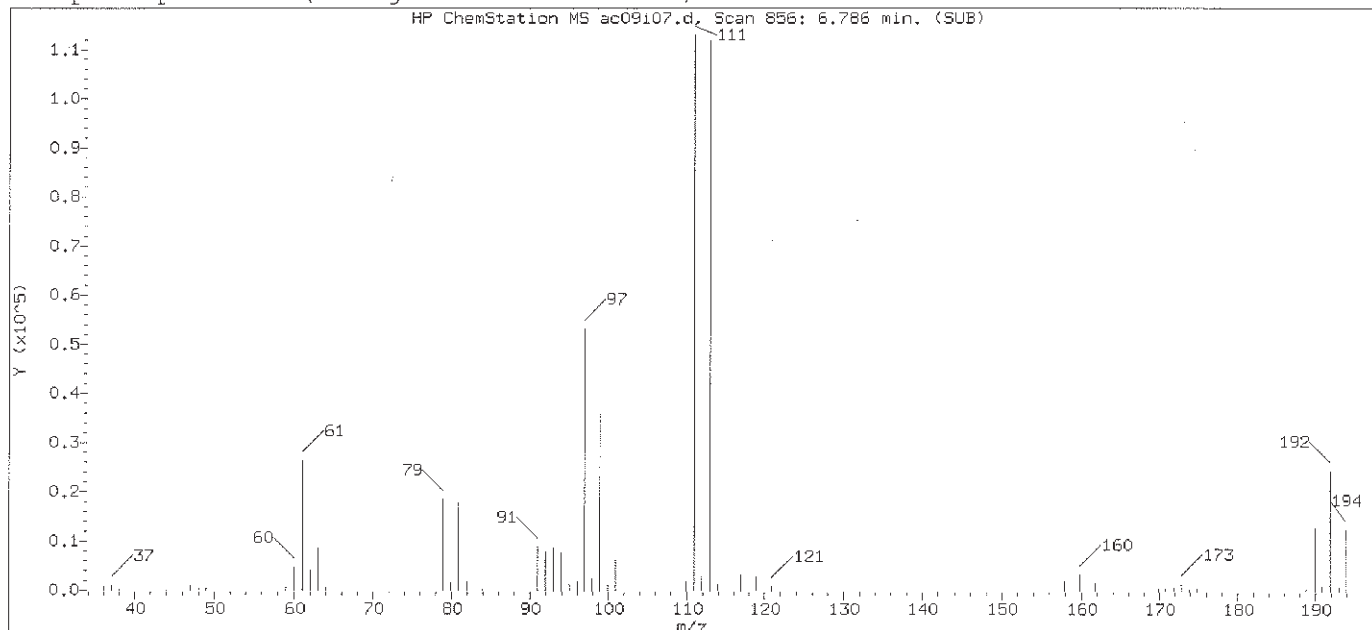
Compound Number : 55
Compound Name : Dibromofluoromethane
Scan Number : 856
Retention Time (minutes): 6.786
Quant Ion : 113.00
Area (flag) : 311838M
On-Column Amount (ng) : 49.5913
Integration start scan : 842 Integration stop scan: 875
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

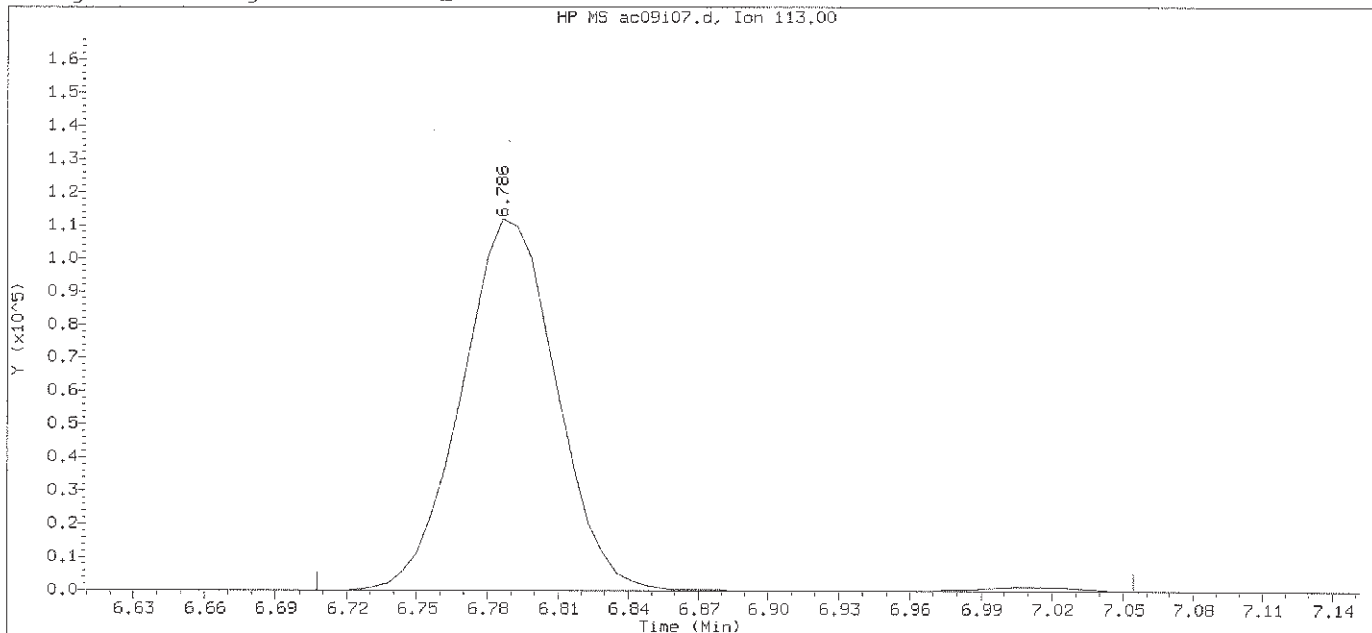
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:10.
Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: ammy 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09107.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 15:43

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 16:02

Date, time and analyst ID of latest file update: 09-Oct-2012 16:02 Automation

Sample Name: VSTD020

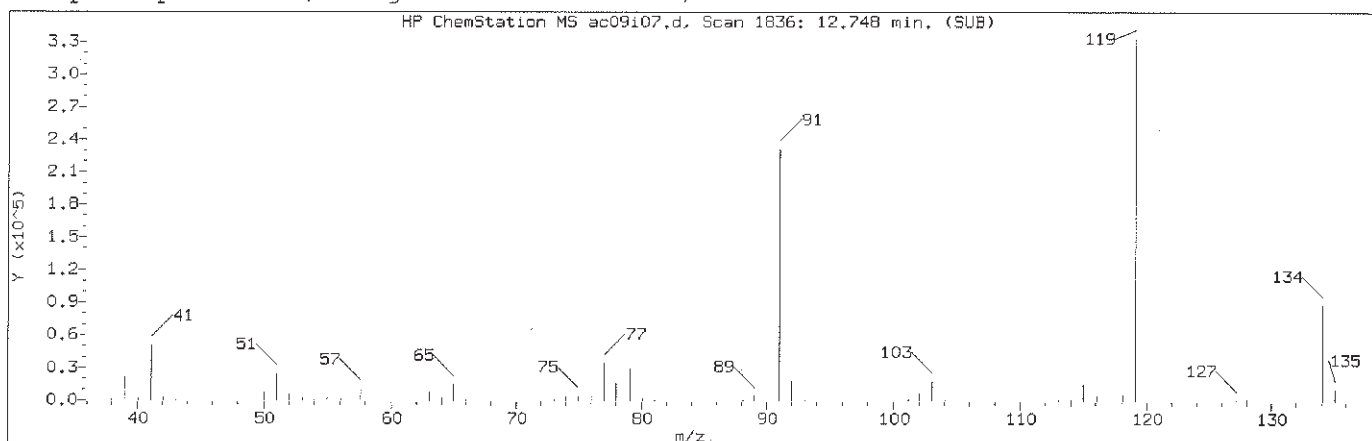
Lab Sample ID: VSTD020

Compound Number	: 55	
Compound Name	: Dibromofluoromethane	
Scan Number	: 856	
Retention Time (minutes)	: 6.786	
Quant Ion	: 113.00	
Area	: 315341	
On-column Amount (ng)	: 50.1789	
Integration start scan	: 842	Integration stop scan: 899
Y at integration start	: 0	Y at integration end: 0

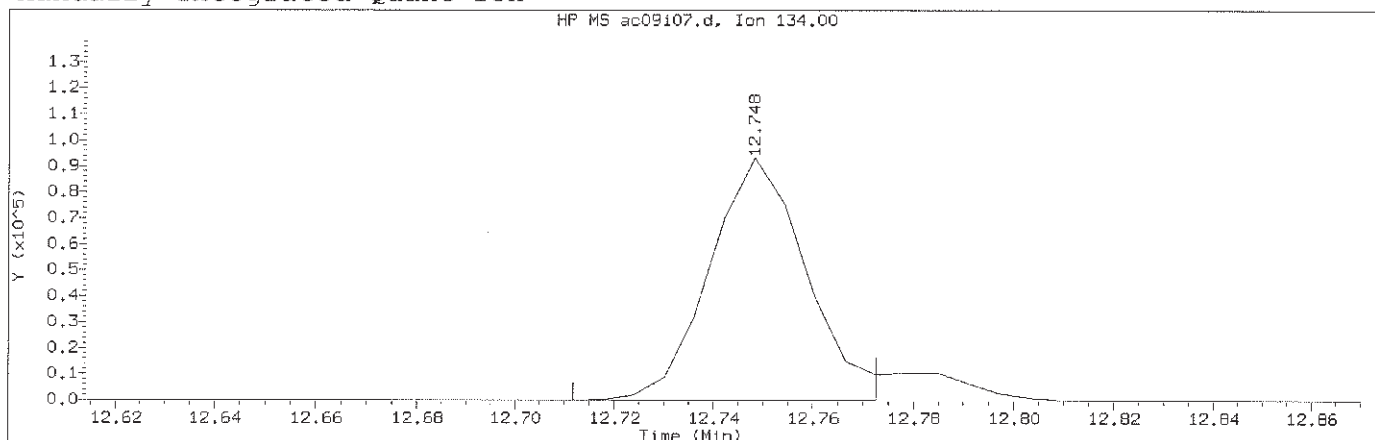
Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:10.

Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i07.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 15:43 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:02
Date, time and analyst ID of latest file update: 11-Oct-2012 15:10 cbe01947

Sample Name: VSTD020 Lab Sample ID: VSTD020

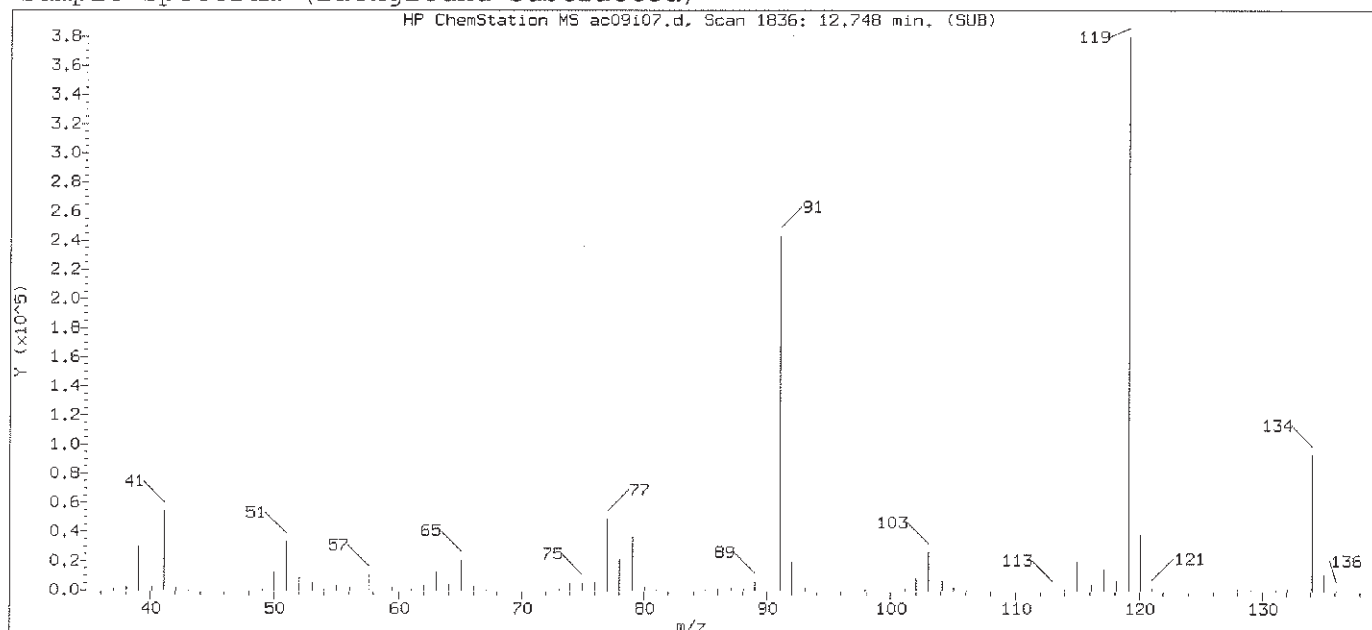
Compound Number : 126
Compound Name : tert-Butylbenzene
Scan Number : 1836
Retention Time (minutes): 12.748
Quant Ion : 134.00
Area (flag) : 126782M
On-Column Amount (ng) : 18.8730
Integration start scan : 1829 Integration stop scan: 1839
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

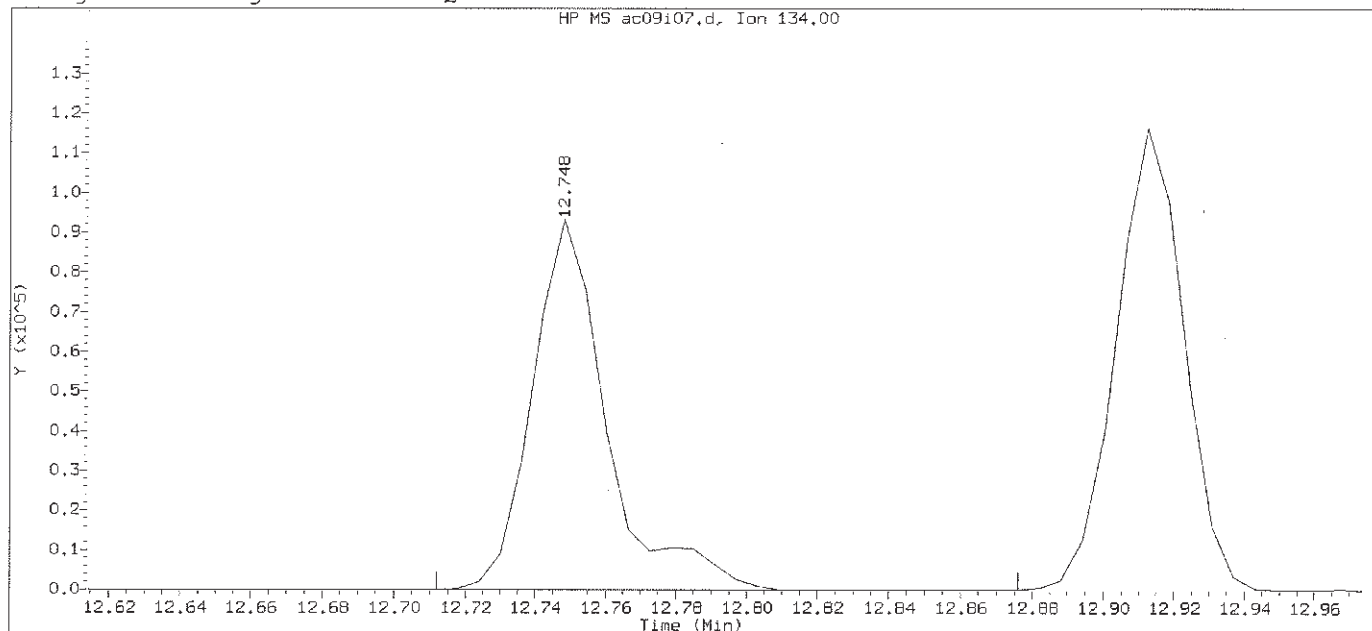
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:10.
Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: *[Signature]* 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09107.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 15:43 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:02
Date, time and analyst ID of latest file update: 09-Oct-2012 16:02 Automation

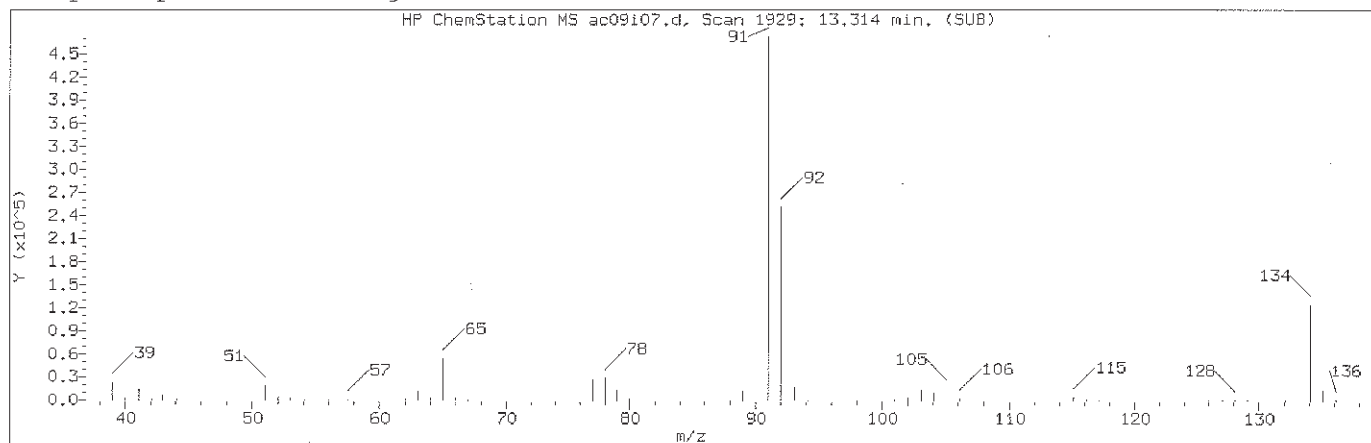
Sample Name: VSTD020

Lab Sample ID: VSTD020

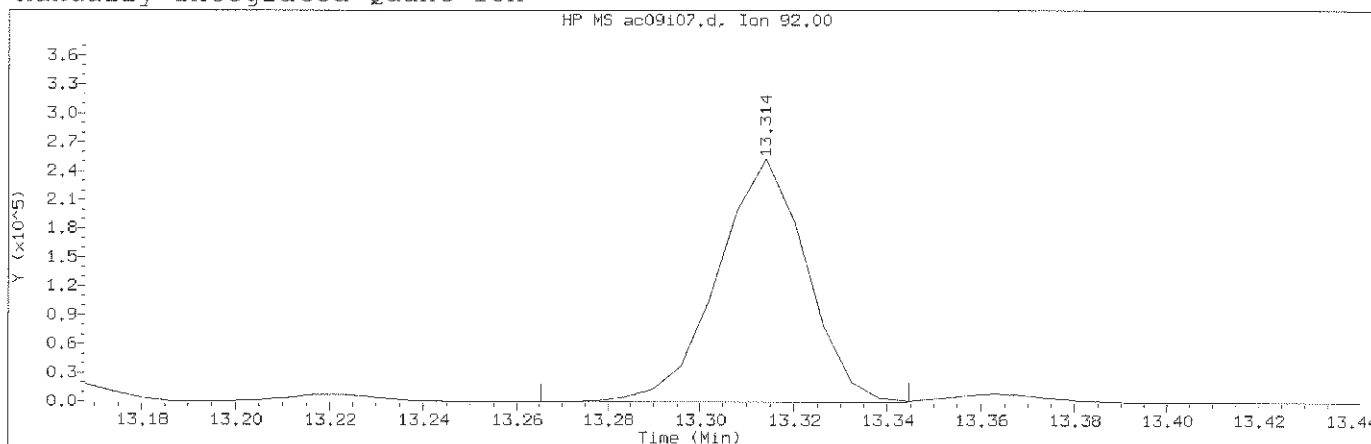
Compound Number	: 126	
Compound Name	: tert-Butylbenzene	
Scan Number	: 1836	
Retention Time (minutes)	: 12.748	
Quant Ion	: 134.00	
Area	: 138080	
On-column Amount (ng)	: 19.4326	
Integration start scan	: 1829	Integration stop scan: 1856
Y at integration start	: 0	Y at integration end: 0

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Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i07.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 15:43

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 16:02

Date, time and analyst ID of latest file update: 11-Oct-2012 15:10 cbe01947

Sample Name: VSTD020

Lab Sample ID: VSTD020

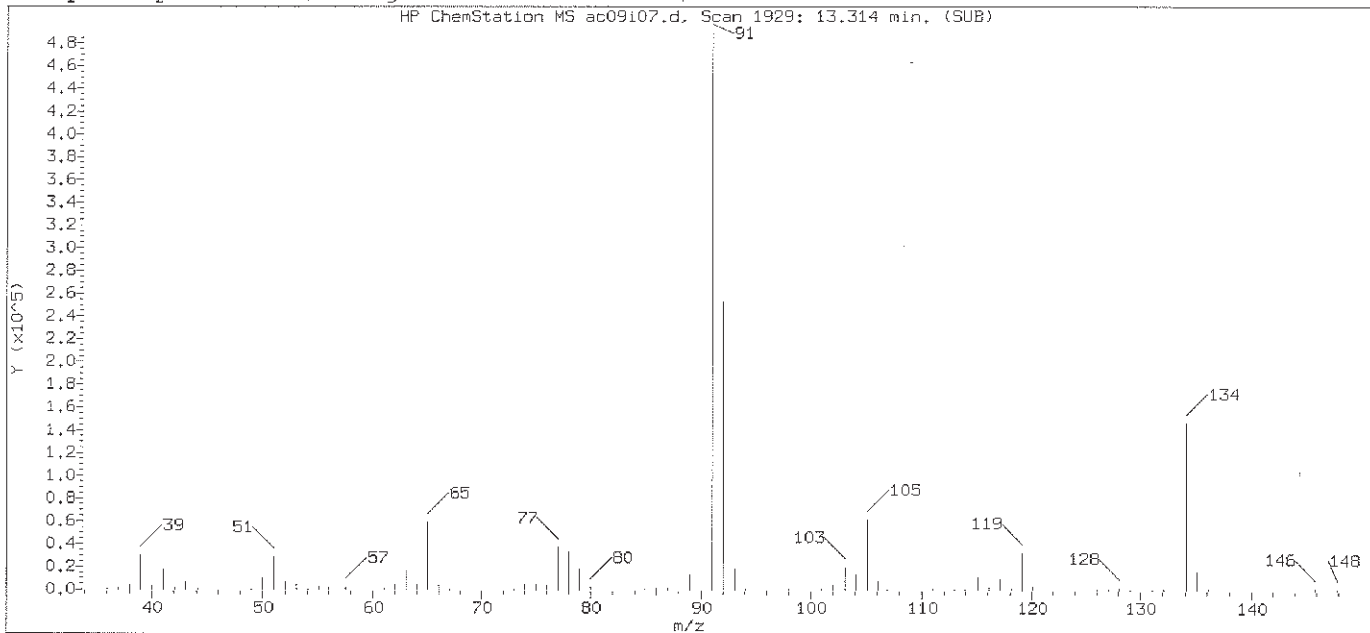
Compound Number	:	139	
Compound Name	:	n-Butylbenzene	
Scan Number	:	1929	
Retention Time (minutes)	:	13.314	
Quant Ion	:	92.00	
Area (flag)	:	332059M	
On-Column Amount (ng)	:	19.4251	
Integration start scan	:	1920	Integration stop scan: 1933
Y at integration start	:	0	Y at integration end: 0

Reason for manual integration: improper integration

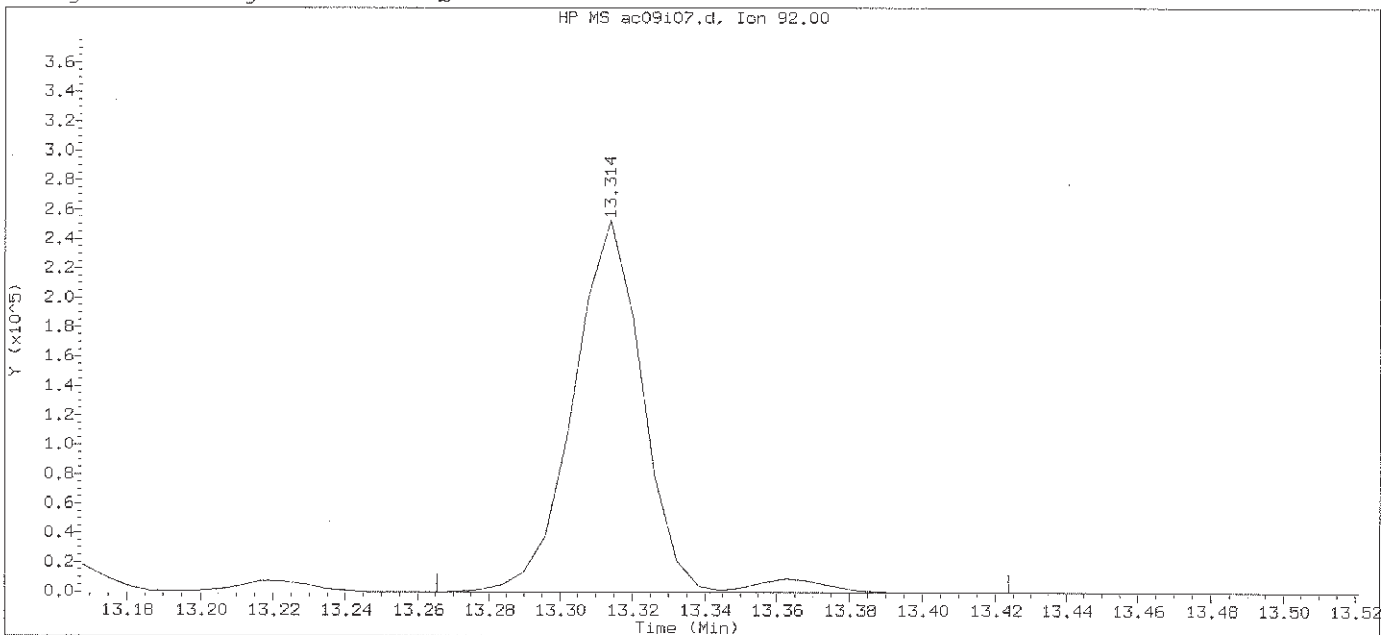
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:10.
Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: mm 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i07.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 15:43 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:02
Date, time and analyst ID of latest file update: 09-Oct-2012 16:02 Automation

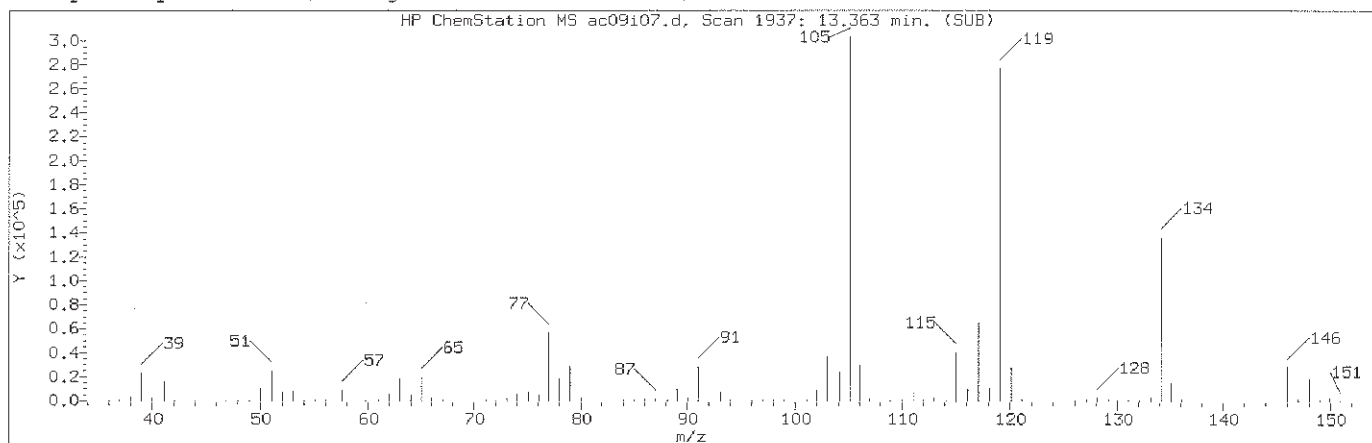
Sample Name: VSTD020

Lab Sample ID: VSTD020

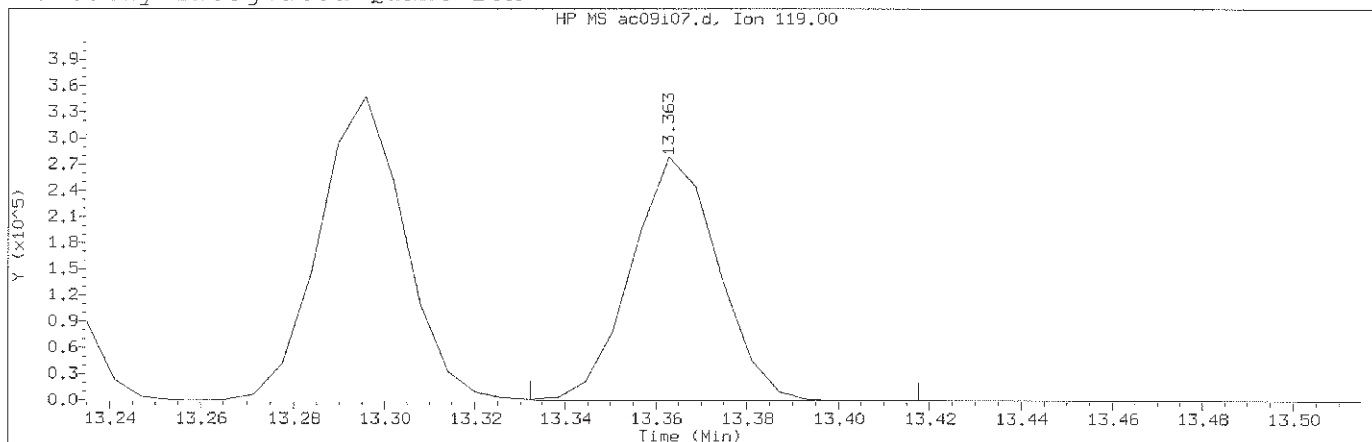
Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1929
Retention Time (minutes): 13.314
Quant Ion : 92.00
Area : 343970
On-column Amount (ng) : 19.8379
Integration start scan : 1920 Integration stop scan: 1946
Y at integration start : 0 Y at integration end: 0

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Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i07.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 15:43

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 16:02

Date, time and analyst ID of latest file update: 11-Oct-2012 15:10 cbe01947

Sample Name: VSTD020

Lab Sample ID: VSTD020

Compound Number : 141

Compound Name : 1,2-Diethylbenzene

Scan Number : 1937

Retention Time (minutes): 13.363

Quant Ion : 119.00

Area (flag) : 369218M

On-Column Amount (ng) : 20.4751

Integration start scan : 1931 Integration stop scan: 1945

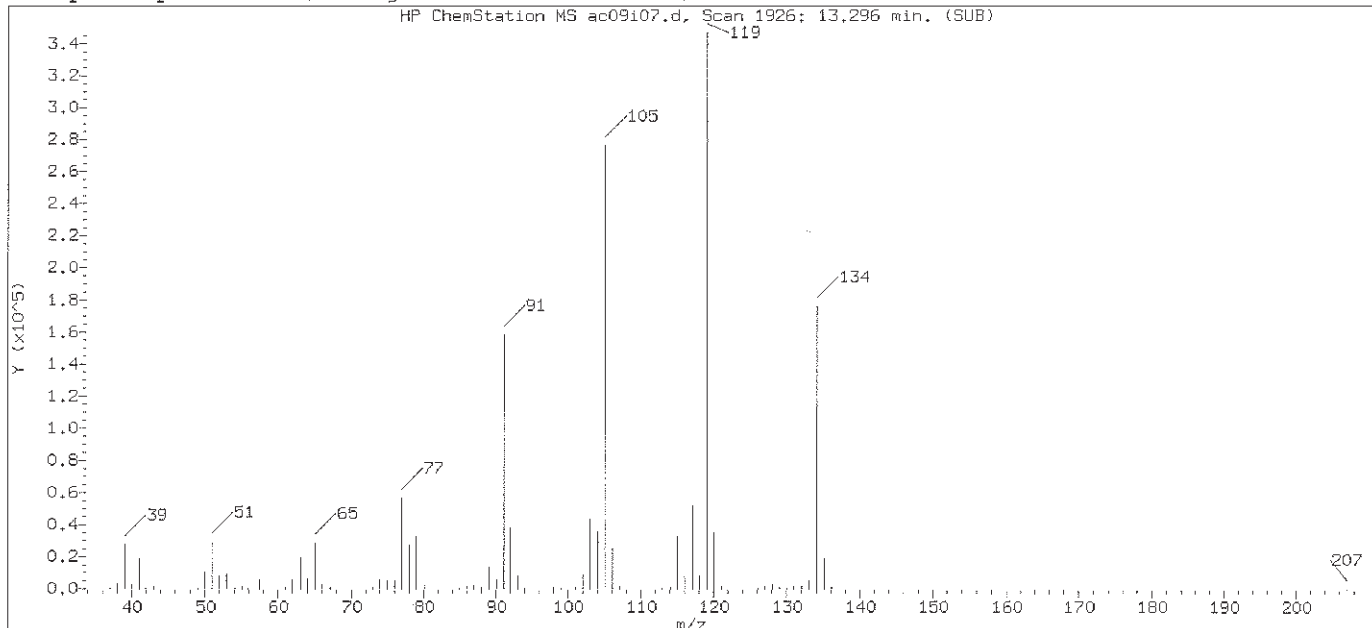
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

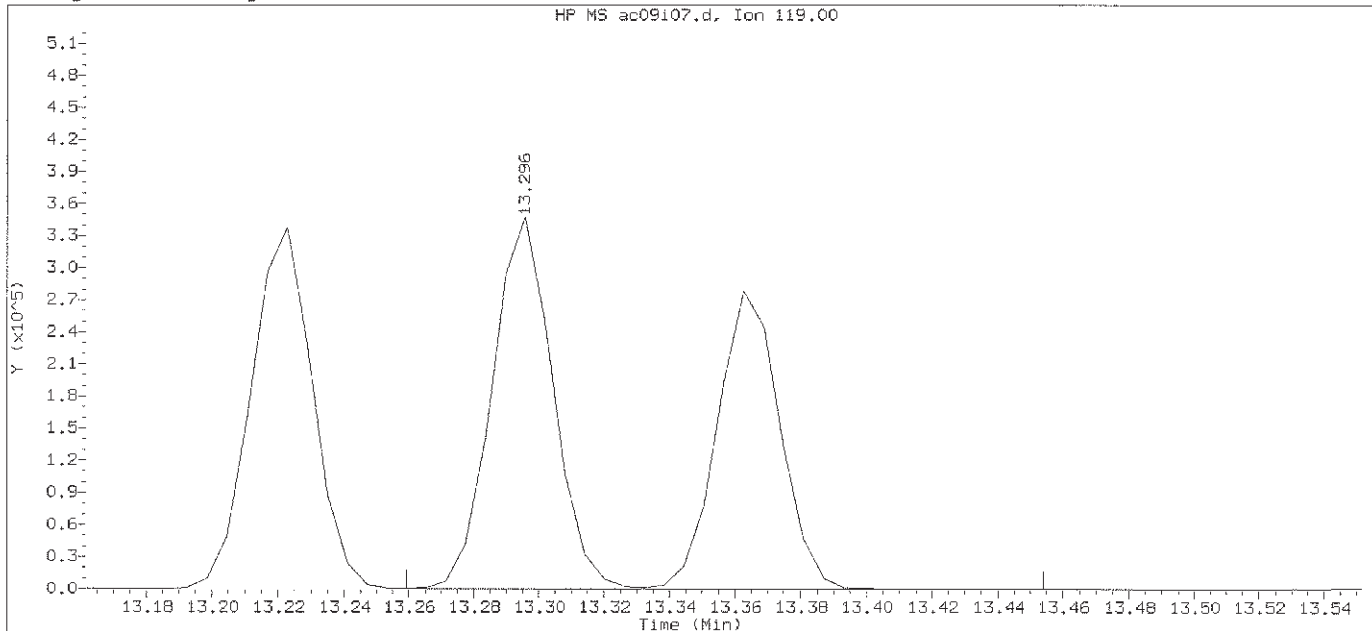
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:10.
Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: *[Signature]* 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09107.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 15:43

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 16:02

Date, time and analyst ID of latest file update: 09-Oct-2012 16:02 Automation

Sample Name: VSTD020

Lab Sample ID: VSTD020

Compound Number : 141

Compound Name : 1,2-Diethylbenzene

Scan Number : 1926

Retention Time (minutes): 13.296

Quant Ion : 119.00

Area : 822081

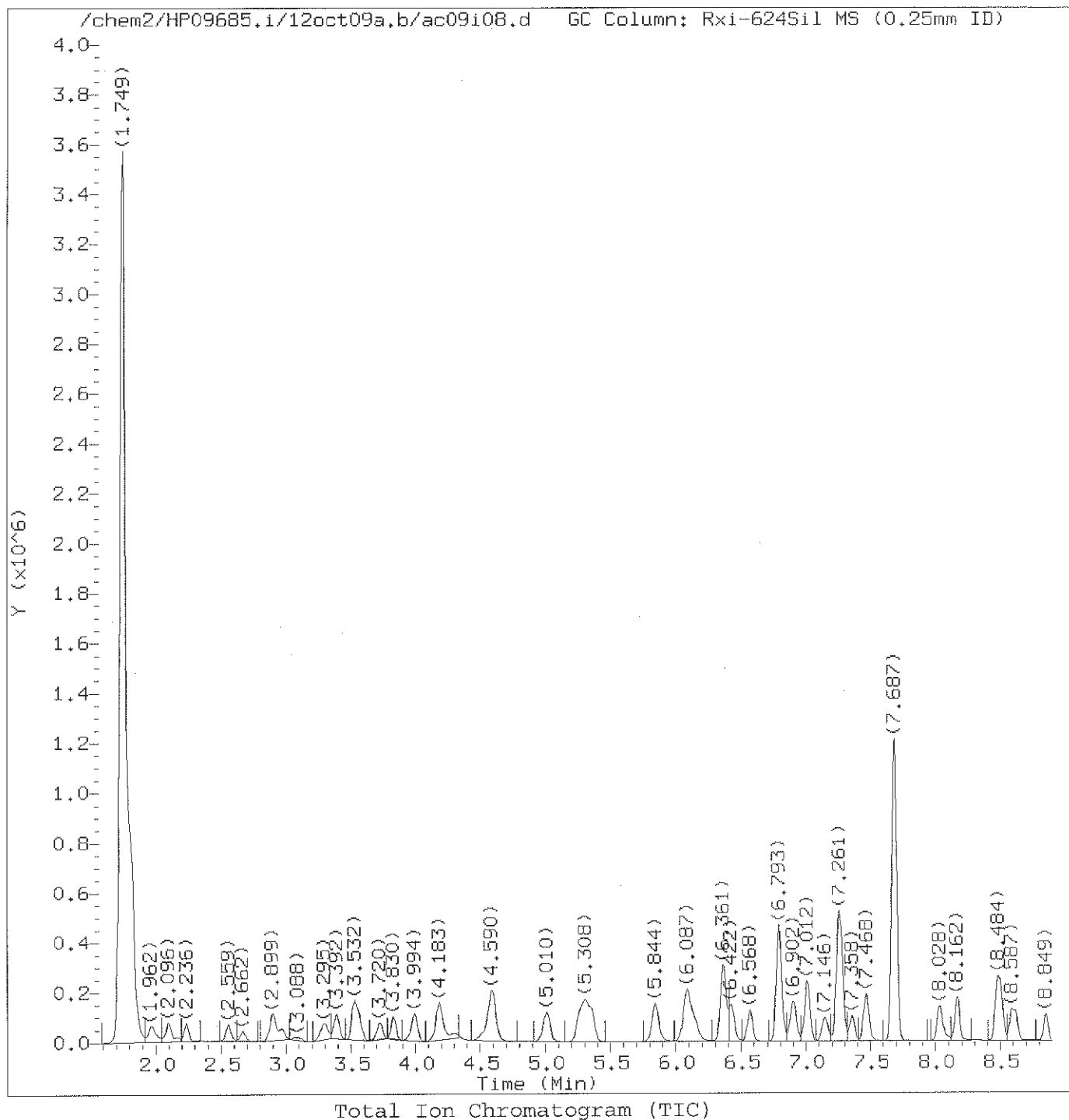
On-column Amount (ng) : 37.8760

Integration start scan : 1919 Integration stop scan: 1951

Y at integration start : 0 Y at integration end: 0

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Target 3.5 esignature user ID: cbe01947



Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i08.d
Injection date and time: 09-OCT-2012 16:06

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m
Calibration date and time: 09-OCT-2012 16:25

Sublist used: 8260S-2C

Date, time and analyst ID of latest file update: 09-Oct-2012 16:27 cbe01947

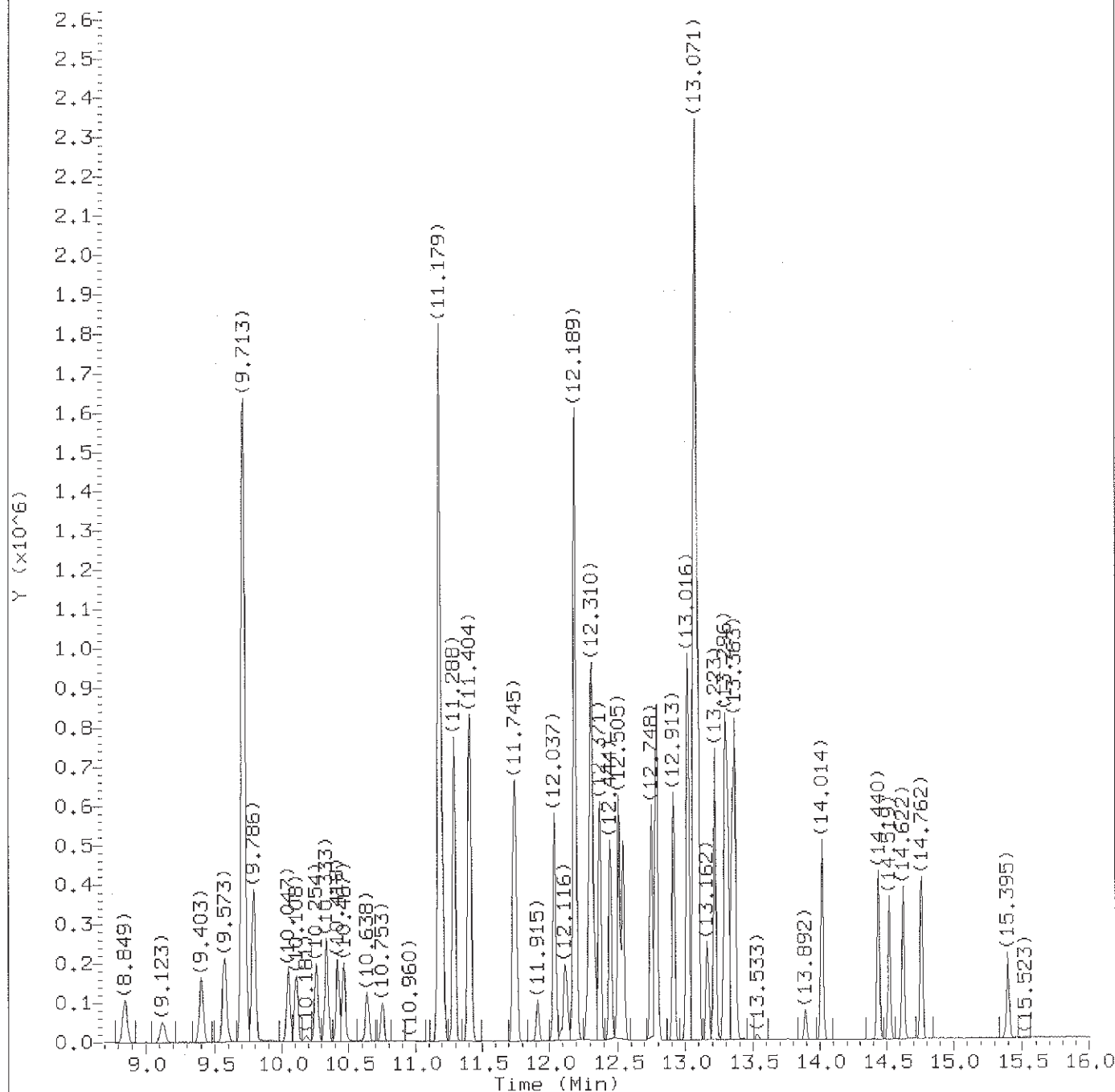
Sample Name: VSTD010

Lab Sample ID: VSTD010

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Target 3.5 esignature user ID: cbe01947

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Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i08.d
Injection date and time: 09-OCT-2012 16:06

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m
Calibration date and time: 09-OCT-2012 16:25

Sublist used: 8260S-2C

Date, time and analyst ID of latest file update: 09-Oct-2012 16:27 cbe01947

Sample Name: VSTD010

Lab Sample ID: VSTD010

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on 10/09/2012 at 16:31.
Target 3.5 esignature user ID: cbe01947

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i08.d
Injection date and time: 09-OCT-2012 16:06

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:25
Date, time and analyst ID of latest file update: 11-Oct-2012 15:10 cbe01947

Sample Name: VSTD010

Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.968	85	116725	9.827
4) Chloromethane	(2)	2.096	50	106603	10.085
5) Vinyl Chloride	(2)	2.230	62	100963	9.917
9) Bromomethane	(2)	2.559	94	65103	10.195
10) Chloroethane	(2)	2.662	64	54917	10.045
11) Dichlorofluoromethane	(2)	2.899	67	144234	10.489
13) Trichlorofluoromethane	(2)	2.972	101	122081M	10.026
15) Ethanol	(1)	3.088	45	78969M	917.388
17) Freon 123a	(2)	3.295	67	93228	10.456
18) Acrolein	(1)	3.386	56	176465	107.132
19) 1,1-Dichloroethene	(2)	3.520	96	65651	10.394
20) Acetone	(2)	3.556	58	18629	22.059
22) Freon 113	(2)	3.562	101	66202	9.501
23) 2-Propanol	(1)	3.708	45	64904	107.715
24) Methyl Iodide	(2)	3.727	142	119787	10.163
25) Carbon Disulfide	(2)	3.830	76	234712	10.168
27) Methyl Acetate	(2)	3.964	43	63378	10.904
29) Allyl Chloride	(2)	4.000	41	115154	10.138
31) Methylene Chloride	(2)	4.183	84	80986	10.353
30)*t-Butyl alcohol-d10	(1)	4.195	65	171708	250.000
32) t-Butyl alcohol	(1)	4.305	59	96917M	104.930
33) Acrylonitrile	(2)	4.517	53	33964	10.975
34) Methyl Tertiary Butyl Ether	(2)	4.578	73	226147	10.277
35) trans-1,2-Dichloroethene	(2)	4.597	96	72547	10.120
38) n-Hexane	(2)	5.010	57	106409	9.208
40) 1,1-Dichloroethane	(2)	5.260	63	144826	10.252
41) di-Isopropyl ether	(2)	5.308	45	266551	10.171
42) 2-Chloro-1,3-butadiene	(2)	5.363	53	114504	9.749
44) Ethyl t-butyl ether	(2)	5.844	59	229837	9.975
45) 2-Butanone	(2)	6.057	43	87723	22.228
46) cis-1,2-Dichloroethene	(2)	6.081	96	79009	10.215
47) 1,2-Dichloroethene (Total)	(2)		96	151556	20.335
48) 2,2-Dichloropropane	(2)	6.105	77	110489	9.912
50) Propionitrile	(1)	6.148	54	124921	104.485
51) Methacrylonitrile	(2)	6.361	67	167586	53.351
52) Bromochloromethane	(2)	6.428	128	36578	10.271
53) Tetrahydrofuran	(1)	6.440	71	21437	21.832
54) Chloroform	(2)	6.568	83	141351	10.384

M = Compound was manually integrated.

* = Compound is an internal standard.

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Target 3.5 esignature user ID: cbe01947

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i08.d
Injection date and time: 09-OCT-2012 16:06

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:25
Date, time and analyst ID of latest file update: 11-Oct-2012 15:10 cbe01947

Sample Name: VSTD010

Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
55) \$Dibromofluoromethane	(2)	6.787	113	312878	50.350
55) \$Dibromofluoromethane	(2)	6.787	111	319135	50.092
56) 1,1,1-Trichloroethane	(2)	6.799	97	123087	9.956
57) Cyclohexane	(2)	6.902	56	123525	9.229
57) Cyclohexane	(2)	6.902	84	99811	9.334
57) Cyclohexane	(2)	6.902	69	35736	9.195
58) 1,1-Dichloropropene	(2)	7.012	75	104427	9.990
59) Carbon Tetrachloride	(2)	7.018	117	92707	9.468
60) Isobutyl Alcohol	(1)	7.146	41	92477	272.801
61) \$1,2-Dichloroethane-d4	(2)	7.255	102	72145	50.136
61) \$1,2-Dichloroethane-d4	(2)	7.249	65	402398	51.212
61) \$1,2-Dichloroethane-d4	(2)	7.255	104	45918	50.160
62) Benzene	(2)	7.279	78	309678	10.306
64) 1,2-Dichloroethane	(2)	7.358	62	112047	10.466
64) 1,2-Dichloroethane	(2)	7.358	98	9372	10.705
65) t-Amyl methyl ether	(2)	7.468	73	206178	10.021
67) *Fluorobenzene	(2)	7.681	96	1300414	50.000
69) n-Heptane	(2)	7.687	43	109920	8.552
70) n-Butanol	(1)	8.028	56	135455	519.659
72) Trichloroethene	(2)	8.168	95	75823	10.020
73) Methylcyclohexane	(2)	8.478	83	117819	9.704
74) 1,2-Dichloropropane	(2)	8.508	63	84150	10.354
76) Methyl Methacrylate	(2)	8.581	69	51343	9.830
77) 1,4-Dioxane	(1)	8.593	88	21581	257.781
78) Dibromomethane	(2)	8.618	93	47791	10.326
81) Bromodichloromethane	(2)	8.855	83	90708	9.794
82) 2-Nitropropane	(1)	9.123	41	43073	19.584
84) cis-1,3-Dichloropropene	(2)	9.403	75	107162	9.481
85) 4-Methyl-2-pentanone	(2)	9.573	43	180169	22.001
86) \$Toluene-d8	(3)	9.713	98	1269976	50.059
86) \$Toluene-d8	(3)	9.713	100	833433	50.151
87) Toluene	(3)	9.786	92	185205	10.034
88) trans-1,3-Dichloropropene	(3)	10.047	75	104671	9.676
89) Ethyl Methacrylate	(3)	10.108	69	86654	9.358
90) 1,1,2-Trichloroethane	(3)	10.254	97	63525	10.281
92) Tetrachloroethene	(3)	10.333	166	82355	9.711
93) 1,3-Dichloropropane	(3)	10.418	76	116185	10.296
95) 2-Hexanone	(3)	10.467	43	136261	22.325

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

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Target 3.5 esignature user ID: cbe01947

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i08.d
Injection date and time: 09-OCT-2012 16:06Instrument ID: HP09685.i
Analyst ID: CBE01947Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m
Calibration date and time: 09-OCT-2012 16:25

Sublist used: 8260S-2C

Date, time and analyst ID of latest file update: 11-Oct-2012 15:10 cbe01947

Sample Name: VSTD010

Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
97) Dibromochloromethane	(3)	10.638	129	65371	9.572
98) 1,2-Dibromoethane	(3)	10.753	107	65071	10.215
99) *Chlorobenzene-d5	(3)	11.179	117	948685	50.000
100) Chlorobenzene	(3)	11.203	112	210057	10.091
101) 1,1,1,2-Tetrachloroethane	(3)	11.288	131	69577	9.674
102) Ethylbenzene	(3)	11.288	91	344935	9.840
103) m+p-Xylene	(3)	11.410	106	267333	19.645
104) o-Xylene	(3)	11.739	106	126934	9.688
105) Xylene (Total)	(3)		106	394267	29.333
106) Styrene	(3)	11.751	104	200120	9.457
107) Bromoform	(3)	11.915	173	43363	9.196
108) Isopropylbenzene	(3)	12.037	105	335384	9.821
111) Cyclohexanone	(1)	12.116	55	89492	260.872
112) \$4-Bromofluorobenzene	(3)	12.183	95	475291	50.053
112) \$4-Bromofluorobenzene	(3)	12.189	174	423931	50.166
113) 1,1,2,2-Tetrachloroethane	(4)	12.286	83	90667	10.480
114) Bromobenzene	(4)	12.298	156	93729	9.944
115) trans-1,4-Dichloro-2-butene	(4)	12.310	53	135282M	51.371
116) 1,2,3-Trichloropropane	(4)	12.335	110	26884	10.527
117) n-Propylbenzene	(4)	12.371	91	418428	10.125
119) 2-Chlorotoluene	(4)	12.444	126	85681	9.862
122) 1,3,5-Trimethylbenzene	(4)	12.505	105	295619	9.971
123) 4-Chlorotoluene	(4)	12.542	126	90087	9.938
126) tert-Butylbenzene	(4)	12.748	134	61602M	9.386
127) Pentachloroethane	(4)	12.785	167	61353	9.976
128) 1,2,4-Trimethylbenzene	(4)	12.791	105	312650	10.099
129) sec-Butylbenzene	(4)	12.913	105	357233	9.607
131) 1,3-Dichlorobenzene	(4)	13.010	146	181453	10.087
132) p-Isopropyltoluene	(4)	13.022	119	320006	9.596
133) *1,4-Dichlorobenzene-d4	(4)	13.071	152	555075	50.000
134) 1,4-Dichlorobenzene	(4)	13.089	146	186191	10.130
135) 1,2,3-Trimethylbenzene	(4)	13.095	105	338539	10.435
136) Benzyl Chloride	(4)	13.162	126	31821	9.230
137) 1,3-Diethylbenzene	(4)	13.223	119	213393	10.181
138) 1,4-Diethylbenzene	(4)	13.296	119	220368	10.155
139) n-Butylbenzene	(4)	13.314	92	160308	9.454
140) 1,2-Dichlorobenzene	(4)	13.345	146	171983	10.096
141) 1,2-Diethylbenzene	(4)	13.363	119	184129M	10.294

M = Compound was manually integrated.

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\$ = Compound is a surrogate standard.

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Target 3.5 esignature user ID: cbe01947

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Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i08.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 16:06 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:25
Date, time and analyst ID of latest file update: 11-Oct-2012 15:10 cbe01947

Sample Name: VSTD010

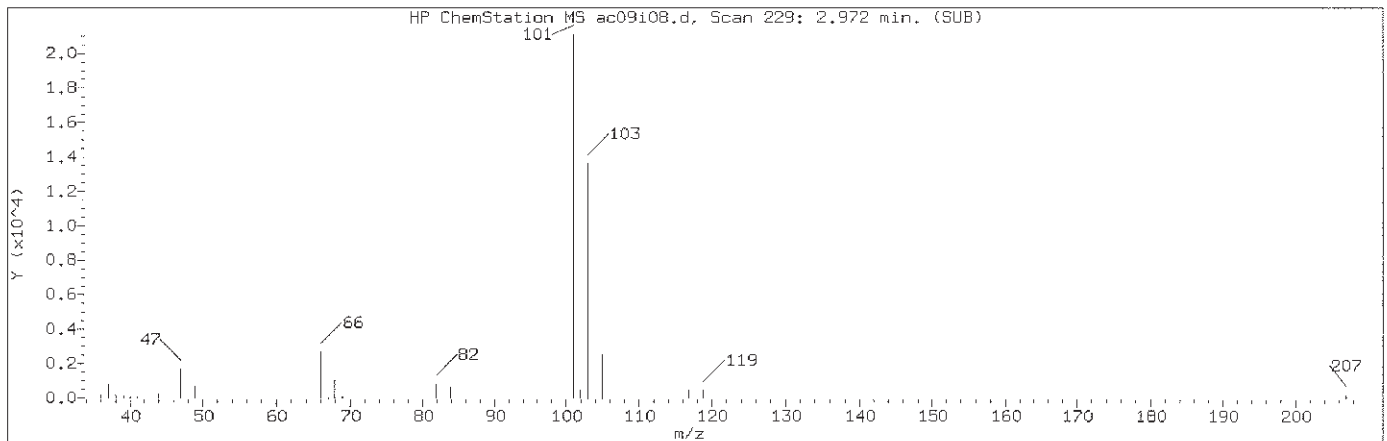
Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,2-Dibromo-3-chloropropane	(4)	13.892	75	16347	9.766
145) 1,3,5-Trichlorobenzene	(4)	14.014	180	143946	9.762
146) 1,2,4-Trichlorobenzene	(4)	14.440	180	122941	9.709
147) Hexachlorobutadiene	(4)	14.519	225	62064	8.246
148) Naphthalene	(4)	14.622	128	255133	9.678
149) 1,2,3-Trichlorobenzene	(4)	14.762	180	118629	9.965
150) 2-Methylnaphthalene	(4)	15.395	142	99694	7.912

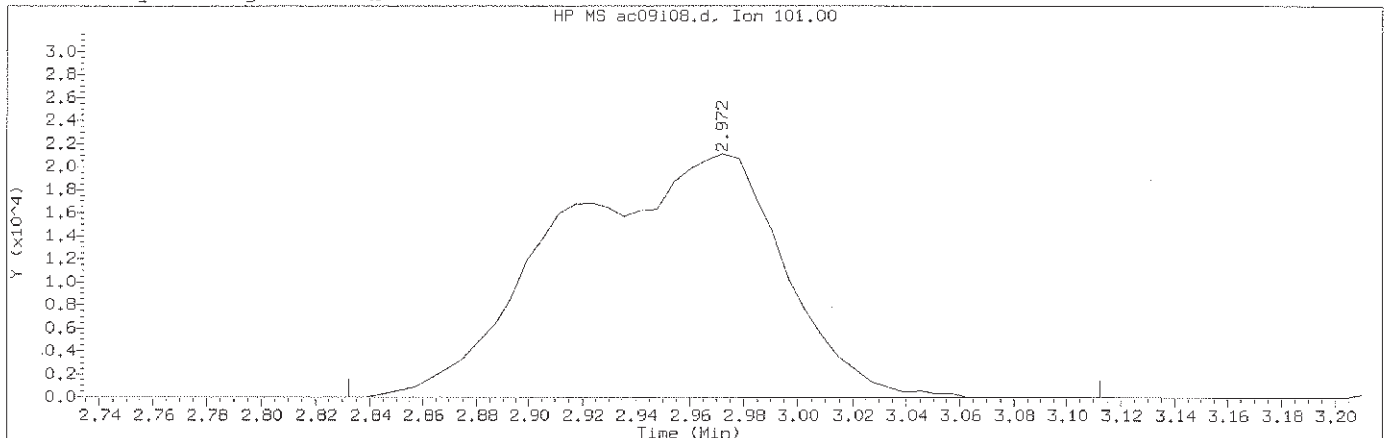
page 4 of 4

Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:10.
Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09108.d
Injection date and time: 09-OCT-2012 16:06

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:25
Date, time and analyst ID of latest file update: 11-Oct-2012 15:10 cbe01947

Sample Name: VSTD010

Lab Sample ID: VSTD010

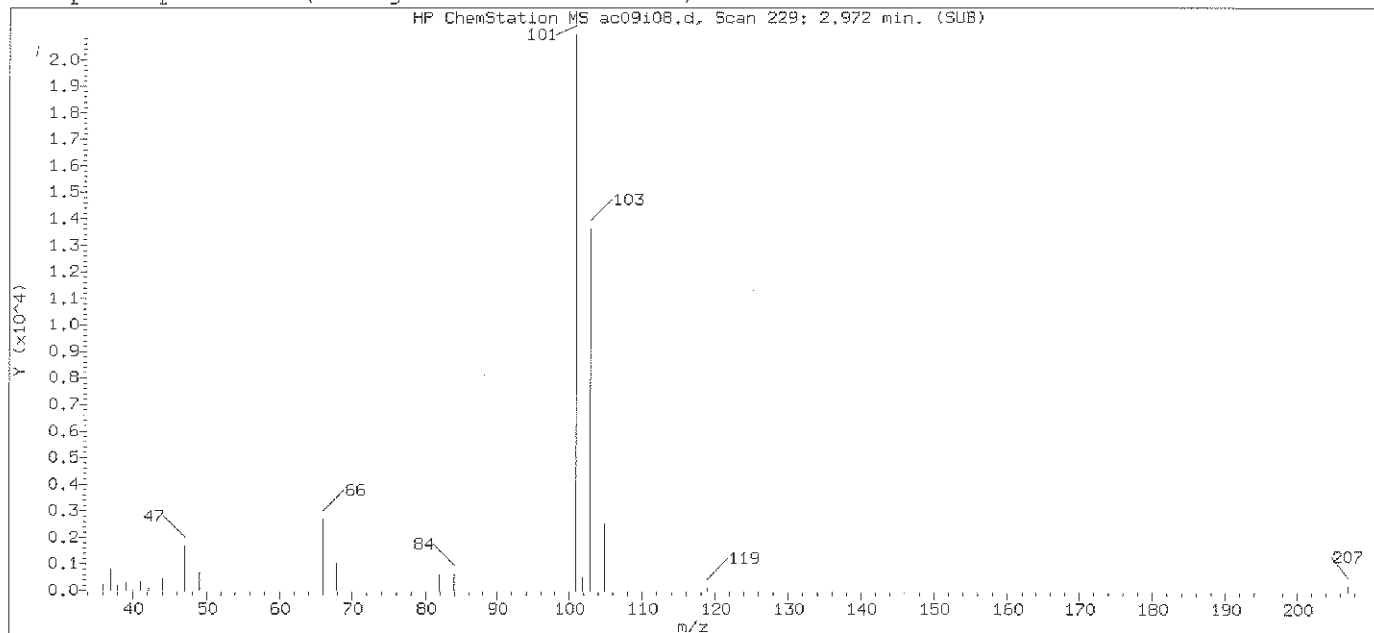
Compound Number : 13
Compound Name : Trichlorofluoromethane
Scan Number : 229
Retention Time (minutes): 2.972
Quant Ion : 101.00
Area (flag) : 122081M
On-Column Amount (ng) : 10.0263
Integration start scan : 205 Integration stop scan: 251
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

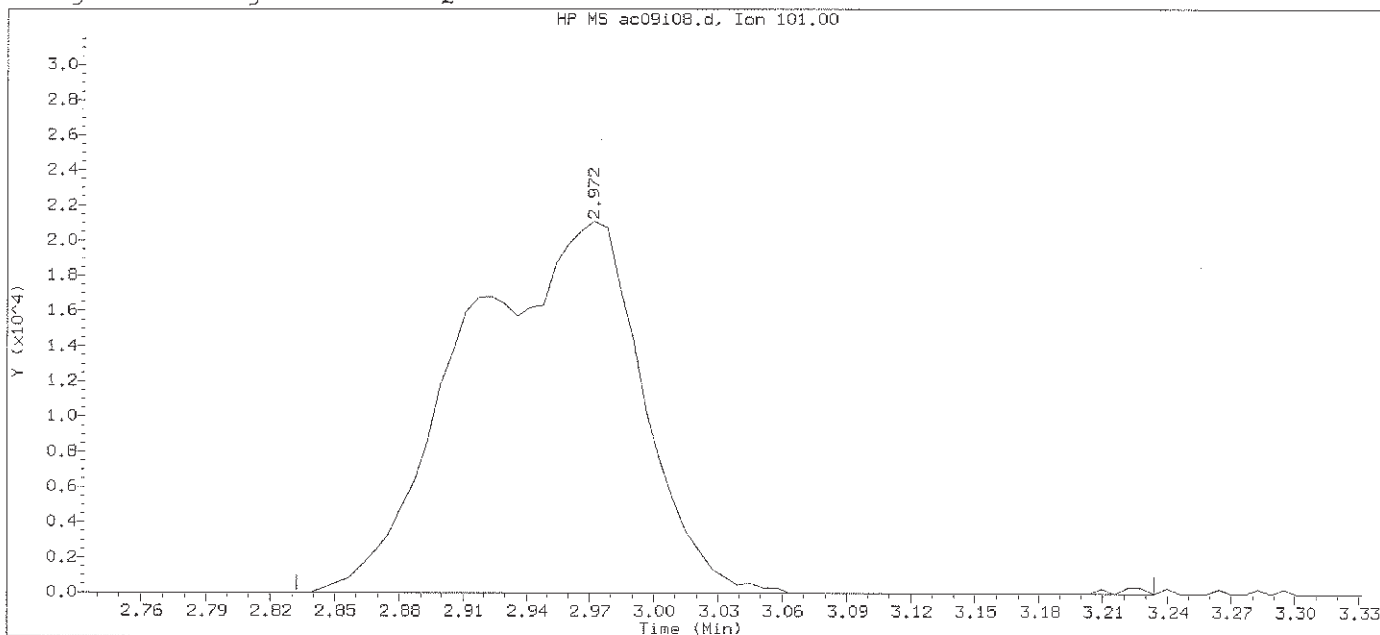
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:10.
Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval:  10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09108.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 16:06

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 16:25

Date, time and analyst ID of latest file update: 09-Oct-2012 16:26 Automation

Sample Name: VSTD010

Lab Sample ID: VSTD010

Compound Number : 13

Compound Name : Trichlorofluoromethane

Scan Number : 229

Retention Time (minutes): 2.972

Quant Ion : 101.00

Area : 122417

On-column Amount (ng) : 10.0493

Integration start scan : 205

Integration stop scan: 271

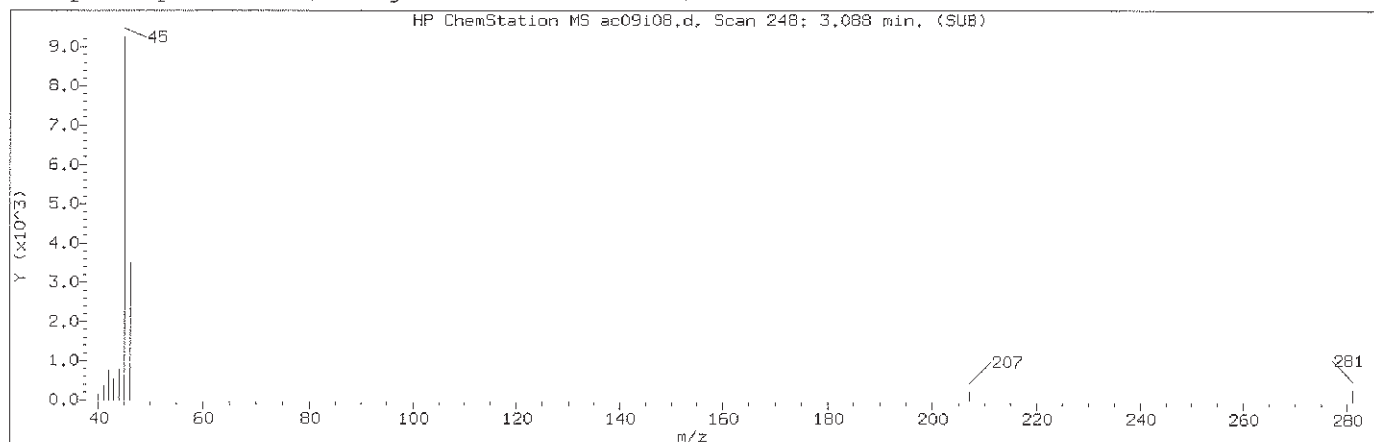
Y at integration start : 0

Y at integration end: 0

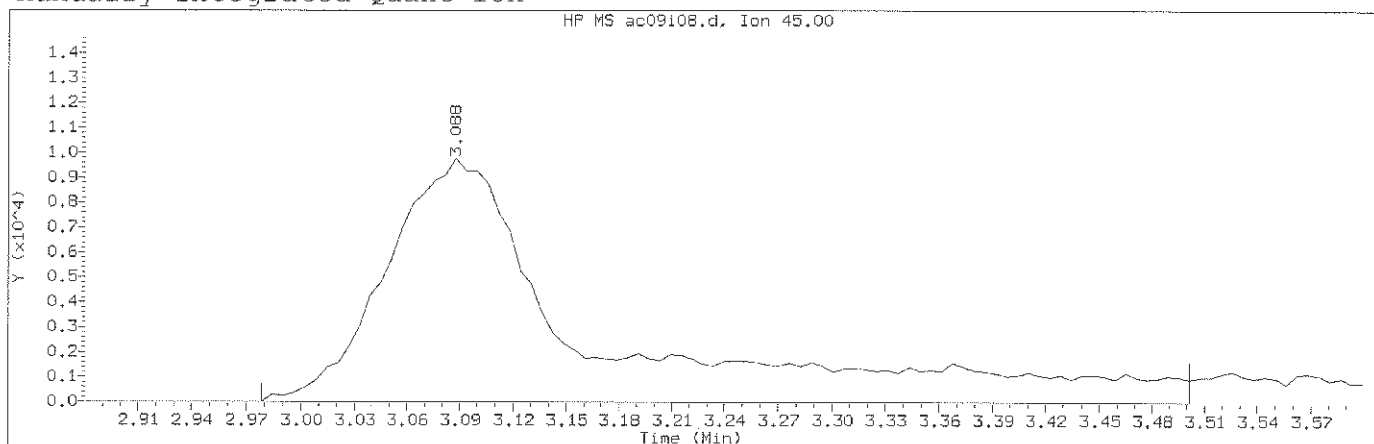
Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:10.

Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09108.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 16:06

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 16:25

Date, time and analyst ID of latest file update: 11-Oct-2012 15:10 cbe01947

Sample Name: VSTD010

Lab Sample ID: VSTD010

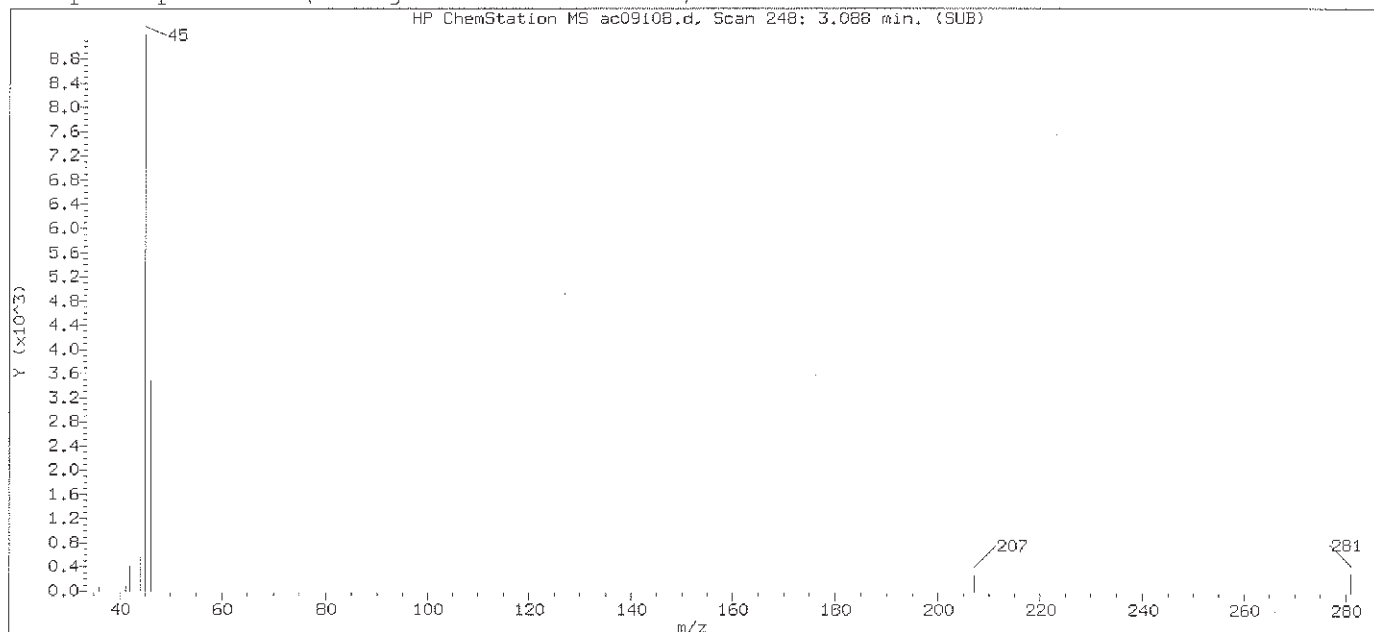
Compound Number	: 15
Compound Name	: Ethanol
Scan Number	: 248
Retention Time (minutes)	: 3.088
Quant Ion	: 45.00
Area (flag)	: 78969M
On-Column Amount (ng)	: 917.3883
Integration start scan	: 229
Integration stop scan	: 315
Y at integration start	: 0
Y at integration end	: 0

Reason for manual integration: improper integration

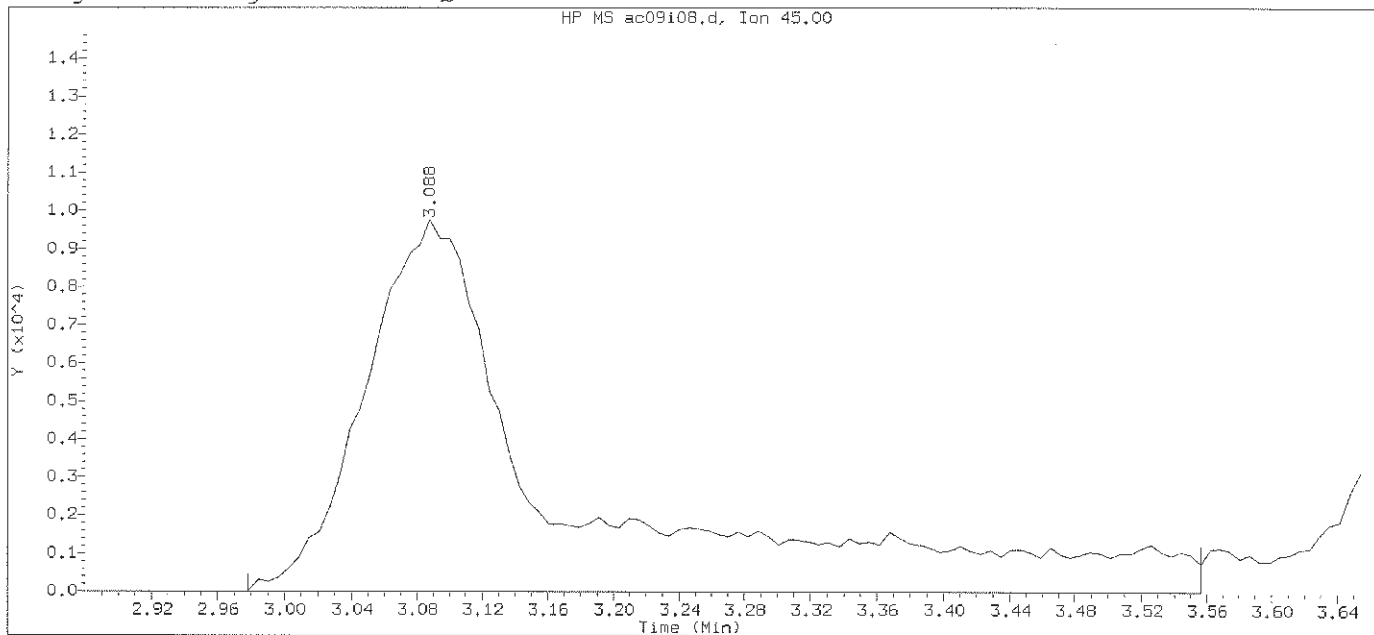
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:10.
Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: *[Signature]* 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09108.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 16:06

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 16:25

Date, time and analyst ID of latest file update: 09-Oct-2012 16:26 Automation

Sample Name: VSTD010

Lab Sample ID: VSTD010

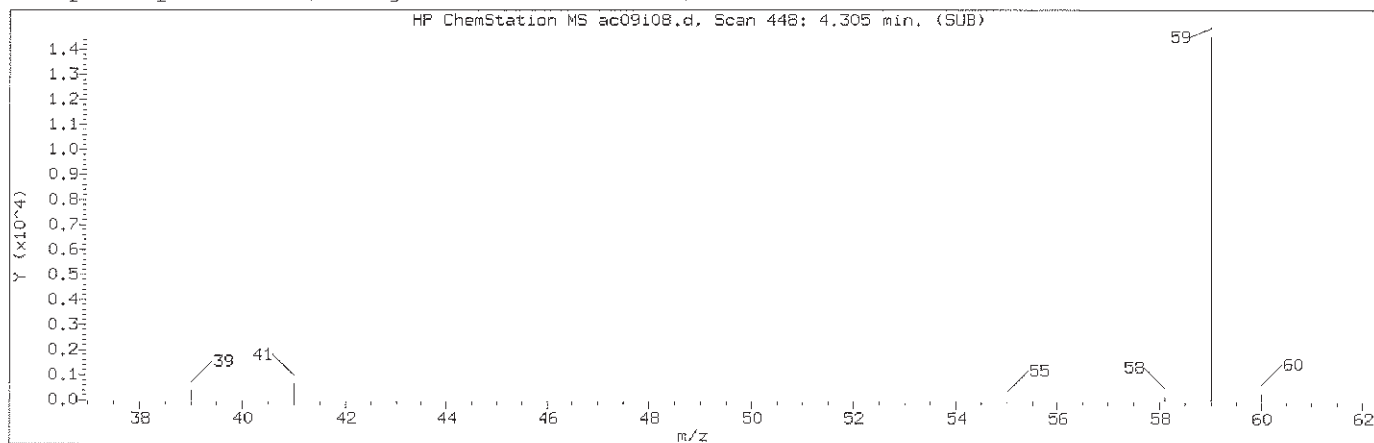
Compound Number : 15
 Compound Name : Ethanol
 Scan Number : 248
 Retention Time (minutes): 3.088
 Quant Ion : 45.00
 Area : 82175
 On-column Amount (ng) : 948.7476
 Integration start scan : 229
 Y at integration start : 0

Integration stop scan: 324
 Y at integration end: 0

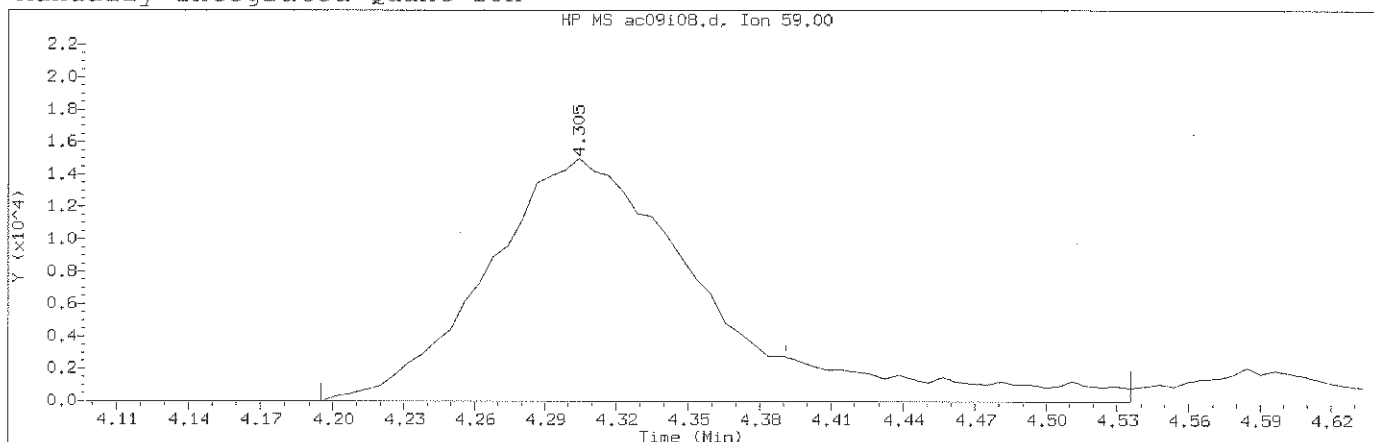
Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:10.

Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i08.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 16:06

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 16:25

Date, time and analyst ID of latest file update: 11-Oct-2012 15:10 cbe01947

Sample Name: VSTD010

Lab Sample ID: VSTD010

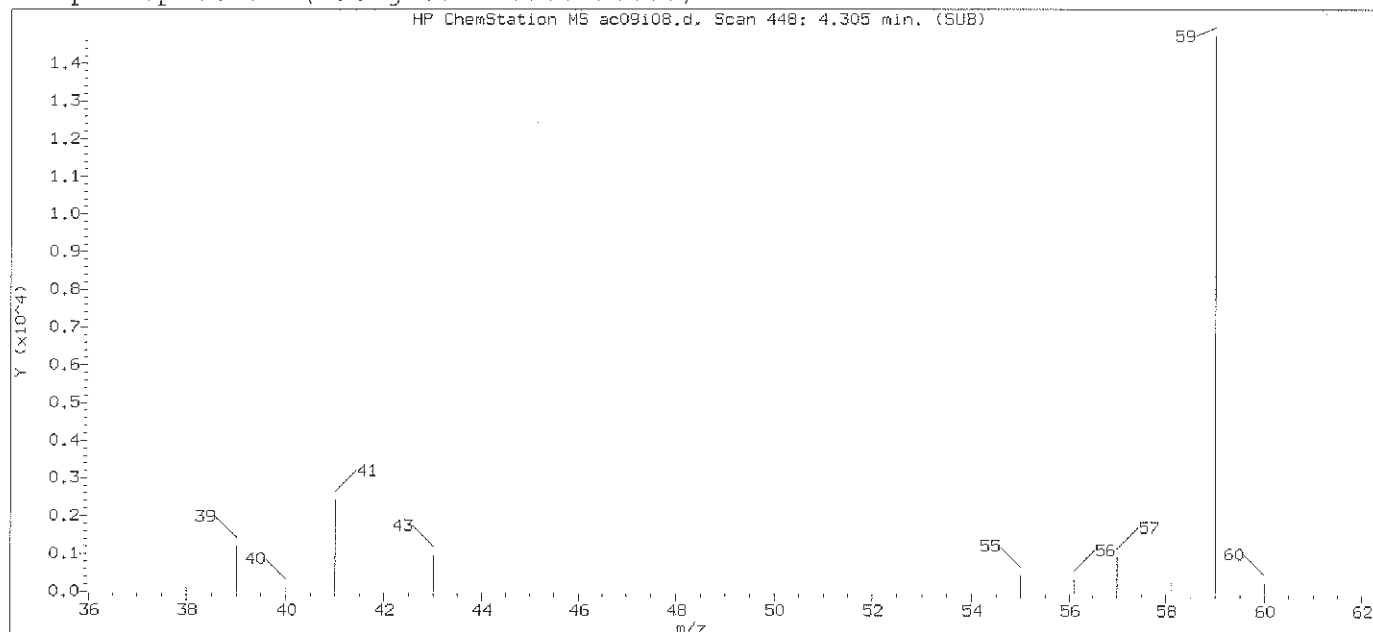
Compound Number	:	32	
Compound Name	:	t-Butyl alcohol	
Scan Number	:	448	
Retention Time (minutes)	:	4.305	
Quant Ion	:	59.00	
Area (flag)	:	96917M	
On-Column Amount (ng)	:	104.9296	
Integration start scan	:	429	Integration stop scan: 485
Y at integration start	:	0	Y at integration end: 0

Reason for manual integration: improper integration

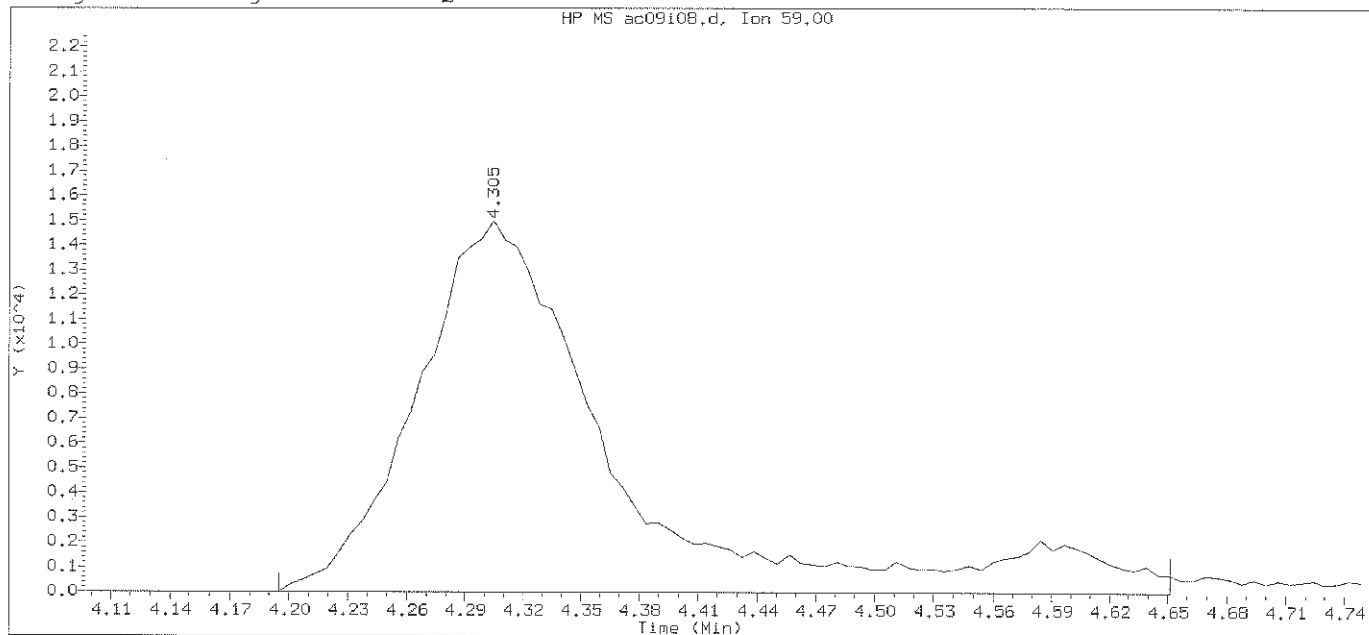
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:10.
Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: *mm* 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09108.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 16:06

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 16:25

Date, time and analyst ID of latest file update: 09-Oct-2012 16:26 Automation

Sample Name: VSTD010

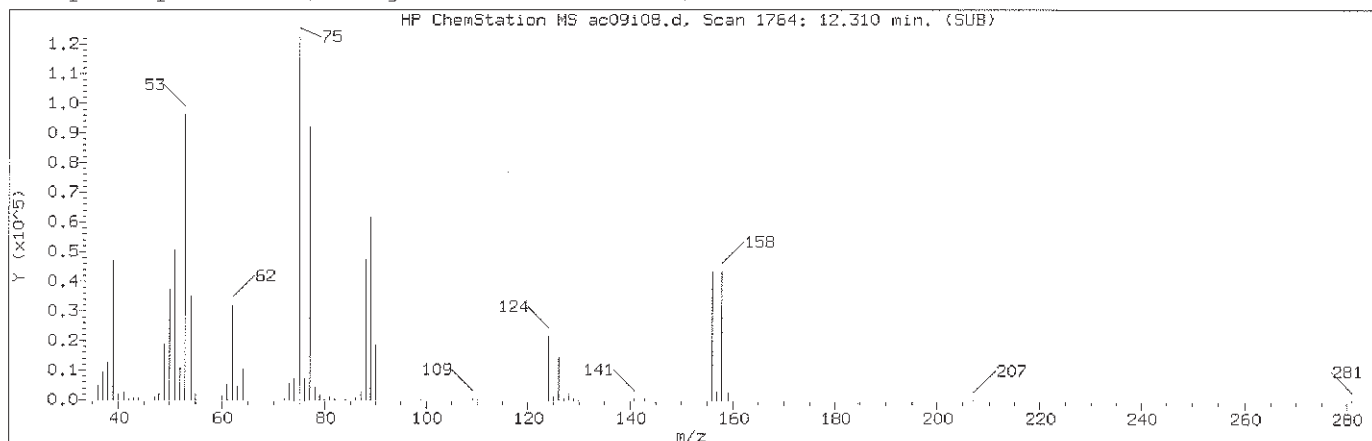
Lab Sample ID: VSTD010

Compound Number : 32
 Compound Name : t-Butyl alcohol
 Scan Number : 448
 Retention Time (minutes): 4.305
 Quant Ion : 59.00
 Area : 105833
 On-column Amount (ng) : 112.7684
 Integration start scan : 429 Integration stop scan: 504
 Y at integration start : 0 Y at integration end: 0

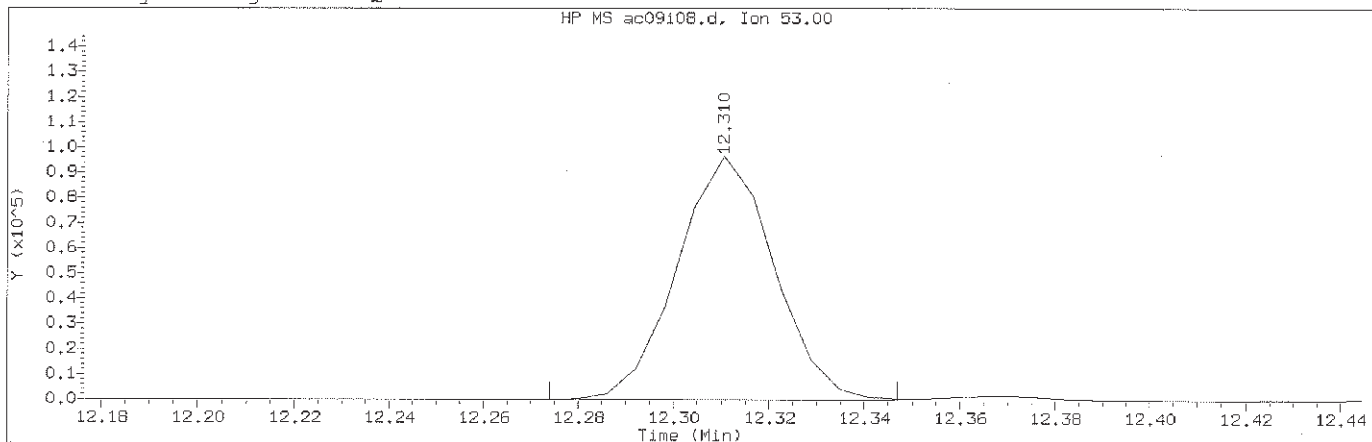
Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:10.

Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i08.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 16:06

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 16:25

Date, time and analyst ID of latest file update: 11-Oct-2012 15:10 cbe01947

Sample Name: VSTD010

Lab Sample ID: VSTD010

Compound Number	: 115	
Compound Name	: trans-1,4-Dichloro-2-butene	
Scan Number	: 1764	
Retention Time (minutes)	: 12.310	
Quant Ion	: 53.00	
Area (flag)	: 135282M	
On-Column Amount (ng)	: 51.3714	
Integration start scan	: 1757	Integration stop scan: 1769
Y at integration start	: 0	Y at integration end: 0

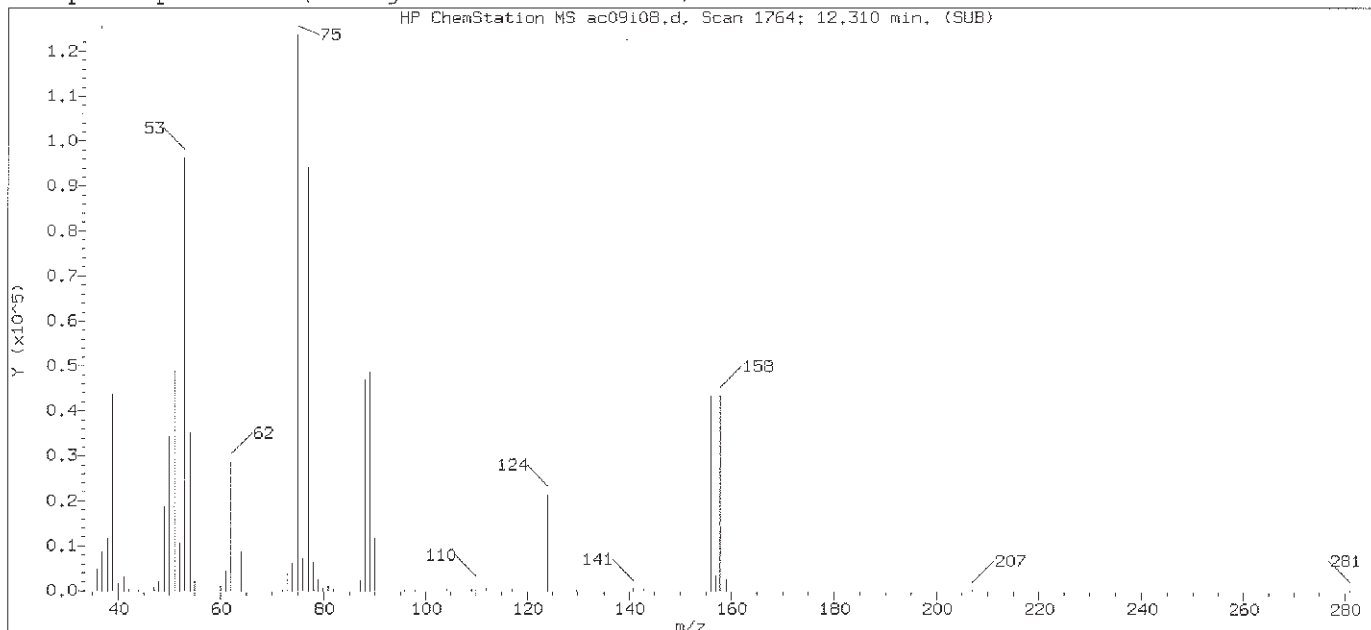
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:10.
Target 3.5 esignature user ID: cbe01947

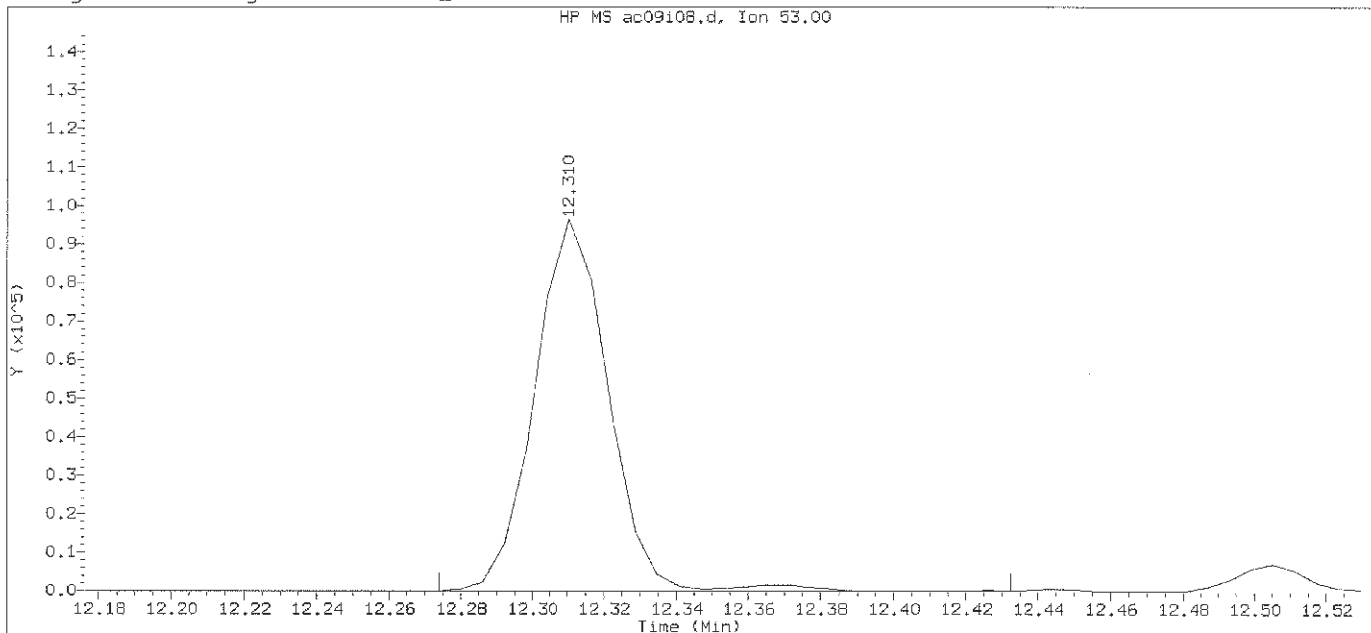
GC/MS audit/management approval:

Handwritten signature and date: 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09108.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 16:06

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 16:25

Date, time and analyst ID of latest file update: 09-Oct-2012 16:26 Automation

Sample Name: VSTD010

Lab Sample ID: VSTD010

Compound Number : 115

Compound Name : trans-1,4-Dichloro-2-butene

Scan Number : 1764

Retention Time (minutes): 12.310

Quant Ion : 53.00

Area : 137662

On-column Amount (ng) : 52.1184

Integration start scan : 1757

Integration stop scan: 1783

Y at integration start : 0

Y at integration end: 0

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Target 3.5 esignature user ID: cbe01947

HP ChemStation MS ac09i08.d Scan 1836: 12.748 min. (SUB)

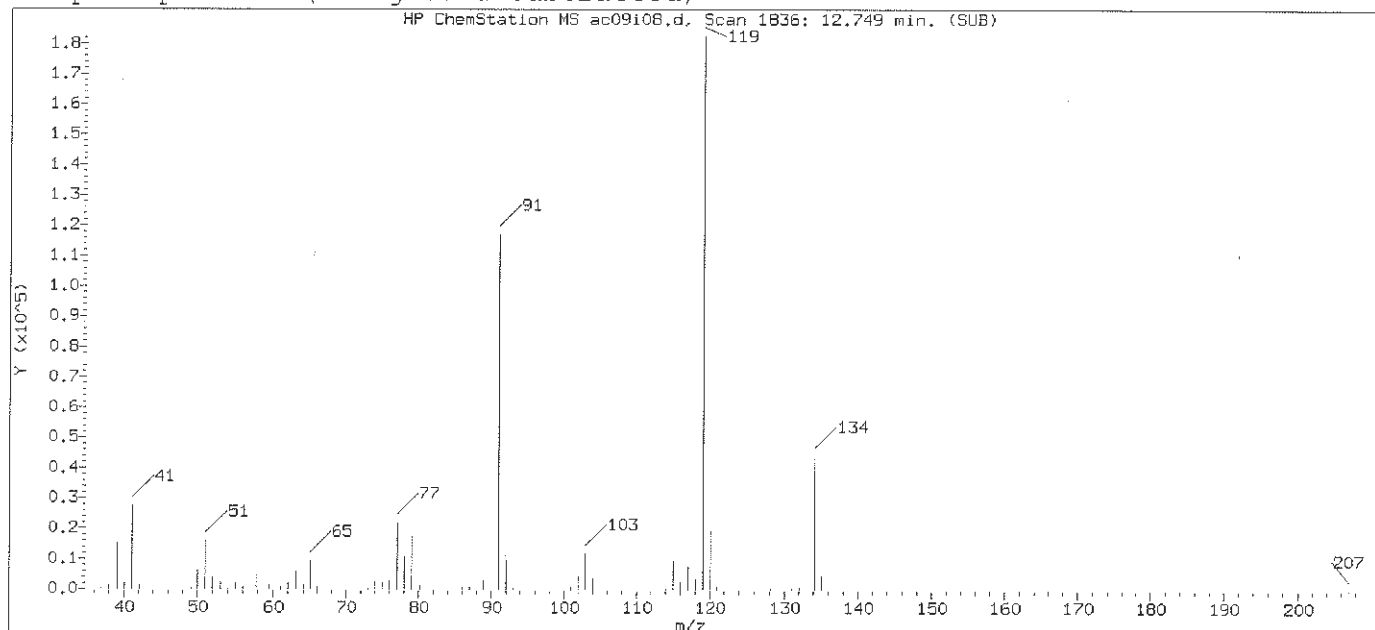
Mass spectrum plot showing relative intensity (Y, $\times 10^5$) versus m/z . The x-axis ranges from 40 to 200 m/z . The y-axis ranges from 0.0 to 1.6 $\times 10^5$. The base peak is at m/z 119. Other significant peaks are labeled at m/z 41, 56, 77, 79, 91, 115, 134, and 207.

HP MS ac09108.d, Ion 134.00

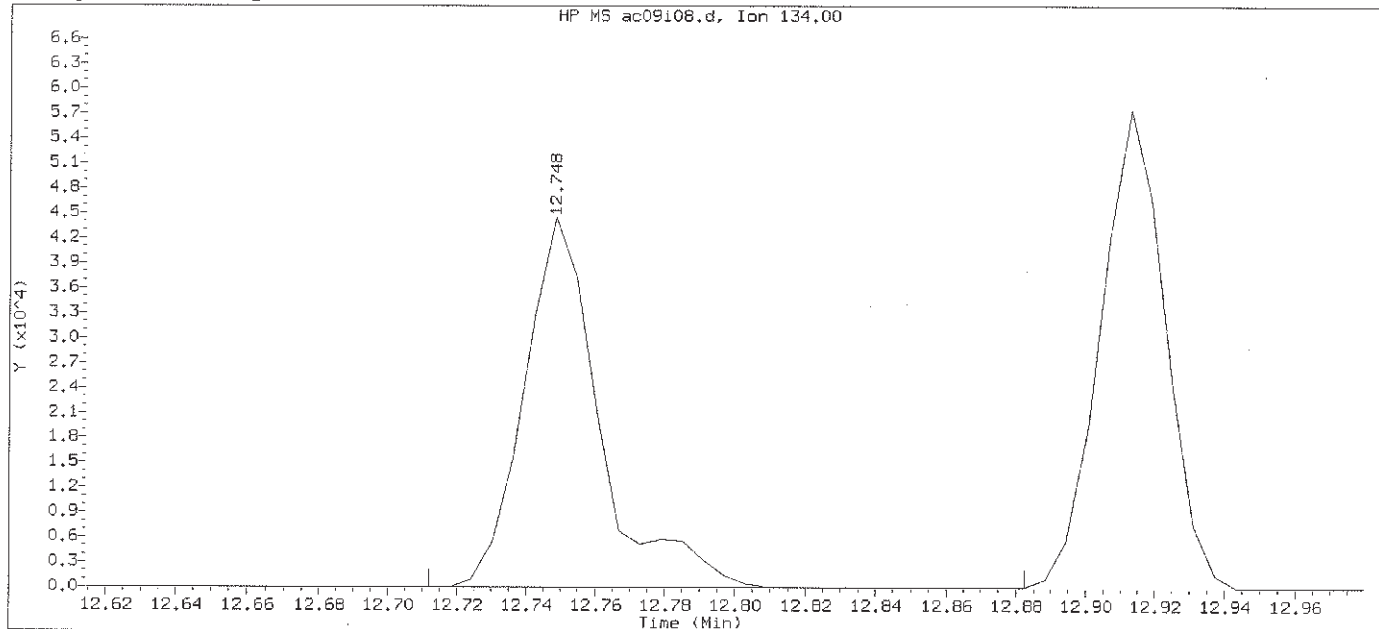
Chromatogram showing a single sharp peak at 12.748 minutes. The y-axis is labeled Y (x10⁴) and ranges from 0.0 to 6.5. The x-axis is labeled Time (Min) and ranges from 12.62 to 12.86. The peak is labeled with its retention time, 12.748.

GC/MS audit/management approval: amg 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i08.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 16:06

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 16:25

Date, time and analyst ID of latest file update: 09-Oct-2012 16:26 Automation

Sample Name: VSTD010

Lab Sample ID: VSTD010

Compound Number : 126

Compound Name : tert-Butylbenzene

Scan Number : 1836

Retention Time (minutes): 12.748

Quant Ion : 134.00

Area : 67614

On-column Amount (ng) : 9.6169

Integration start scan : 1829

Integration stop scan: 1857

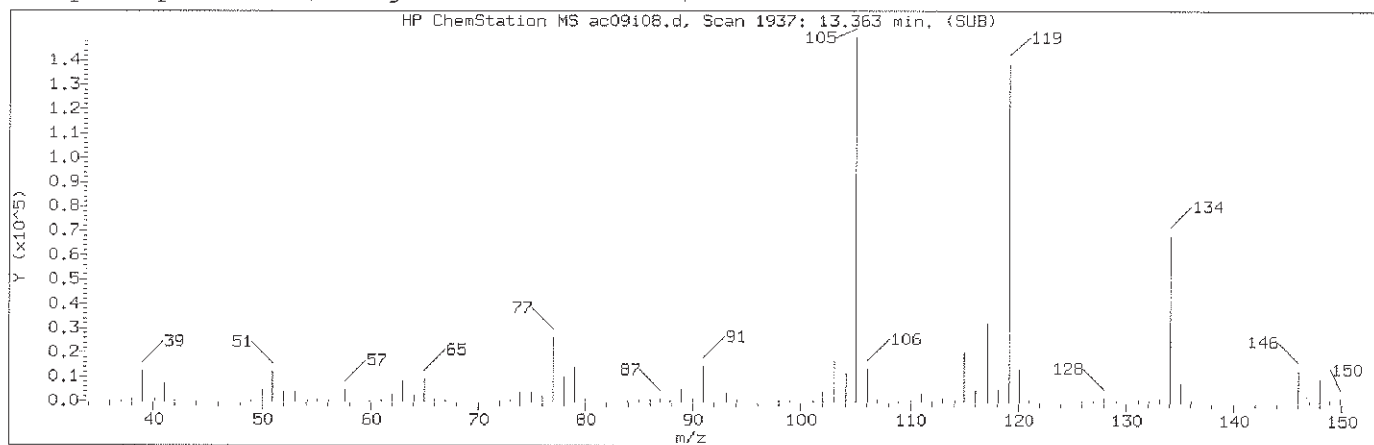
Y at integration start : 0

Y at integration end: 0

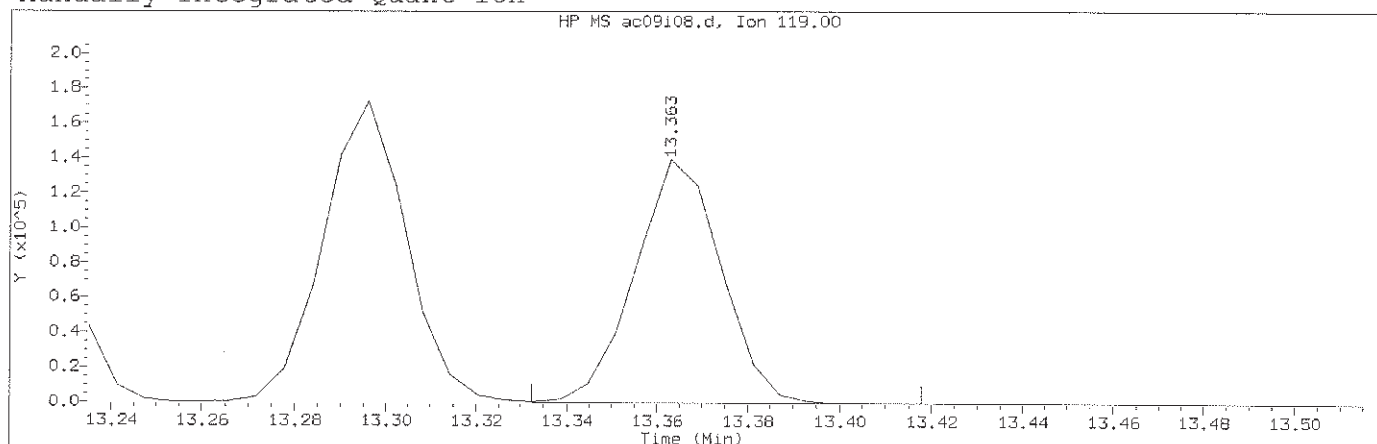
Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:10.

Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09108.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 16:06

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 16:25

Date, time and analyst ID of latest file update: 11-Oct-2012 15:10 cbe01947

Sample Name: VSTD010

Lab Sample ID: VSTD010

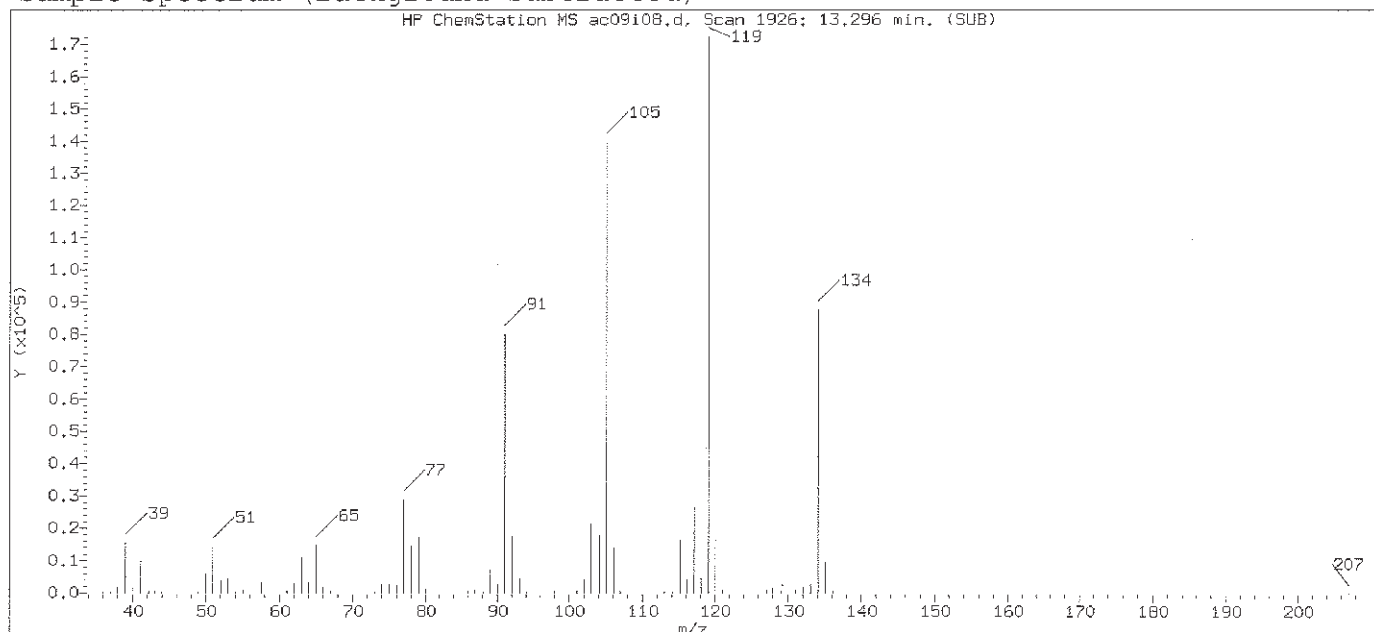
Compound Number : 141
 Compound Name : 1,2-Diethylbenzene
 Scan Number : 1937
 Retention Time (minutes): 13.363
 Quant Ion : 119.00
 Area (flag) : 184129M
 On-Column Amount (ng) : 10.2939
 Integration start scan : 1931 Integration stop scan: 1945
 Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

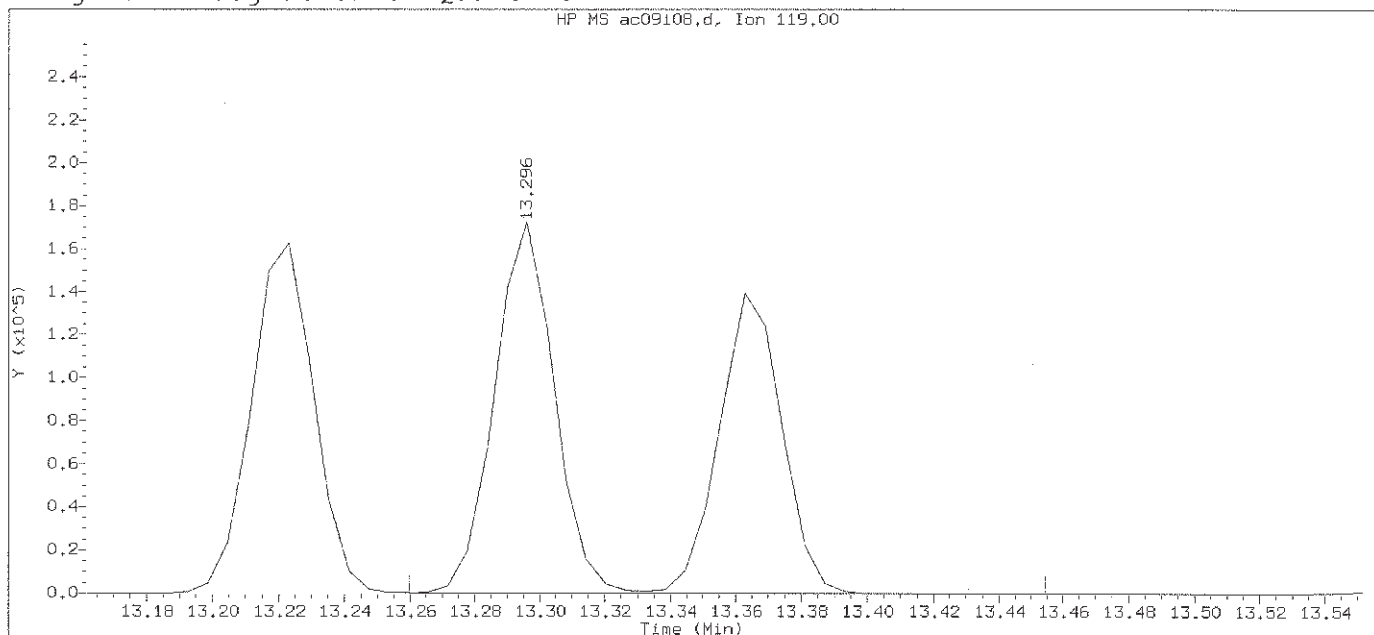
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
 on 10/11/2012 at 15:10.
 Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i08.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 16:06 Analyst ID: CBE01947

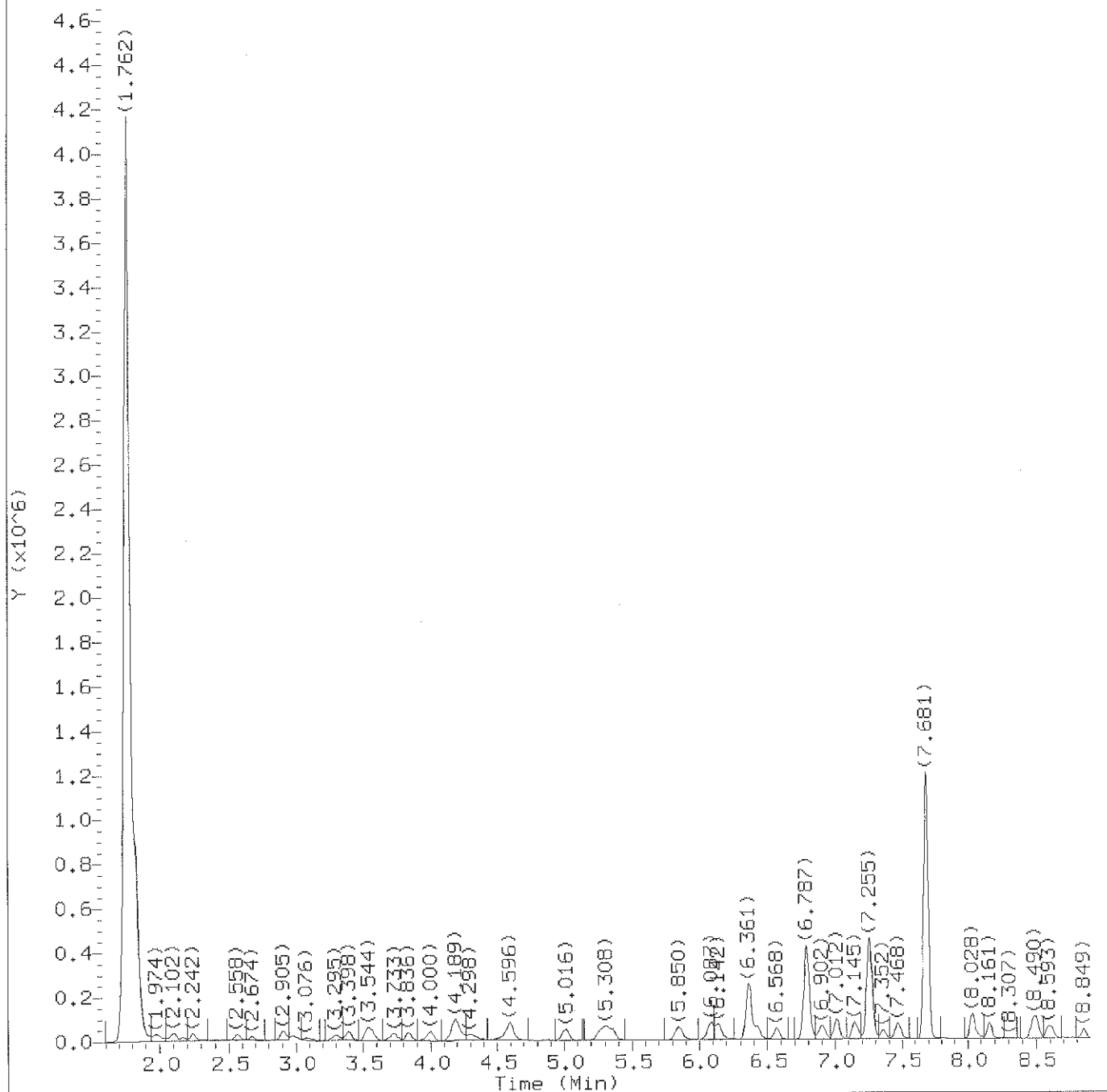
Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:25
Date, time and analyst ID of latest file update: 09-Oct-2012 16:26 Automation

Sample Name: VSTD010

Lab Sample ID: VSTD010

Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1926
Retention Time (minutes): 13.296
Quant Ion : 119.00
Area : 404360
On-column Amount (ng) : 18.7571
Integration start scan : 1919 Integration stop scan: 1951
Y at integration start : 0 Y at integration end: 0

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Target 3.5 esignature user ID: cbe01947



Total Ion Chromatogram (TIC)

Target Revision 3.5

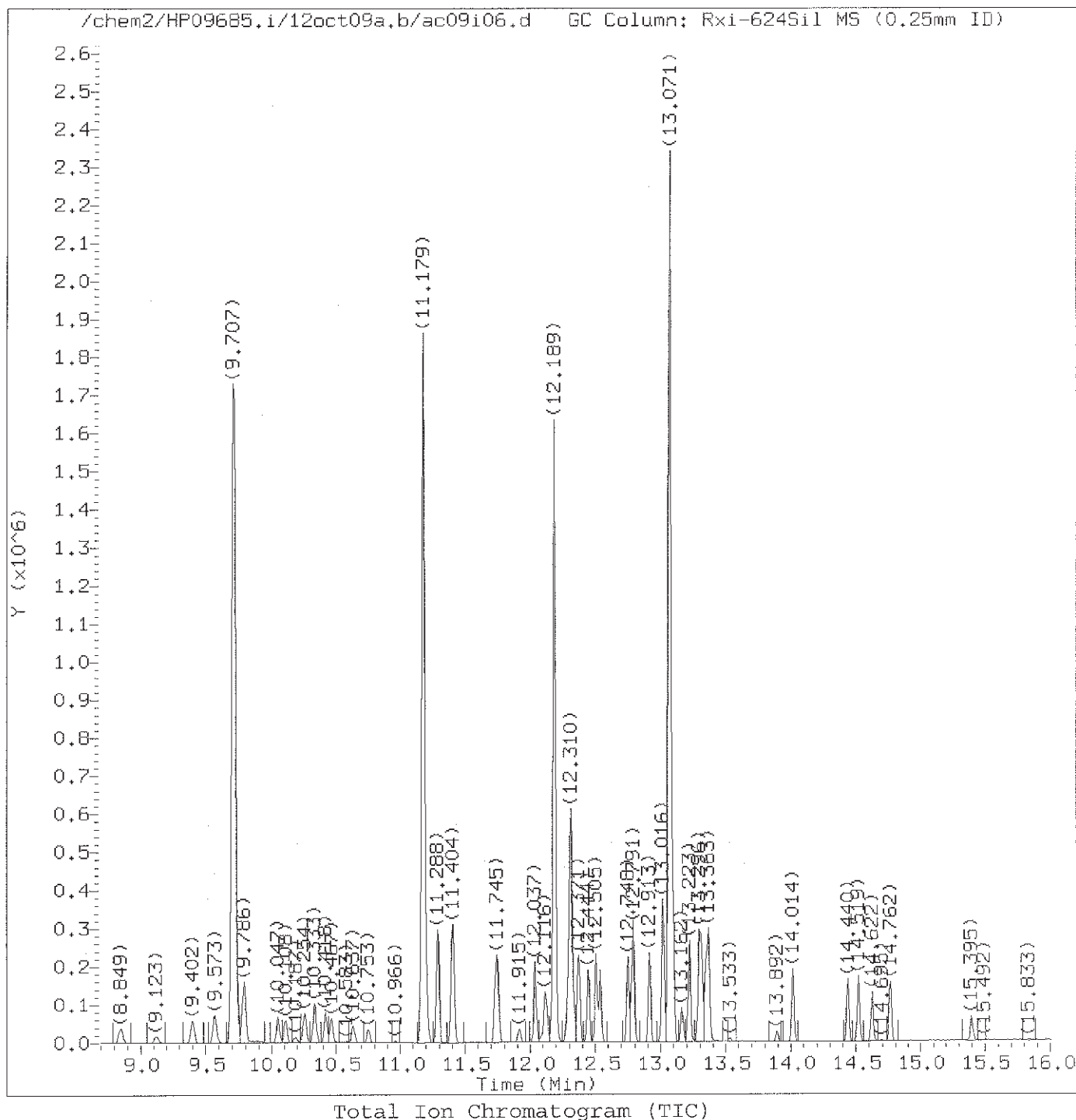
Data File: /chem2/HP09685.i/12oct09a,b/ac09i06.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 13:46 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a,b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 14:27
Date, time and analyst ID of latest file update: 09-Oct-2012 14:35 cbe01947

Sample Name: VSTD004

Lab Sample ID: VSTD004

Digitally signed by Chelsea B. Eastep
on 10/09/2012 at 16:31.
Target 3.5 esignature user ID: cbe01947



Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i06.d
Injection date and time: 09-OCT-2012 13:46

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m
Calibration date and time: 09-OCT-2012 14:27

Sublist used: 8260S-2C

Date, time and analyst ID of latest file update: 09-Oct-2012 14:35 cbe01947

Sample Name: VSTD004

Lab Sample ID: VSTD004

Digitally signed by Chelsea B. Eastep
on 10/09/2012 at 16:31.
Target 3.5 esignature user ID: cbe01947

page 2 of 2

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i06.d
Injection date and time: 09-OCT-2012 13:46

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 14:27
Date, time and analyst ID of latest file update: 11-Oct-2012 15:11 cbe01947

Sample Name: VSTD004

Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.974	85	45151	3.672
4) Chloromethane	(2)	2.102	50	43458	3.972
5) Vinyl Chloride	(2)	2.242	62	41233	3.912
9) Bromomethane	(2)	2.558	94	25065	3.792
10) Chloroethane	(2)	2.674	64	22568	3.988
11) Dichlorofluoromethane	(2)	2.899	67	53805	3.780
13) Trichlorofluoromethane	(2)	2.984	101	45082	3.577
15) Ethanol	(1)	3.082	45	45468	515.863
17) Freon 123a	(2)	3.301	67	34950	3.787
18) Acrolein	(1)	3.398	56	68213	40.445
19) 1,1-Dichloroethene	(2)	3.532	96	24247	3.708
20) Acetone	(2)	3.556	58	8152	9.325
22) Freon 113	(2)	3.562	101	25360	3.516
23) 2-Propanol	(1)	3.708	45	43716	70.856
24) Methyl Iodide	(2)	3.733	142	44165	3.620
25) Carbon Disulfide	(2)	3.836	76	89350	3.739
27) Methyl Acetate	(2)	3.964	43	25618	4.258
29) Allyl Chloride	(2)	4.000	41	43638	3.711
30) *t-Butyl alcohol-d10	(1)	4.183	65	175816	250.000
31) Methylene Chloride	(2)	4.189	84	36804	4.545
32) t-Butyl alcohol	(1)	4.311	59	72211M	76.354
33) Acrylonitrile	(2)	4.505	53	12597	3.932
34) Methyl Tertiary Butyl Ether	(2)	4.584	73	85082	3.735
35) trans-1,2-Dichloroethene	(2)	4.596	96	27707	3.734
38) n-Hexane	(2)	5.004	57	41704	3.486
40) 1,1-Dichloroethane	(2)	5.260	63	53479	3.657
41) di-Isopropyl ether	(2)	5.308	45	99013	3.650
42) 2-Chloro-1,3-butadiene	(2)	5.363	53	39973	3.288
44) Ethyl t-butyl ether	(2)	5.844	59	84553	3.545
45) 2-Butanone	(2)	6.056	43	32091	7.855
46) cis-1,2-Dichloroethene	(2)	6.087	96	29212	3.648
47) 1,2-Dichloroethene (Total)	(2)		96	56919	7.382
48) 2,2-Dichloropropane	(2)	6.105	77	39815	3.450
50) Propionitrile	(1)	6.142	54	95170	77.741
51) Methacrylonitrile	(2)	6.361	67	123494	37.977
52) Bromochloromethane	(2)	6.422	128	14427	3.913
53) Tetrahydrofuran	(1)	6.428	71	7532	7.492
54) Chloroform	(2)	6.568	83	56193	3.988

M = Compound was manually integrated.

* = Compound is an internal standard.

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on 10/11/2012 at 15:11.
Target 3.5 esignature user ID: cbe01947

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i06.d
Injection date and time: 09-OCT-2012 13:46

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 14:27
Date, time and analyst ID of latest file update: 11-Oct-2012 15:11 cbe01947

Sample Name: VSTD004

Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
55) \$Dibromofluoromethane	(2)	6.787	113	319093	49.604
55) \$Dibromofluoromethane	(2)	6.787	111	327041	49.588
56) 1,1,1-Trichloroethane	(2)	6.799	97	51066	3.990
57) Cyclohexane	(2)	6.896	56	47747	3.446
57) Cyclohexane	(2)	6.902	84	37332	3.372
57) Cyclohexane	(2)	6.896	69	13241	3.291
58) 1,1-Dichloropropene	(2)	7.006	75	37497	3.465
59) Carbon Tetrachloride	(2)	7.012	117	34734	3.427
60) Isobutyl Alcohol	(1)	7.145	41	66621	191.936
61) \$1,2-Dichloroethane-d4	(2)	7.249	102	74806	50.218
61) \$1,2-Dichloroethane-d4	(2)	7.249	65	410020	50.408
61) \$1,2-Dichloroethane-d4	(2)	7.249	104	47172	49.778
62) Benzene	(2)	7.273	78	117532	3.778
64) 1,2-Dichloroethane	(2)	7.358	62	41950	3.785
64) 1,2-Dichloroethane	(2)	7.358	98	3219	3.552
65) t-Amyl methyl ether	(2)	7.468	73	75264	3.534
67) *Fluorobenzene	(2)	7.681	96	1346182	50.000
69) n-Heptane	(2)	7.687	43	51892	3.900
70) n-Butanol	(1)	8.028	56	96059	359.910
72) Trichloroethene	(2)	8.161	95	28378	3.623
73) Methylcyclohexane	(2)	8.478	83	43192	3.437
74) 1,2-Dichloropropane	(2)	8.508	63	30767	3.657
76) Methyl Methacrylate	(2)	8.587	69	18311	3.387
77) 1,4-Dioxane	(1)	8.593	88	15141	176.631
78) Dibromomethane	(2)	8.618	93	17755	3.706
81) Bromodichloromethane	(2)	8.849	83	32262	3.365
82) 2-Nitropropane	(1)	9.123	41	15073	6.693
84) cis-1,3-Dichloropropene	(2)	9.402	75	38664	3.305
85) 4-Methyl-2-pentanone	(2)	9.567	43	59830	7.058
86) \$Toluene-d8	(3)	9.707	98	1312831	50.120
86) \$Toluene-d8	(3)	9.707	100	856522	49.920
87) Toluene	(3)	9.786	92	72491	3.804
88) trans-1,3-Dichloropropene	(3)	10.047	75	36964	3.309
89) Ethyl Methacrylate	(3)	10.108	69	30917	3.234
90) 1,1,2-Trichloroethane	(3)	10.260	97	24637	3.862
92) Tetrachloroethene	(3)	10.333	166	31168	3.560
93) 1,3-Dichloropropane	(3)	10.418	76	43820	3.761
95) 2-Hexanone	(3)	10.467	43	45772	7.263

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

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Target 3.5 esignature user ID: cbe01947

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i06.d
Injection date and time: 09-OCT-2012 13:46

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 14:27
Date, time and analyst ID of latest file update: 11-Oct-2012 15:11 cbe01947

Sample Name: VSTD004

Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
97) Dibromochloromethane	(3)	10.637	129	22860	3.242
98) 1,2-Dibromoethane	(3)	10.753	107	23652	3.596
99)*Chlorobenzene-d5	(3)	11.179	117	979497	50.000
100) Chlorobenzene	(3)	11.203	112	79617	3.704
101) 1,1,1,2-Tetrachloroethane	(3)	11.288	131	25502	3.434
102) Ethylbenzene	(3)	11.288	91	129817	3.587
103) m+p-Xylene	(3)	11.404	106	100088	7.124
104) o-Xylene	(3)	11.739	106	46062	3.405
105) Xylene (Total)	(3)		106	146150	10.529
106) Styrene	(3)	11.751	104	69296	3.172
107) Bromoform	(3)	11.915	173	14784	3.037
108) Isopropylbenzene	(3)	12.037	105	119582M	3.392
111) Cyclohexanone	(1)	12.116	55	58436	166.363
112)\$4-Bromofluorobenzene	(3)	12.183	95	491905	50.173
112)\$4-Bromofluorobenzene	(3)	12.189	174	433149	49.644
113) 1,1,2,2-Tetrachloroethane	(4)	12.280	83	34737	3.947
114) Bromobenzene	(4)	12.304	156	36366	3.793
115) trans-1,4-Dichloro-2-butene	(4)	12.310	53	100771	37.622
116) 1,2,3-Trichloropropane	(4)	12.335	110	10451	4.023
117) n-Propylbenzene	(4)	12.371	91	156627	3.726
119) 2-Chlorotoluene	(4)	12.444	126	32033	3.625
122) 1,3,5-Trimethylbenzene	(4)	12.505	105	106617	3.535
123) 4-Chlorotoluene	(4)	12.542	126	33629	3.647
126) tert-Butylbenzene	(4)	12.748	134	22545M	3.424
127) Pentachloroethane	(4)	12.779	167	21036	3.363
128) 1,2,4-Trimethylbenzene	(4)	12.791	105	113069	3.591
129) sec-Butylbenzene	(4)	12.913	105	135936	3.594
131) 1,3-Dichlorobenzene	(4)	13.010	146	68081	3.721
132) p-Isopropyltoluene	(4)	13.022	119	118415	3.491
133)*1,4-Dichlorobenzene-d4	(4)	13.071	152	564577	50.000
134) 1,4-Dichlorobenzene	(4)	13.089	146	72111	3.857
135) 1,2,3-Trimethylbenzene	(4)	13.095	105	124984	3.788
136) Benzyl Chloride	(4)	13.162	126	10613	3.892
137) 1,3-Diethylbenzene	(4)	13.223	119	73733	3.458
138) 1,4-Diethylbenzene	(4)	13.296	119	78463	3.555
139) n-Butylbenzene	(4)	13.314	92	63846M	3.702
140) 1,2-Dichlorobenzene	(4)	13.345	146	66161	3.819
141) 1,2-Diethylbenzene	(4)	13.363	119	66521A	3.656

M = Compound was manually integrated.

A = User selected an alternate hit.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

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Target 3.5 esignature user ID: cbe01947

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Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09i06.d
Injection date and time: 09-OCT-2012 13:46

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m
Calibration date and time: 09-OCT-2012 14:27

Sublist used: 8260S-2C

Date, time and analyst ID of latest file update: 11-Oct-2012 15:11 cbe01947

Sample Name: VSTD004

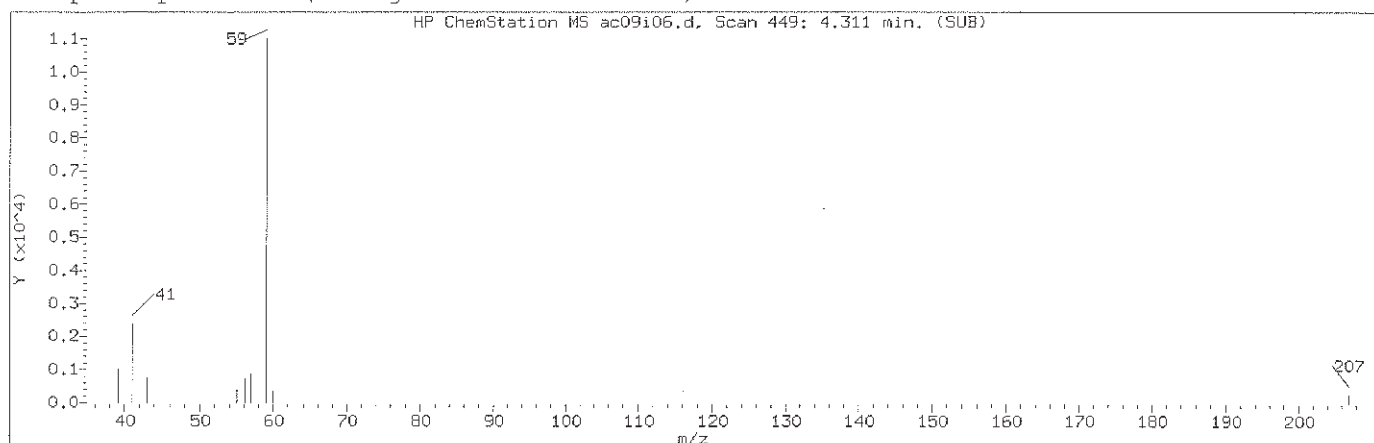
Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,2-Dibromo-3-chloropropane	(4)	13.892	75	6141	3.607
145) 1,3,5-Trichlorobenzene	(4)	14.014	180	55527	3.702
146) 1,2,4-Trichlorobenzene	(4)	14.440	180	44134	3.427
147) Hexachlorobutadiene	(4)	14.519	225	29091	3.800
148) Naphthalene	(4)	14.622	128	88139	3.287
149) 1,2,3-Trichlorobenzene	(4)	14.762	180	43229	3.570
150) 2-Methylnaphthalene	(4)	15.395	142	30406	3.112

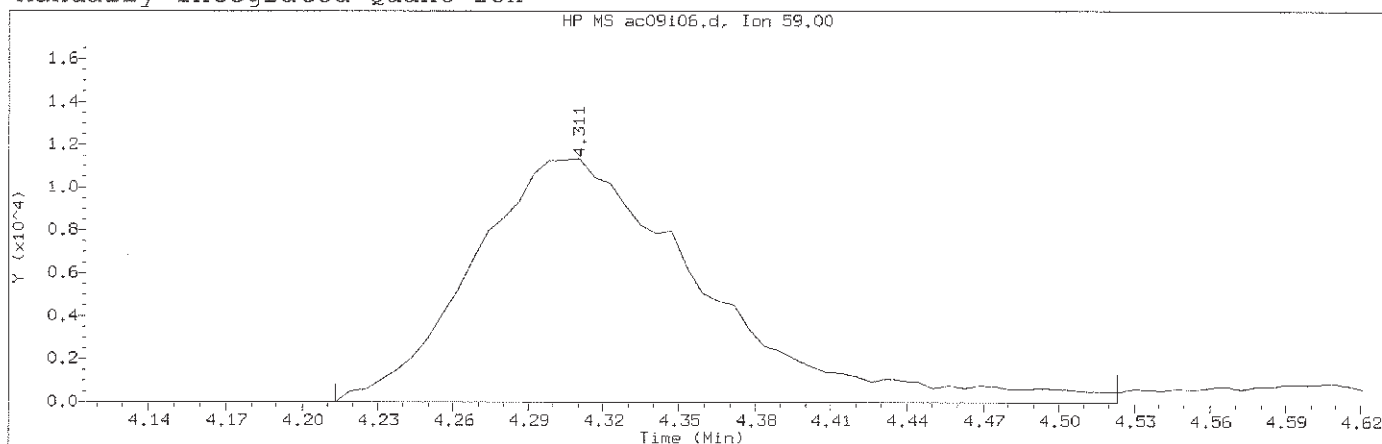
page 4 of 4

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Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i06.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 13:46 Analyst ID: CBE01947

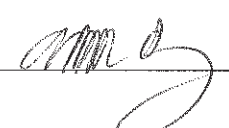
Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 14:27
Date, time and analyst ID of latest file update: 11-Oct-2012 15:11 cbe01947

Sample Name: VSTD004 Lab Sample ID: VSTD004

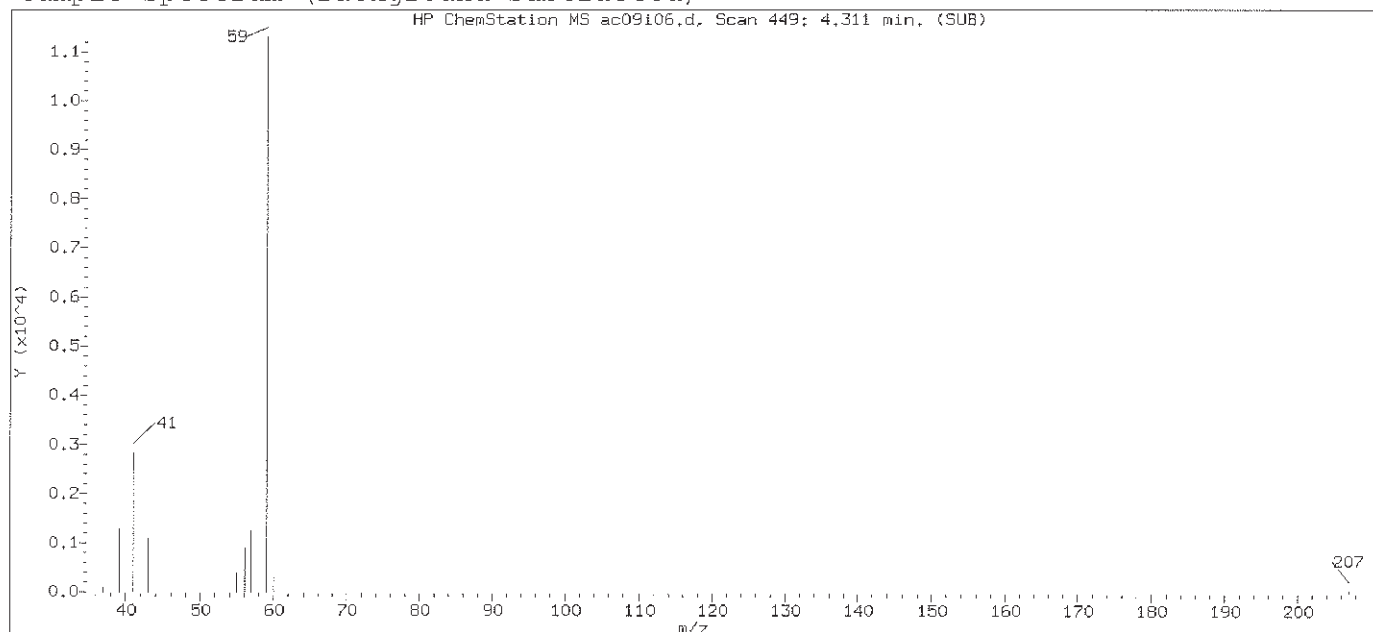
Compound Number : 32
Compound Name : t-Butyl alcohol
Scan Number : 449
Retention Time (minutes): 4.311
Quant Ion : 59.00
Area (flag) : 72211M
On-Column Amount (ng) : 76.3543
Integration start scan : 432 Integration stop scan: 483
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

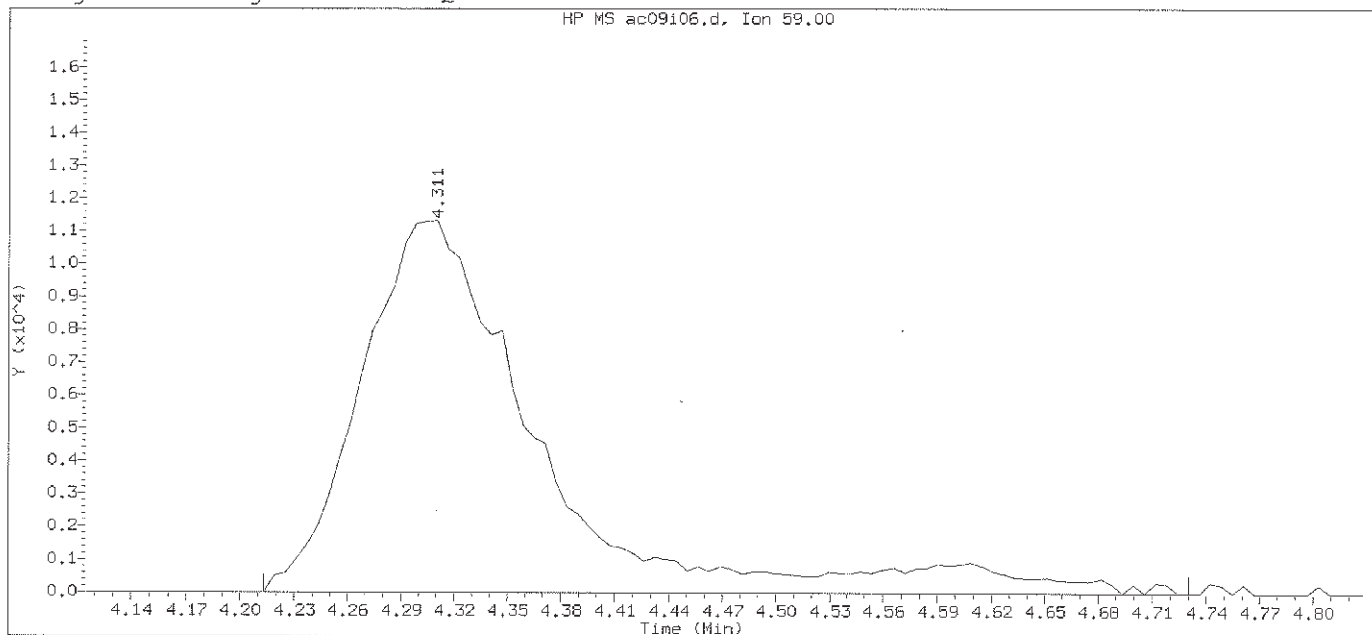
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:11.
Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval:  10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i06.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 13:46

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 14:27

Date, time and analyst ID of latest file update: 09-Oct-2012 14:27 cbe01947

Sample Name: VSTD004

Lab Sample ID: VSTD004

Compound Number : 32

Compound Name : t-Butyl alcohol

Scan Number : 449

Retention Time (minutes): 4.311

Quant Ion : 59.00

Area : 78480

On-column Amount (ng) : 80.0840

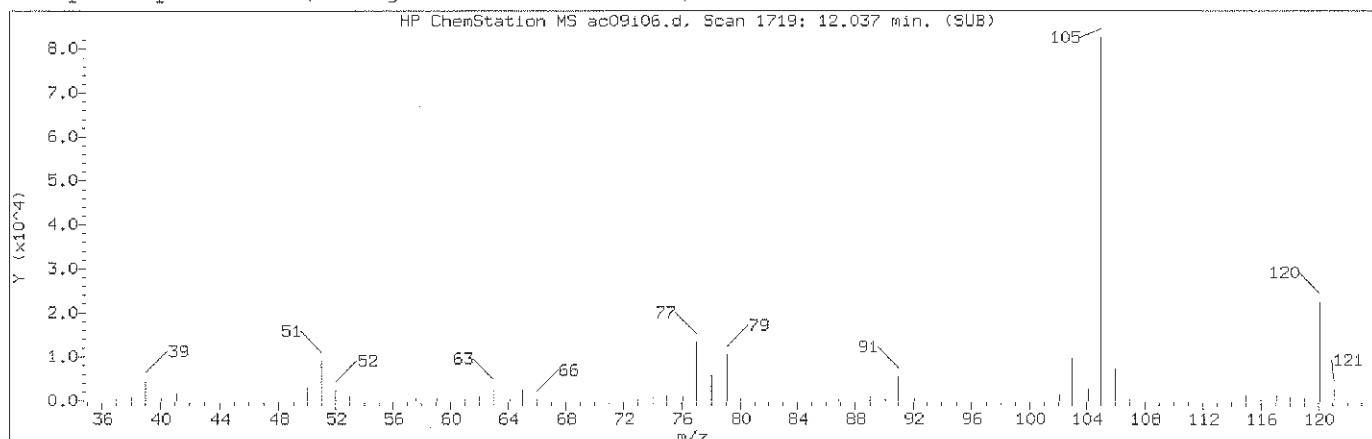
Integration start scan : 432 Integration stop scan: 517

Y at integration start : 0 Y at integration end: 0

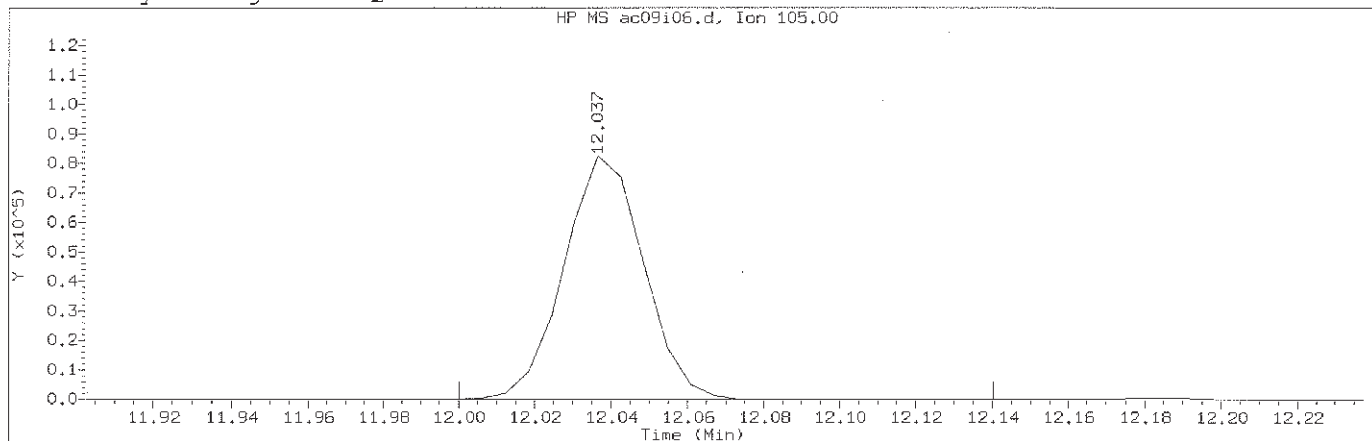
Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:11.

Target 3.5 signature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i06.d
Injection date and time: 09-OCT-2012 13:46

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 14:27
Date, time and analyst ID of latest file update: 11-Oct-2012 15:11 cbe01947

Sample Name: VSTD004

Lab Sample ID: VSTD004

Compound Number	: 108	
Compound Name	: Isopropylbenzene	
Scan Number	: 1719	
Retention Time (minutes)	: 12.037	
Quant Ion	: 105.00	
Area (flag)	: 119582M	
On-Column Amount (ng)	: 3.3916	
Integration start scan	: 1712	Integration stop scan: 1735
Y at integration start	: 0	Y at integration end: 0

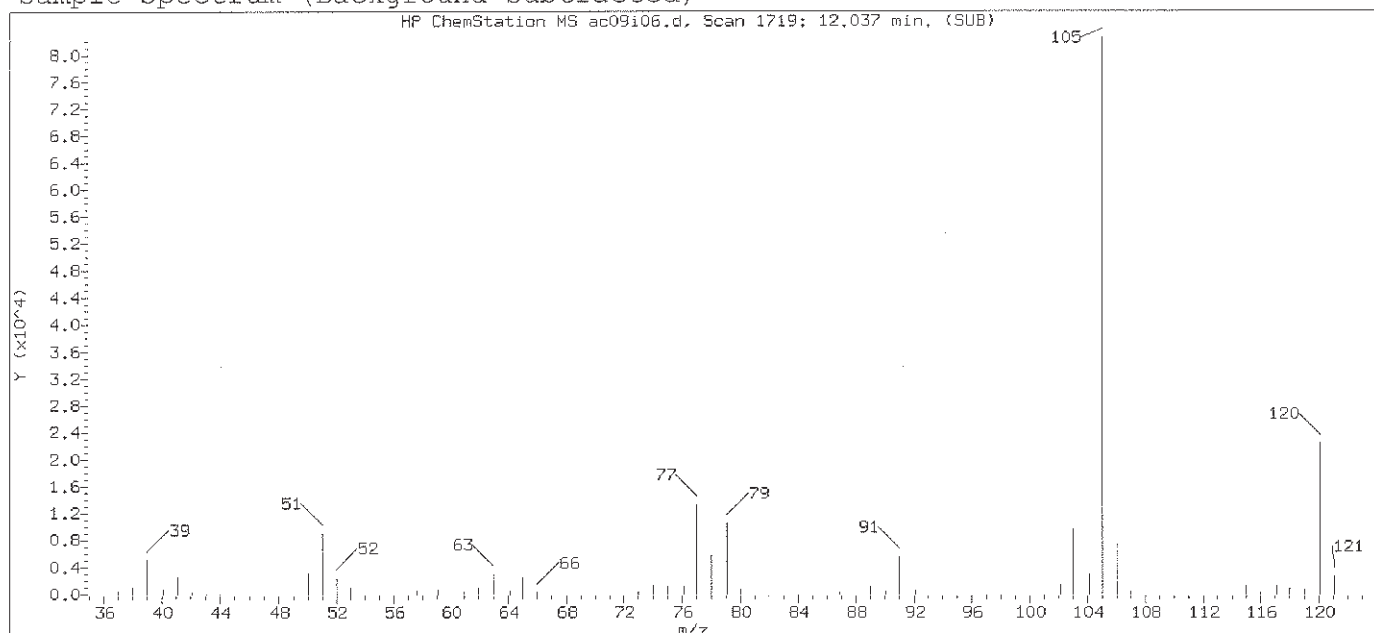
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:11.
Target 3.5 esignature user ID: cbe01947

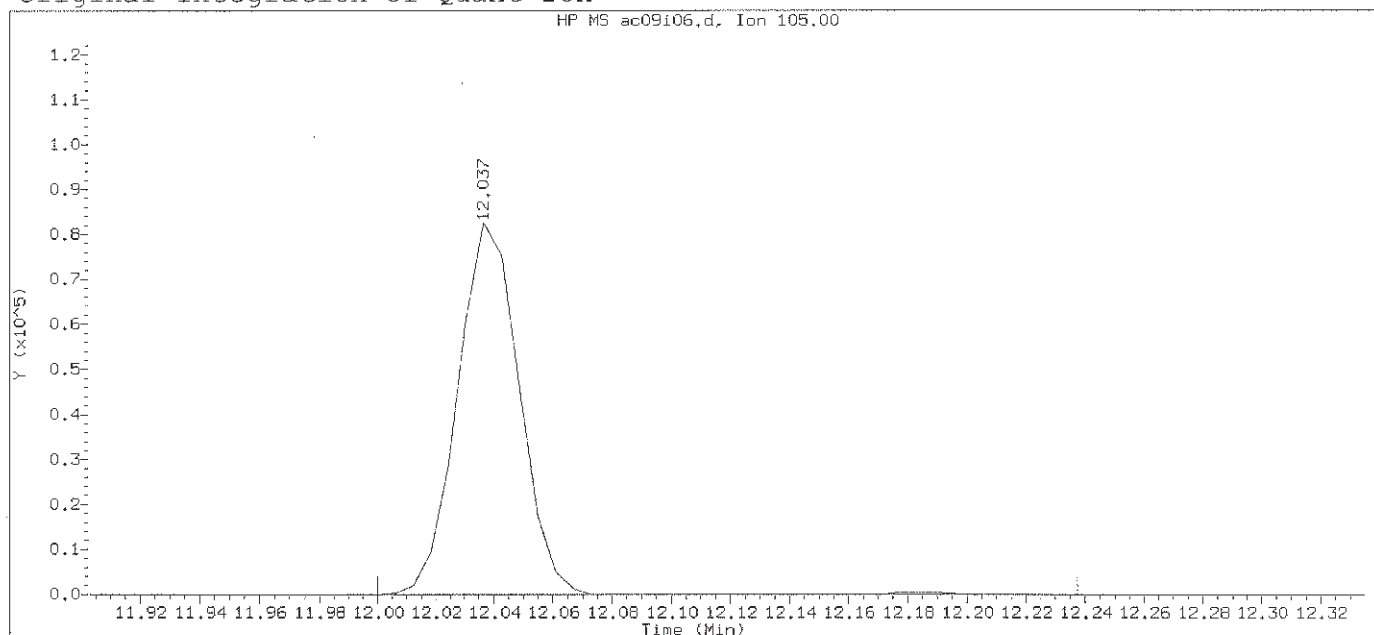
GC/MS audit/management approval: _____

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Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i06.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 13:46

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 14:27

Date, time and analyst ID of latest file update: 09-Oct-2012 14:27 cbe01947

Sample Name: VSTD004

Lab Sample ID: VSTD004

Compound Number : 108

Compound Name : Isopropylbenzene

Scan Number : 1719

Retention Time (minutes): 12.037

Quant Ion : 105.00

Area : 120158

On-column Amount (ng) : 3.4031

Integration start scan : 1712

Integration stop scan: 1751

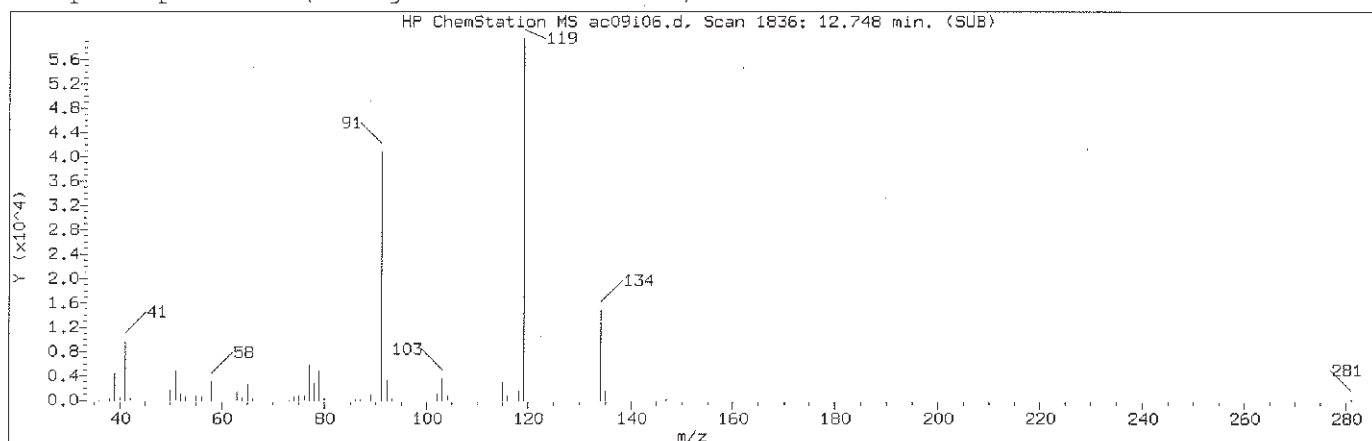
Y at integration start : 0

Y at integration end: 0

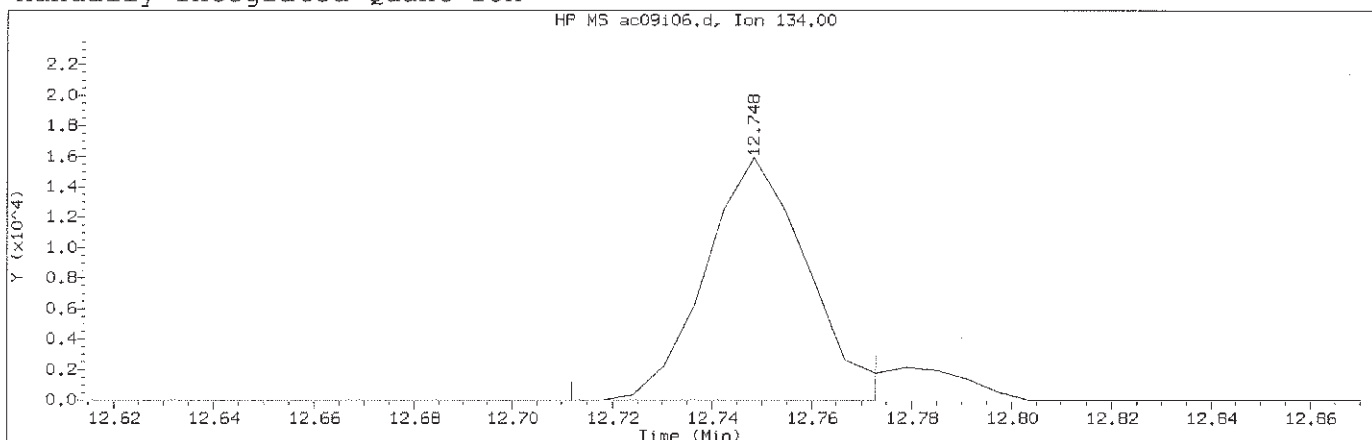
Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:11.

Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i06.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 13:46 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 14:27
Date, time and analyst ID of latest file update: 11-Oct-2012 15:11 cbe01947

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 126
Compound Name : tert-Butylbenzene
Scan Number : 1836
Retention Time (minutes): 12.748
Quant Ion : 134.00
Area (flag) : 22545M
On-Column Amount (ng) : 3.4238
Integration start scan : 1829 Integration stop scan: 1839
Y at integration start : 0 Y at integration end: 0

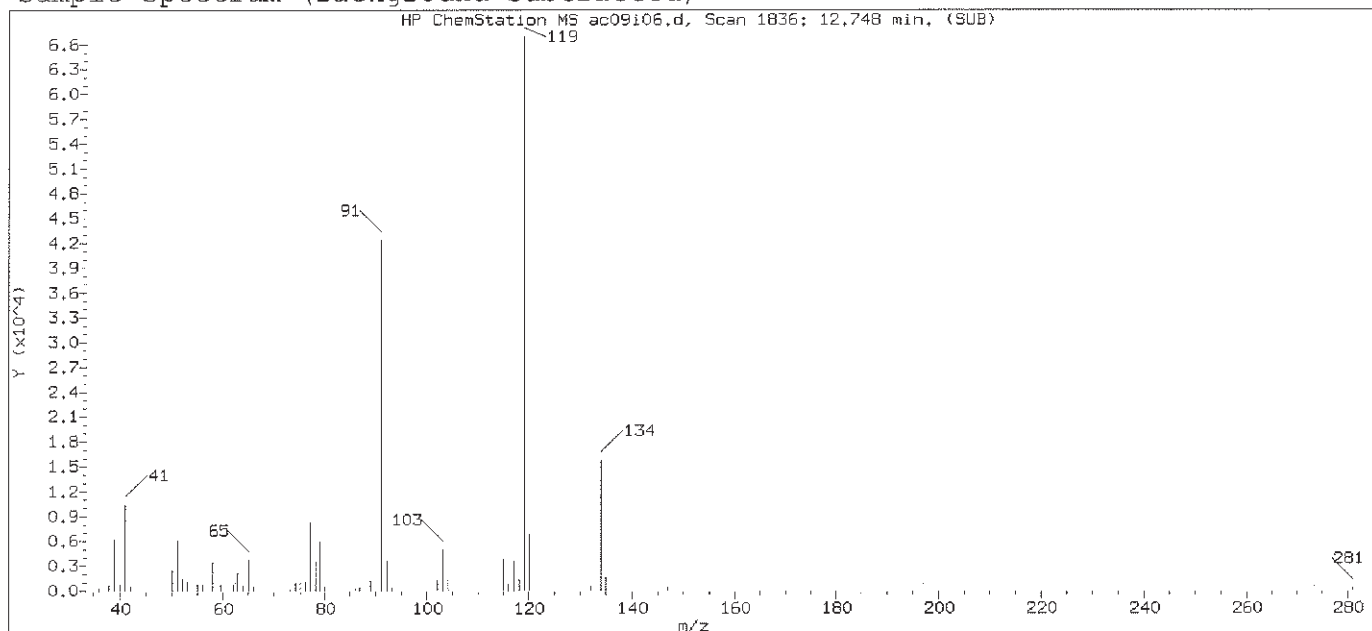
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:11.
Target 3.5 esignature user ID: cbe01947

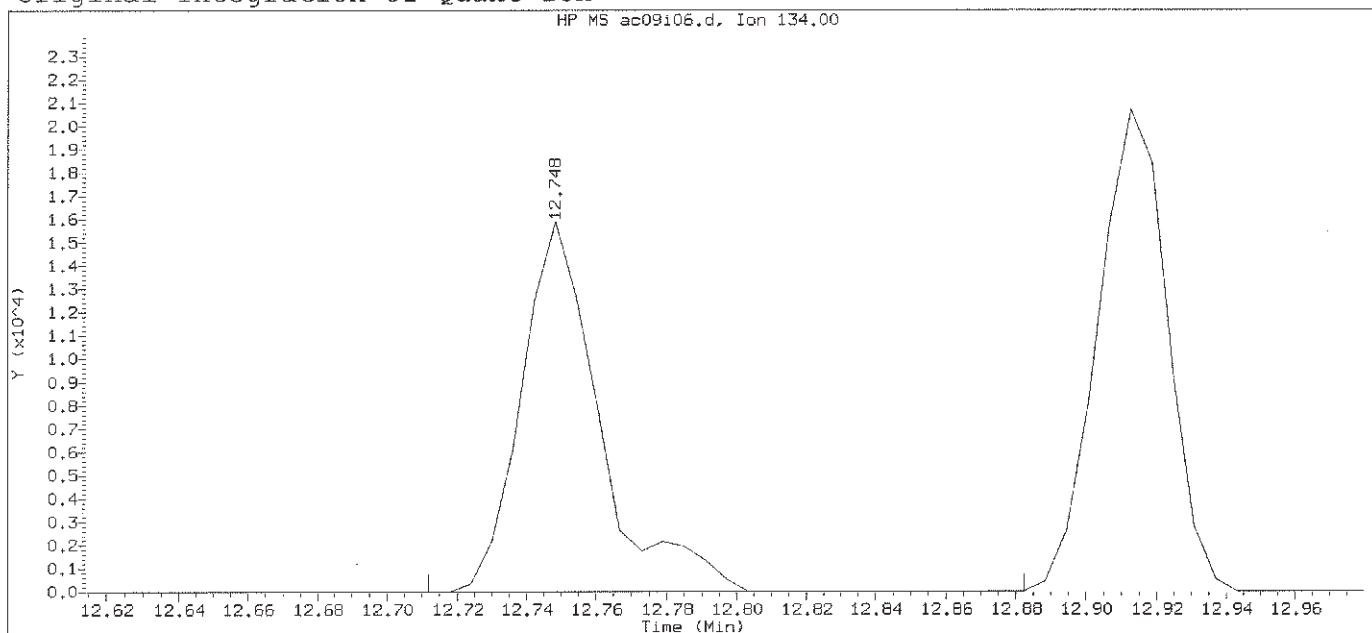
GC/MS audit/management approval: _____

mmg 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i06.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 13:46

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 14:27

Date, time and analyst ID of latest file update: 09-Oct-2012 14:27 cbe01947

Sample Name: VSTD004

Lab Sample ID: VSTD004

Compound Number : 126

Compound Name : tert-Butylbenzene

Scan Number : 1836

Retention Time (minutes): 12.748

Quant Ion : 134.00

Area : 24720

On-column Amount (ng) : 3.4235

Integration start scan : 1829

Integration stop scan: 1857

Y at integration start : 0

Y at integration end: 0

Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:11.

Target 3.5 esignature user ID: cbe01947

HP ChemStation MS ac09106.d, Scan 1929: 13.314 min. (SUB)

Mass spectrum showing relative intensity (Y, $\times 10^4$) versus mass-to-charge ratio (m/z). The base peak is at m/z 91. Other labeled peaks include m/z 39, 51, 53, 65, 78, 89, 103, 105, 115, 120, 134, and 135.

HP MS ac09106.d, Ion 92.00

Y (x10⁴)

Time (Min)

13.314

Peak Number	Retention Time (Min)	Approximate Y-value (x10 ⁴)
1	13.215	0.2
2	13.285	0.1
3	13.314	5.0
4	13.345	0.1
5	13.365	0.2

Analyst ID: CBE01947

Date, time and analyst ID of latest file update: 11-Oct-2012 15:11 cbe01947

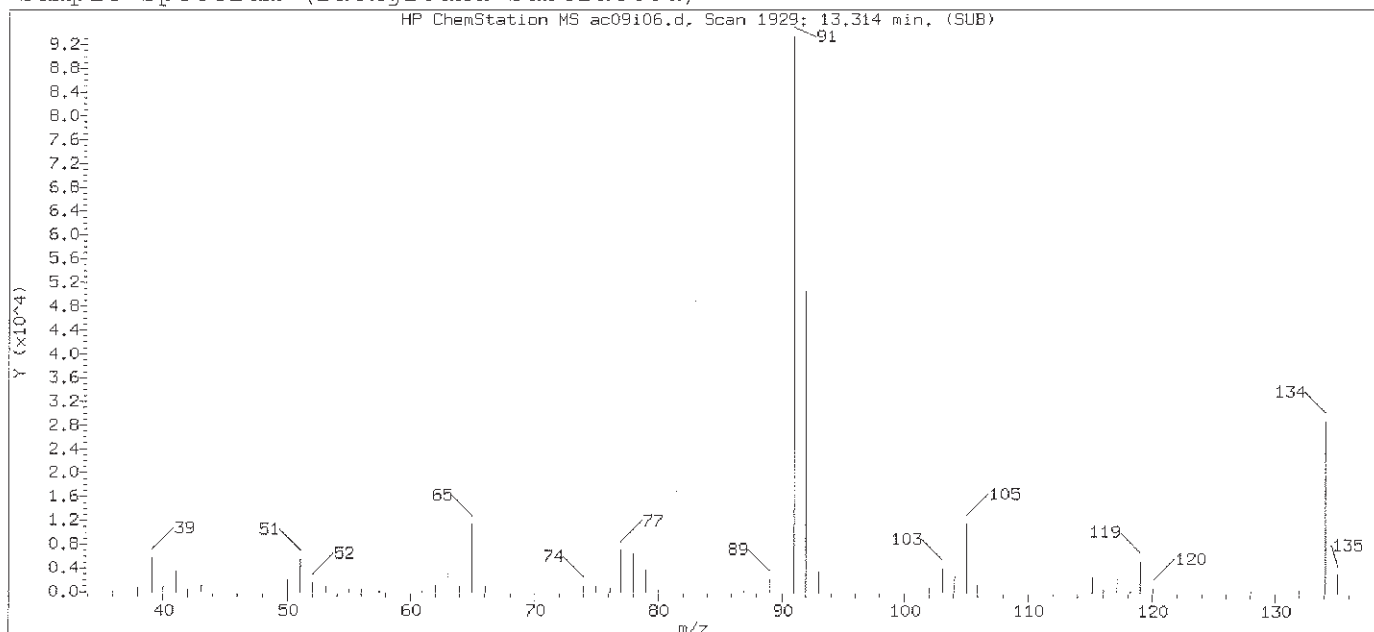
Lab Sample ID: VSTD004

```
Compound Number      : 139
Compound Name       : n-Butylbenzene
Scan Number         : 1929
Retention Time (minutes): 13.314
Quant Ion           : 92.00
Area (flag)         : 63846M
On-Column Amount (ng) : 3.7019
Integration start scan : 1922      Integration stop scan: 1933
Y at integration start  : 0         Y at integration end: 0
```

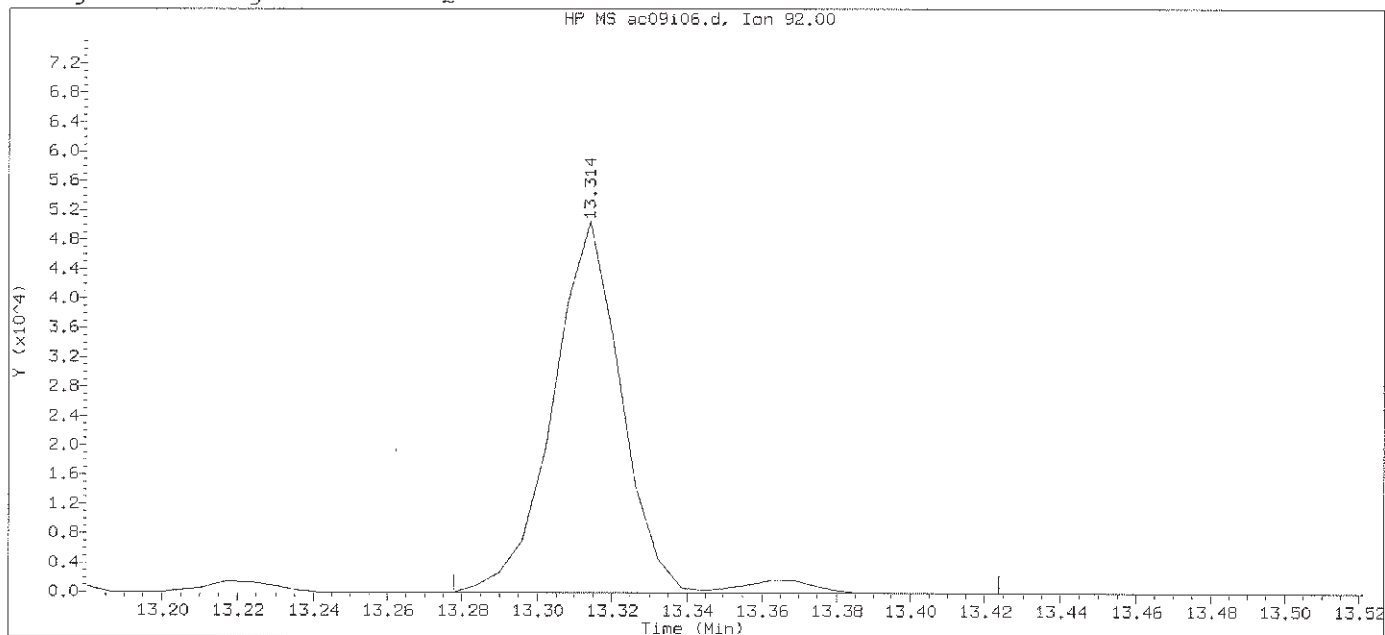
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:11.
Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval:

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i06.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 13:46 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 14:27
Date, time and analyst ID of latest file update: 09-Oct-2012 14:27 cbe01947

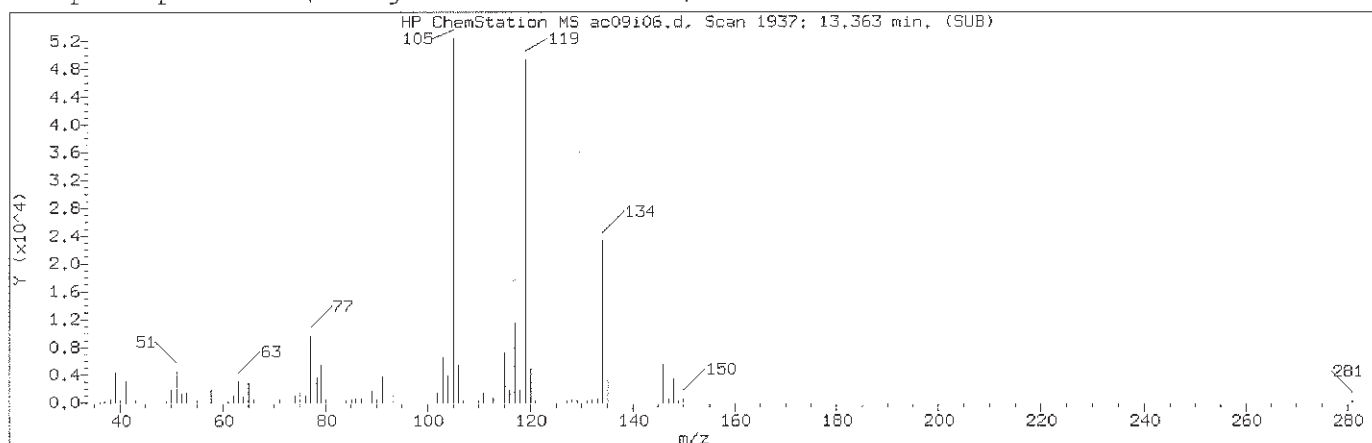
Sample Name: VSTD004

Lab Sample ID: VSTD004

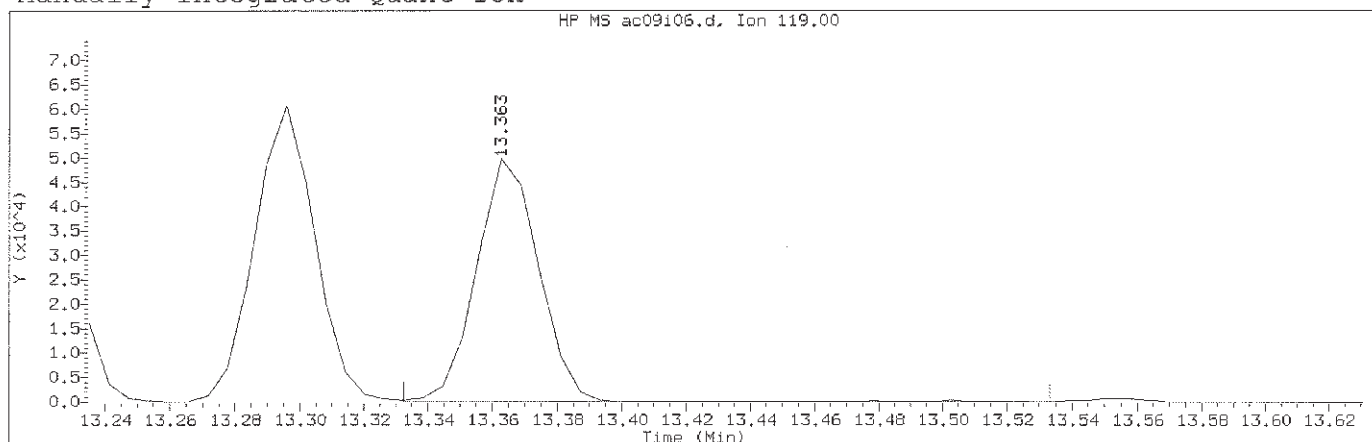
Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1929
Retention Time (minutes): 13.314
Quant Ion : 92.00
Area : 66148
On-column Amount (ng) : 3.6810
Integration start scan : 1922 Integration stop scan: 1946
Y at integration start : 0 Y at integration end: 0

Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:11.
Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i06.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 13:46 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 14:27
Date, time and analyst ID of latest file update: 11-Oct-2012 15:11 cbe01947

Sample Name: VSTD004 Lab Sample ID: VSTD004

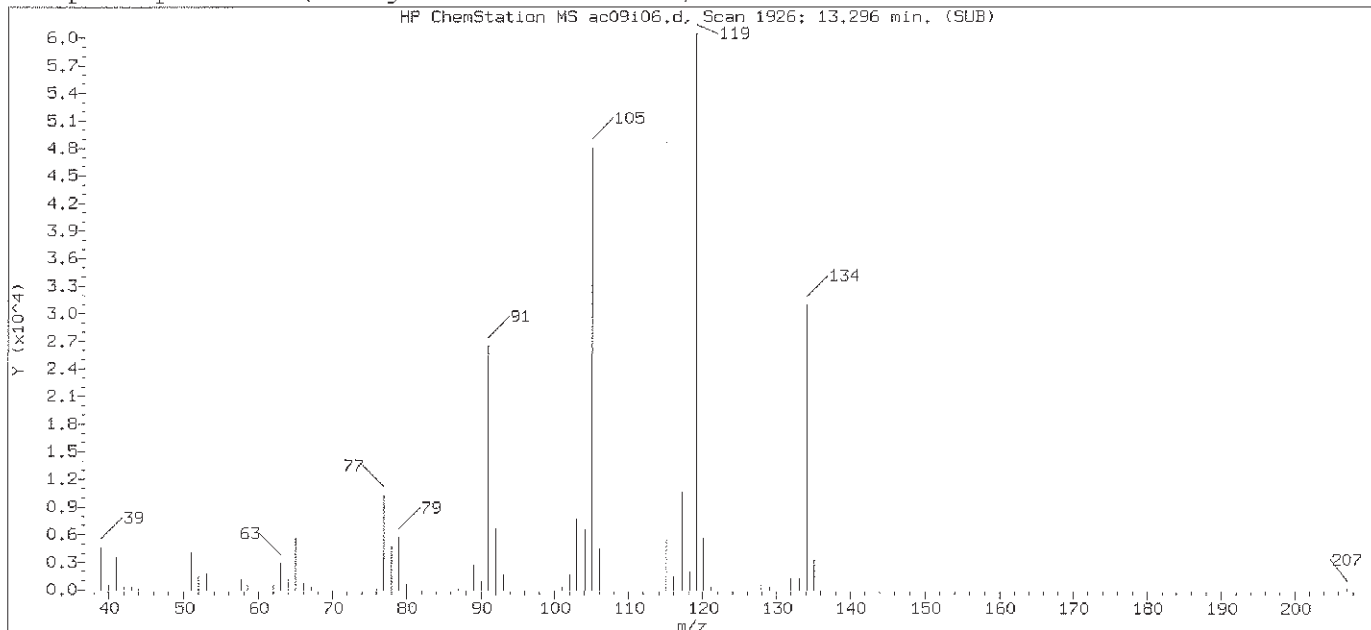
Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1937
Retention Time (minutes): 13.363
Quant Ion : 119.00
Area (flag) : 66521A
On-Column Amount (ng) : 3.6563
Integration start scan : 1931 Integration stop scan: 1964
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

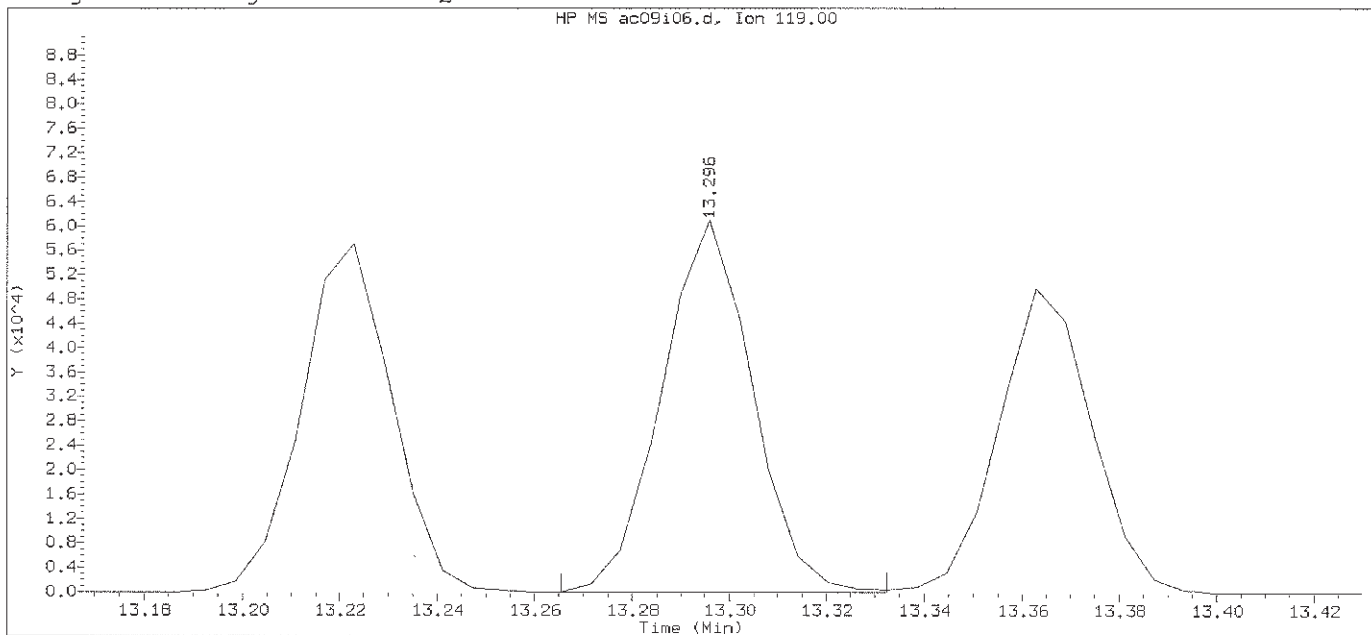
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:11.
Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: *Cmm* 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09i06.d

Instrument ID: HP09685.i

Injection date and time: 09-OCT-2012 13:46

Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 09-OCT-2012 14:27

Date, time and analyst ID of latest file update: 09-Oct-2012 14:27 cbe01947

Sample Name: VSTD004

Lab Sample ID: VSTD004

Compound Number : 141

Compound Name : 1,2-Diethylbenzene

Scan Number : 1926

Retention Time (minutes): 13.296

Quant Ion : 119.00

Area : 78463

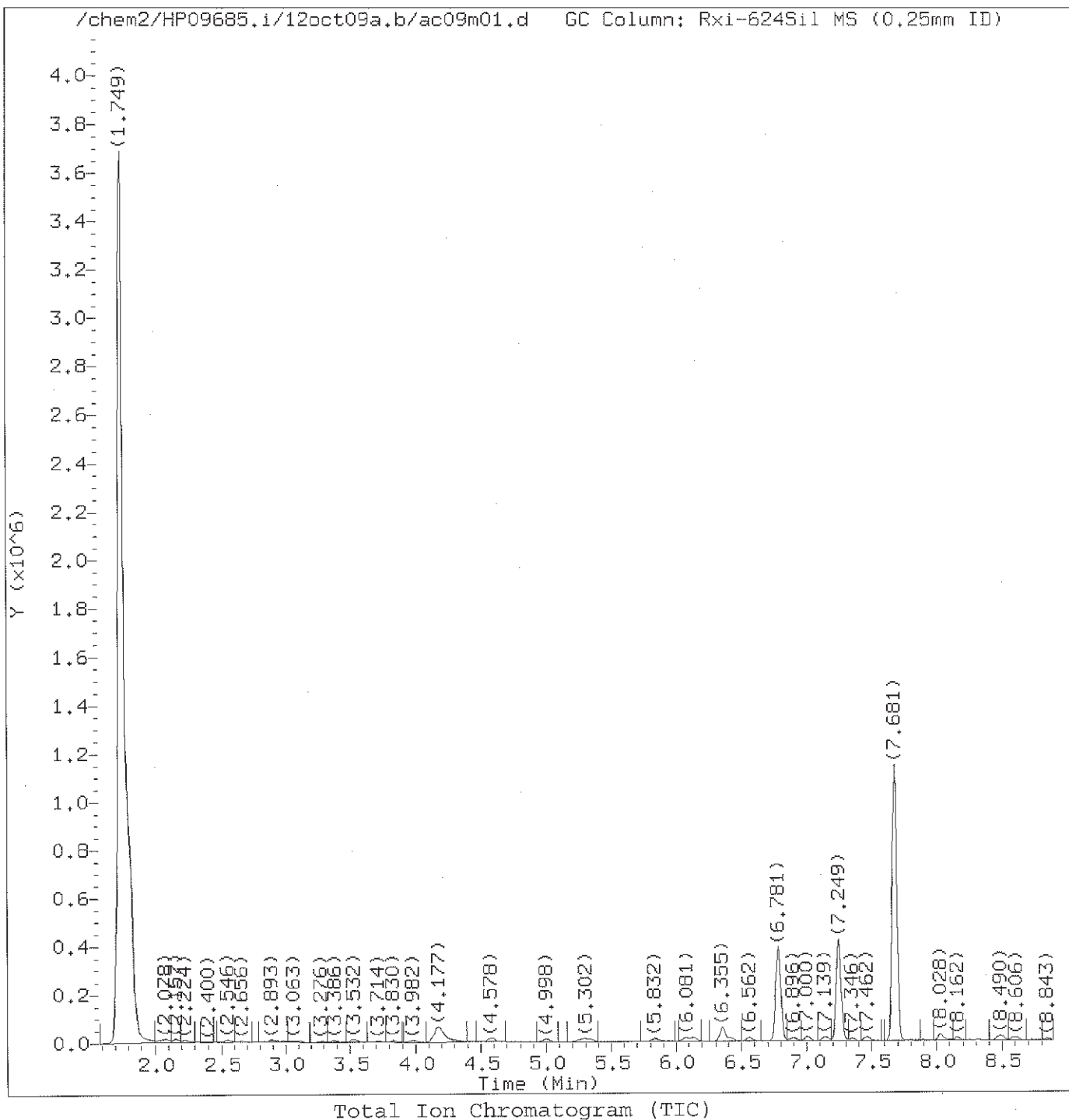
On-column Amount (ng) : 3.0459

Integration start scan : 1920 Integration stop scan: 1931

Y at integration start : 0 Y at integration end: 0

Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:11.

Target 3.5 esignature user ID: cbe01947



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d
Injection date and time: 09-OCT-2012 14:27

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m
Calibration date and time: 11-OCT-2012 15:12
Date, time and analyst ID of latest file update: 11-Oct-2012 15:29 cbe01947

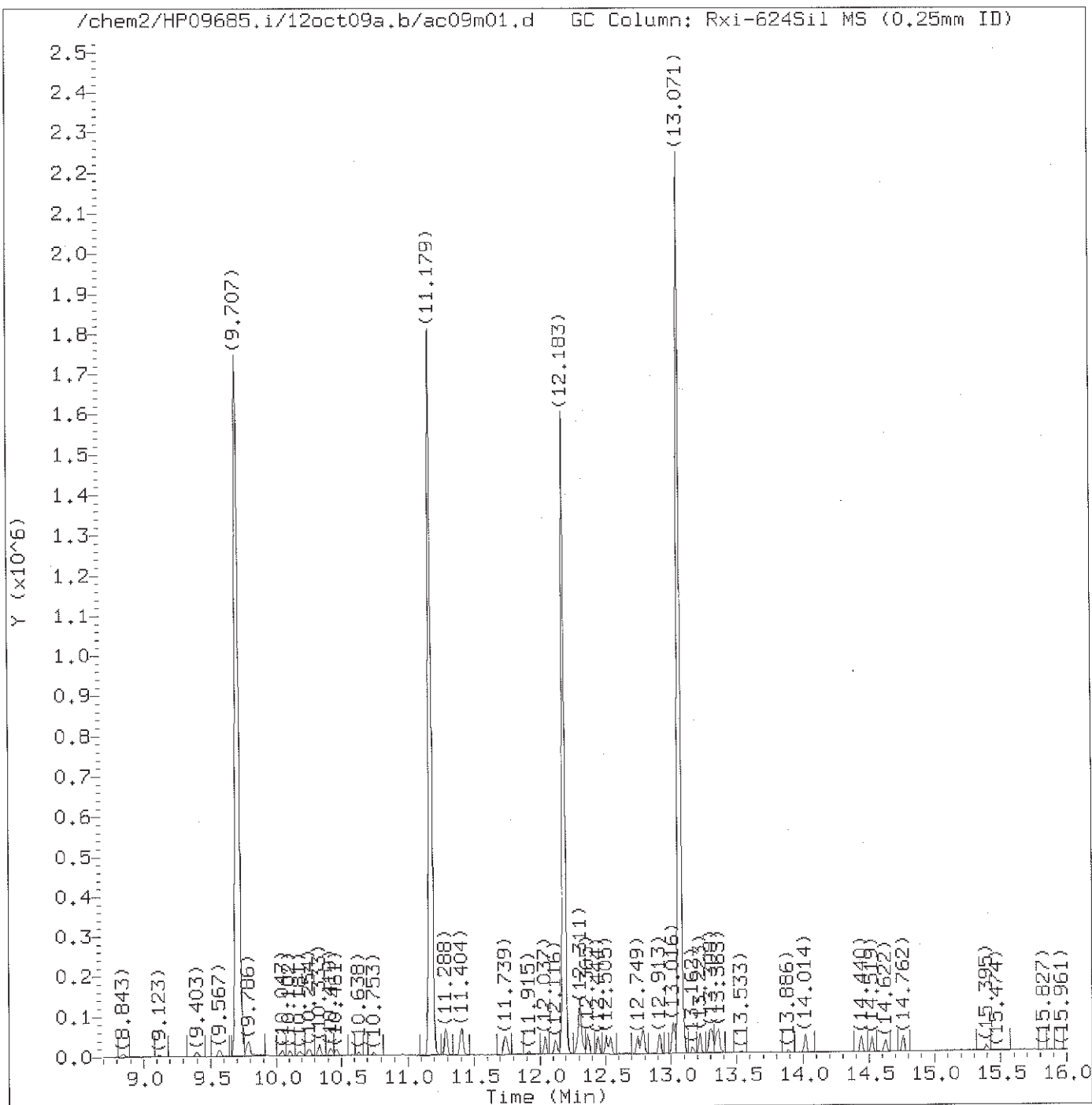
Sublist used: 8260S-2C

Sample Name: VSTD001

Lab Sample ID: VSTD001

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Target 3.5 esignature user ID: cbe01947

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Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d
Injection date and time: 09-OCT-2012 14:27

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 11-OCT-2012 15:12
Date, time and analyst ID of latest file update: 11-Oct-2012 15:29 cbe01947

Sample Name: VSTD001

Lab Sample ID: VSTD001

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Target 3.5 esignature user ID: cbe01947

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Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d
 Injection date and time: 09-OCT-2012 14:27

Instrument ID: HP09685.i
 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
 Calibration date and time: 11-OCT-2012 15:12
 Date, time and analyst ID of latest file update: 11-Oct-2012 15:29 cbe01947

Sample Name: VSTD001

Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
4) Chloromethane	(2)	1.956	50	10306	0.947
2) Dichlorodifluoromethane	(2)	1.962	85	8540	0.698
5) Vinyl Chloride	(2)	2.224	62	8722	0.832
9) Bromomethane	(2)	2.540	94	5626	0.856
10) Chloroethane	(2)	2.662	64	5451	0.968
11) Dichlorofluoromethane	(2)	2.887	67	12195	0.861
13) Trichlorofluoromethane	(2)	2.966	101	9340	0.745
15) Ethanol	(1)	3.076	45	11673	140.060
17) Freon 123a	(2)	3.289	67	7807	0.850
18) Acrolein	(1)	3.386	56	15669	9.825
19) 1,1-Dichloroethene	(2)	3.514	96	5995	0.922
20) Acetone	(2)	3.538	58	2140	2.461
22) Freon 113	(2)	3.550	101	5170	0.721
23) 2-Propanol	(1)	3.696	45	12181	20.879
24) Methyl Iodide	(2)	3.721	142	9202	0.758
25) Carbon Disulfide	(2)	3.824	76	22784M	0.959
27) Methyl Acetate	(2)	3.952	43	5999	1.002
29) Allyl Chloride	(2)	3.982	41	9972	0.853
30) *t-Butyl alcohol-d10	(1)	4.171	65	166248	250.000
31) Methylene Chloride	(2)	4.177	84	11750	1.459
32) t-Butyl alcohol	(1)	4.280	59	16561	18.519
33) Acrylonitrile	(2)	4.505	53	2570	0.807
34) Methyl Tertiary Butyl Ether	(2)	4.572	73	19671	0.868
35) trans-1,2-Dichloroethene	(2)	4.590	96	5728	0.776
38) n-Hexane	(2)	4.998	57	9162	0.770
40) 1,1-Dichloroethane	(2)	5.247	63	11079	0.762
41) di-Isopropyl ether	(2)	5.296	45	20791	0.771
42) 2-Chloro-1,3-butadiene	(2)	5.345	53	7412	0.613
44) Ethyl t-butyl ether	(2)	5.832	59	17286	0.729
45) 2-Butanone	(2)	6.057	43	7536	1.855
46) cis-1,2-Dichloroethene	(2)	6.075	96	6240	0.784
47) 1,2-Dichloroethene (Total)	(2)		96	11968	1.560
48) 2,2-Dichloropropane	(2)	6.105	77	8425	0.734
50) Propionitrile	(1)	6.142	54	22620	19.541
51) Methacrylonitrile	(2)	6.355	67	27401	8.472
52) Bromochloromethane	(2)	6.416	128	3036	0.828
53) Tetrahydrofuran	(1)	6.434	71	1537	1.617
54) Chloroform	(2)	6.562	83	17000	1.213

M = Compound was manually integrated.

* = Compound is an internal standard.

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 Target 3.5 esignature user ID: cbe01947

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d
Injection date and time: 09-OCT-2012 14:27

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 11-OCT-2012 15:12
Date, time and analyst ID of latest file update: 11-Oct-2012 15:29 cbe01947

Sample Name: VSTD001

Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
55) \$Dibromofluoromethane	(2)	6.781	113	313812	49.047
56) 1,1,1-Trichloroethane	(2)	6.793	97	10841	0.852
57) Cyclohexane	(2)	6.890	56	9545M	0.693
58) 1,1-Dichloropropene	(2)	7.000	75	8300	0.771
59) Carbon Tetrachloride	(2)	7.006	117	7120	0.706
60) Isobutyl Alcohol	(1)	7.139	41	15782	48.085
61) \$1,2-Dichloroethane-d4	(2)	7.249	102	73352	49.508
62) Benzene	(2)	7.267	78	26162	0.846
64) 1,2-Dichloroethane	(2)	7.346	62	9693	0.879
65) t-Amyl methyl ether	(2)	7.462	73	15495	0.731
67) *Fluorobenzene	(2)	7.681	96	1338933	50.000
69) n-Heptane	(2)	7.687	43	11574	0.875
70) n-Butanol	(1)	8.028	56	20343	80.607
72) Trichloroethene	(2)	8.162	95	6063	0.778
73) Methylcyclohexane	(2)	8.478	83	8501	0.680
74) 1,2-Dichloropropane	(2)	8.502	63	6621	0.791
76) Methyl Methacrylate	(2)	8.581	69	3901	0.725
77) 1,4-Dioxane	(1)	8.593	88	2732	33.705
78) Dibromomethane	(2)	8.612	93	4150	0.871
81) Bromodichloromethane	(2)	8.843	83	7150	0.750
82) 2-Nitropropane	(1)	9.123	41	3423	1.607
84) cis-1,3-Dichloropropene	(2)	9.403	75	7487	0.643
85) 4-Methyl-2-pentanone	(2)	9.567	43	12716	1.508
86) \$Toluene-d8	(3)	9.707	98	1290545	49.758
87) Toluene	(3)	9.786	92	16679	0.884
88) trans-1,3-Dichloropropene	(3)	10.047	75	7876	0.712
89) Ethyl Methacrylate	(3)	10.108	69	6480	0.684
90) 1,1,2-Trichloroethane	(3)	10.254	97	5388	0.853
92) Tetrachloroethene	(3)	10.327	166	6953	0.802
93) 1,3-Dichloropropane	(3)	10.419	76	10231	0.887
95) 2-Hexanone	(3)	10.467	43	9876MA	1.583
97) Dibromochloromethane	(3)	10.638	129	4809	0.689
98) 1,2-Dibromoethane	(3)	10.747	107	5244	0.805
99) *Chlorobenzene-d5	(3)	11.179	117	969876	50.000
100) Chlorobenzene	(3)	11.203	112	18798	0.883
101) 1,1,1,2-Tetrachloroethane	(3)	11.288	131	5471	0.744
102) Ethylbenzene	(3)	11.288	91	28220	0.787
103) m+p-Xylene	(3)	11.404	106	21138	1.519

M = Compound was manually integrated.

A = User selected an alternate hit.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

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Target 3.5 esignature user ID: cbe01947

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Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d
 Injection date and time: 09-OCT-2012 14:27

Instrument ID: HP09685.i
 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
 Calibration date and time: 11-OCT-2012 15:12
 Date, time and analyst ID of latest file update: 11-Oct-2012 15:29 cbe01947

Sample Name: VSTD001

Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
104) o-Xylene	(3)	11.733	106	9581	0.715
105) Xylene (Total)	(3)		106	30719	2.235
106) Styrene	(3)	11.751	104	12813	0.592
107) Bromoform	(3)	11.909	173	3140	0.651
108) Isopropylbenzene	(3)	12.037	105	23764M	0.681
111) Cyclohexanone	(1)	12.116	55	15373	46.285
112) \$4-Bromofluorobenzene	(3)	12.183	95	475216	48.952
113) 1,1,2,2-Tetrachloroethane	(4)	12.280	83	7877	0.917
114) Bromobenzene	(4)	12.298	156	8746	0.935
115) trans-1,4-Dichloro-2-butene	(4)	12.311	53	20828	7.968
116) 1,2,3-Trichloropropane	(4)	12.335	110	2402	0.947
117) n-Propylbenzene	(4)	12.365	91	34391	0.838
119) 2-Chlorotoluene	(4)	12.444	126	7262M	0.842
122) 1,3,5-Trimethylbenzene	(4)	12.505	105	21010	0.714
123) 4-Chlorotoluene	(4)	12.536	126	7582M	0.843
126) tert-Butylbenzene	(4)	12.749	134	4476M	0.696
127) Pentachloroethane	(4)	12.779	167	4111	0.673
128) 1,2,4-Trimethylbenzene	(4)	12.791	105	22797	0.742
129) sec-Butylbenzene	(4)	12.913	105	28023M	0.759
131) 1,3-Dichlorobenzene	(4)	13.010	146	15897	0.890
132) p-Isopropyltoluene	(4)	13.022	119	22397MA	0.677
133) *1,4-Dichlorobenzene-d4	(4)	13.071	152	551009	50.000
134) 1,4-Dichlorobenzene	(4)	13.089	146	17589	0.964
135) 1,2,3-Trimethylbenzene	(4)	13.095	105	27725	0.861
136) Benzyl Chloride	(4)	13.162	126	2163	1.832
137) 1,3-Diethylbenzene	(4)	13.223	119	14639	0.704
138) 1,4-Diethylbenzene	(4)	13.296	119	14881	0.691
139) n-Butylbenzene	(4)	13.314	92	12489	0.742
140) 1,2-Dichlorobenzene	(4)	13.345	146	15931	0.942
141) 1,2-Diethylbenzene	(4)	13.363	119	12541M	0.706
144) 1,2-Dibromo-3-chloropropane	(4)	13.886	75	1275	0.767
145) 1,3,5-Trichlorobenzene	(4)	14.014	180	13920	0.951
146) 1,2,4-Trichlorobenzene	(4)	14.440	180	12015	0.956
147) Hexachlorobutadiene	(4)	14.519	225	7356	0.985
148) Naphthalene	(4)	14.622	128	21527	0.823
149) 1,2,3-Trichlorobenzene	(4)	14.762	180	11567	0.979
150) 2-Methylnaphthalene	(4)	15.395	142	7498	1.576

M = Compound was manually integrated.

A = User selected an alternate hit.

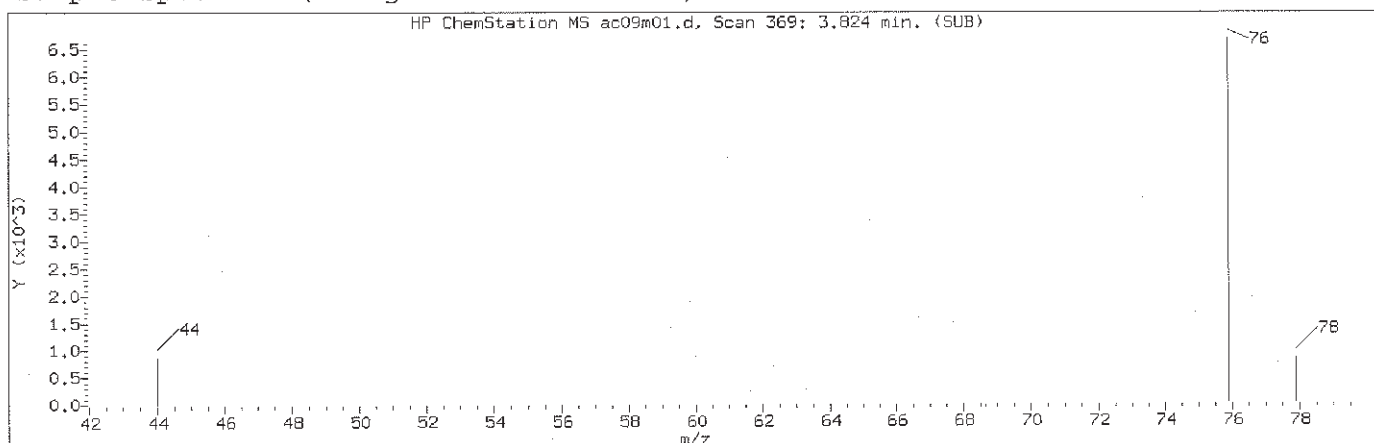
* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

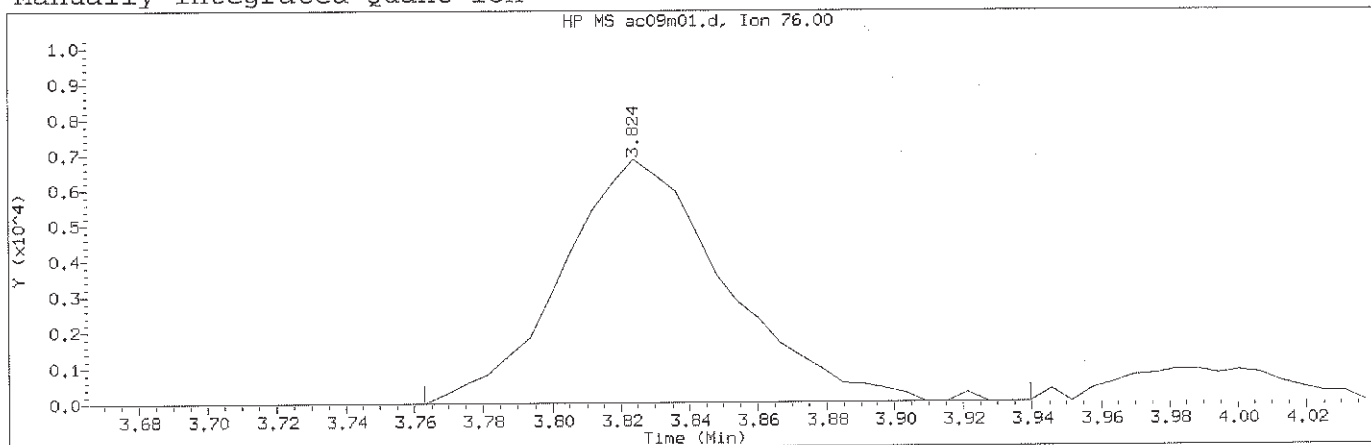
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 Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 14:27 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 11-OCT-2012 15:12
Date, time and analyst ID of latest file update: 11-Oct-2012 15:29 cbe01947

Sample Name: VSTD001

Lab Sample ID: VSTD001

Compound Number	: 25	
Compound Name	: Carbon Disulfide	
Scan Number	: 369	
Retention Time (minutes)	: 3.824	
Quant Ion	: 76.00	
Area (flag)	: 22784M	
On-Column Amount (ng)	: 0.9586	
Integration start scan	: 358	Integration stop scan: 387
Y at integration start	: 0	Y at integration end: 0

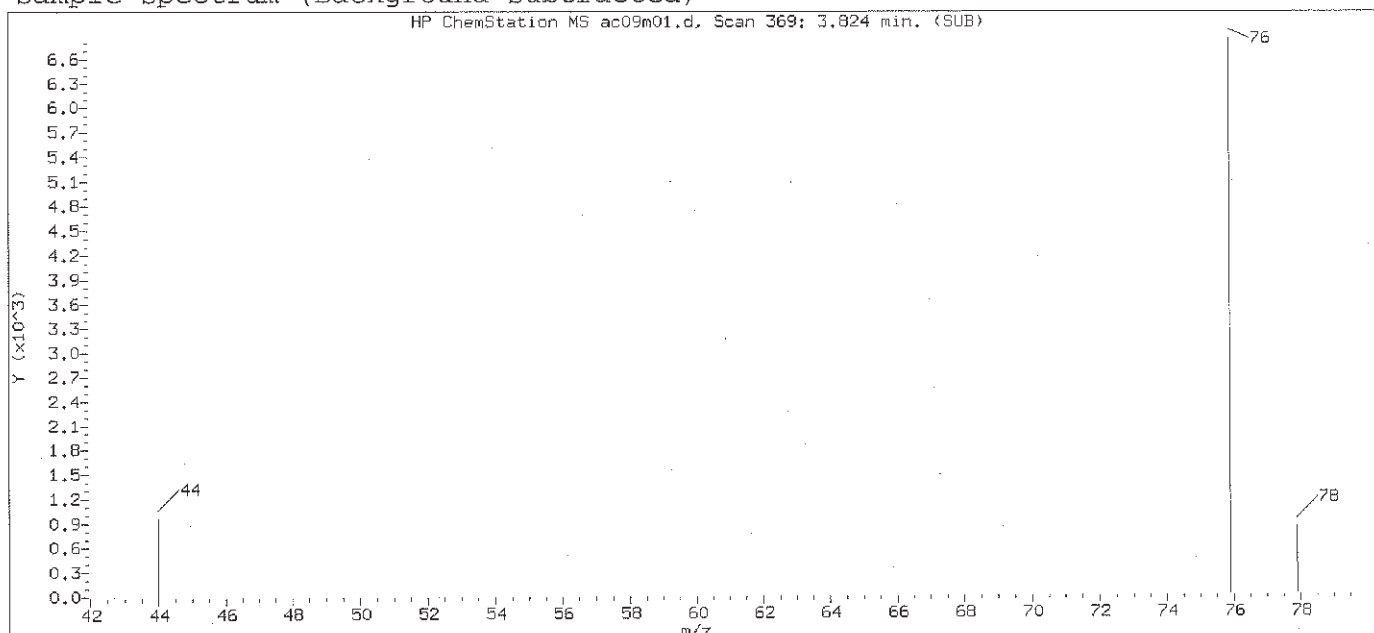
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:29.
Target 3.5 esignature user ID: cbe01947

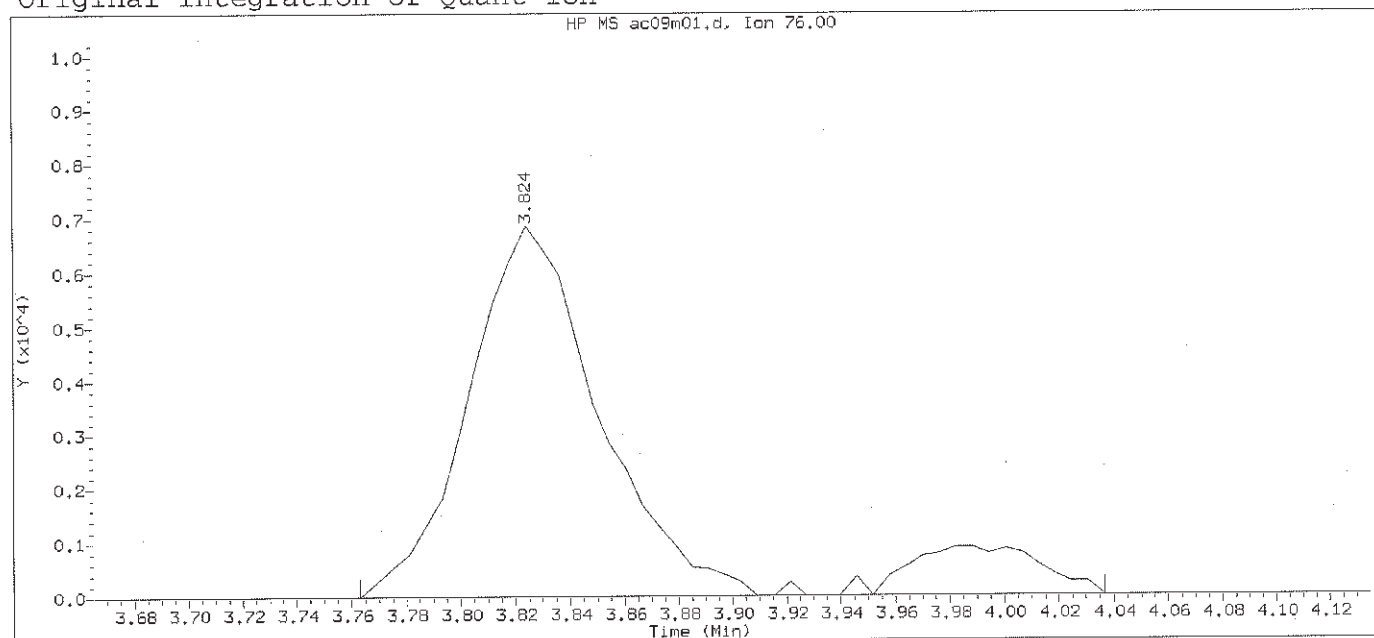
GC/MS audit/management approval: _____

Handwritten signature and date: 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 14:27 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:29
Date, time and analyst ID of latest file update: 09-Oct-2012 16:29 cbe01947

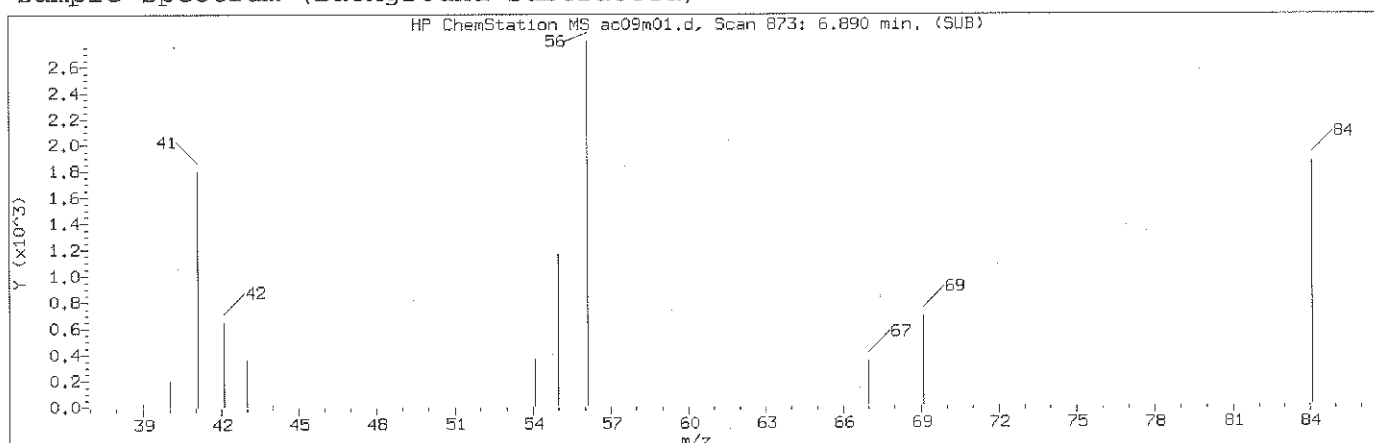
Sample Name: VSTD001

Lab Sample ID: VSTD001

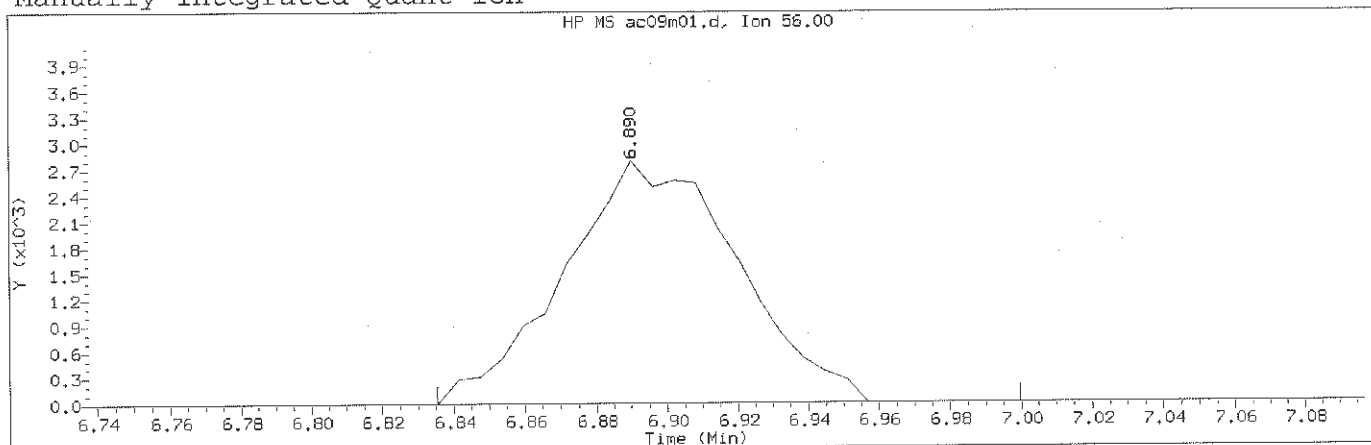
Compound Number : 25
Compound Name : Carbon Disulfide
Scan Number : 369
Retention Time (minutes): 3.824
Quant Ion : 76.00
Area : 25876
On-column Amount (ng) : 1.0887
Integration start scan : 358 Integration stop scan: 403
Y at integration start : 0 Y at integration end: 0

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Target 3.5 esignature us: cbe01947
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Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 14:27 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 11-OCT-2012 15:12
Date, time and analyst ID of latest file update: 11-Oct-2012 15:29 cbe01947

Sample Name: VSTD001

Lab Sample ID: VSTD001

Compound Number	: 57	
Compound Name	: Cyclohexane	
Scan Number	: 873	
Retention Time (minutes)	: 6.890	
Quant Ion	: 56.00	
Area (flag)	: 9545M	
On-Column Amount (ng)	: 0.6926	
Integration start scan	: 863	Integration stop scan: 890
Y at integration start	: 0	Y at integration end: 0

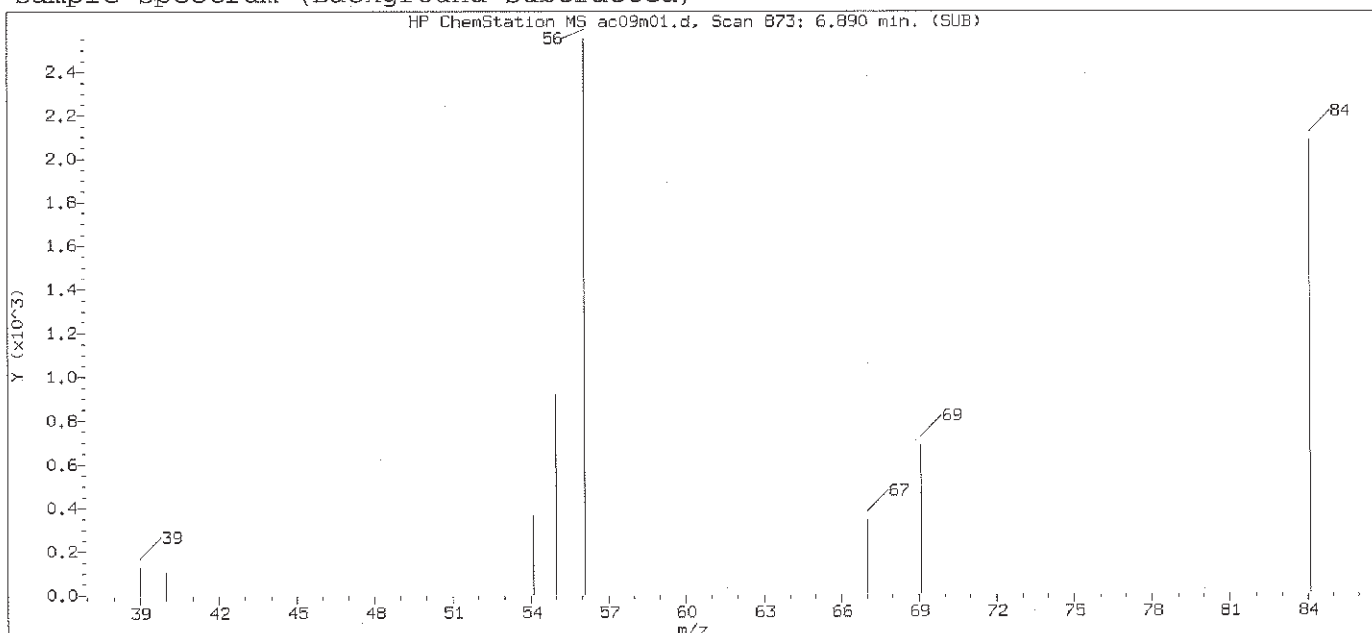
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:29.
Target 3.5 esignature user ID: cbe01947

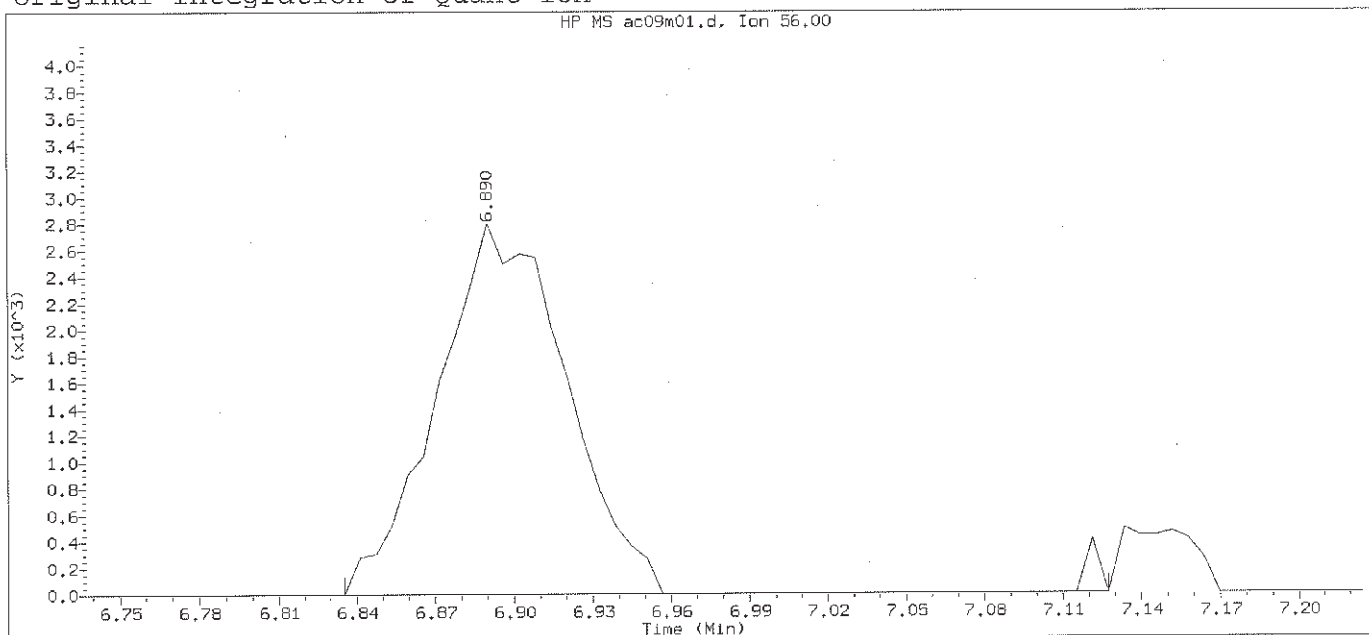
GC/MS audit/management approval: _____

mmay 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 14:27 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:29
Date, time and analyst ID of latest file update: 09-Oct-2012 16:29 cbe01947

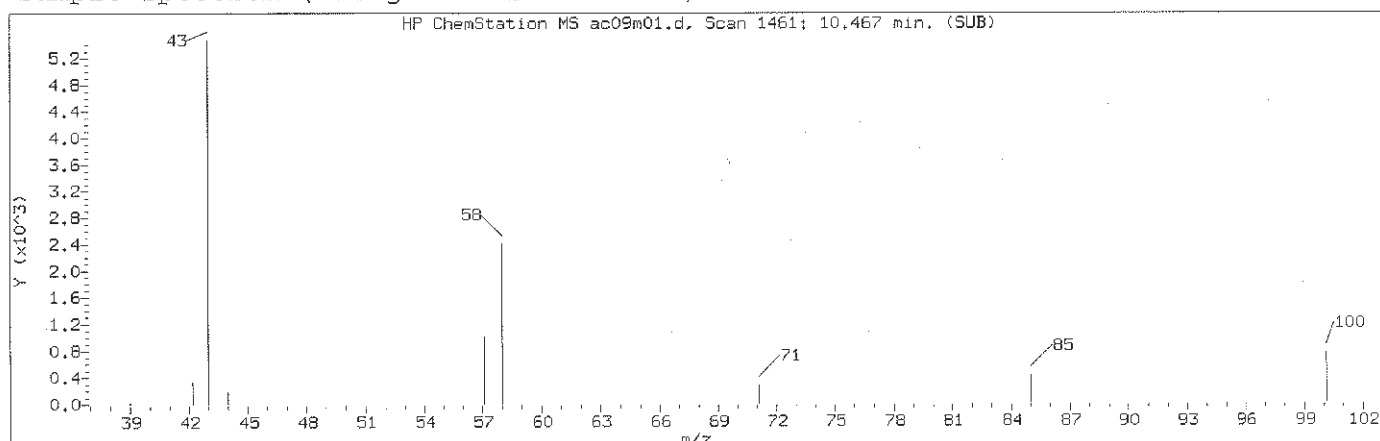
Sample Name: VSTD001

Lab Sample ID: VSTD001

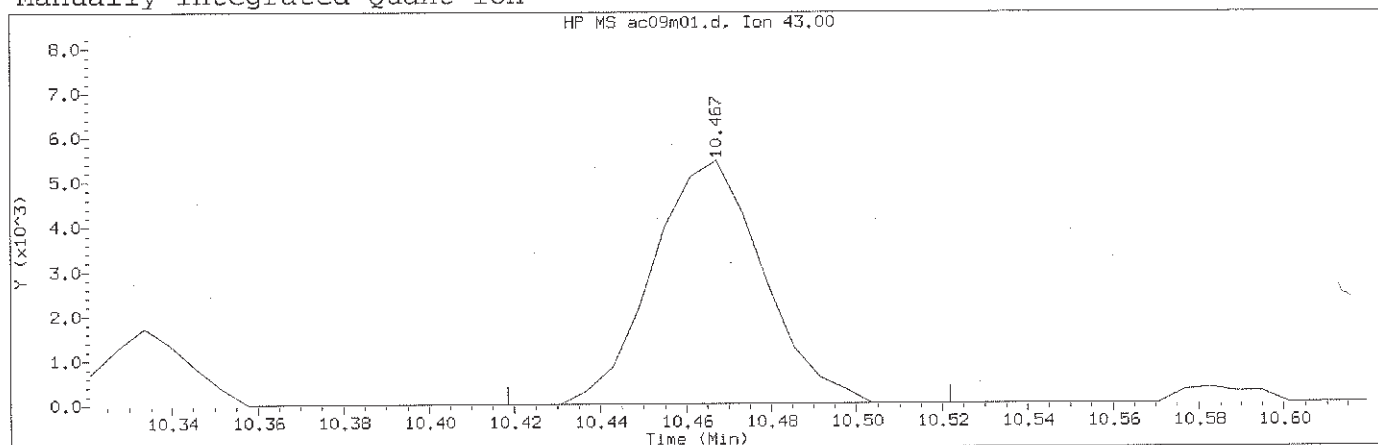
Compound Number : 57
Compound Name : Cyclohexane
Scan Number : 873
Retention Time (minutes): 6.890
Quant Ion : 56.00
Area : 9693
On-column Amount (ng) : 0.7035
Integration start scan : 863 Integration stop scan: 911
Y at integration start : 0 Y at integration end: 0

Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:29.
Target 3.5 esignature used: cbe01947
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Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d
Injection date and time: 09-OCT-2012 14:27

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 11-OCT-2012 15:12
Date, time and analyst ID of latest file update: 11-Oct-2012 15:29 cbe01947

Sample Name: VSTD001

Lab Sample ID: VSTD001

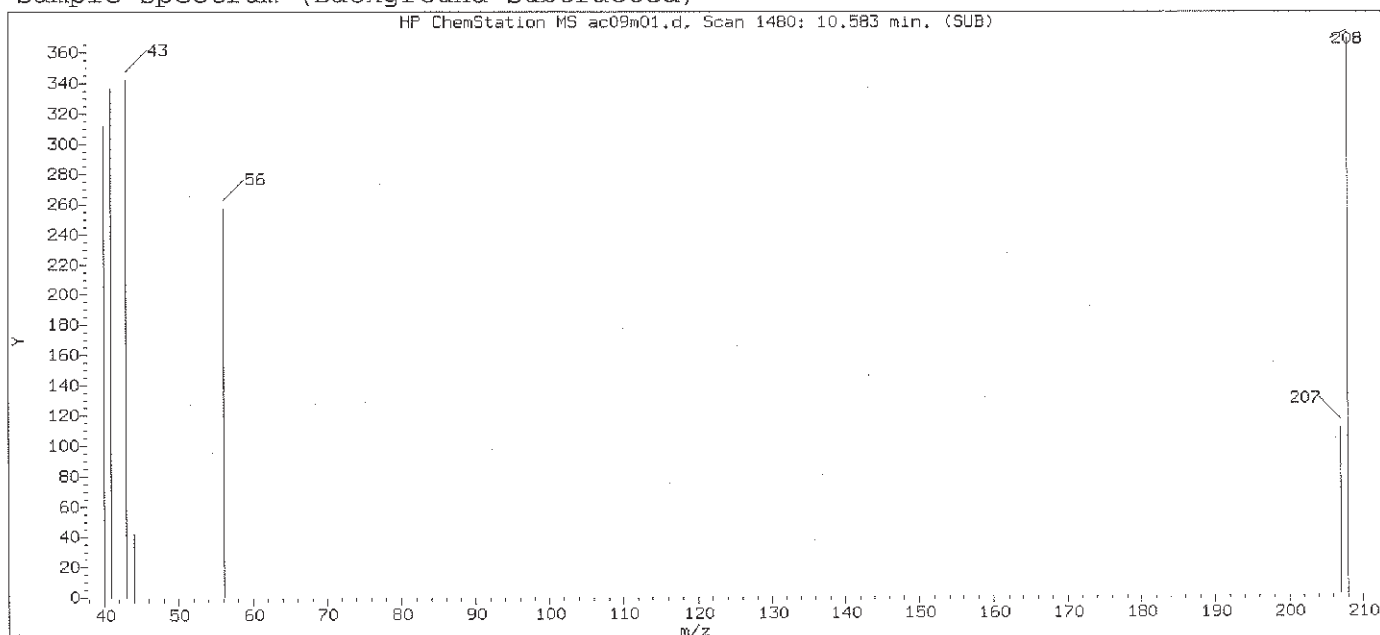
Compound Number	: 95	
Compound Name	: 2-Hexanone	
Scan Number	: 1461	
Retention Time (minutes)	: 10.467	
Quant Ion	: 43.00	
Area (flag)	: 9876MA	
On-Column Amount (ng)	: 1.5827	
Integration start scan	: 1452	Integration stop scan: 1469
Y at integration start	: 0	Y at integration end: 0

Reason for manual integration: improper integration

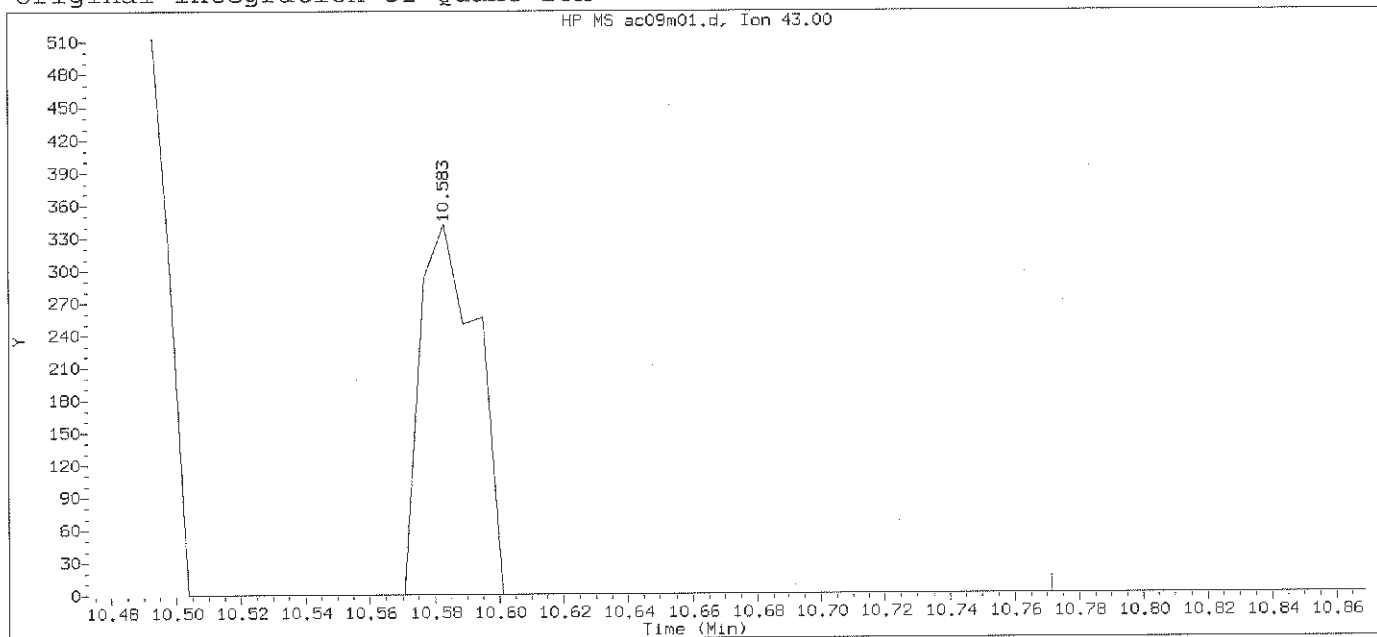
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:29.
Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: amm 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 14:27 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:29
Date, time and analyst ID of latest file update: 09-Oct-2012 16:29 cbe01947

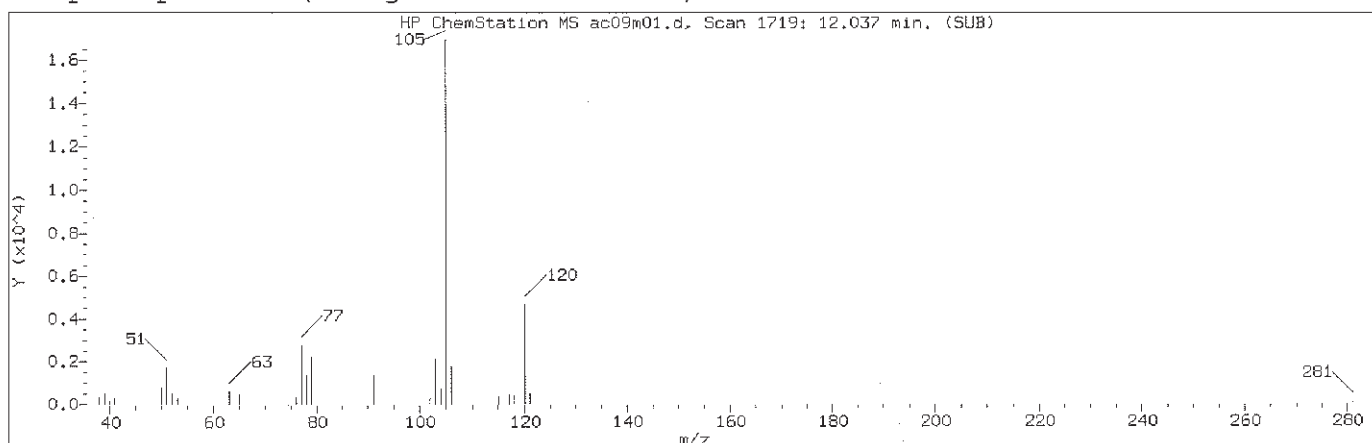
Sample Name: VSTD001

Lab Sample ID: VSTD001

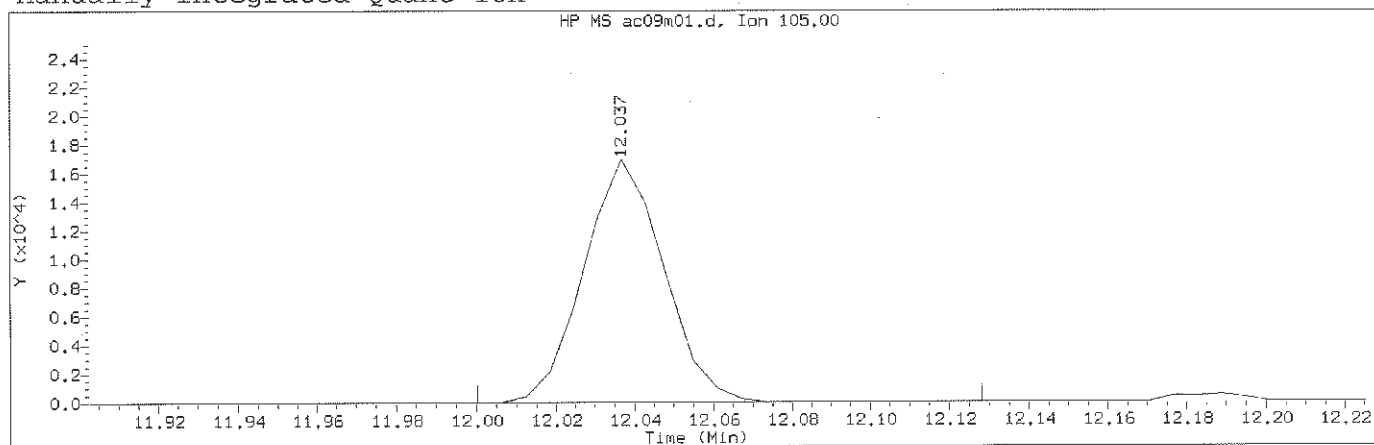
Compound Number	: 95	
Compound Name	: 2-Hexanone	
Scan Number	: 1480	
Retention Time (minutes)	: 10.583	
Quant Ion	: 43.00	
Area	: 416	
On-column Amount (ng)	: 0.0667	
Integration start scan	: 1477	Integration stop scan: 1510
Y at integration start	: 0	Y at integration end: 0

Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:29.
Target 3.5 esignature used: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d
Injection date and time: 09-OCT-2012 14:27

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 11-OCT-2012 15:12
Date, time and analyst ID of latest file update: 11-Oct-2012 15:29 cbe01947

Sample Name: VSTD001

Lab Sample ID: VSTD001

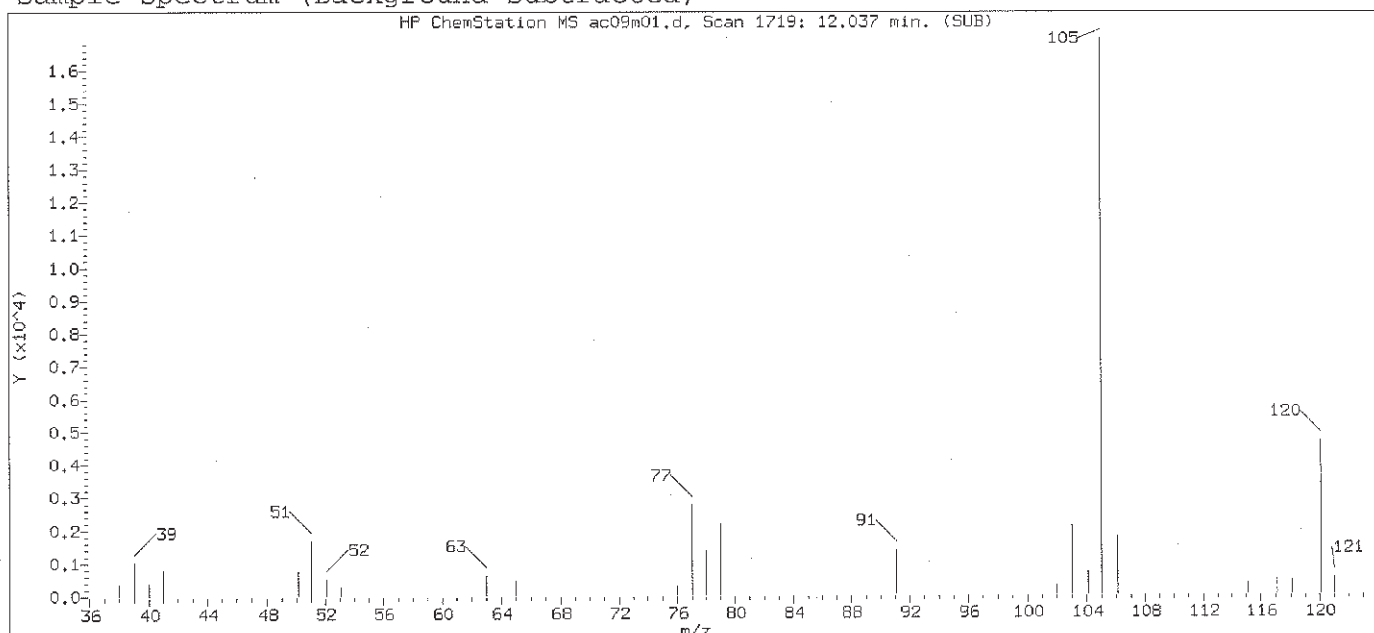
Compound Number : 108
Compound Name : Isopropylbenzene
Scan Number : 1719
Retention Time (minutes): 12.037
Quant Ion : 105.00
Area (flag) : 23764M
On-Column Amount (ng) : 0.6807
Integration start scan : 1712 Integration stop scan: 1733
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

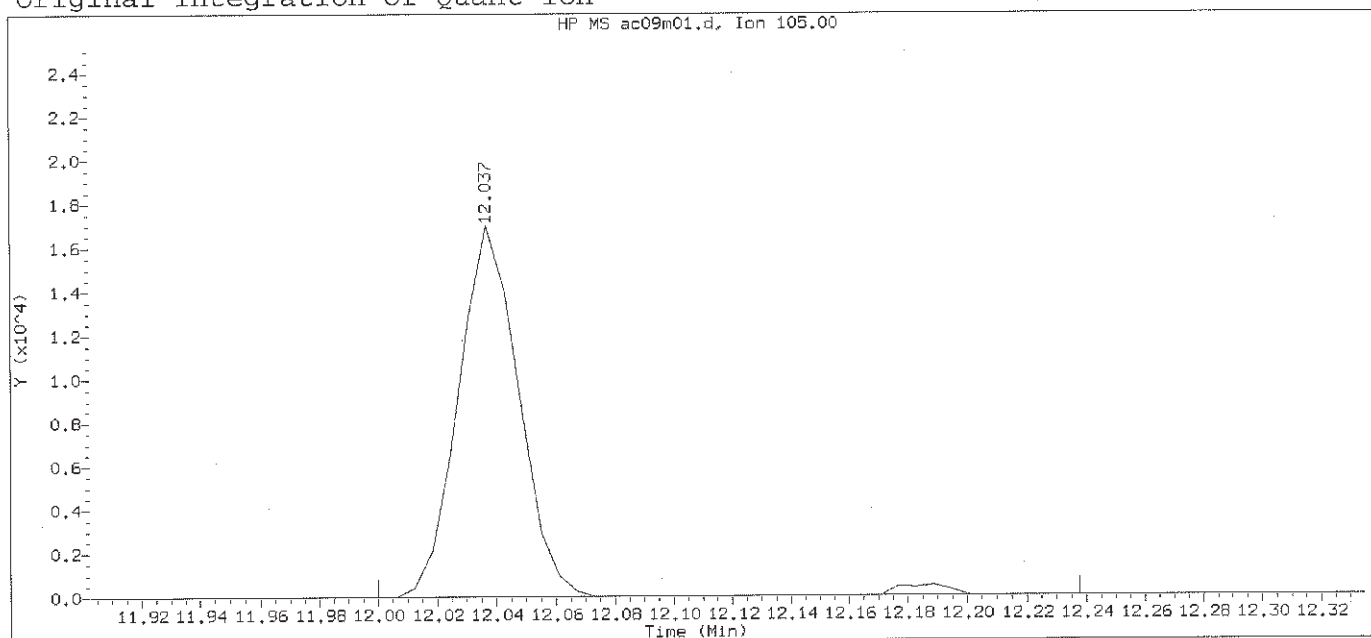
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:29.
Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: cmmd 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 14:27 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:29
Date, time and analyst ID of latest file update: 09-Oct-2012 16:29 cbe01947

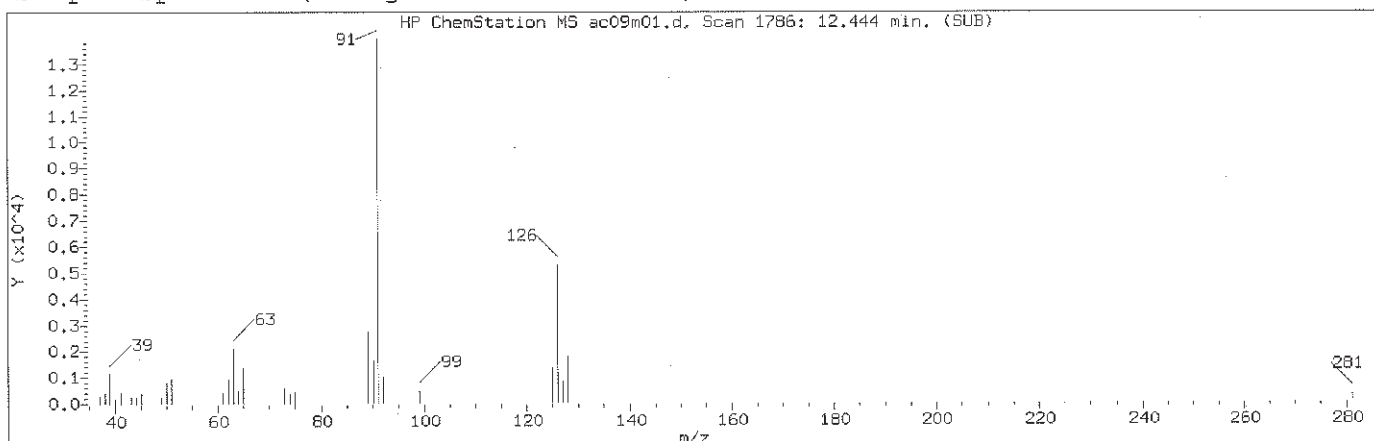
Sample Name: VSTD001

Lab Sample ID: VSTD001

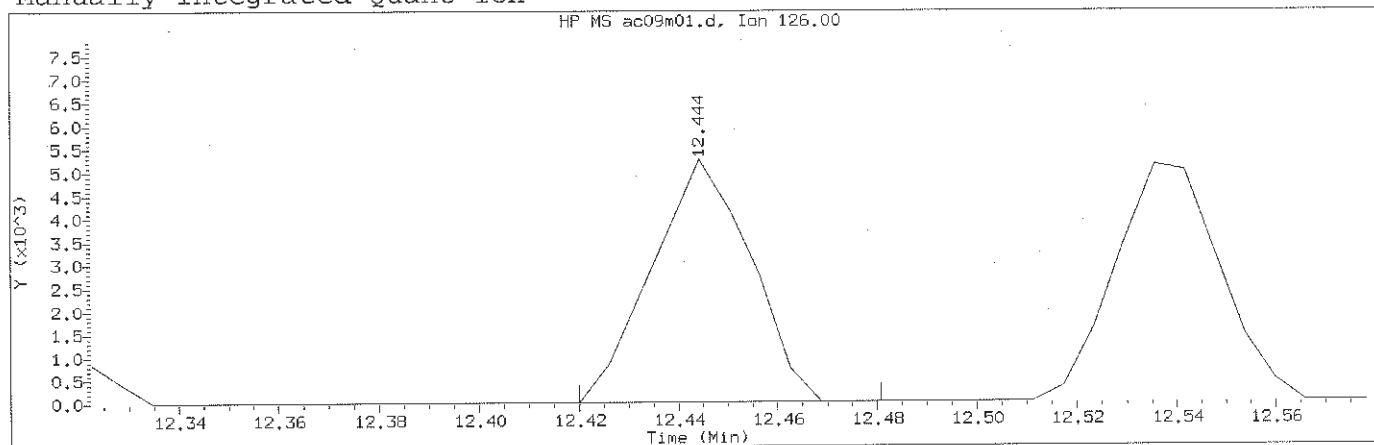
Compound Number	: 108	
Compound Name	: Isopropylbenzene	
Scan Number	: 1719	
Retention Time (minutes)	: 12.037	
Quant Ion	: 105.00	
Area	: 24328	
On-column Amount (ng)	: 0.6969	
Integration start scan	: 1712	Integration stop scan: 1751
Y at integration start	: 0	Y at integration end: 0

Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:29.
Target 3.5 esignature us: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d
Injection date and time: 09-OCT-2012 14:27

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 11-OCT-2012 15:12
Date, time and analyst ID of latest file update: 11-Oct-2012 15:29 cbe01947

Sample Name: VSTD001

Lab Sample ID: VSTD001

Compound Number : 119
Compound Name : 2-Chlorotoluene
Scan Number : 1786
Retention Time (minutes): 12.444
Quant Ion : 126.00
Area (flag) : 7262M
On-Column Amount (ng) : 0.8421
Integration start scan : 1781 Integration stop scan: 1791
Y at integration start : 0 Y at integration end: 0

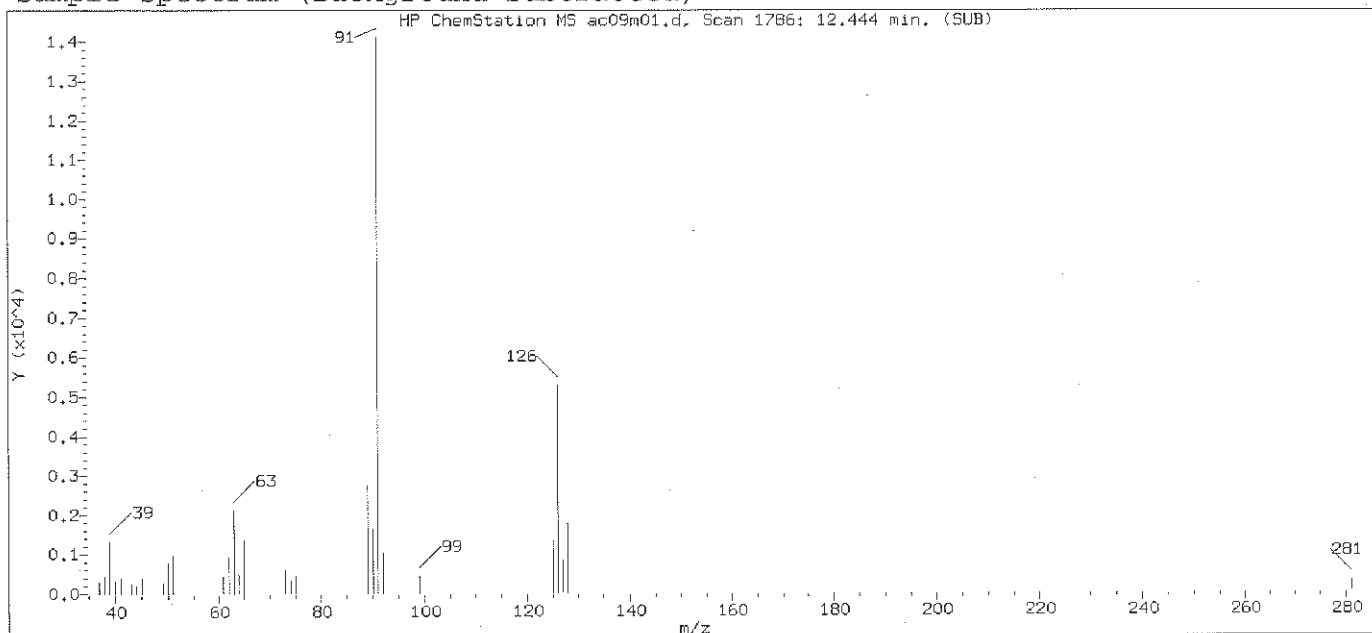
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:29.
Target 3.5 esignature user ID: cbe01947

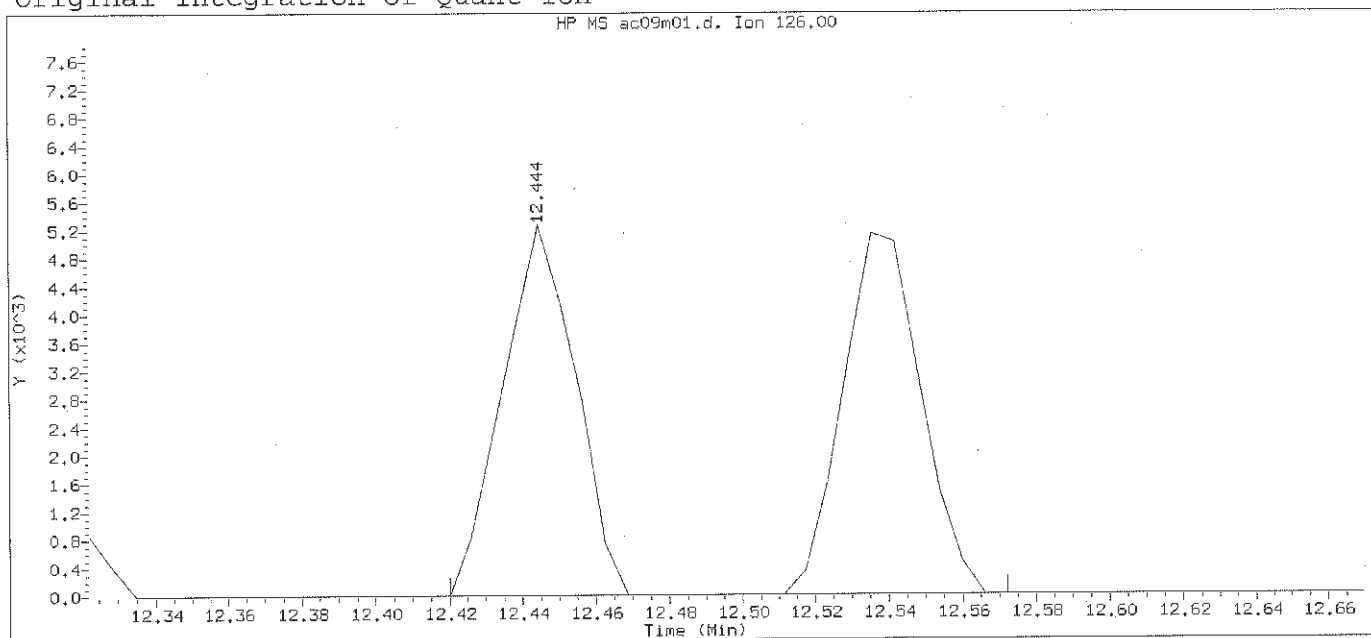
GC/MS audit/management approval: _____

Handwritten signature and date: 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d
Injection date and time: 09-OCT-2012 14:27

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:29
Date, time and analyst ID of latest file update: 09-Oct-2012 16:29 cbe01947

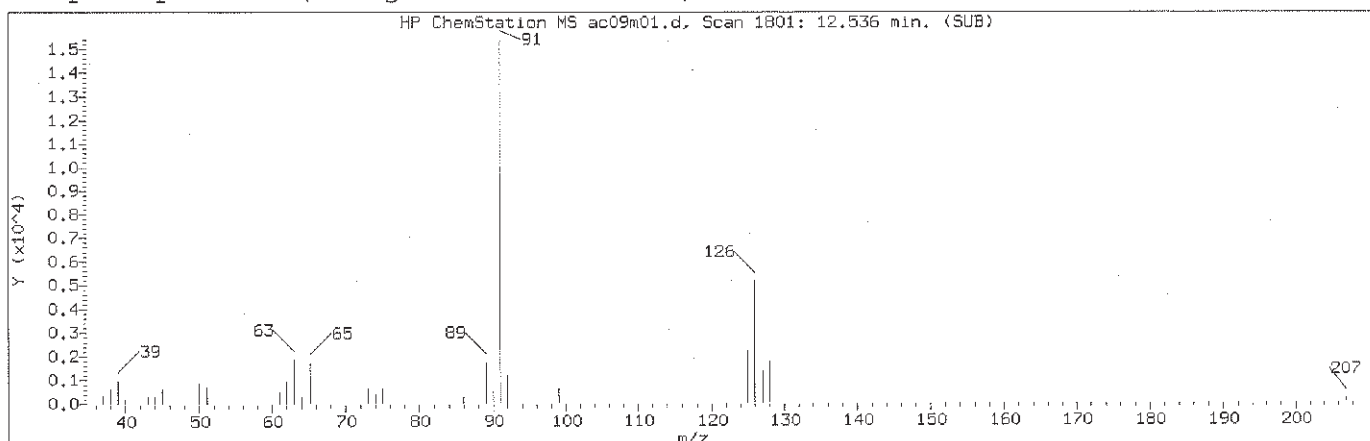
Sample Name: VSTD001

Lab Sample ID: VSTD001

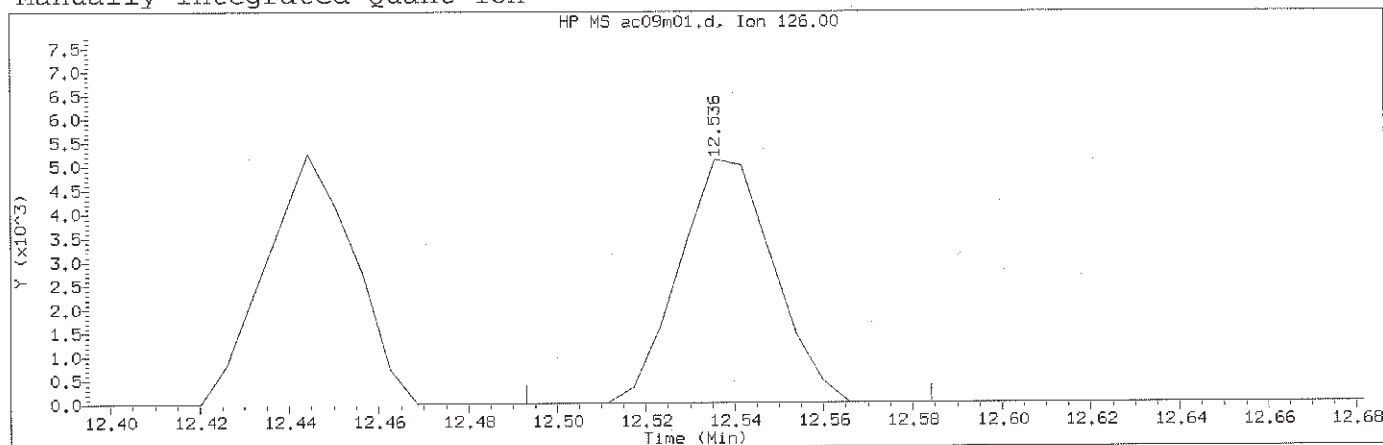
Compound Number	: 119	
Compound Name	: 2-Chlorotoluene	
Scan Number	: 1786	
Retention Time (minutes)	: 12.444	
Quant Ion	: 126.00	
Area	: 14845	
On-column Amount (ng)	: 1.7214	
Integration start scan	: 1781	Integration stop scan: 1806
Y at integration start	: 0	Y at integration end: 0

Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:29.
Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d
Injection date and time: 09-OCT-2012 14:27

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 11-OCT-2012 15:12
Date, time and analyst ID of latest file update: 11-Oct-2012 15:29 cbe01947

Sample Name: VSTD001

Lab Sample ID: VSTD001

Compound Number : 123
Compound Name : 4-Chlorotoluene
Scan Number : 1801
Retention Time (minutes): 12.536
Quant Ion : 126.00
Area (flag) : 7582M
On-Column Amount (ng) : 0.8426
Integration start scan : 1793 Integration stop scan: 1808
Y at integration start : 0 Y at integration end: 0

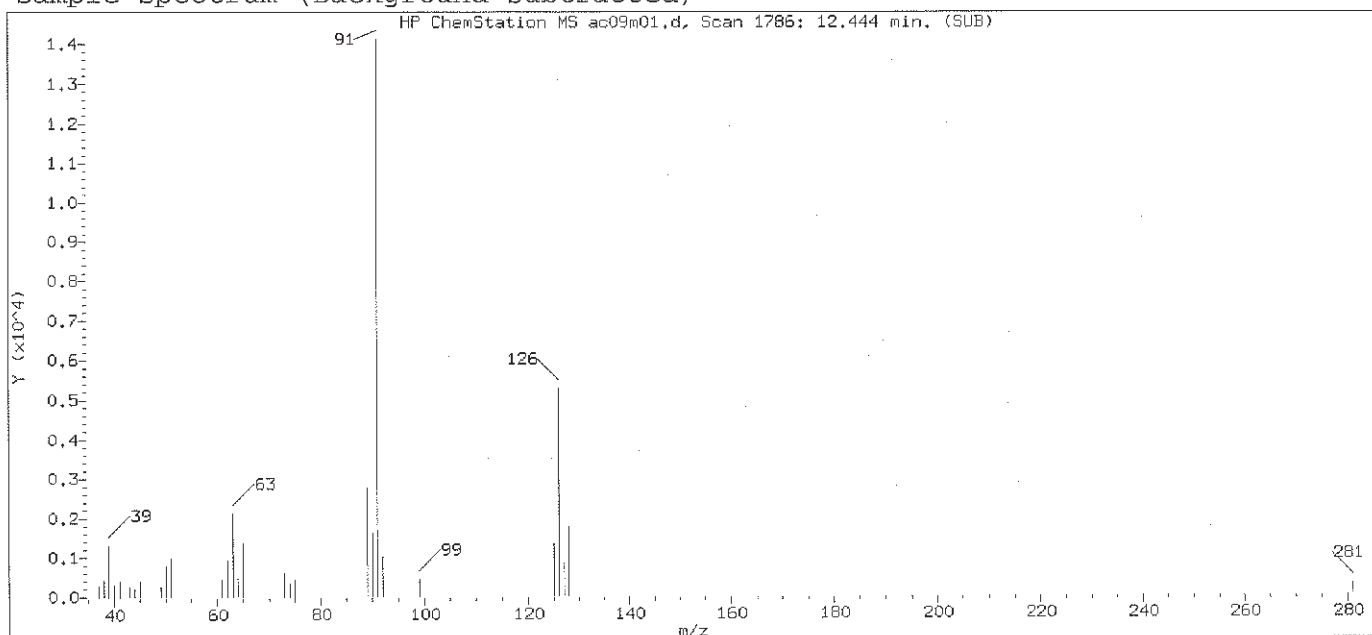
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:29.
Target 3.5 esignature user ID: cbe01947

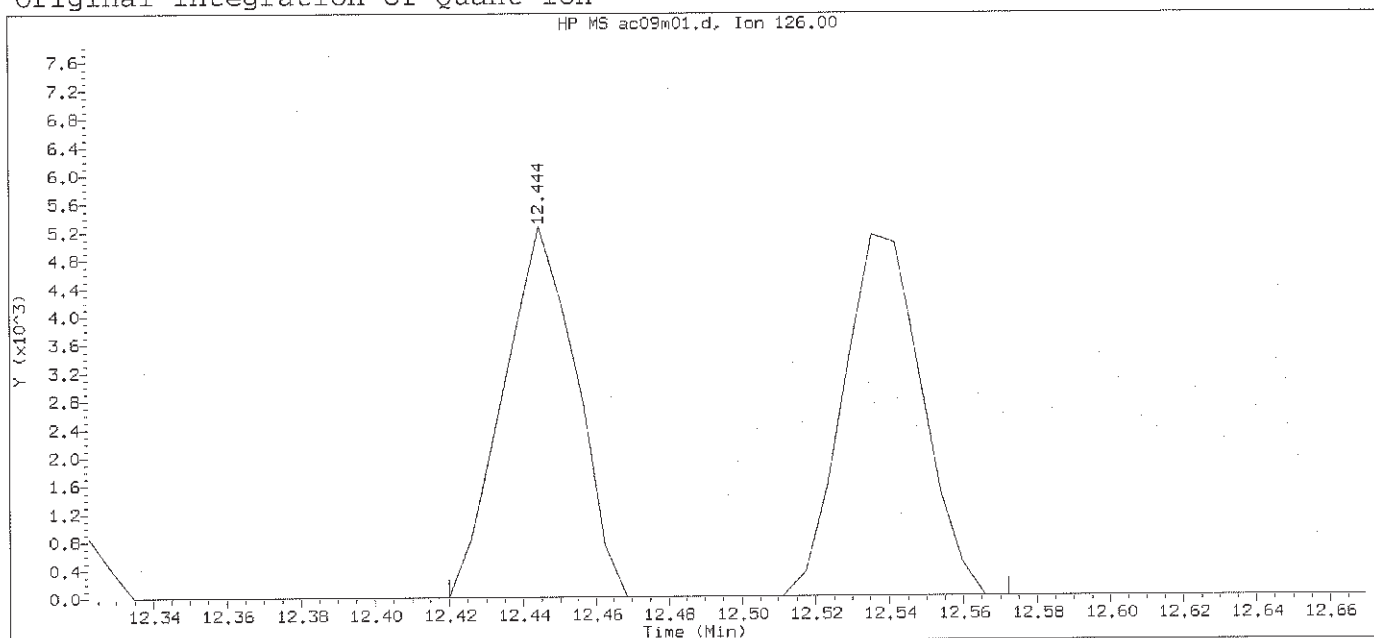
GC/MS audit/management approval: _____

Handwritten signature and date: 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d
Injection date and time: 09-OCT-2012 14:27

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:29
Date, time and analyst ID of latest file update: 09-Oct-2012 16:29 cbe01947

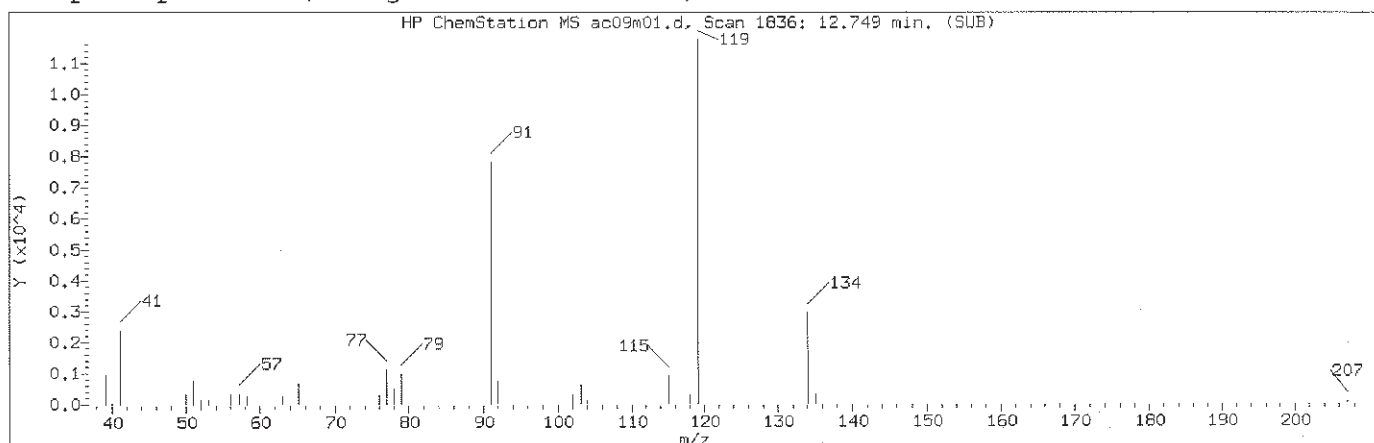
Sample Name: VSTD001

Lab Sample ID: VSTD001

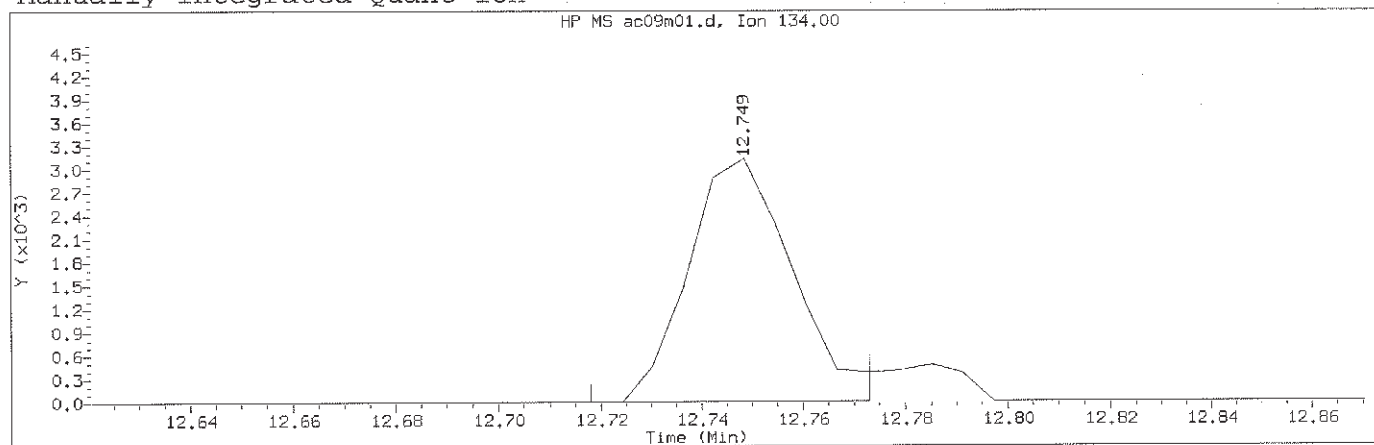
Compound Number	: 123	
Compound Name	: 4-Chlorotoluene	
Scan Number	: 1786	
Retention Time (minutes)	: 12.444	
Quant Ion	: 126.00	
Area	: 14845	
On-column Amount (ng)	: 1.6497	
Integration start scan	: 1781	Integration stop scan: 1806
Y at integration start	: 0	Y at integration end: 0

Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:29.
Target 3.5 esignature us: cbe01947
FAP03 Page 505 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 14:27 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 11-OCT-2012 15:12
Date, time and analyst ID of latest file update: 11-Oct-2012 15:29 cbe01947

Sample Name: VSTD001

Lab Sample ID: VSTD001

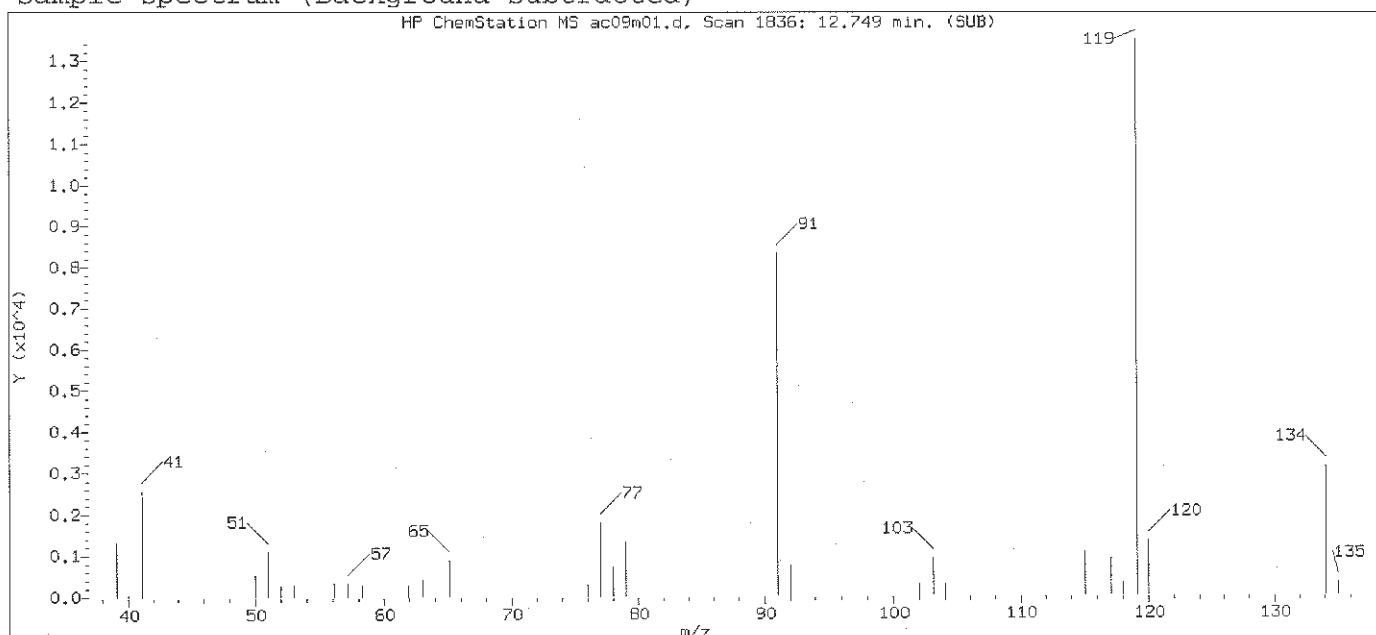
Compound Number : 126
Compound Name : tert-Butylbenzene
Scan Number : 1836
Retention Time (minutes): 12.749
Quant Ion : 134.00
Area (flag) : 4476M
On-Column Amount (ng) : 0.6965
Integration start scan : 1830 Integration stop scan: 1839
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

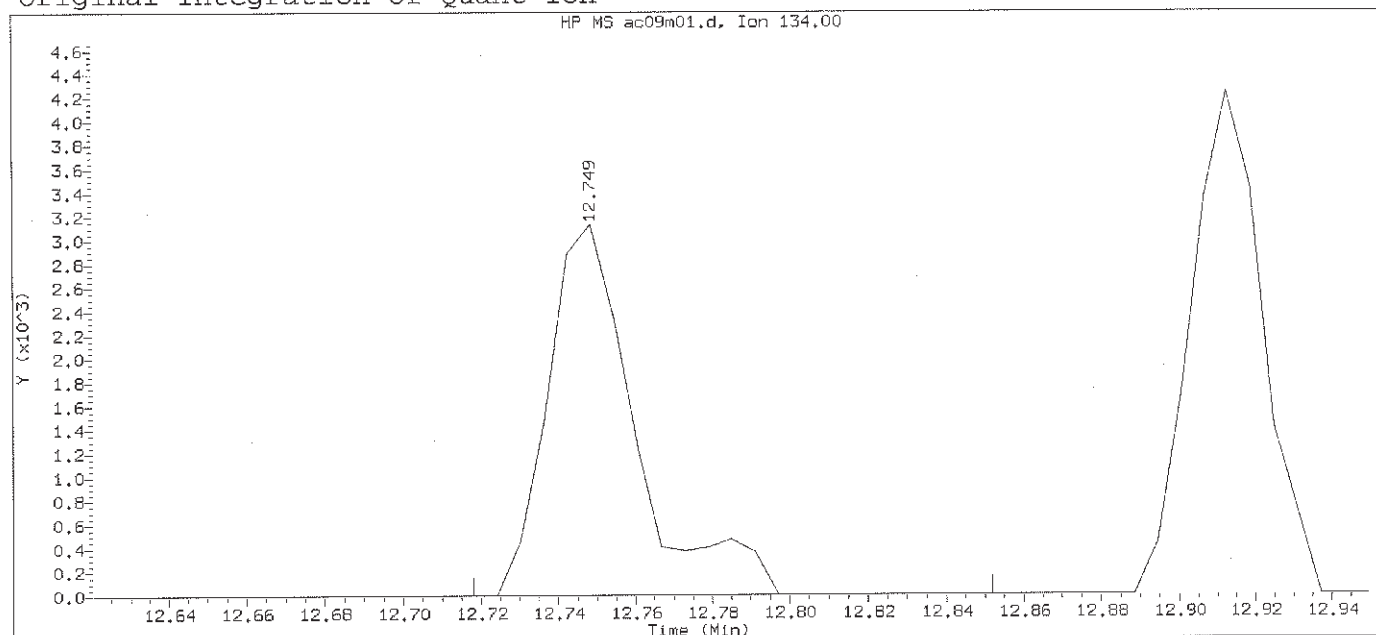
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:29.
Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: mmmm 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d
Injection date and time: 09-OCT-2012 14:27

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:29
Date, time and analyst ID of latest file update: 09-Oct-2012 16:29 cbe01947

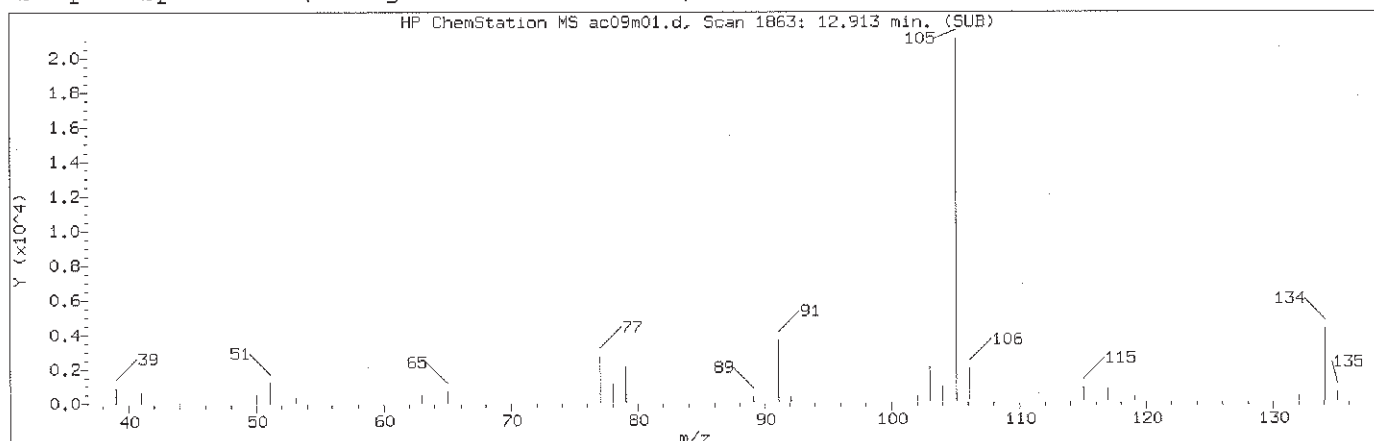
Sample Name: VSTD001

Lab Sample ID: VSTD001

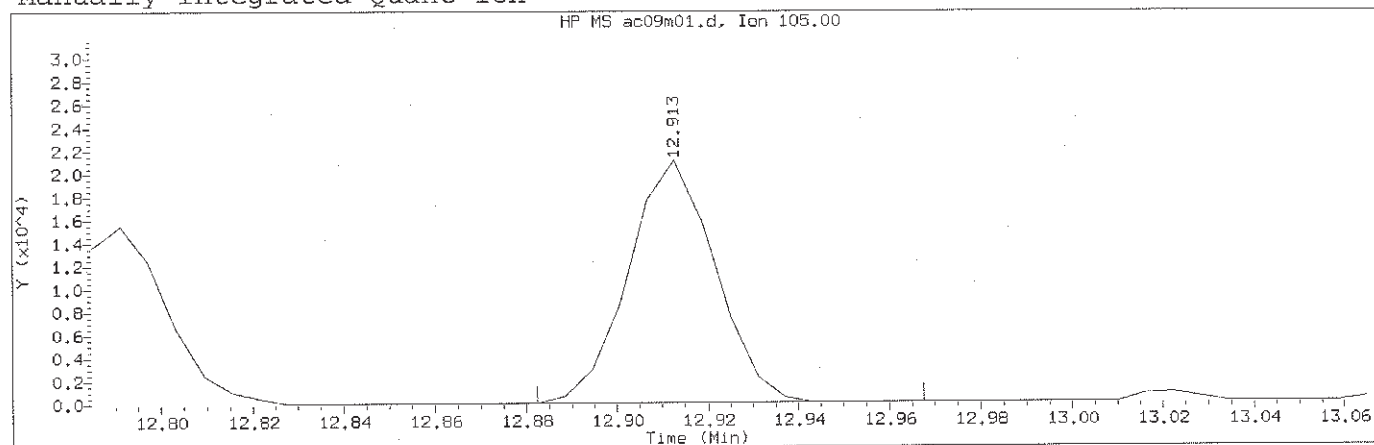
Compound Number	: 126	
Compound Name	: tert-Butylbenzene	
Scan Number	: 1836	
Retention Time (minutes)	: 12.749	
Quant Ion	: 134.00	
Area	: 4929	
On-column Amount (ng)	: 0.7064	
Integration start scan	: 1830	Integration stop scan: 1852
Y at integration start	: 0	Y at integration end: 0

Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:29.
Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 14:27 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 11-OCT-2012 15:12
Date, time and analyst ID of latest file update: 11-Oct-2012 15:29 cbe01947

Sample Name: VSTD001

Lab Sample ID: VSTD001

Compound Number : 129
Compound Name : sec-Butylbenzene
Scan Number : 1863
Retention Time (minutes): 12.913
Quant Ion : 105.00
Area (flag) : 28023M
On-Column Amount (ng) : 0.7592
Integration start scan : 1857 Integration stop scan: 1871
Y at integration start : 0 Y at integration end: 0

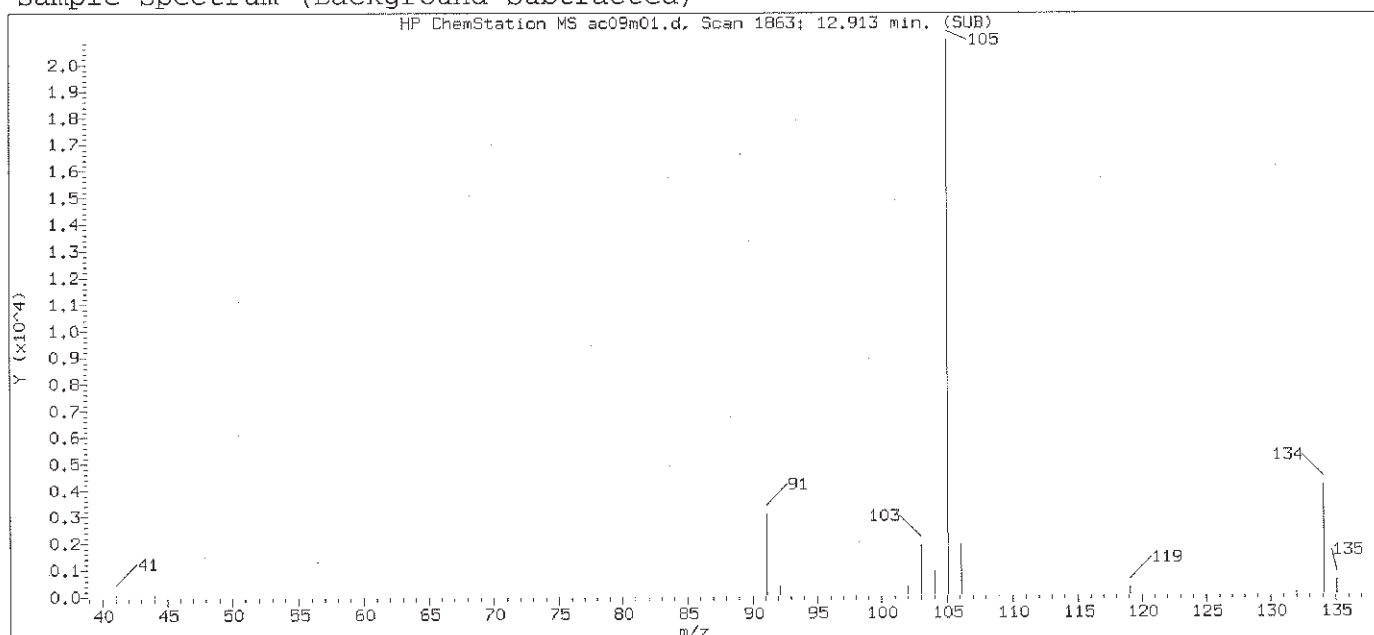
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:29.
Target 3.5 esignature user ID: cbe01947

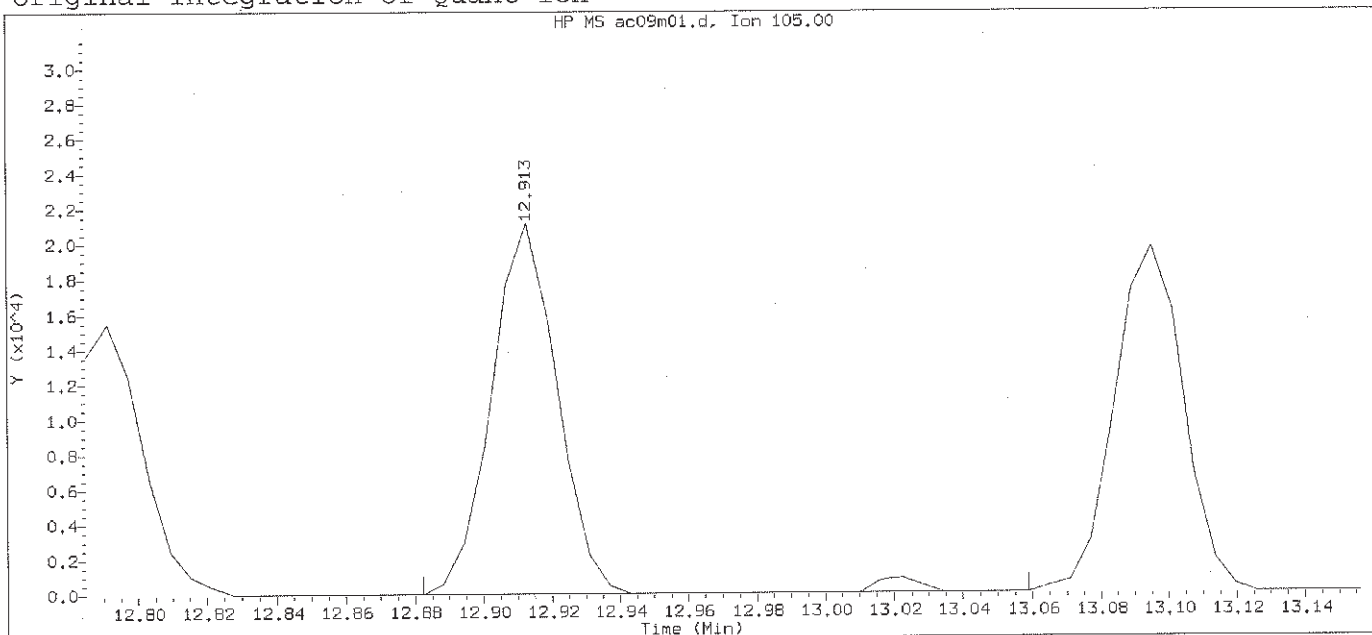
GC/MS audit/management approval: _____

Handwritten signature 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 14:27 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:29
Date, time and analyst ID of latest file update: 09-Oct-2012 16:29 cbe01947

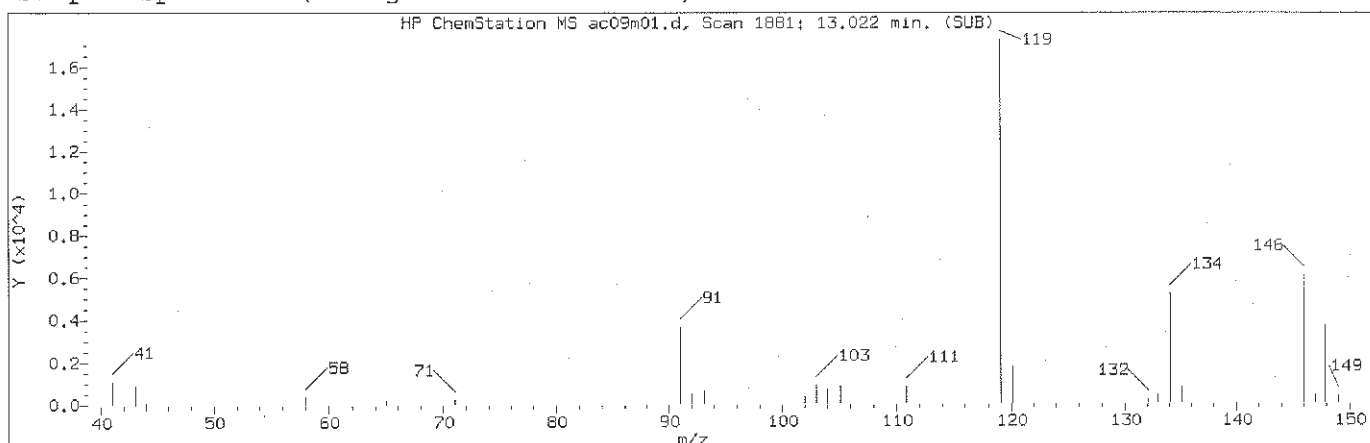
Sample Name: VSTD001

Lab Sample ID: VSTD001

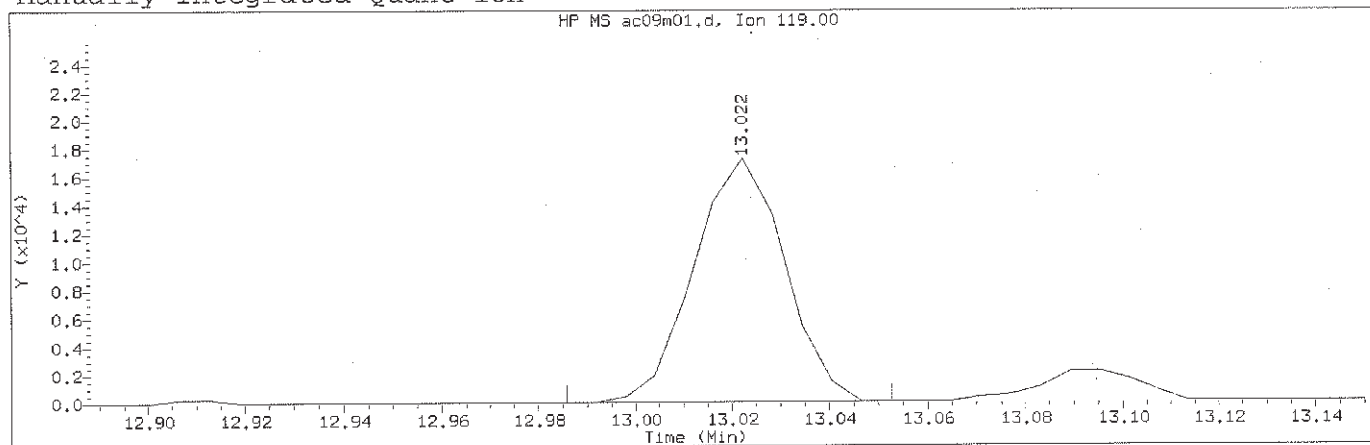
Compound Number	: 129	
Compound Name	: sec-Butylbenzene	
Scan Number	: 1863	
Retention Time (minutes)	: 12.913	
Quant Ion	: 105.00	
Area	: 28719	
On-column Amount (ng)	: 0.7781	
Integration start scan	: 1857	Integration stop scan: 1886
Y at integration start	: 0	Y at integration end: 0

Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:29.
Target 3.5 esignature us: 091047

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d
Injection date and time: 09-OCT-2012 14:27

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 11-OCT-2012 15:12
Date, time and analyst ID of latest file update: 11-Oct-2012 15:29 cbe01947

Sample Name: VSTD001

Lab Sample ID: VSTD001

Compound Number	: 132	
Compound Name	: p-Isopropyltoluene	
Scan Number	: 1881	
Retention Time (minutes)	: 13.022	
Quant Ion	: 119.00	
Area (flag)	: 22397MA	
On-Column Amount (ng)	: 0.6766	
Integration start scan	: 1874	Integration stop scan: 1885
Y at integration start	: 0	Y at integration end: 0

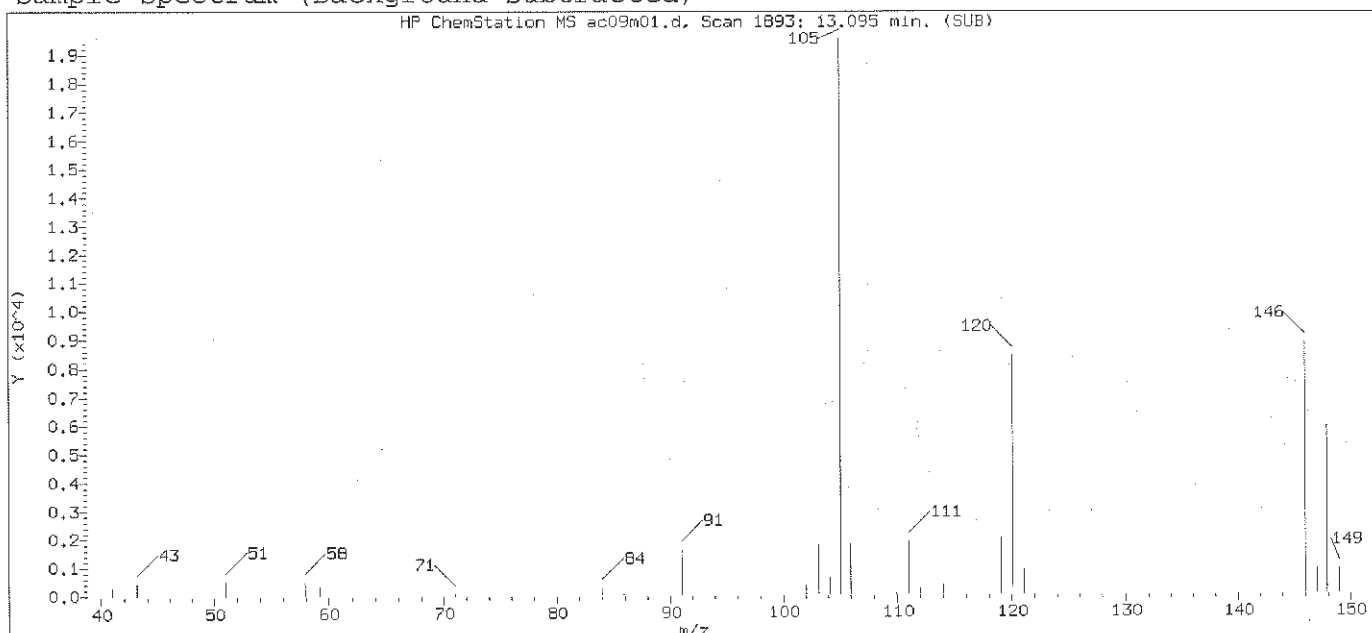
Reason for manual integration: improper integration

Digitally signed by Chelsea B. Eastep
Analyst responsible for change: on 10/11/2012 at 15:29.
Target 3.5 esignature user ID: cbe01947

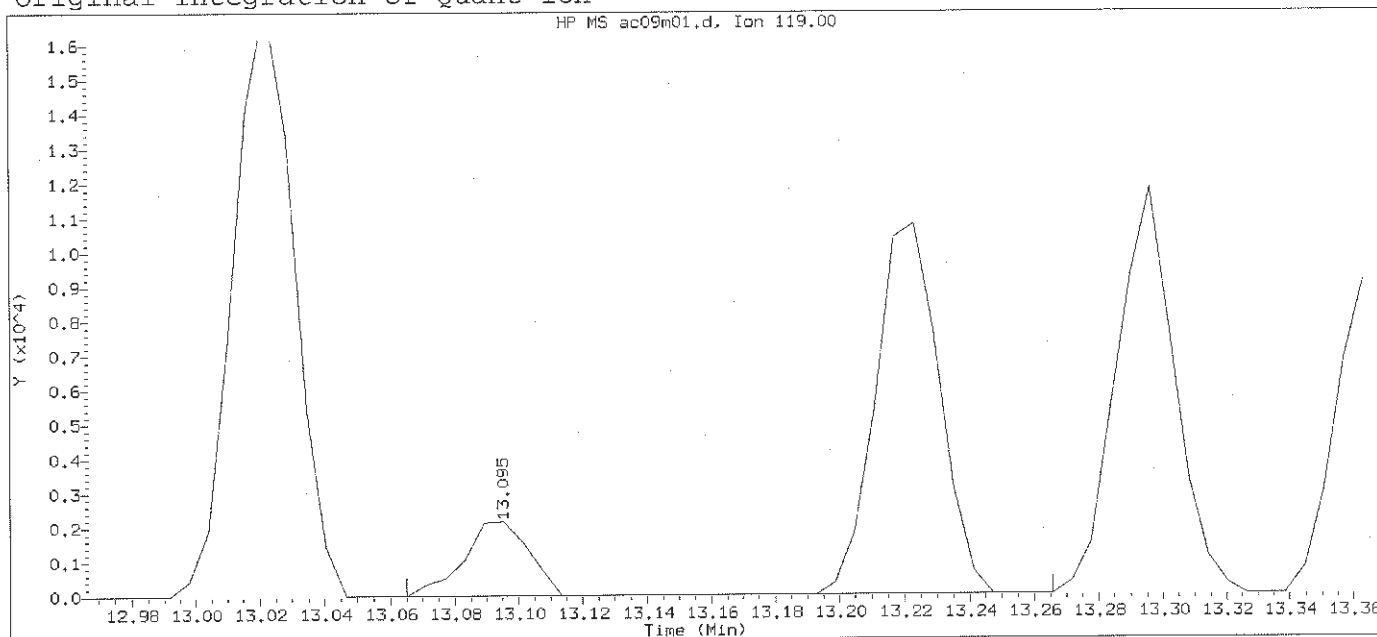
GC/MS audit/management approval: _____

Handwritten signature: amm 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 14:27 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:29
Date, time and analyst ID of latest file update: 09-Oct-2012 16:29 cbe01947

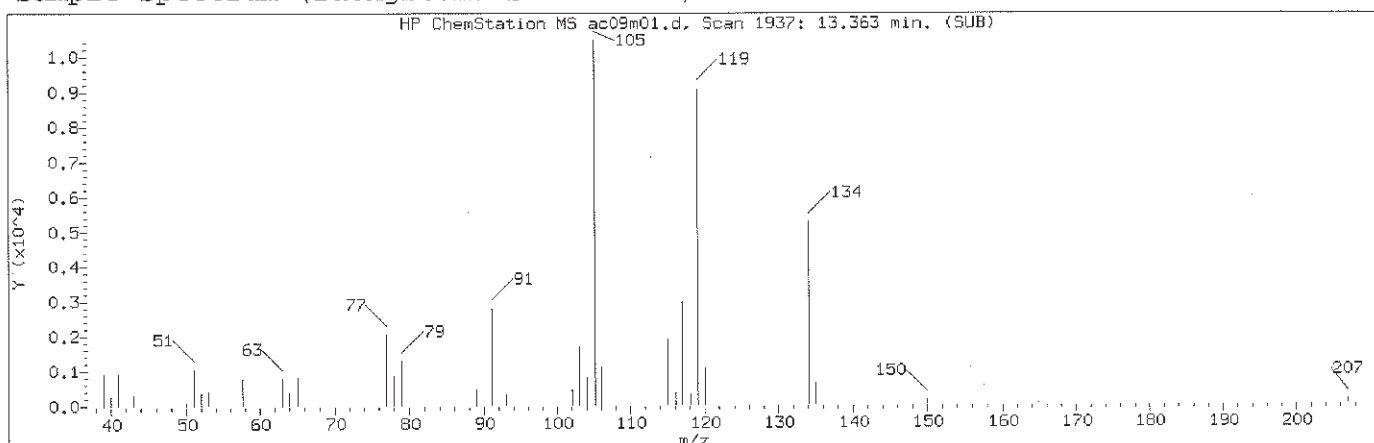
Sample Name: VSTD001

Lab Sample ID: VSTD001

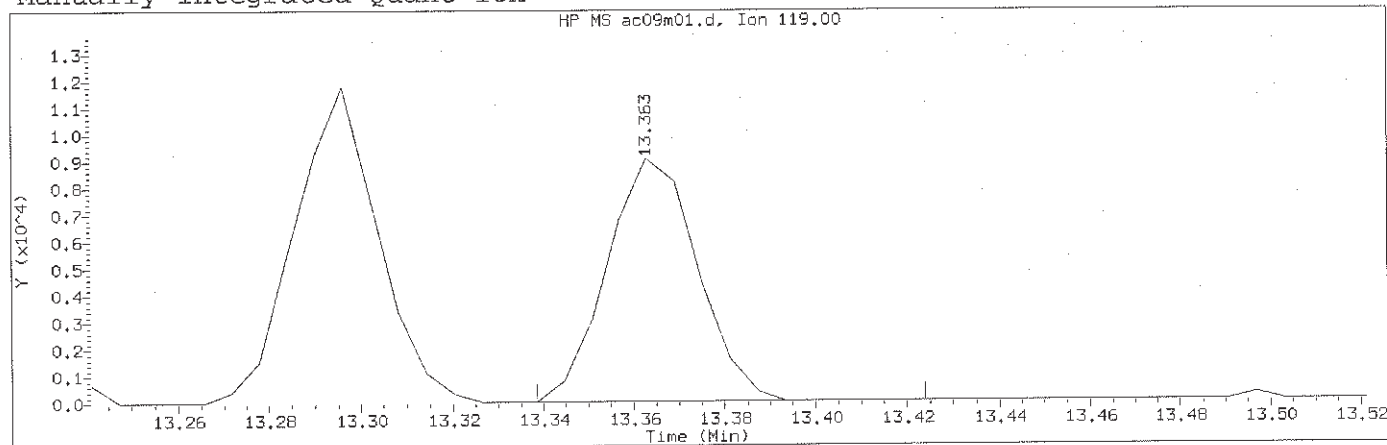
Compound Number	: 132	
Compound Name	: p-Isopropyltoluene	
Scan Number	: 1893	
Retention Time (minutes)	: 13.095	
Quant Ion	: 119.00	
Area	: 17730	
On-column Amount (ng)	: 0.5356	
Integration start scan	: 1887	Integration stop scan: 1920
Y at integration start	: 0	Y at integration end: 0

Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:29.
Target 3.5 esignature us: cbe01947
FAP03 Page 511 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d
Injection date and time: 09-OCT-2012 14:27

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 11-OCT-2012 15:12
Date, time and analyst ID of latest file update: 11-Oct-2012 15:29 cbe01947

Sample Name: VSTD001

Lab Sample ID: VSTD001

Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1937
Retention Time (minutes): 13.363
Quant Ion : 119.00
Area (flag) : 12541M
On-Column Amount (ng) : 0.7063
Integration start scan : 1932 Integration stop scan: 1946
Y at integration start : 0 Y at integration end: 0

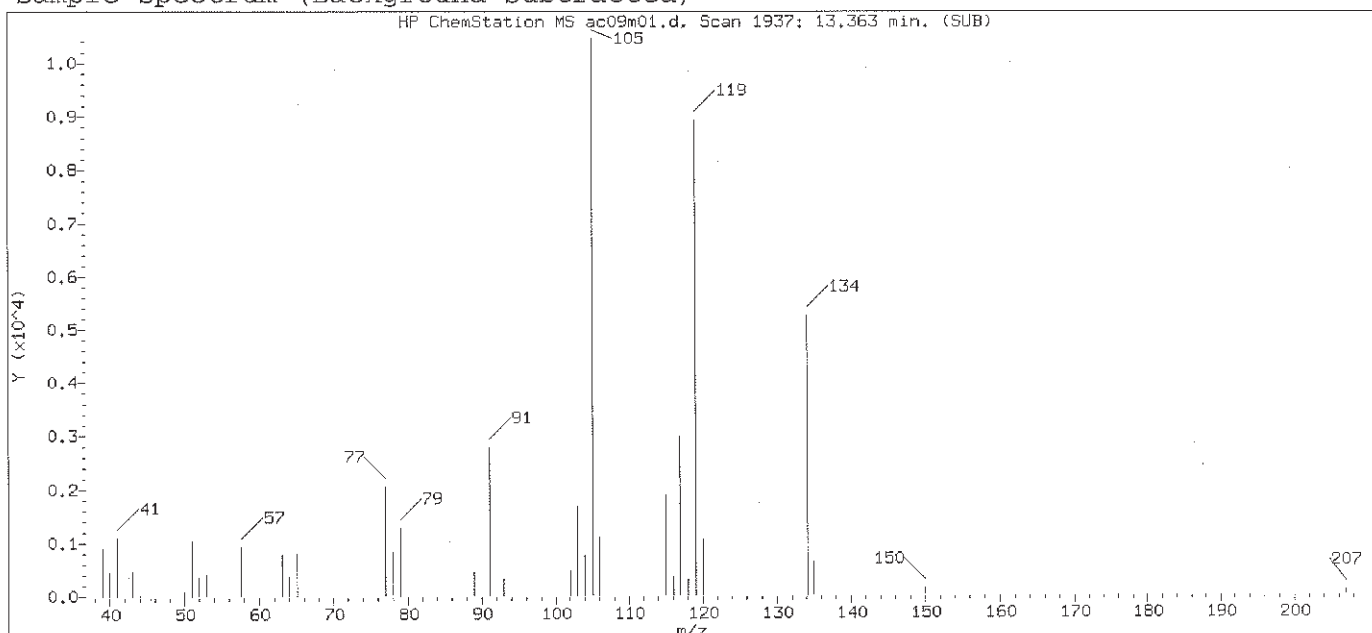
Reason for manual integration: improper integration

Digitally signed by Chelsea B. Eastep
Analyst responsible for change: on 10/11/2012 at 15:29.
Target 3.5 esignature user ID: cbe01947

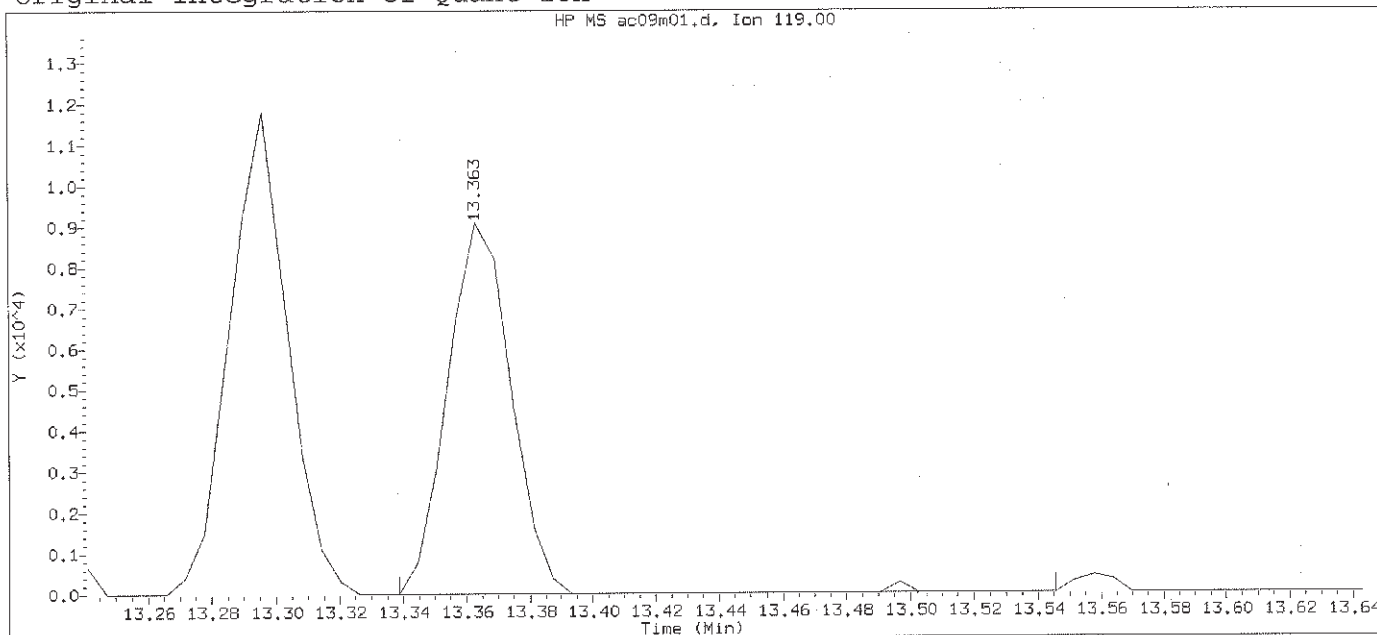
GC/MS audit/management approval: _____

amdy 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09m01.d
Injection date and time: 09-OCT-2012 14:27

Instrument ID: HP09685.i
Analyst ID: CBE01947

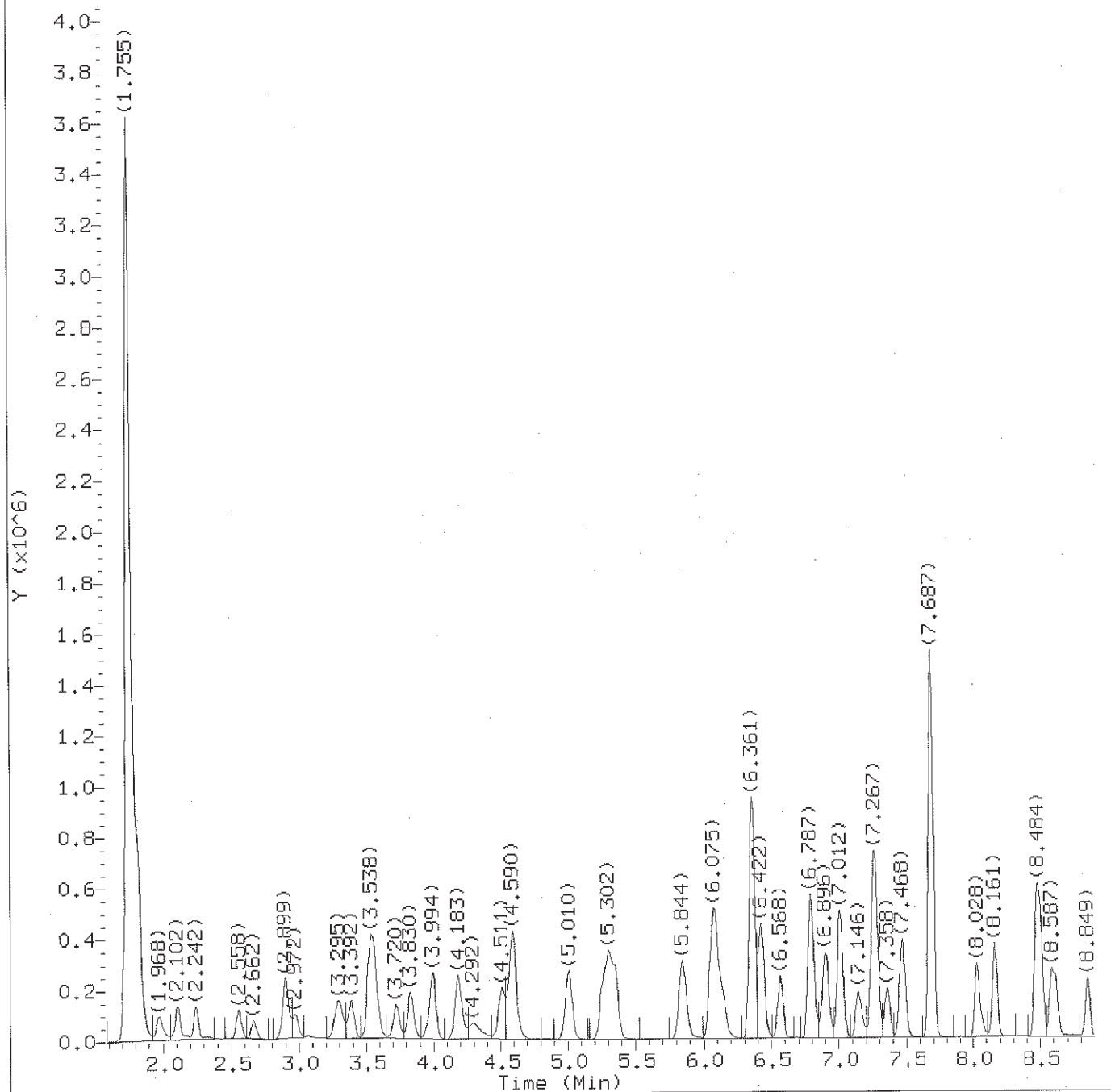
Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:29
Date, time and analyst ID of latest file update: 09-Oct-2012 16:29 cbe01947

Sample Name: VSTD001

Lab Sample ID: VSTD001

Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1937
Retention Time (minutes): 13.363
Quant Ion : 119.00
Area : 12634
On-column Amount (ng) : 0.7116
Integration start scan : 1932 Integration stop scan: 1966
Y at integration start : 0 Y at integration end: 0

Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:29.
Target 3.5 esignature user ID: cbe01947



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09v01a.d
Injection date and time: 09-OCT-2012 16:55

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m
Calibration date and time: 11-OCT-2012 15:12

Sublist used: 8260S-2C

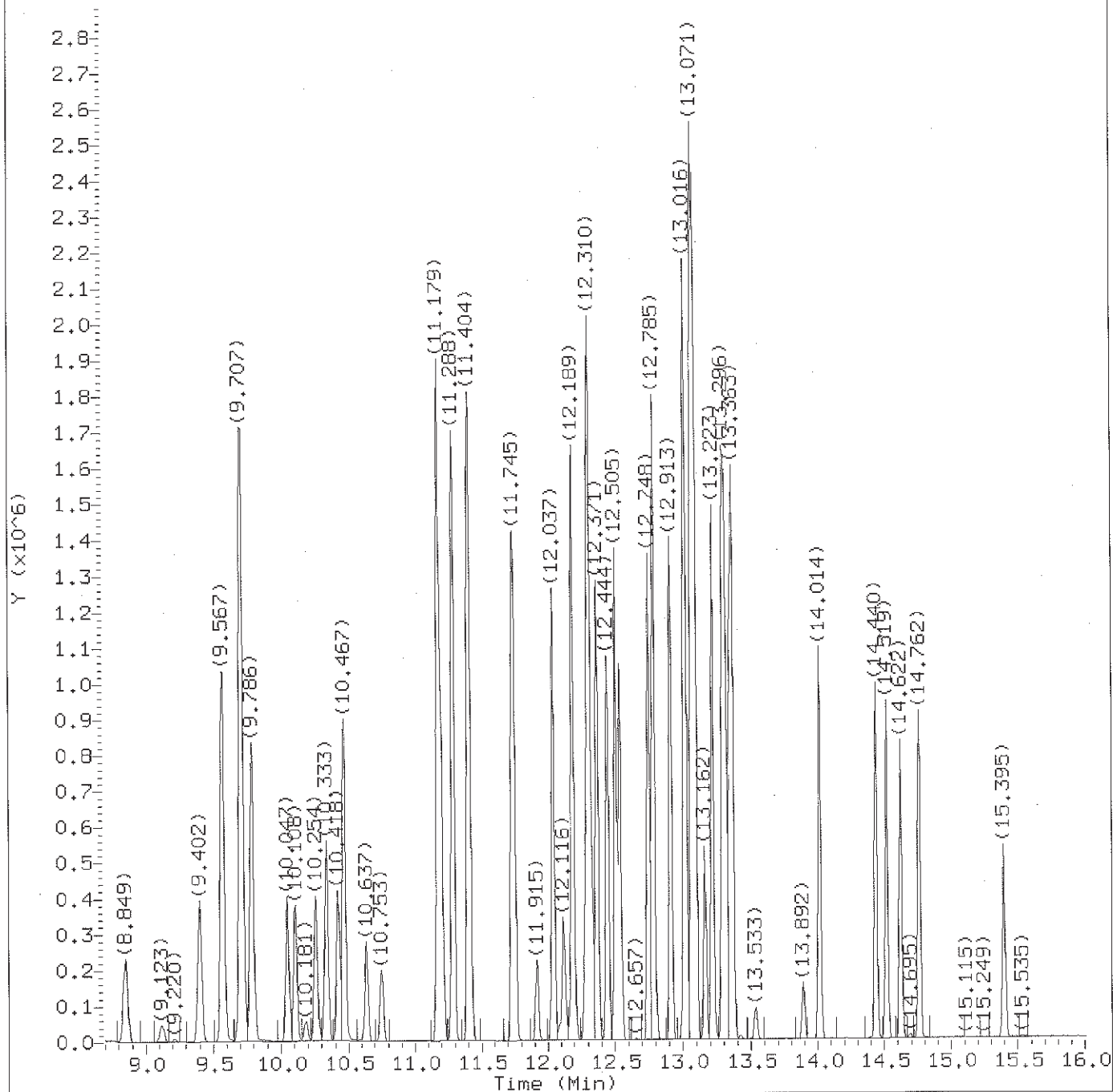
Date, time and analyst ID of latest file update: 11-Oct-2012 15:17 cbe01947

Sample Name: LCSAICV

Lab Sample ID: LCSAICV

Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:17.

Target 3.5 esignature user ID: cbe01947



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09v01a.d
Injection date and time: 09-OCT-2012 16:55

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 11-OCT-2012 15:12
Date, time and analyst ID of latest file update: 11-Oct-2012 15:17 cbe01947

Sample Name: LCSAICV

Lab Sample ID: LCSAICV

Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:17.

Target 3.5 esignature user ID: cbe01947

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09v01a.d
 Injection date and time: 09-OCT-2012 16:55

Instrument ID: HP09685.i
 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
 Calibration date and time: 11-OCT-2012 15:12
 Date, time and analyst ID of latest file update: 11-Oct-2012 15:17 cbe01947

Sample Name: LCSAICV

Lab Sample ID: LCSAICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
2) Dichlorodifluoromethane	(2)	1.968	85	182595	15.071
4) Chloromethane	(2)	2.108	50	205320	19.044
5) Vinyl Chloride	(2)	2.236	62	191119	18.404
9) Bromomethane	(2)	2.558	94	121547	18.661
10) Chloroethane	(2)	2.662	64	104613	18.760
11) Dichlorofluoromethane	(2)	2.899	67	328732	23.436
13) Trichlorofluoromethane	(2)	2.972	101	238769	19.225
15) Ethanol	(1)	3.070	45	90025	1035.240
17) Freon 123a	(2)	3.295	67	201523	22.160
18) Acrolein	(1)	3.392	56	237344	142.633
19) 1,1-Dichloroethene	(2)	3.526	96	129965	20.173
20) Acetone	(2)	3.550	58	132745	154.103
22) Freon 113	(2)	3.562	101	142645	20.071
23) 2-Propanol	(1)	3.702	45	93480	153.569
24) Methyl Iodide	(2)	3.720	142	229174	19.063
25) Carbon Disulfide	(2)	3.830	76	442106	18.776
27) Methyl Acetate	(2)	3.964	43	130676	22.041
29) Allyl Chloride	(2)	3.994	41	271760	23.456
30) *t-Butyl alcohol-d10	(1)	4.183	65	173464	250.000
31) Methylene Chloride	(2)	4.183	84	158906	19.916
32) t-Butyl alcohol	(1)	4.298	59	197786	211.970
33) Acrylonitrile	(2)	4.511	53	299827	94.986
34) Methyl Tertiary Butyl Ether	(2)	4.584	73	456067	20.320
35) trans-1,2-Dichloroethene	(2)	4.590	96	146419	20.024
38) n-Hexane	(2)	5.004	57	238162	20.206
40) 1,1-Dichloroethane	(2)	5.254	63	294313	20.425
41) di-Isopropyl ether	(2)	5.302	45	543764	20.343
42) 2-Chloro-1,3-butadiene	(2)	5.357	53	237979	19.865
44) Ethyl t-butyl ether	(2)	5.844	59	478451	20.357
45) 2-Butanone	(2)	6.050	43	618554	153.664
46) cis-1,2-Dichloroethene	(2)	6.081	96	164935	20.906
47) 1,2-Dichloroethene (Total)	(2)		96	311354	40.930
48) 2,2-Dichloropropane	(2)	6.111	77	229743	20.206
50) Propionitrile	(1)	6.142	54	177766	147.180
51) Methacrylonitrile	(2)	6.361	67	480967	150.113
52) Bromochloromethane	(2)	6.422	128	79884	21.992
53) Tetrahydrofuran	(1)	6.428	71	97097	97.886
54) Chloroform	(2)	6.568	83	273123	19.672

* = Compound is an internal standard.

page 1 of 3

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 on 10/11/2012 at 15:17.
 Target 3.5 esignature user ID: cbe01947

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09v01a.d
 Injection date and time: 09-OCT-2012 16:55

Instrument ID: HP09685.i
 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 11-OCT-2012 15:12

Date, time and analyst ID of latest file update: 11-Oct-2012 15:17 cbe01947

Sample Name: LCSAICV

Lab Sample ID: LCSAICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
55) \$Dibromofluoromethane	(2)	6.787	113	318453	50.242
56) 1,1,1-Trichloroethane	(2)	6.799	97	240686	19.086
57) Cyclohexane	(2)	6.902	56	276978	20.289
59) Carbon Tetrachloride	(2)	7.012	117	196162	19.642
58) 1,1-Dichloropropene	(2)	7.012	75	211488	19.835
60) Isobutyl Alcohol	(1)	7.146	41	166235	485.418
61) \$1,2-Dichloroethane-d4	(2)	7.249	102	74178M	50.538
62) Benzene	(2)	7.273	78	628145	20.494
64) 1,2-Dichloroethane	(2)	7.358	62	221345	20.270
65) t-Amyl methyl ether	(2)	7.468	73	425496	20.275
67) *Fluorobenzene	(2)	7.681	96	1326413	50.000
69) n-Heptane	(2)	7.687	43	269278	20.541
70) n-Butanol	(1)	8.028	56	253988	964.534
72) Trichloroethene	(2)	8.161	95	157819	20.447
73) Methylcyclohexane	(2)	8.478	83	284383	22.964
74) 1,2-Dichloropropane	(2)	8.508	63	168551	20.333
76) Methyl Methacrylate	(2)	8.581	69	106966	20.079
77) 1,4-Dioxane	(1)	8.593	88	41367	489.119
78) Dibromomethane	(2)	8.618	93	95553	20.240
81) Bromodichloromethane	(2)	8.849	83	191610	20.283
82) 2-Nitropropane	(1)	9.123	41	38850	17.485
84) cis-1,3-Dichloropropene	(2)	9.402	75	253155	21.960
85) 4-Methyl-2-pentanone	(2)	9.567	43	831046	99.493
86) \$Toluene-d8	(3)	9.713	98	1307743	50.254
87) Toluene	(3)	9.786	92	386224	20.399
88) trans-1,3-Dichloropropene	(3)	10.047	75	223412	20.134
89) Ethyl Methacrylate	(3)	10.108	69	194008	20.425
90) 1,1,2-Trichloroethane	(3)	10.254	97	131533	20.754
92) Tetrachloroethene	(3)	10.333	166	179762	20.665
93) 1,3-Dichloropropane	(3)	10.418	76	235629	20.358
95) 2-Hexanone	(3)	10.467	43	607405	97.018
97) Dibromochloromethane	(3)	10.637	129	144180	20.581
98) 1,2-Dibromoethane	(3)	10.753	107	132269	20.243
99) *Chlorobenzene-d5	(3)	11.179	117	973107	50.000
100) Chlorobenzene	(3)	11.203	112	439968	20.605
101) 1,1,1,2-Tetrachloroethane	(3)	11.288	131	148801	20.171
102) Ethylbenzene	(3)	11.288	91	759791	21.130
103) m+p-Xylene	(3)	11.404	106	586693	42.032

M = Compound was manually integrated.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 2 of 3

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 Target 3.5 esignature user ID: cbe01947

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12oct09a.b/ac09v01a.d
 Injection date and time: 09-OCT-2012 16:55

Instrument ID: HP09685.i
 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
 Calibration date and time: 11-OCT-2012 15:12
 Date, time and analyst ID of latest file update: 11-Oct-2012 15:17 cbe01947

Sample Name: LCSAICV

Lab Sample ID: LCSAICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
104) o-Xylene	(3)	11.739	106	277304	20.633
105) Xylene (Total)	(3)		106	863997	62.665
106) Styrene	(3)	11.751	104	455385	20.980
107) Bromoform	(3)	11.915	173	94703	19.579
108) Isopropylbenzene	(3)	12.037	105	741258	21.162
111) Cyclohexanone	(1)	12.116	55	150797	435.129
112) \$4-Bromofluorobenzene	(3)	12.183	95	485253	49.820
113) 1,1,2,2-Tetrachloroethane	(4)	12.280	83	184445	20.894
114) Bromobenzene	(4)	12.304	156	197623	20.548
115) trans-1,4-Dichloro-2-butene	(4)	12.310	53	280580	104.421
116) 1,2,3-Trichloropropane	(4)	12.335	110	53502M	20.532
117) n-Propylbenzene	(4)	12.371	91	909100	21.559
119) 2-Chlorotoluene	(4)	12.444	126	181281	20.450
122) 1,3,5-Trimethylbenzene	(4)	12.505	105	638464	21.105
123) 4-Chlorotoluene	(4)	12.542	126	193854	20.959
126) tert-Butylbenzene	(4)	12.748	134	138739M	21.002
127) Pentachloroethane	(4)	12.779	167	121658	19.386
128) 1,2,4-Trimethylbenzene	(4)	12.791	105	662067	20.958
129) sec-Butylbenzene	(4)	12.913	105	812244	21.408
131) 1,3-Dichlorobenzene	(4)	13.010	146	383844	20.911
132) p-Isopropyltoluene	(4)	13.022	119	730365	21.465
133) *1,4-Dichlorobenzene-d4	(4)	13.071	152	566370	50.000
134) 1,4-Dichlorobenzene	(4)	13.089	146	387134	20.642
135) 1,2,3-Trimethylbenzene	(4)	13.095	105	670064	20.242
136) Benzyl Chloride	(4)	13.162	126	67371	17.768
137) 1,3-Diethylbenzene	(4)	13.223	119	430938	20.149
138) 1,4-Diethylbenzene	(4)	13.296	119	447342	20.203
139) n-Butylbenzene	(4)	13.314	92	366612M	21.189
140) 1,2-Dichlorobenzene	(4)	13.345	146	359102	20.660
141) 1,2-Diethylbenzene	(4)	13.363	119	362698M	19.873
144) 1,2-Dibromo-3-chloropropane	(4)	13.892	75	32716	19.156
145) 1,3,5-Trichlorobenzene	(4)	14.014	180	312673	20.782
146) 1,2,4-Trichlorobenzene	(4)	14.440	180	272542	21.094
147) Hexachlorobutadiene	(4)	14.519	225	161886	21.080
148) Naphthalene	(4)	14.622	128	554301	20.608
149) 1,2,3-Trichlorobenzene	(4)	14.762	180	253965	20.909
150) 2-Methylnaphthalene	(4)	15.395	142	240324	17.253

M = Compound was manually integrated.

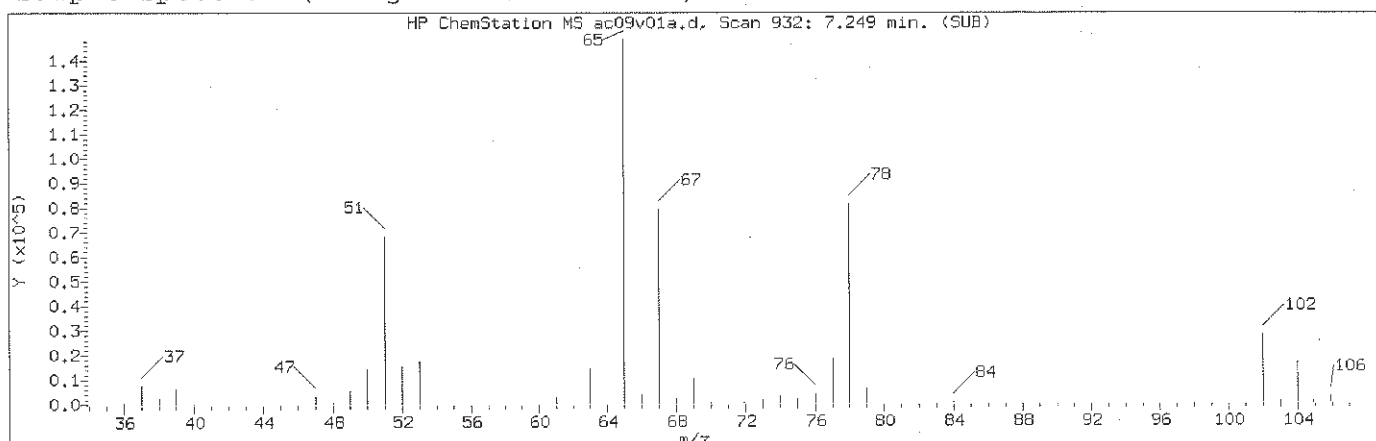
* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

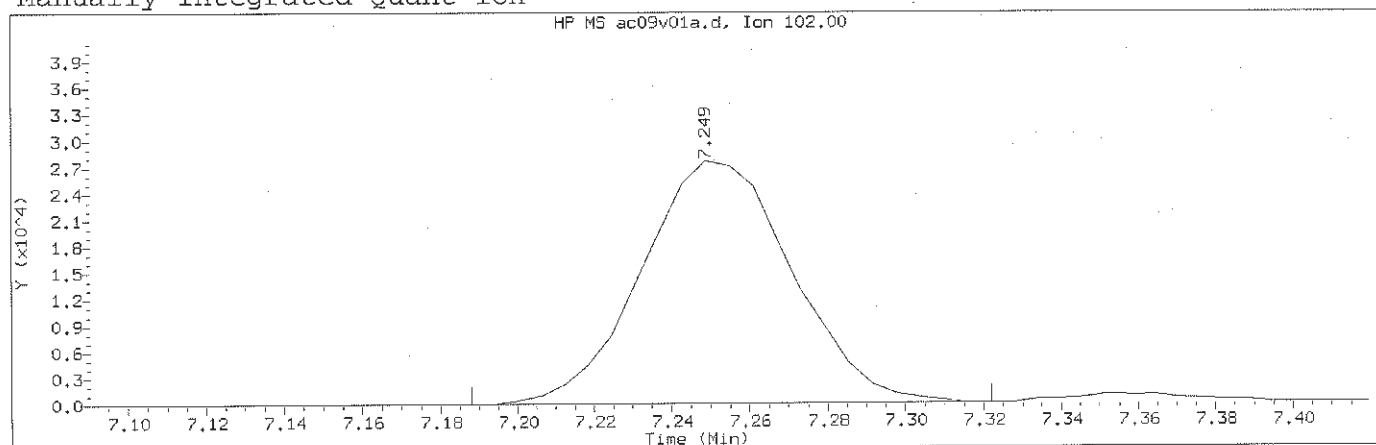
page 3 of 3

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 Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09v01a.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 16:55 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 11-OCT-2012 15:12
Date, time and analyst ID of latest file update: 11-Oct-2012 15:17 cbe01947

Sample Name: LCSAICV

Lab Sample ID: LCSAICV

Compound Number	: 61	
Compound Name	: 1,2-Dichloroethane-d4	
Scan Number	: 932	
Retention Time (minutes)	: 7.249	
Quant Ion	: 102.00	
Area (flag)	: 74178M	
On-Column Amount (ng)	: 50.5383	
Integration start scan	: 921	Integration stop scan: 943
Y at integration start	: 0	Y at integration end: 0

Reason for manual integration: improper integration

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Analyst responsible for change: on 10/11/2012 at 15:17.
Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: mm 10/11/12

HP ChemStation MS ac09v01a.d. Scan 932: 7.249 min. (SUB)

Mass spectrum plot showing relative intensity (Y-axis, 0.0 to 1.4) versus mass-to-charge ratio (X-axis, 36 to 106). The base peak is at m/z 65. Other significant peaks are labeled at m/z 37, 47, 51, 67, 76, 78, 84, 102, and 106.

m/z	Relative Intensity (approx.)
37	0.15
47	0.10
51	0.70
65	1.45
67	0.80
76	0.15
78	0.85
84	0.05
102	0.35
106	0.10

HP MS ac09v01a.d, Ion 102.00

The chromatogram displays a single, sharp, and prominent peak at a retention time of 7.249 minutes. The y-axis represents the detector response, scaled by 10^4 , with a maximum value of 4.0. The x-axis represents time in minutes, ranging from 7.10 to 7.54. The baseline is stable and near zero throughout the run, with only minor noise and a very small secondary peak visible around 7.35 minutes.

Time (Min)	Y ($\times 10^4$)
7.10	0.00
7.12	0.00
7.14	0.00
7.16	0.00
7.18	0.00
7.20	0.05
7.22	0.80
7.24	2.80
7.249	3.00
7.26	2.50
7.28	1.00
7.30	0.20
7.32	0.05
7.34	0.05
7.35	0.10
7.36	0.05
7.38	0.02
7.40	0.01
7.42	0.01
7.44	0.01
7.46	0.01
7.48	0.01
7.50	0.01
7.52	0.01
7.54	0.01

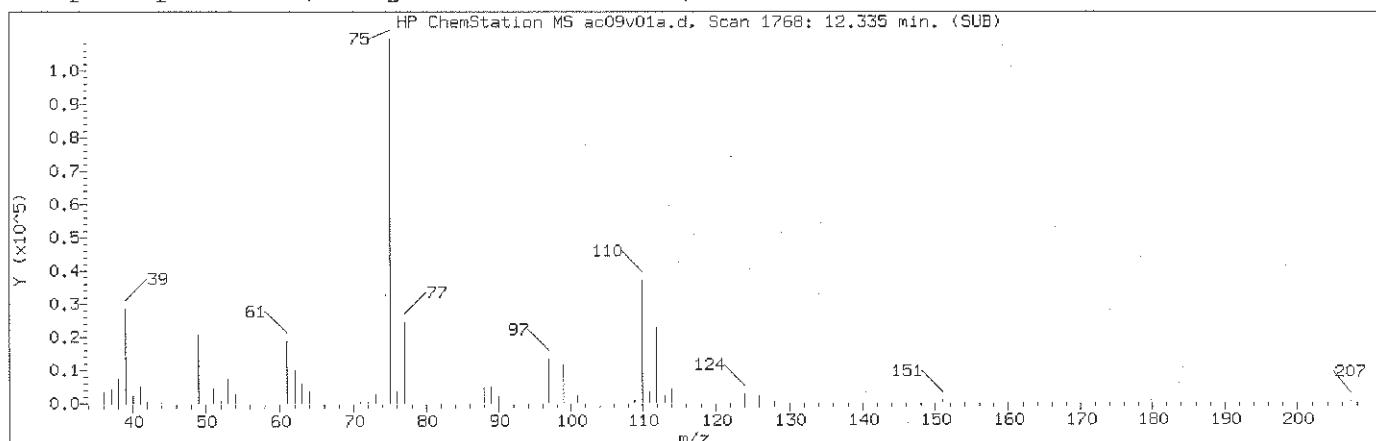
Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:34
Date, time and analyst ID of latest file update: 09-Oct-2012 17:15 Automation

Lab Sample ID: LCSAICV

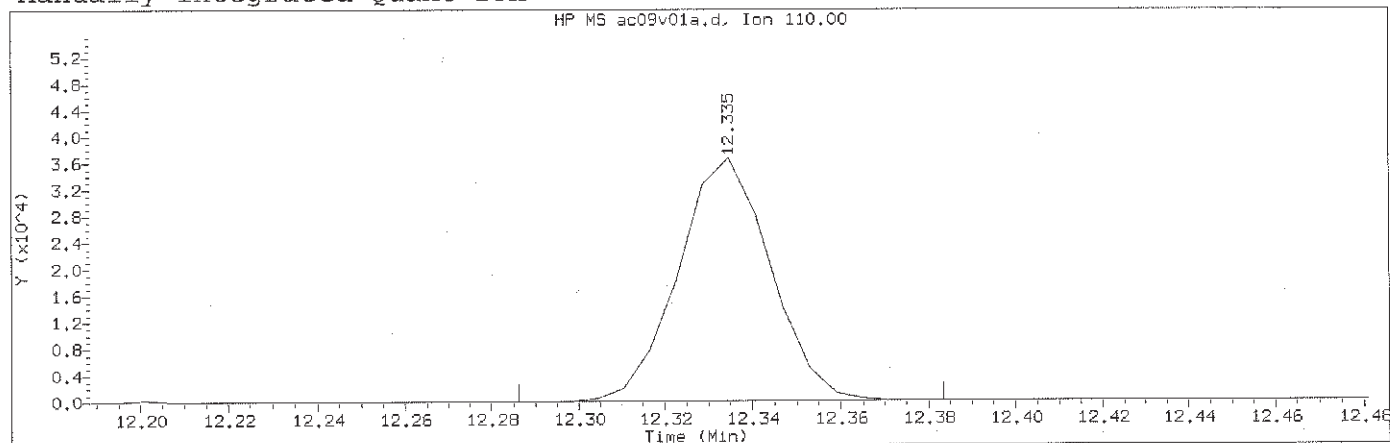
Compound Number	:	61	
Compound Name	:	1,2-Dichloroethane-d4	
Scan Number	:	932	
Retention Time (minutes)	:	7.249	
Quant Ion	:	102.00	
Area	:	76193	
On-column Amount (ng)	:	51.9111	
Integration start scan	:	921	Integration stop scan: 963
Y at integration start	:	0	Y at integration end: 0

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Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09v01a.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 16:55 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 11-OCT-2012 15:12
Date, time and analyst ID of latest file update: 11-Oct-2012 15:17 cbe01947

Sample Name: LCSAICV

Lab Sample ID: LCSAICV

Compound Number : 116
Compound Name : 1,2,3-Trichloropropane
Scan Number : 1768
Retention Time (minutes): 12.335
Quant Ion : 110.00
Area (flag) : 53502M
On-Column Amount (ng) : 20.5315
Integration start scan : 1759 Integration stop scan: 1775
Y at integration start : 0 Y at integration end: 0

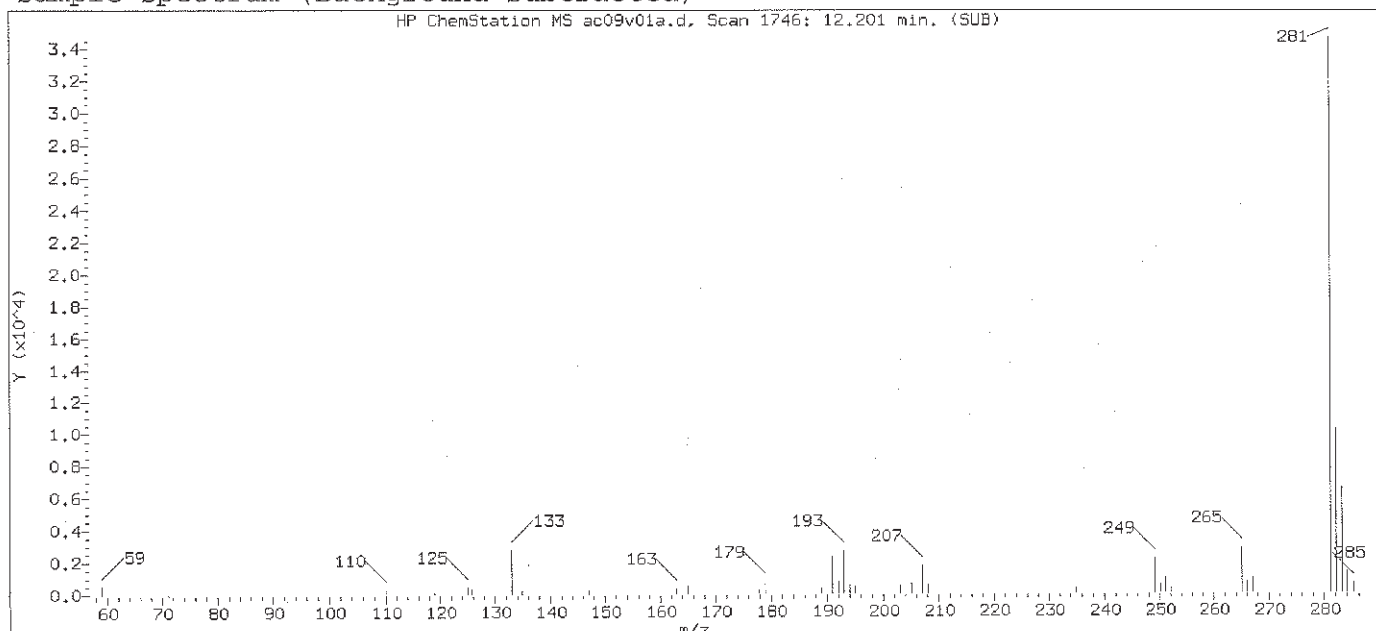
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:17.
Target 3.5 esignature user ID: cbe01947

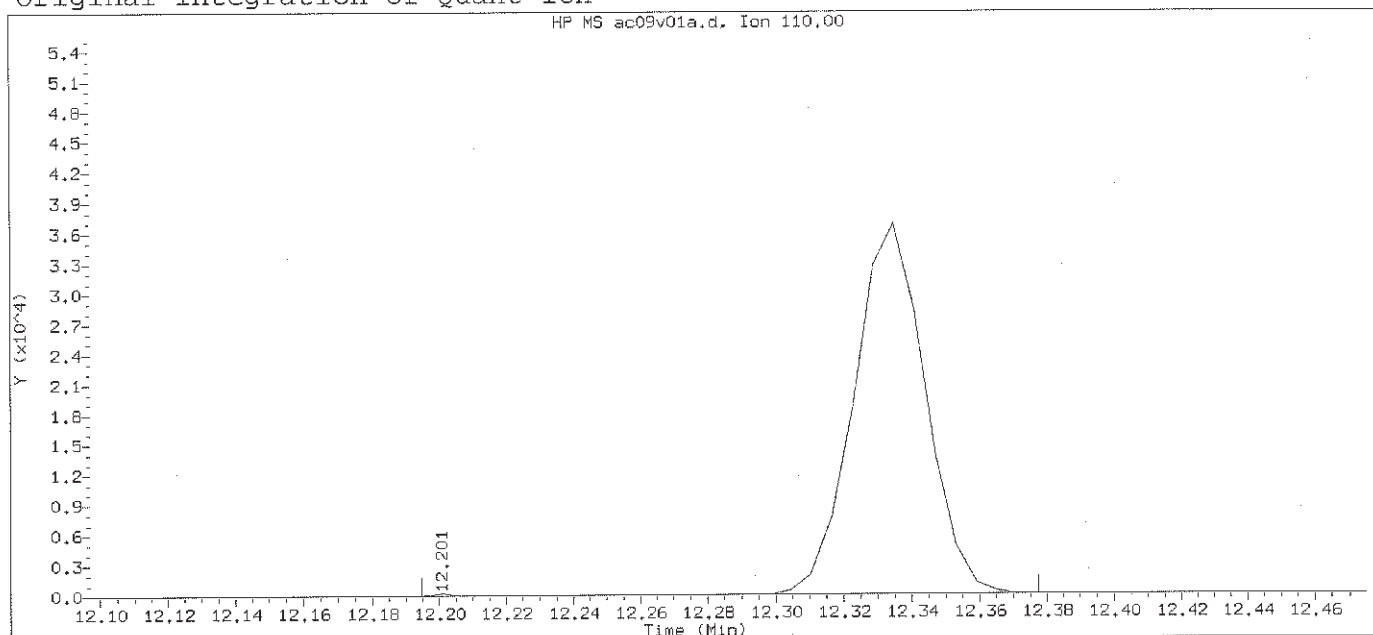
GC/MS audit/management approval: _____

[Signature] 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09v01a.d Instrument ID: HP09685.i
 Injection date and time: 09-OCT-2012 16:55 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
 Calibration date and time: 09-OCT-2012 16:34
 Date, time and analyst ID of latest file update: 09-Oct-2012 17:15 Automation

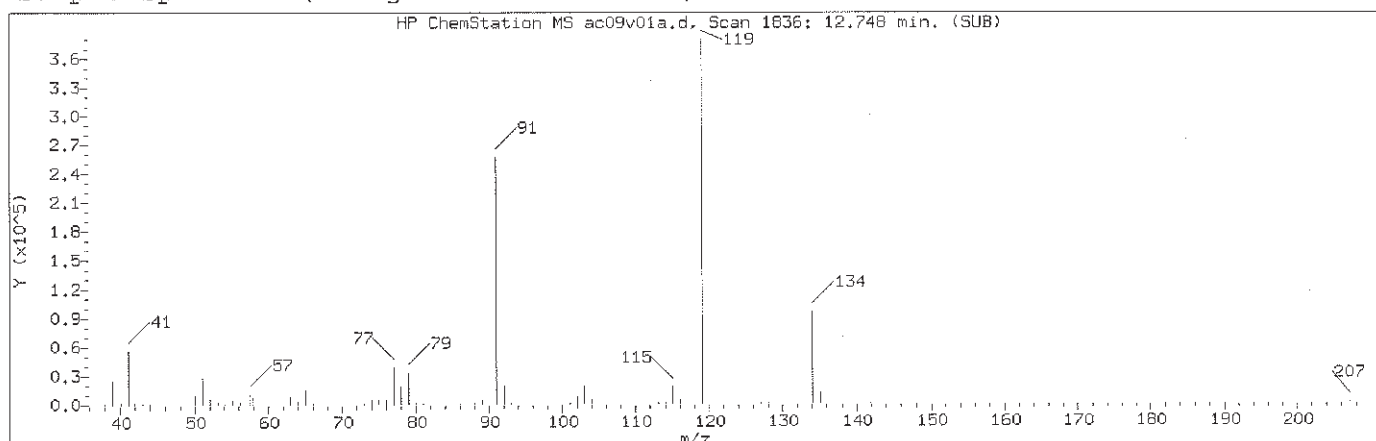
Sample Name: LCSAICV

Lab Sample ID: LCSAICV

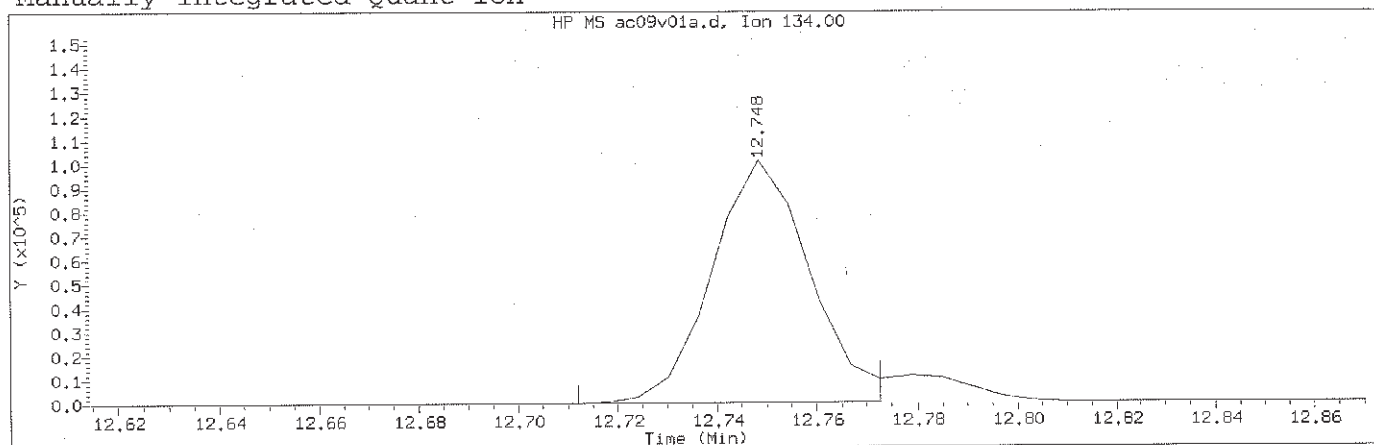
Compound Number : 116
 Compound Name : 1,2,3-Trichloropropane
 Scan Number : 1746
 Retention Time (minutes): 12.201
 Quant Ion : 110.00
 Area : 53594
 On-column Amount (ng) : 20.5668
 Integration start scan : 1744 Integration stop scan: 1774
 Y at integration start : 0 Y at integration end: 0

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 Target 3.5 esignature user ID: cbe01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09v01a.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 16:55 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 11-OCT-2012 15:12
Date, time and analyst ID of latest file update: 11-Oct-2012 15:17 cbe01947

Sample Name: LCSAICV

Lab Sample ID: LCSAICV

Compound Number : 126
Compound Name : tert-Butylbenzene
Scan Number : 1836
Retention Time (minutes): 12.748
Quant Ion : 134.00
Area (flag) : 138739M
On-Column Amount (ng) : 21.0019
Integration start scan : 1829 Integration stop scan: 1839
Y at integration start : 0 Y at integration end: 0

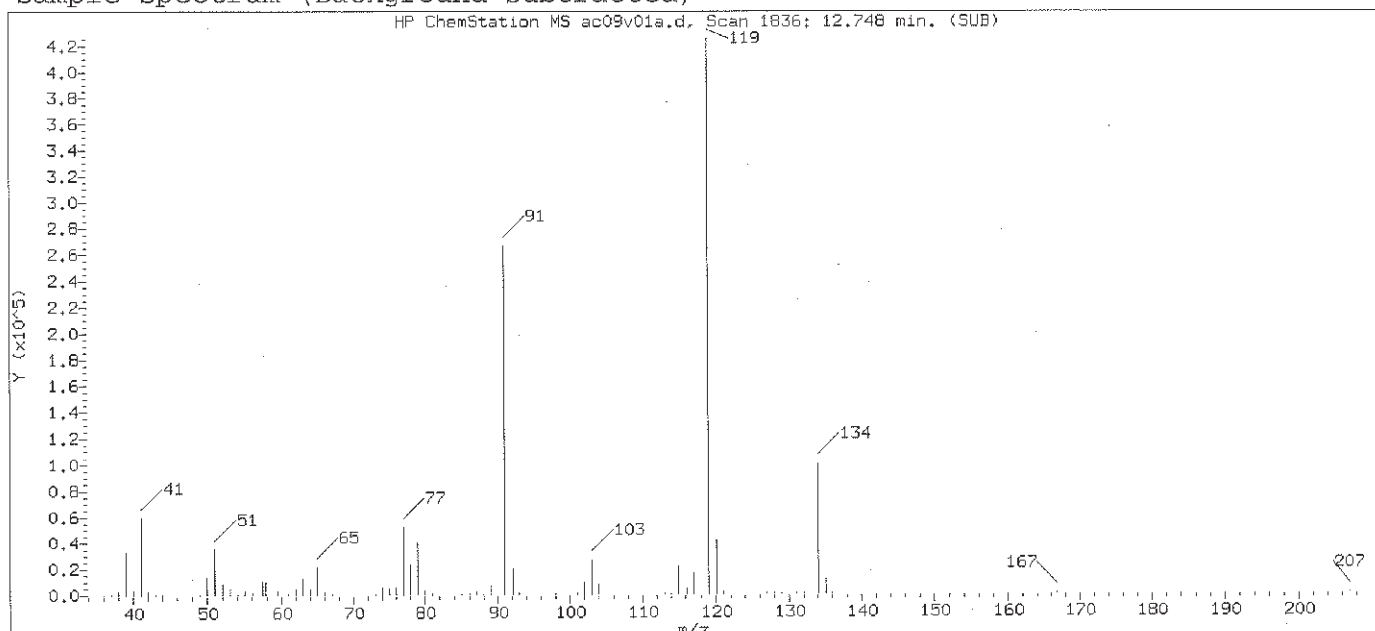
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:17.
Target 3.5 esignature user ID: cbe01947

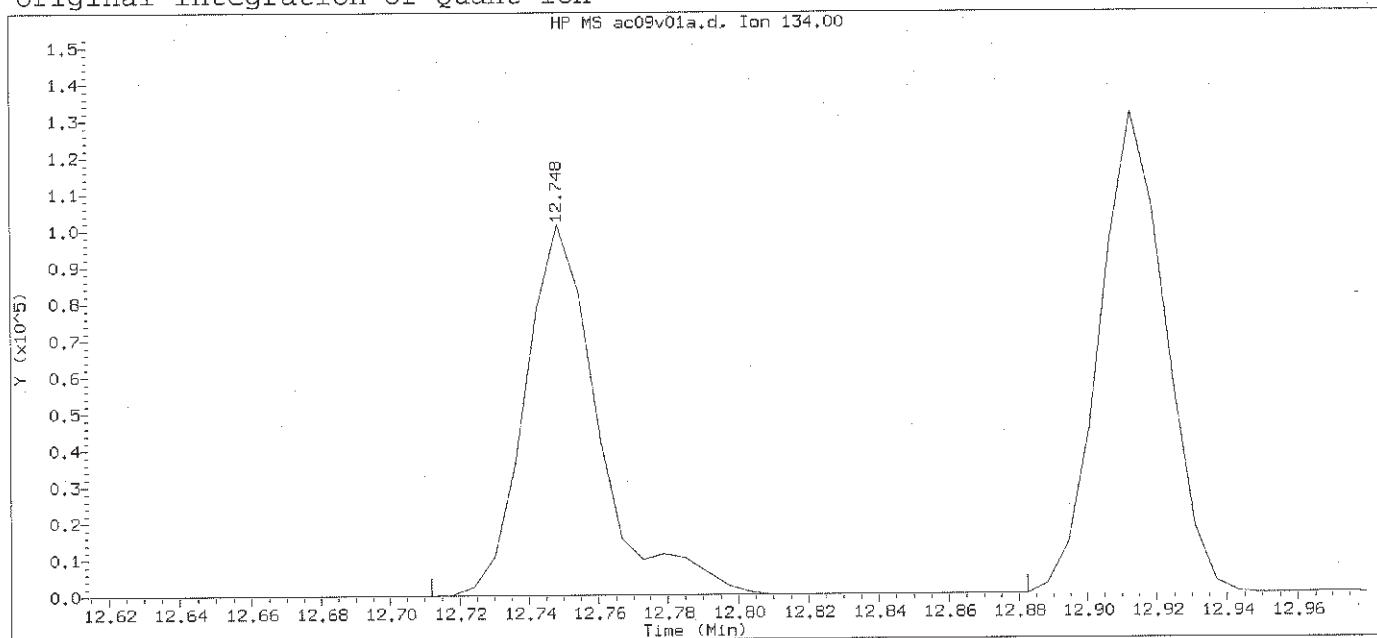
GC/MS audit/management approval:

Handwritten signature and date: 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09v01a.d
Injection date and time: 09-OCT-2012 16:55

Instrument ID: HP09685.i
Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:34
Date, time and analyst ID of latest file update: 09-Oct-2012 17:15 Automation

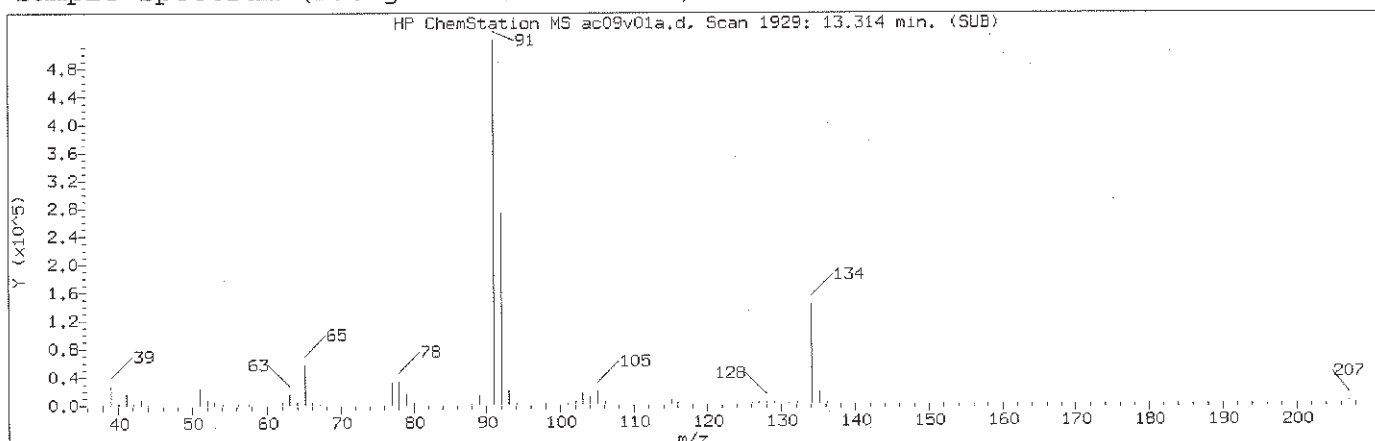
Sample Name: LCSAICV

Lab Sample ID: LCSAICV

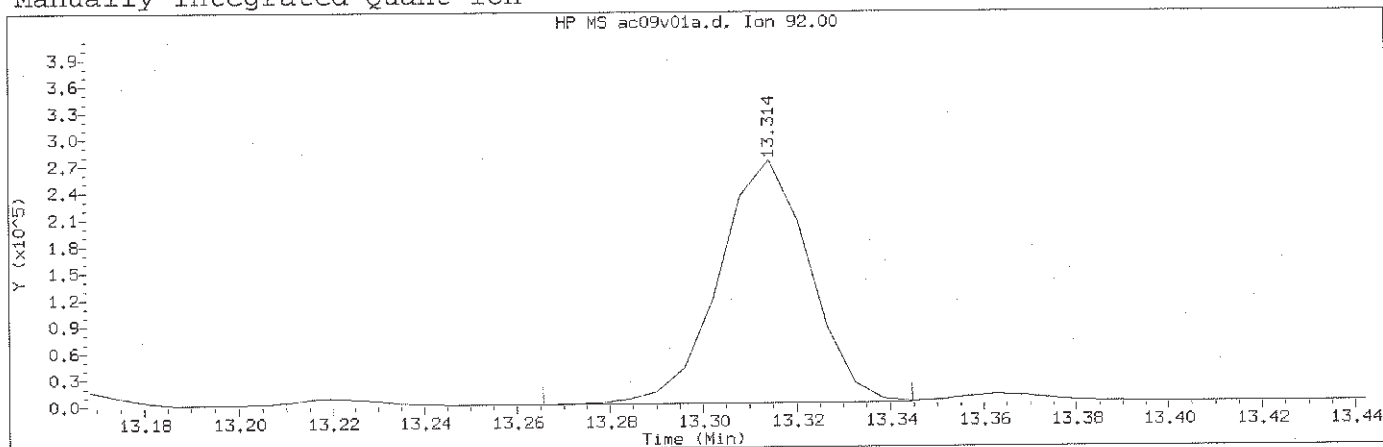
Compound Number	: 126	
Compound Name	: tert-Butylbenzene	
Scan Number	: 1836	
Retention Time (minutes)	: 12.748	
Quant Ion	: 134.00	
Area	: 150096	
On-column Amount (ng)	: 20.9226	
Integration start scan	: 1829	Integration stop scan: 1857
Y at integration start	: 0	Y at integration end: 0

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Target 3.5 esignature user ID: CBE01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09v01a.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 16:55 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 11-OCT-2012 15:12
Date, time and analyst ID of latest file update: 11-Oct-2012 15:17 cbe01947

Sample Name: LCSAICV

Lab Sample ID: LCSAICV

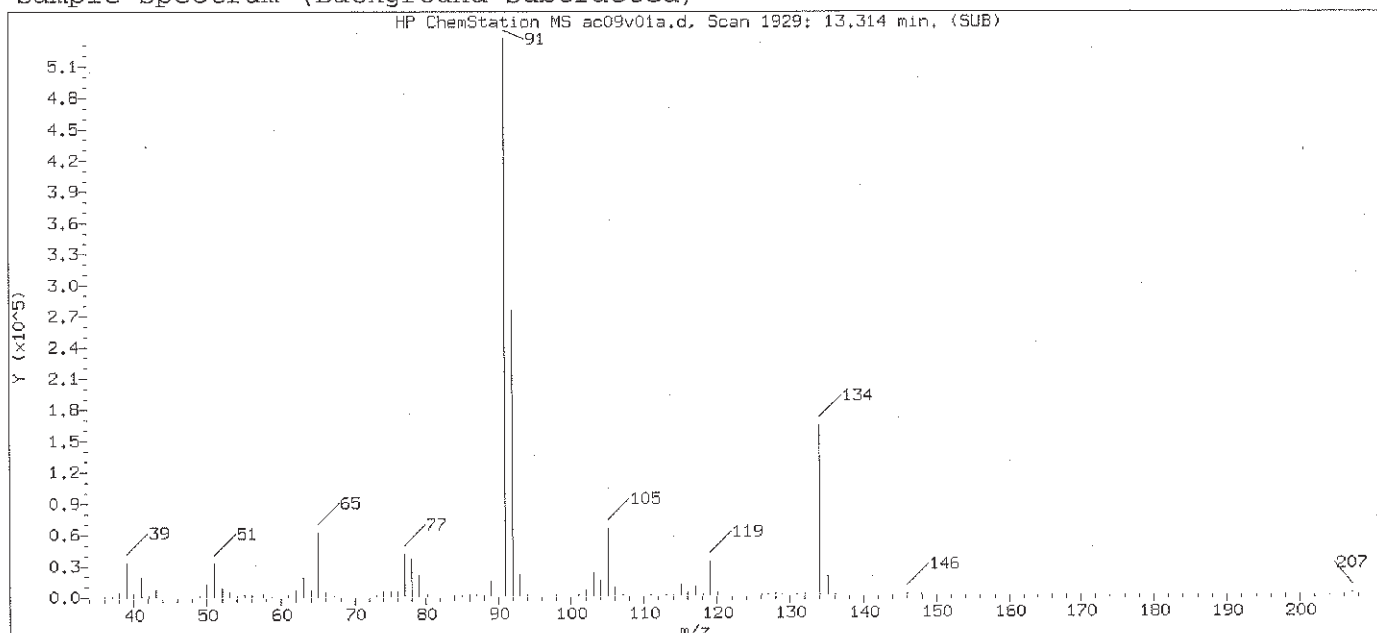
Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1929
Retention Time (minutes): 13.314
Quant Ion : 92.00
Area (flag) : 366612M
On-Column Amount (ng) : 21.1894
Integration start scan : 1920 Integration stop scan: 1933
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

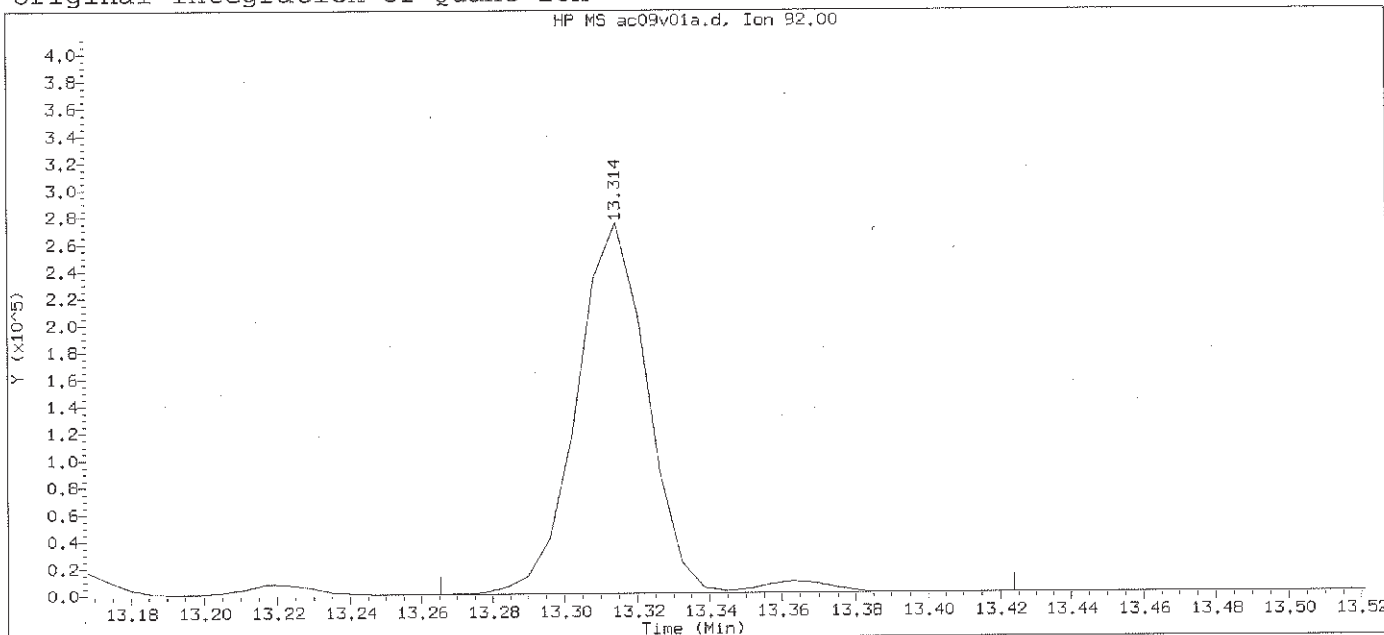
Digitally signed by Chelsea B. Eastep
Analyst responsible for change: on 10/11/2012 at 15:17.
Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: *mmg* 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09v01a.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 16:55 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:34
Date, time and analyst ID of latest file update: 09-Oct-2012 17:15 Automation

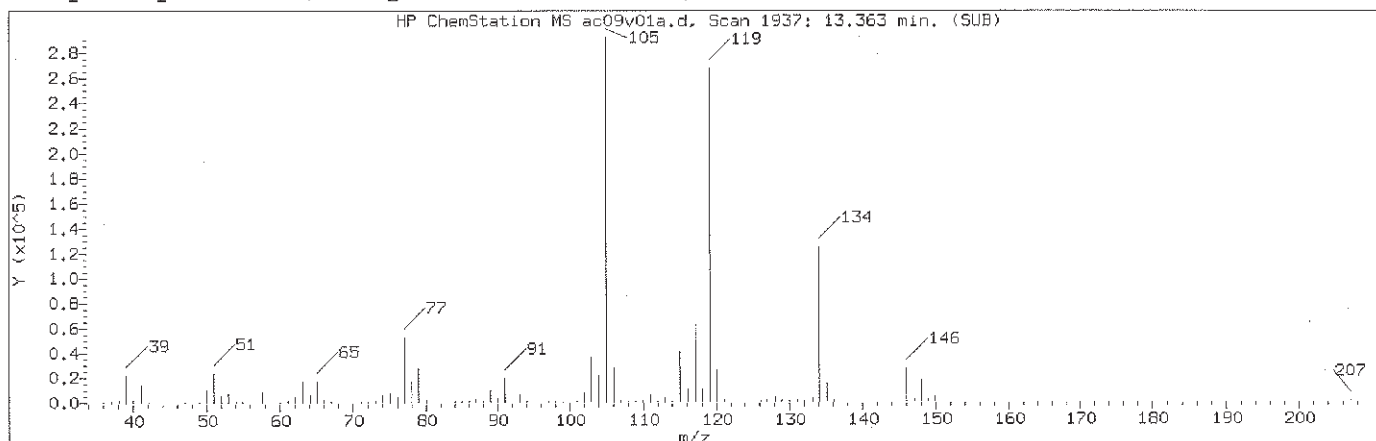
Sample Name: LCSAICV

Lab Sample ID: LCSAICV

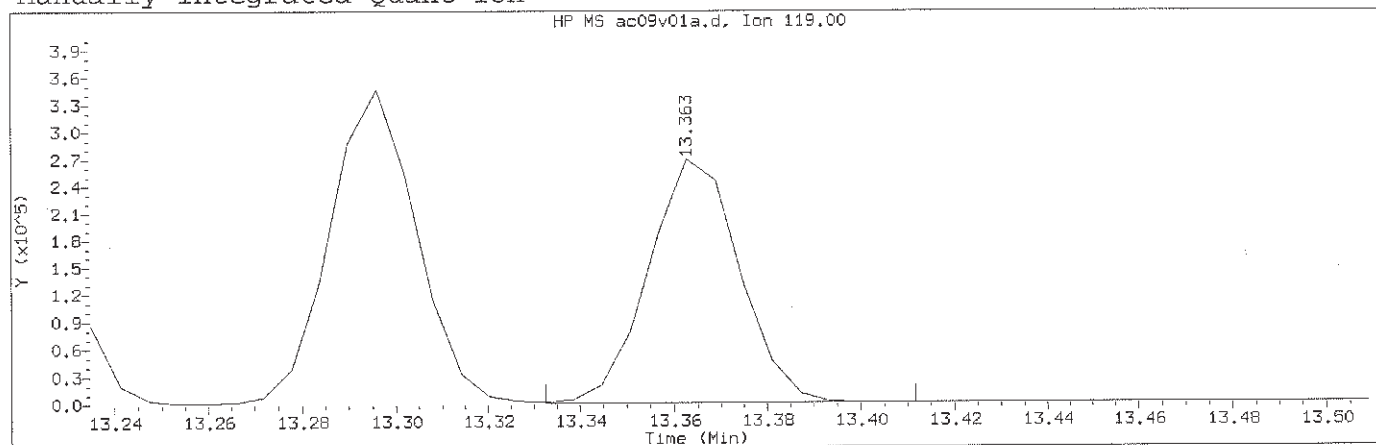
Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1929
Retention Time (minutes): 13.314
Quant Ion : 92.00
Area : 377896
On-column Amount (ng) : 21.8416
Integration start scan : 1920 Integration stop scan: 1946
Y at integration start : 0 Y at integration end: 0

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Target 3.5 esignature us... Page 526 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09v01a.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 16:55 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 11-OCT-2012 15:12
Date, time and analyst ID of latest file update: 11-Oct-2012 15:17 cbe01947

Sample Name: LCSAICV

Lab Sample ID: LCSAICV

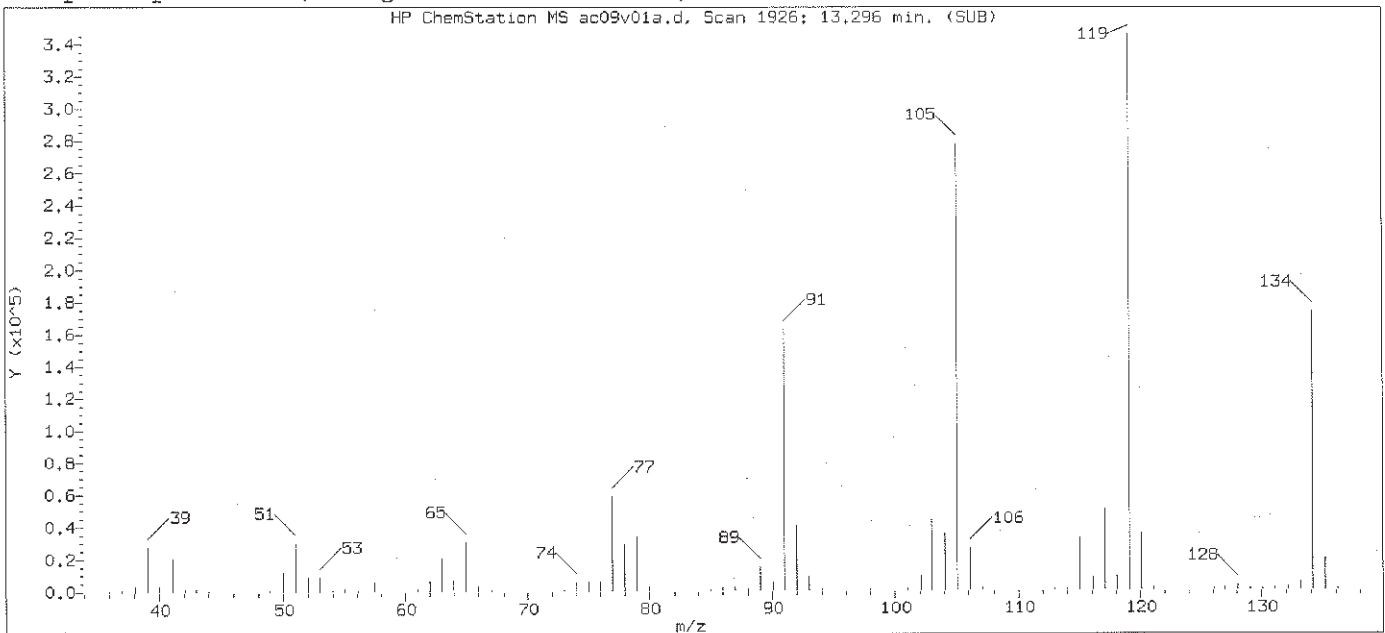
Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1937
Retention Time (minutes): 13.363
Quant Ion : 119.00
Area (flag) : 362698M
On-Column Amount (ng) : 19.8725
Integration start scan : 1931 Integration stop scan: 1944
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

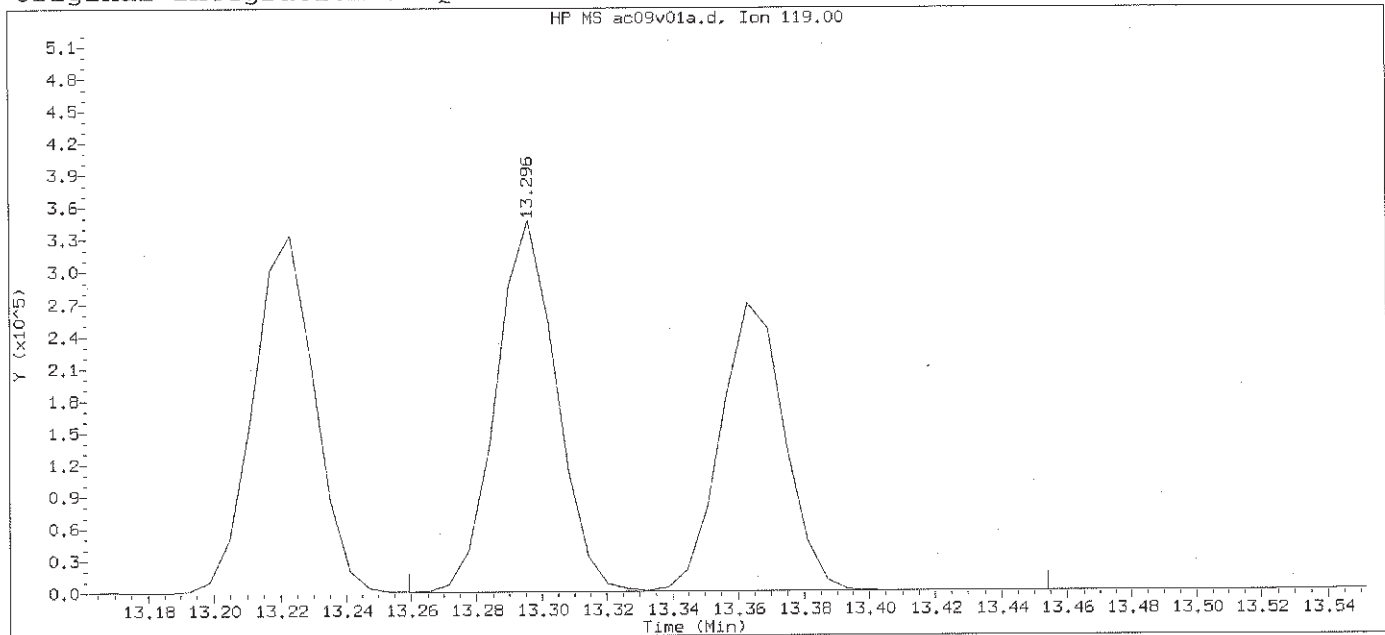
Analyst responsible for change: Digitally signed by Chelsea B. Eastep
on 10/11/2012 at 15:17.
Target 3.5 esignature user ID: cbe01947

GC/MS audit/management approval: *ammd* 10/11/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12oct09a.b/ac09v01a.d Instrument ID: HP09685.i
Injection date and time: 09-OCT-2012 16:55 Analyst ID: CBE01947

Method used: /chem2/HP09685.i/12oct09a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 09-OCT-2012 16:34
Date, time and analyst ID of latest file update: 09-Oct-2012 17:15 Automation

Sample Name: LCSAICV

Lab Sample ID: LCSAICV

Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1926
Retention Time (minutes): 13.296
Quant Ion : 119.00
Area : 809821
On-column Amount (ng) : 44.3708
Integration start scan : 1919 Integration stop scan: 1951
Y at integration start : 0 Y at integration end: 0

Digitally signed by Chelsea B. Eastep on 10/11/2012 at 15:17.

Target 3.5 esignature us... Page 528 of 2648

Page 1

Client ID: BFBSEP25-12

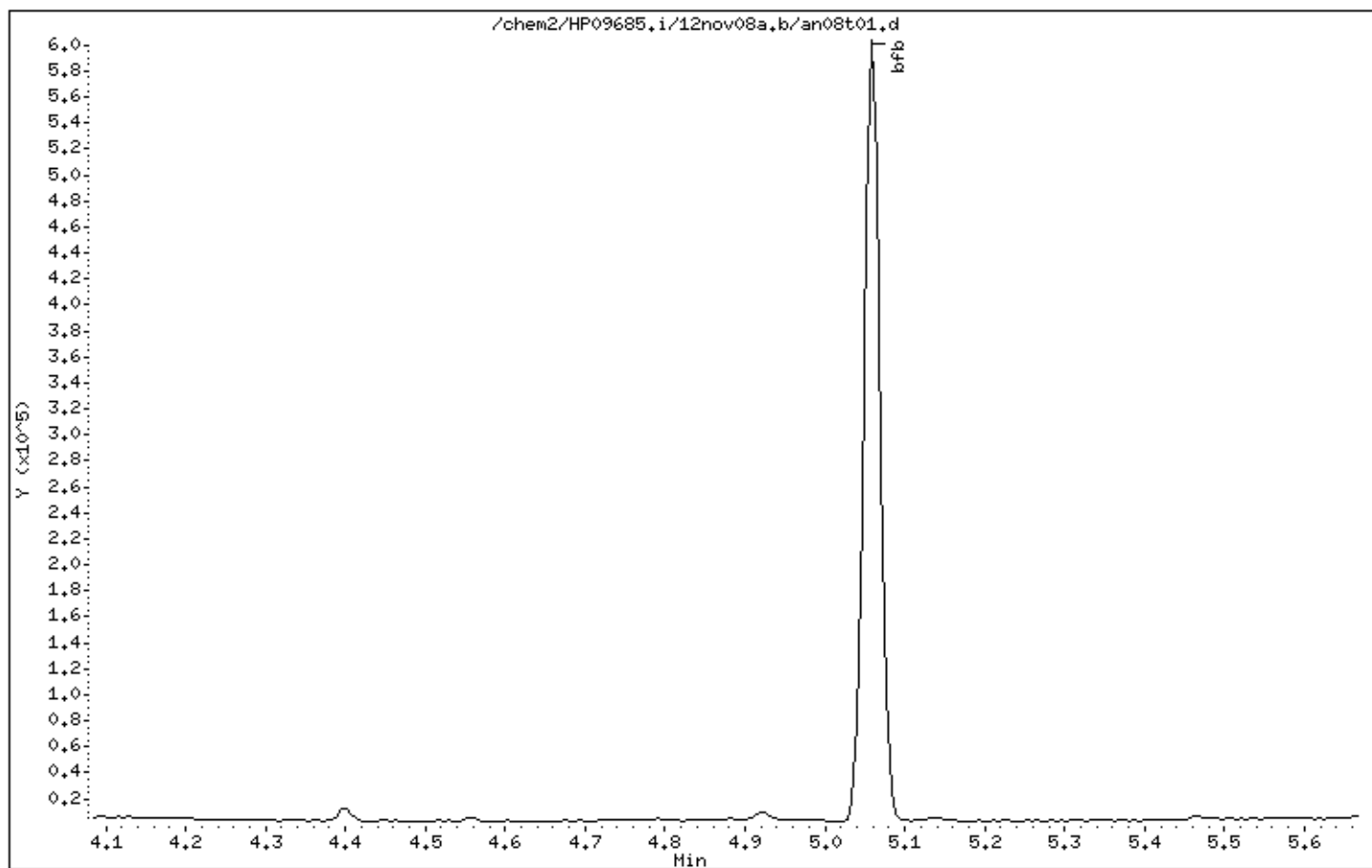
Instrument: HP09685.i

Sample Info: BFBSEP25-12;50NGBFB;2;3; ; ; ;

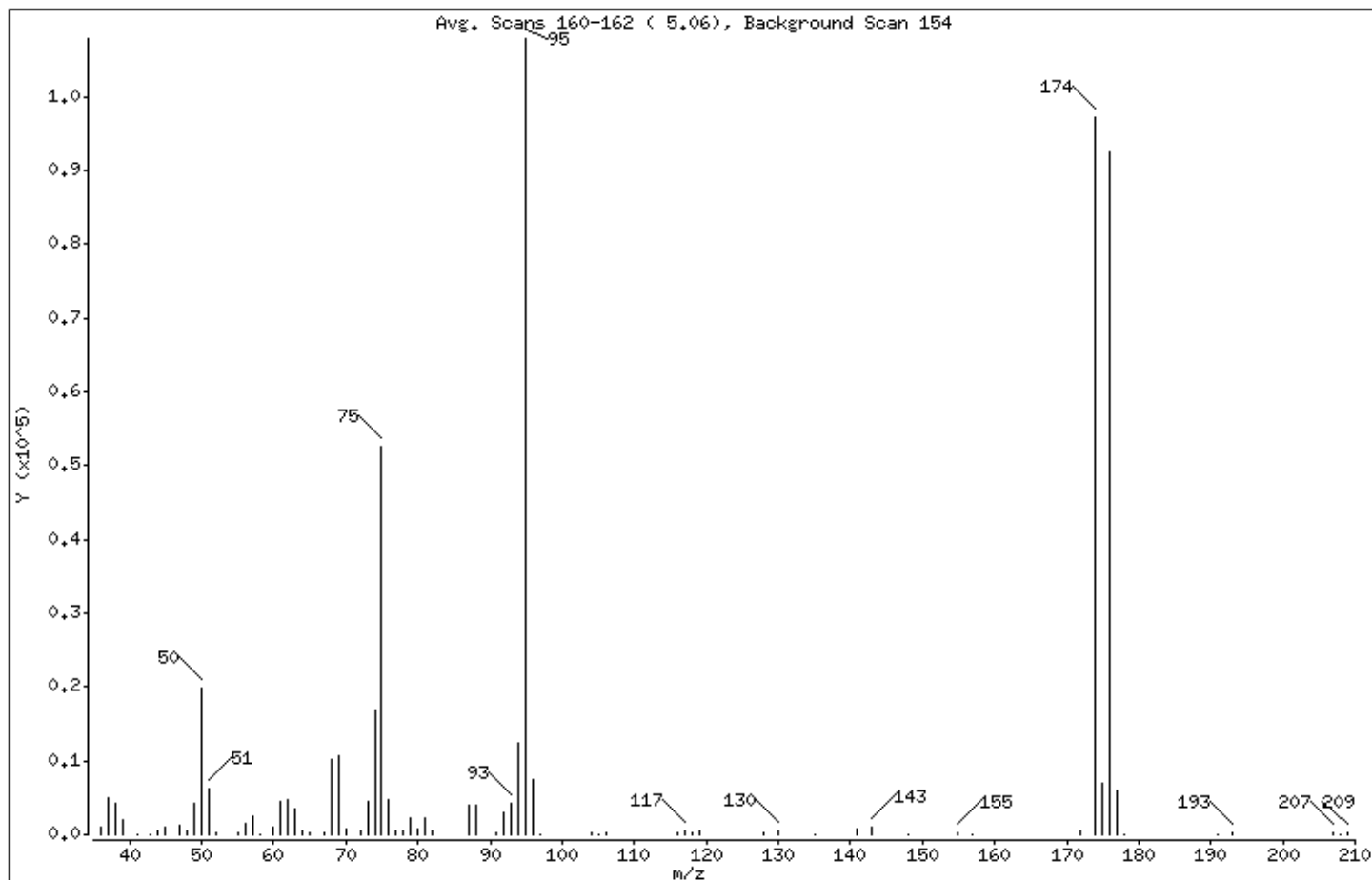
Operator: SAS00403

Column phase: Rxi-624Sil MS

Column diameter: 0.25



1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.32
75	30.00 - 60.00% of mass 95	48.73
96	5.00 - 9.00% of mass 95	6.98
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	90.09
175	5.00 - 9.00% of mass 174	6.52 (7.24)
176	95.00 - 101.00% of mass 174	85.85 (95.29)
177	5.00 - 9.00% of mass 176	5.50 (6.41)

TAP03 Page 530 of 2648

Date : 08-NOV-2012 00:08

Client ID: BFBSEP25-12

Instrument: HP09685.i

Sample Info: BFBSEP25-12;50NGBFB;2;3;+;;

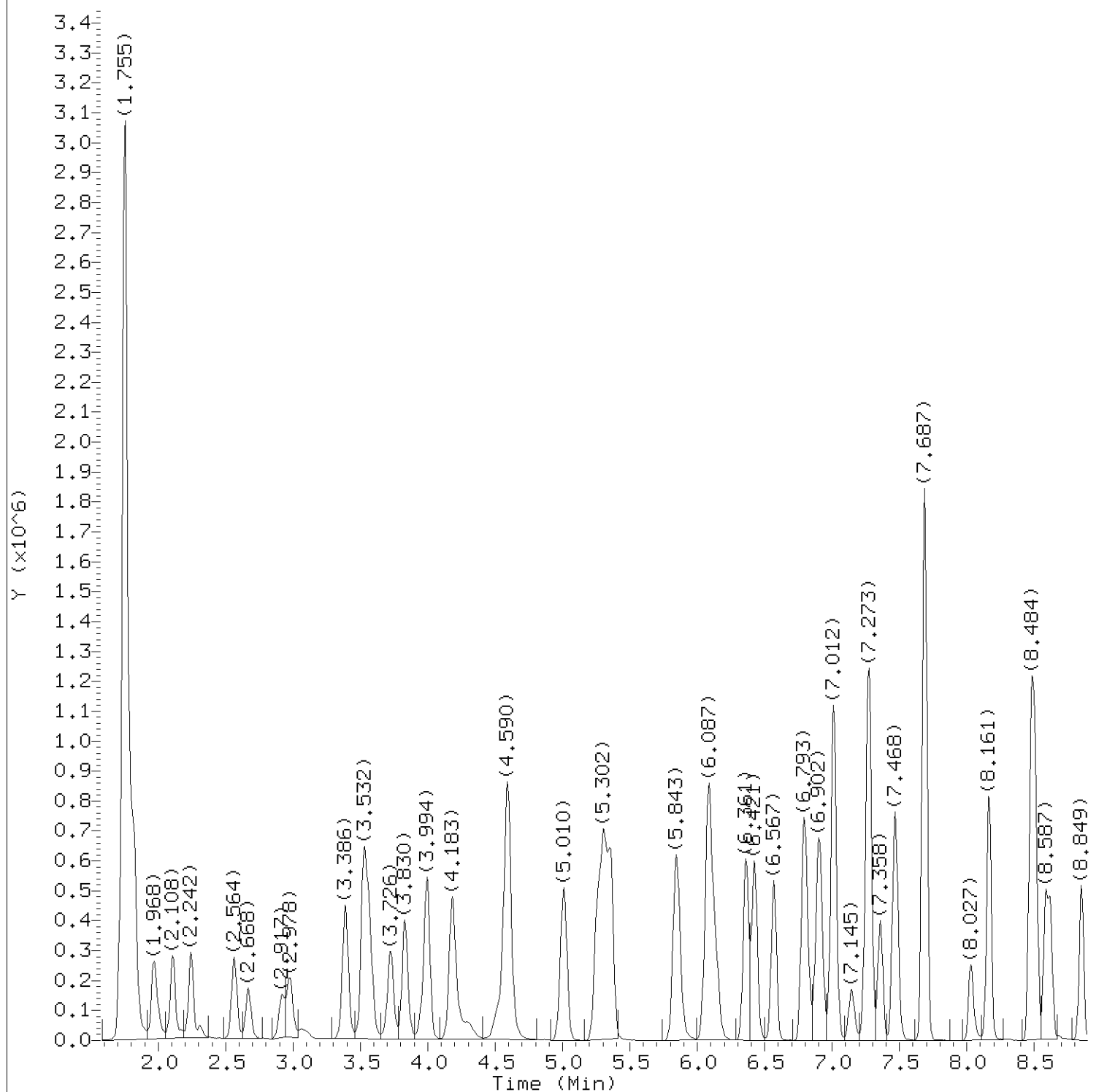
Operator: SAS00403

Column phase: Rxi-624Sil MS

Column diameter: 0,25

Data File: an08t01.d							
Spectrum: Avg. Scans 160-162 (5.06), Background Scan 154							
Location of Maximum: 95.00							
Number of points: 74							
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1073	61.00	4529	82.00	561	135.00	111
37.00	4850	62.00	4654	87.00	3915	141.00	793
38.00	4268	63.00	3379	88.00	3971	143.00	895
39.00	1903	64.00	383	91.00	219	148.00	90
41.00	84	65.00	289	92.00	2917	155.00	228
43.00	89	67.00	322	93.00	4254	157.00	92
44.00	538	68.00	10204	94.00	12310	172.00	455
45.00	1049	69.00	10547	95.00	107888	174.00	97200
47.00	1261	70.00	833	96.00	7535	175.00	7037
48.00	611	72.00	570	97.00	93	176.00	92616
49.00	4201	73.00	4474	104.00	371	177.00	5939
50.00	19768	74.00	16744	105.00	94	178.00	114
51.00	6080	75.00	52568	106.00	369	191.00	85
52.00	224	76.00	4732	116.00	291	193.00	344
55.00	211	77.00	552	117.00	615	207.00	332
56.00	1444	78.00	466	118.00	235	208.00	95
57.00	2454	79.00	2178	119.00	480	209.00	205
58.00	113	80.00	733	128.00	309		
60.00	972	81.00	2117	130.00	374		

Digitally signed by Stephanie A. Selis on 11/08/2012 at 00:56.
Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08c01.d
Injection date and time: 08-NOV-2012 00:31

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m
Calibration date and time: 08-NOV-2012 00:53

Sublist used: 8260S-F2C

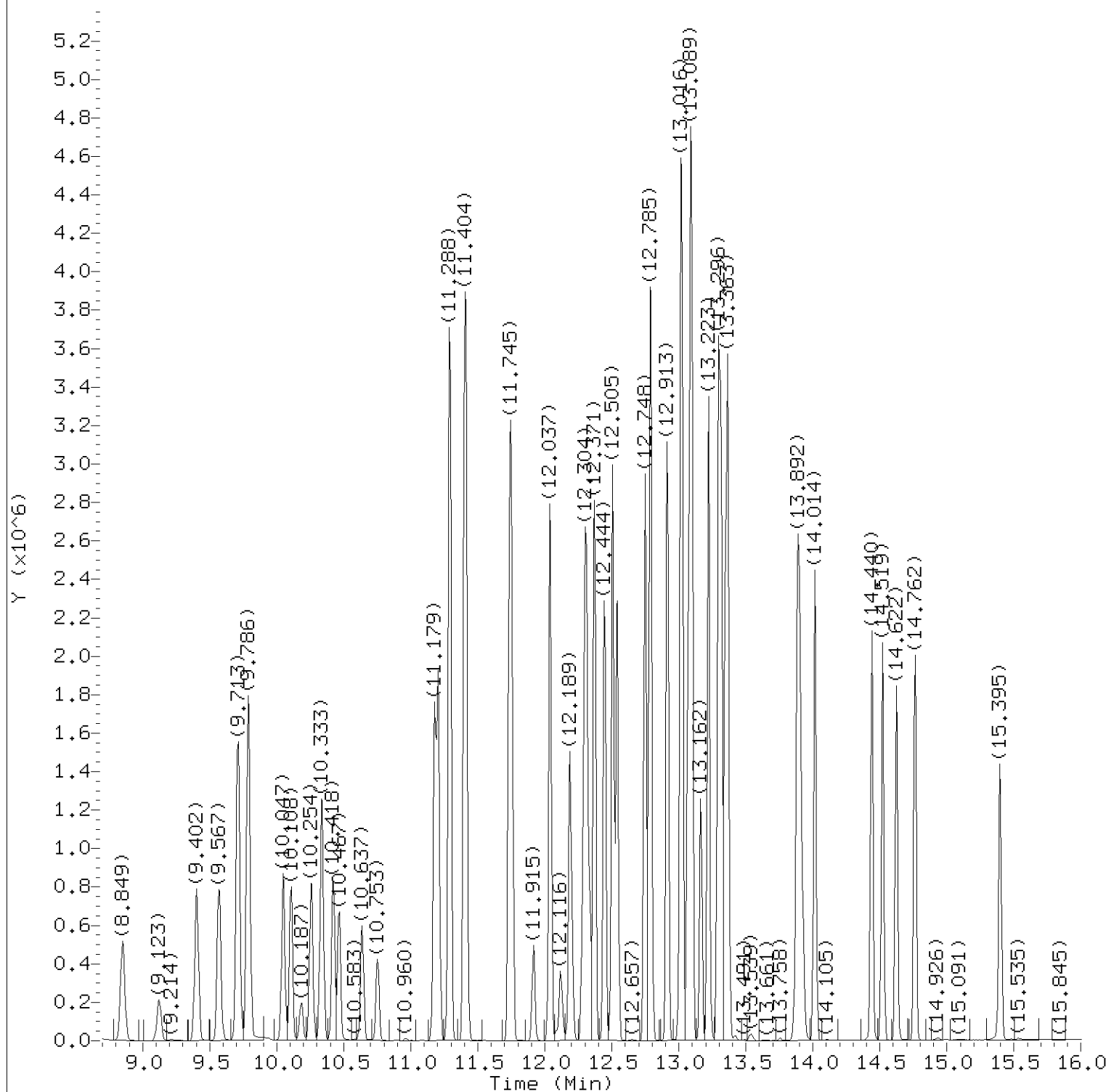
Date, time and analyst ID of latest file update: 08-Nov-2012 00:56 sas00403

Sample Name: VSTD050

Lab Sample ID: VSTD050

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 00:56.

Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08c01.d
Injection date and time: 08-NOV-2012 00:31

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m
Calibration date and time: 08-NOV-2012 00:53

Sublist used: 8260S-F2C

Date, time and analyst ID of latest file update: 08-Nov-2012 00:56 sas00403

Sample Name: VSTD050

Lab Sample ID: VSTD050

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 00:56.

Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08c01.d
 Injection date and time: 08-NOV-2012 00:31

Instrument ID: HP09685.i
 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C
 Calibration date and time: 08-NOV-2012 00:53
 Date, time and analyst ID of latest file update: 08-Nov-2012 00:56 sas00403

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
2) Dichlorodifluoromethane	(2)	1.968	85	506150	44.336
4) Chloromethane	(2)	2.108	50	442822	43.590
5) Vinyl Chloride	(2)	2.242	62	444514	45.429
9) Bromomethane	(2)	2.564	94	292446	47.650
10) Chloroethane	(2)	2.668	64	241139	45.894
13) Trichlorofluoromethane	(2)	2.978	101	514852	43.996
15) Ethanol	(1)	3.082	45	96736	1611.467
18) Acrolein	(1)	3.386	56	676328	588.782
19) 1,1-Dichloroethene	(2)	3.526	96	278802	45.928
20) Acetone	(2)	3.544	58	64141	79.024
22) Freon 113	(2)	3.562	101	295323	44.101
23) 2-Propanol	(1)	3.702	45	119460	284.290
24) Methyl Iodide	(2)	3.726	142	527587	46.575
25) Carbon Disulfide	(2)	3.830	76	948868	42.768
27) Methyl Acetate	(2)	3.958	43	234262	41.934
29) Allyl Chloride	(2)	3.994	41	537247	49.212
30)*t-Butyl alcohol-d10	(1)	4.177	65	119744	250.000
31) Methylene Chloride	(2)	4.183	84	335532	44.629
32) t-Butyl alcohol	(1)	4.304	59	153391	238.141
33) Acrylonitrile	(2)	4.511	53	122095	41.050
34) Methyl Tertiary Butyl Ether	(2)	4.584	73	918409	43.427
35) trans-1,2-Dichloroethene	(2)	4.596	96	332262	48.225
38) n-Hexane	(2)	5.010	57	454075	40.886
40) 1,1-Dichloroethane	(2)	5.253	63	614465	45.256
41) di-Isopropyl ether	(2)	5.302	45	1063353	42.219
42) 2-Chloro-1,3-butadiene	(2)	5.357	53	528067	46.780
44) Ethyl t-butyl ether	(2)	5.843	59	976311	44.086
45) 2-Butanone	(2)	6.056	43	290308	76.539
46) cis-1,2-Dichloroethene	(2)	6.081	96	363410	48.886
47) 1,2-Dichloroethene (Total)	(2)		96	695672	97.111
48) 2,2-Dichloropropane	(2)	6.105	77	510317	47.634
50) Propionitrile	(1)	6.148	54	222676	267.072
51) Methacrylonitrile	(2)	6.361	67	316230	104.746
52) Bromochloromethane	(2)	6.421	128	179340	52.399
53) Tetrahydrofuran	(1)	6.434	71	75956	110.925
54) Chloroform	(2)	6.567	83	602823	46.079
55)\$Dibromofluoromethane	(2)	6.786	113	286548	47.979
55)\$Dibromofluoromethane	(2)	6.786	111	294583	48.110

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 4

Digitally signed by Stephanie A. Selis
 on 11/08/2012 at 00:56.

Target 3.5 esignature user ID: sas00403

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Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08c01.d
Injection date and time: 08-NOV-2012 00:31

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 00:56 sas00403

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
56) 1,1,1-Trichloroethane	(2)	6.799	97	513718	43.233
57) Cyclohexane	(2)	6.902	56	550415	42.789
57) Cyclohexane	(2)	6.908	84	468525	45.589
57) Cyclohexane	(2)	6.902	69	168573	45.130
58) 1,1-Dichloropropene	(2)	7.012	75	472490	47.029
59) Carbon Tetrachloride	(2)	7.012	117	440959	46.859
60) Isobutyl Alcohol	(1)	7.145	41	141735	599.551
61)\$1,2-Dichloroethane-d4	(2)	7.255	102	67256	48.630
61)\$1,2-Dichloroethane-d4	(2)	7.255	65	342206	45.314
61)\$1,2-Dichloroethane-d4	(2)	7.249	104	42794	48.639
62) Benzene	(2)	7.279	78	1377347	47.692
64) 1,2-Dichloroethane	(2)	7.358	62	450214	43.756
64) 1,2-Dichloroethane	(2)	7.358	98	40220	47.799
65) t-Amyl methyl ether	(2)	7.468	73	876388	44.319
67)*Fluorobenzene	(2)	7.687	96	1249822	50.000
69) n-Heptane	(2)	7.687	43	491846	39.817
70) n-Butanol	(1)	8.027	56	222462	1223.815
72) Trichloroethene	(2)	8.161	95	353900	48.660
73) Methylcyclohexane	(2)	8.478	83	592673	50.791
74) 1,2-Dichloropropane	(2)	8.508	63	355900	45.565
76) Methyl Methacrylate	(2)	8.581	69	215211	42.874
77) 1,4-Dioxane	(1)	8.599	88	41089	703.787
78) Dibromomethane	(2)	8.618	93	205902	46.287
81) Bromodichloromethane	(2)	8.849	83	425243	47.774
82) 2-Nitropropane	(1)	9.123	41	167989	109.524
84) cis-1,3-Dichloropropene	(2)	9.402	75	519459	47.821
85) 4-Methyl-2-pentanone	(2)	9.567	43	603367	76.662
86)\$Toluene-d8	(3)	9.713	98	1194029	49.549
86)\$Toluene-d8	(3)	9.713	100	793416	50.263
87) Toluene	(3)	9.786	92	869174	49.575
88) trans-1,3-Dichloropropene	(3)	10.047	75	491038	47.787
89) Ethyl Methacrylate	(3)	10.108	69	415881	47.281
90) 1,1,2-Trichloroethane	(3)	10.260	97	278708	47.488
92) Tetrachloroethene	(3)	10.339	166	411425	51.075
93) 1,3-Dichloropropane	(3)	10.418	76	495376	46.218
95) 2-Hexanone	(3)	10.467	43	433057	74.695
97) Dibromochloromethane	(3)	10.637	129	314951	48.549
98) 1,2-Dibromoethane	(3)	10.753	107	287950	47.588

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 2 of 4

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 00:56.

Target 3.5 esignature user ID: sas00403

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Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08c01.d
 Injection date and time: 08-NOV-2012 00:31

Instrument ID: HP09685.i
 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C
 Calibration date and time: 08-NOV-2012 00:53
 Date, time and analyst ID of latest file update: 08-Nov-2012 00:56 sas00403

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
99) *Chlorobenzene-d5	(3)	11.179	117	901125	50.000
100) Chlorobenzene	(3)	11.203	112	983121	49.719
101) 1,1,1,2-Tetrachloroethane	(3)	11.288	131	337019	49.335
102) Ethylbenzene	(3)	11.288	91	1680083	50.456
103) m+p-Xylene	(3)	11.404	106	1303055	100.810
104) o-Xylene	(3)	11.738	106	631699	50.757
105) Xylene (Total)	(3)		106	1934754	151.567
106) Styrene	(3)	11.751	104	1044933	51.987
107) Bromoform	(3)	11.915	173	217147	48.479
108) Isopropylbenzene	(3)	12.037	105	1658350	51.125
111) Cyclohexanone	(1)	12.116	55	158331M	661.830
112) \$4-Bromofluorobenzene	(3)	12.189	95	437980	48.558
112) \$4-Bromofluorobenzene	(3)	12.189	174	396900	49.446
113) 1,1,2,2-Tetrachloroethane	(4)	12.286	83	363948	45.677
114) Bromobenzene	(4)	12.304	156	434867	50.096
115) trans-1,4-Dichloro-2-butene	(4)	12.310	53	258078	106.414
116) 1,2,3-Trichloropropane	(4)	12.335	110	104690	44.511
117) n-Propylbenzene	(4)	12.371	91	1989232	52.266
119) 2-Chlorotoluene	(4)	12.444	126	413280	51.654
122) 1,3,5-Trimethylbenzene	(4)	12.505	105	1429066	52.337
123) 4-Chlorotoluene	(4)	12.542	126	429866	51.492
126) tert-Butylbenzene	(4)	12.748	134	339135	56.878
127) Pentachloroethane	(4)	12.785	167	277192	48.939
128) 1,2,4-Trimethylbenzene	(4)	12.791	105	1466831	51.446
129) sec-Butylbenzene	(4)	12.913	105	1829093	53.413
131) 1,3-Dichlorobenzene	(4)	13.010	146	827933	49.974
132) p-Isopropyltoluene	(4)	13.022	119	1627990	53.009
133) *1,4-Dichlorobenzene-d4	(4)	13.071	152	511193	50.000
134) 1,4-Dichlorobenzene	(4)	13.089	146	839892	49.617
135) 1,2,3-Trimethylbenzene	(4)	13.095	105	1477326	49.445
136) Benzyl Chloride	(4)	13.162	126	167216	46.605
137) 1,3-Diethylbenzene	(4)	13.223	119	977559	50.641
138) 1,4-Diethylbenzene	(4)	13.296	119	1009053	50.491
139) n-Butylbenzene	(4)	13.314	92	794831M	50.898
140) 1,2-Dichlorobenzene	(4)	13.345	146	767614	48.930
141) 1,2-Diethylbenzene	(4)	13.363	119	817428M	49.622
144) 1,2-Dibromo-3-chloropropane	(4)	13.892	75	154758	100.396
145) 1,3,5-Trichlorobenzene	(4)	14.014	180	710132	52.295

M = Compound was manually integrated.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08c01.d
Injection date and time: 08-NOV-2012 00:31

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 00:56 sas00403

Sample Name: VSTD050

Lab Sample ID: VSTD050

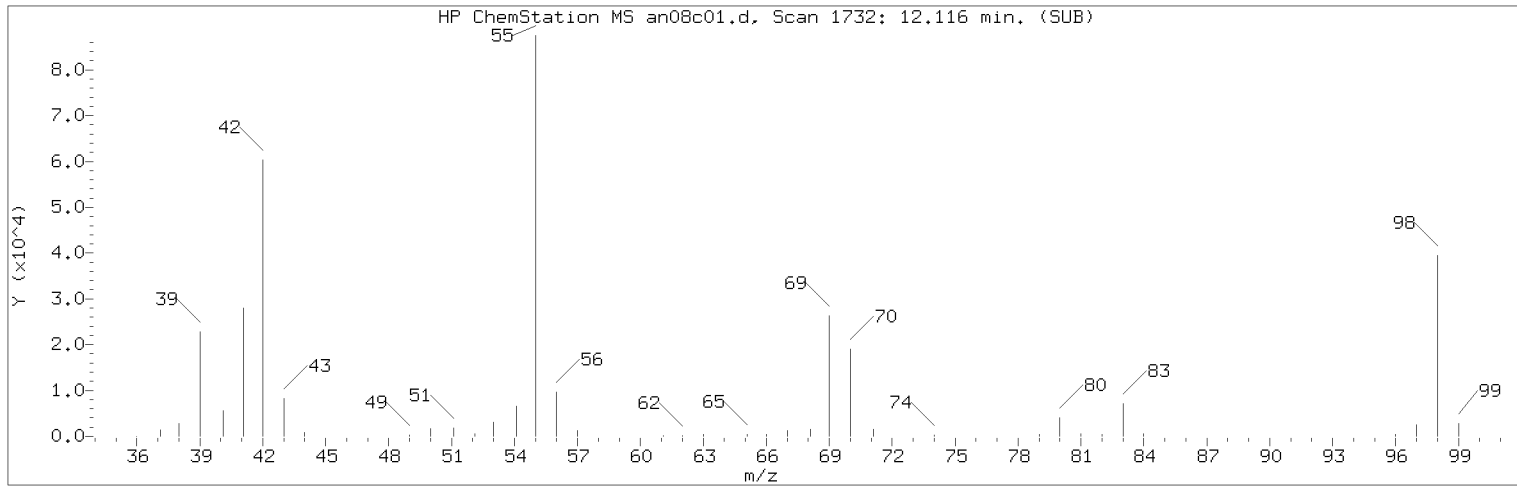
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
146) 1,2,4-Trichlorobenzene	(4)	14.440	180	605680	51.938
147) Hexachlorobutadiene	(4)	14.519	225	363019	52.373
148) Naphthalene	(4)	14.622	128	1257051	51.780
149) 1,2,3-Trichlorobenzene	(4)	14.762	180	568714	51.875
150) 2-Methylnaphthalene	(4)	15.395	142	681950	51.978

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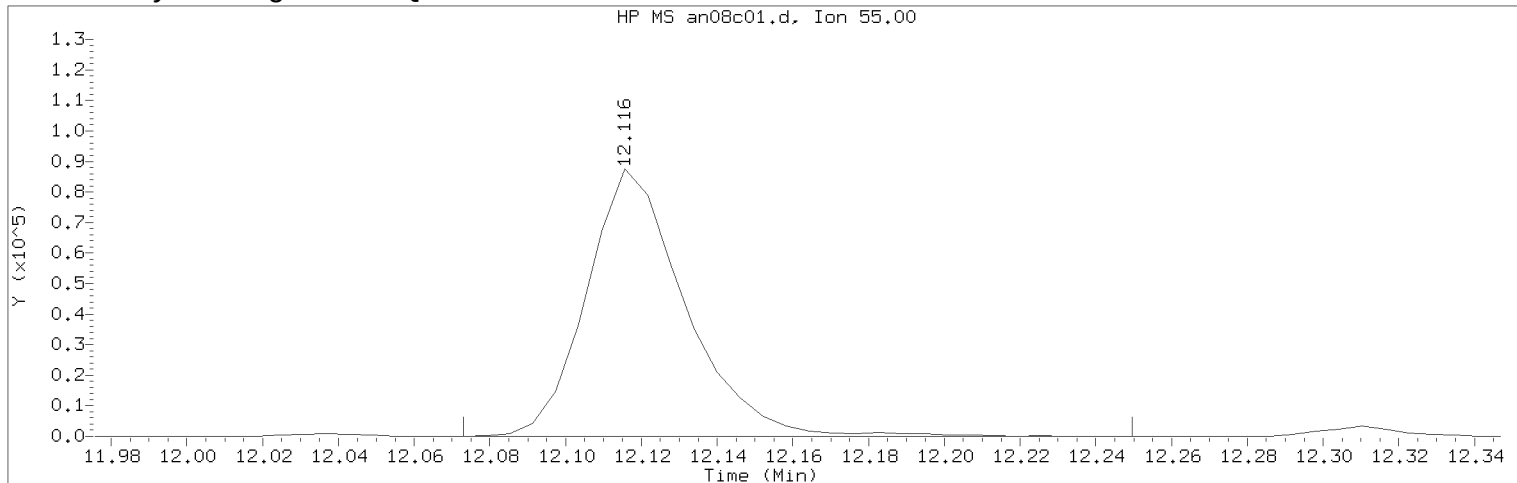
Digitally signed by Stephanie A. Selis
on 11/08/2012 at 00:56.

Target 3.5 esignature user ID: sas00403

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12nov08a.b/an08c01.d

Instrument ID: HP09685.i

Injection date and time: 08-NOV-2012 00:31

Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m

Sublist used: 8260S-F2C

Calibration date and time: 08-NOV-2012 00:53

Date, time and analyst ID of latest file update: 08-Nov-2012 00:56 sas00403

Sample Name: VSTD050

Lab Sample ID: VSTD050

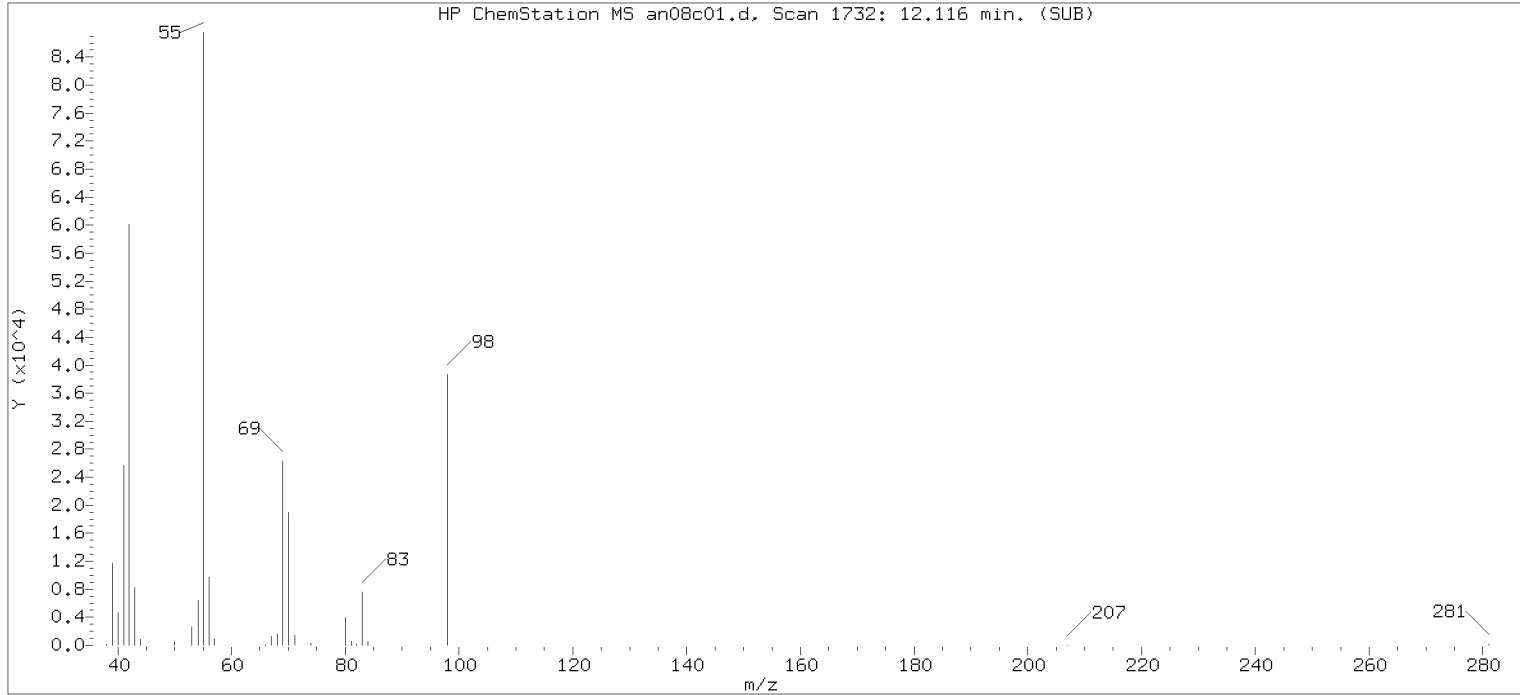
Compound Number : 111
Compound Name : Cyclohexanone
Scan Number : 1732
Retention Time (minutes): 12.116
Quant Ion : 55.00
Area (flag) : 158331M
On-Column Amount (ng) : 661.8304
Integration start scan : 1724 Integration stop scan: 1753
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

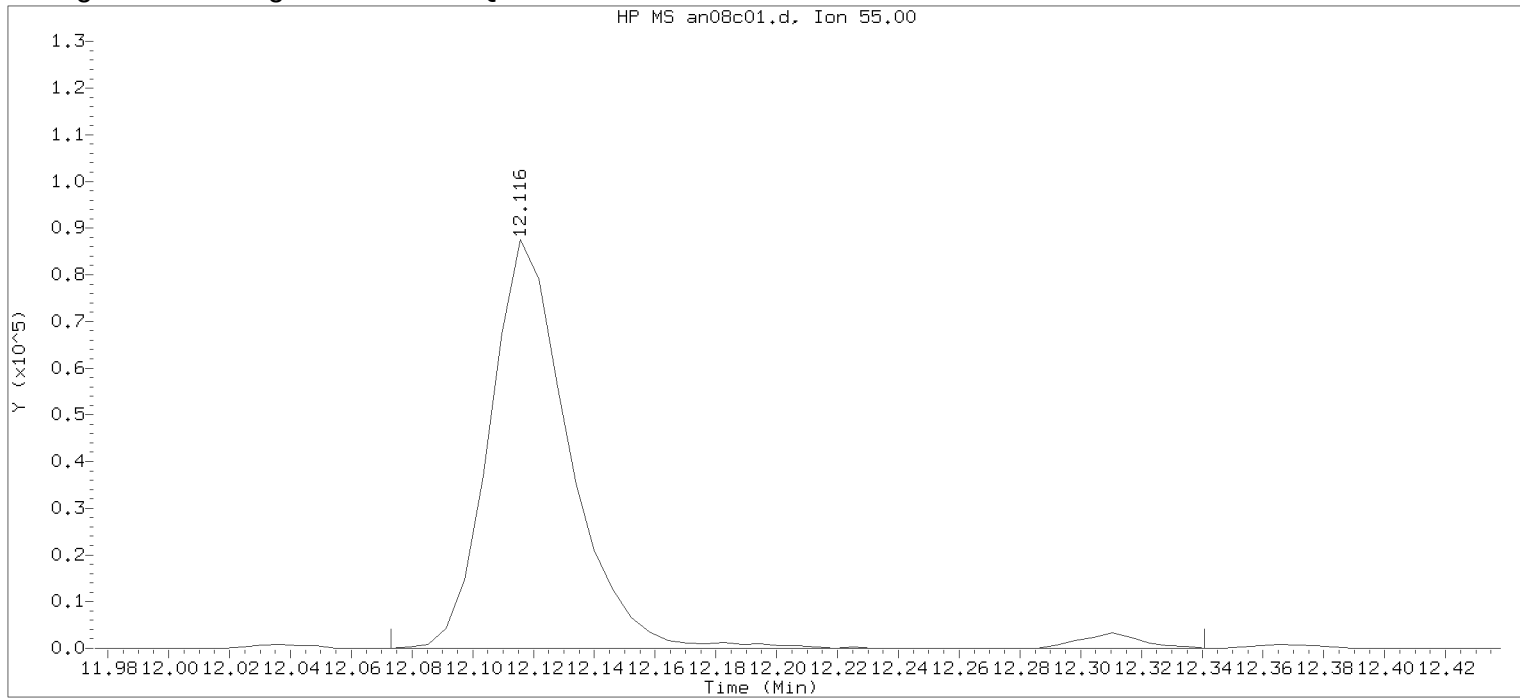
Analyst responsible for change: Digitally signed by Stephanie A. Selis
on 11/08/2012 at 00:56.
Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:59.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12nov08a.b/an08c01.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 00:31 Analyst ID: SAS00403

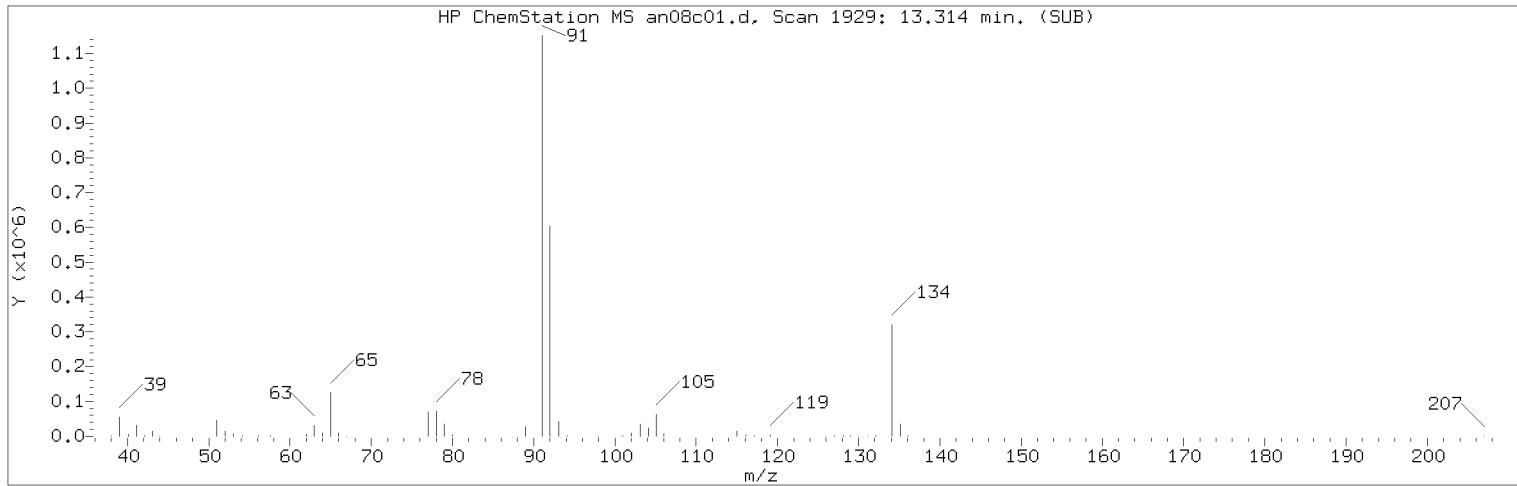
Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-2C
Calibration date and time: 08-NOV-2012 00:51
Date, time and analyst ID of latest file update: 08-Nov-2012 00:51 Automation

Sample Name: VSTD050

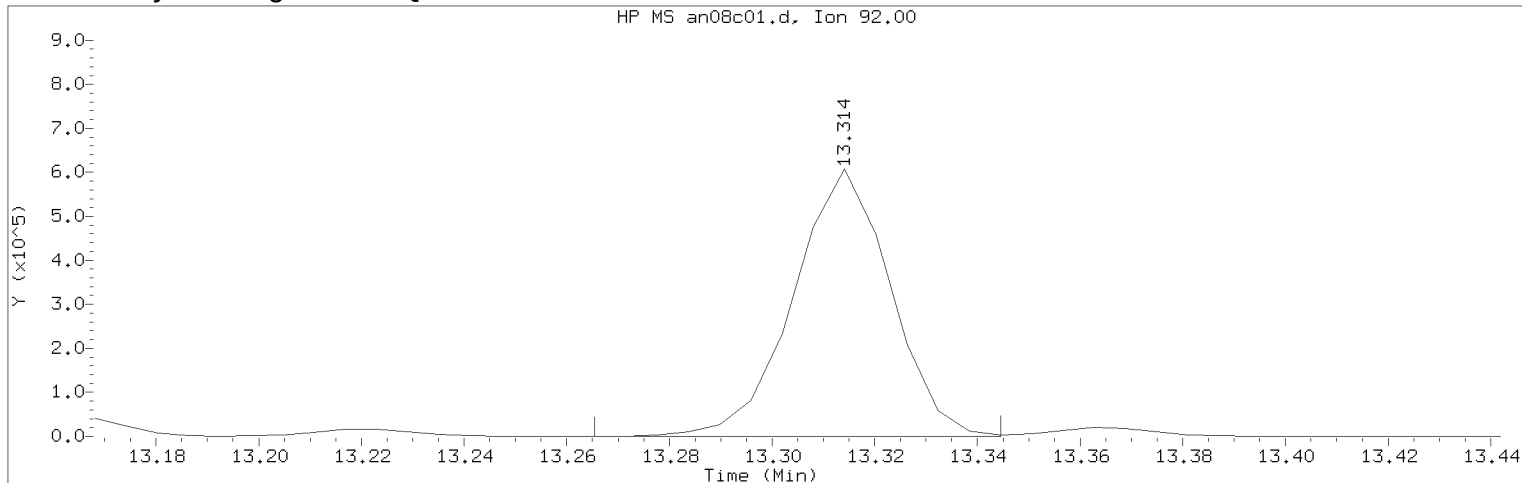
Lab Sample ID: VSTD050

Compound Number	: 111	
Compound Name	: Cyclohexanone	
Scan Number	: 1732	
Retention Time (minutes)	: 12.116	
Quant Ion	: 55.00	
Area	: 162817	
On-column Amount (ng)	: 680.5781	
Integration start scan	: 1724	Integration stop scan: 1768
Y at integration start	: 0	Y at integration end: 0

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12nov08a.b/an08c01.d

Instrument ID: HP09685.i

Injection date and time: 08-NOV-2012 00:31

Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m

Sublist used: 8260S-F2C

Calibration date and time: 08-NOV-2012 00:53

Date, time and analyst ID of latest file update: 08-Nov-2012 00:56 sas00403

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compound Number	: 139	
Compound Name	: n-Butylbenzene	
Scan Number	: 1929	
Retention Time (minutes)	: 13.314	
Quant Ion	: 92.00	
Area (flag)	: 794831M	
On-Column Amount (ng)	: 50.8982	
Integration start scan	: 1920	Integration stop scan: 1933
Y at integration start	: 0	Y at integration end: 0

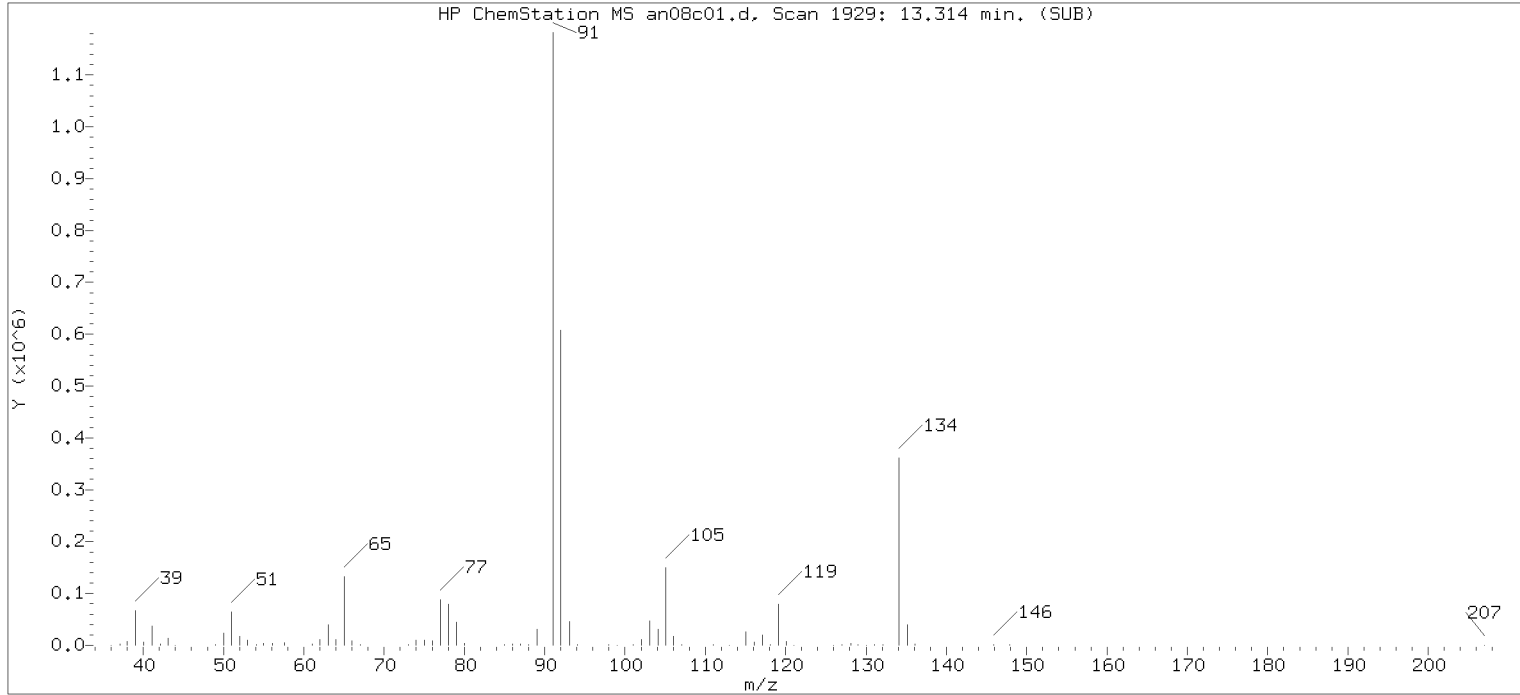
Reason for manual integration: improper integration

Analyst responsible for change:

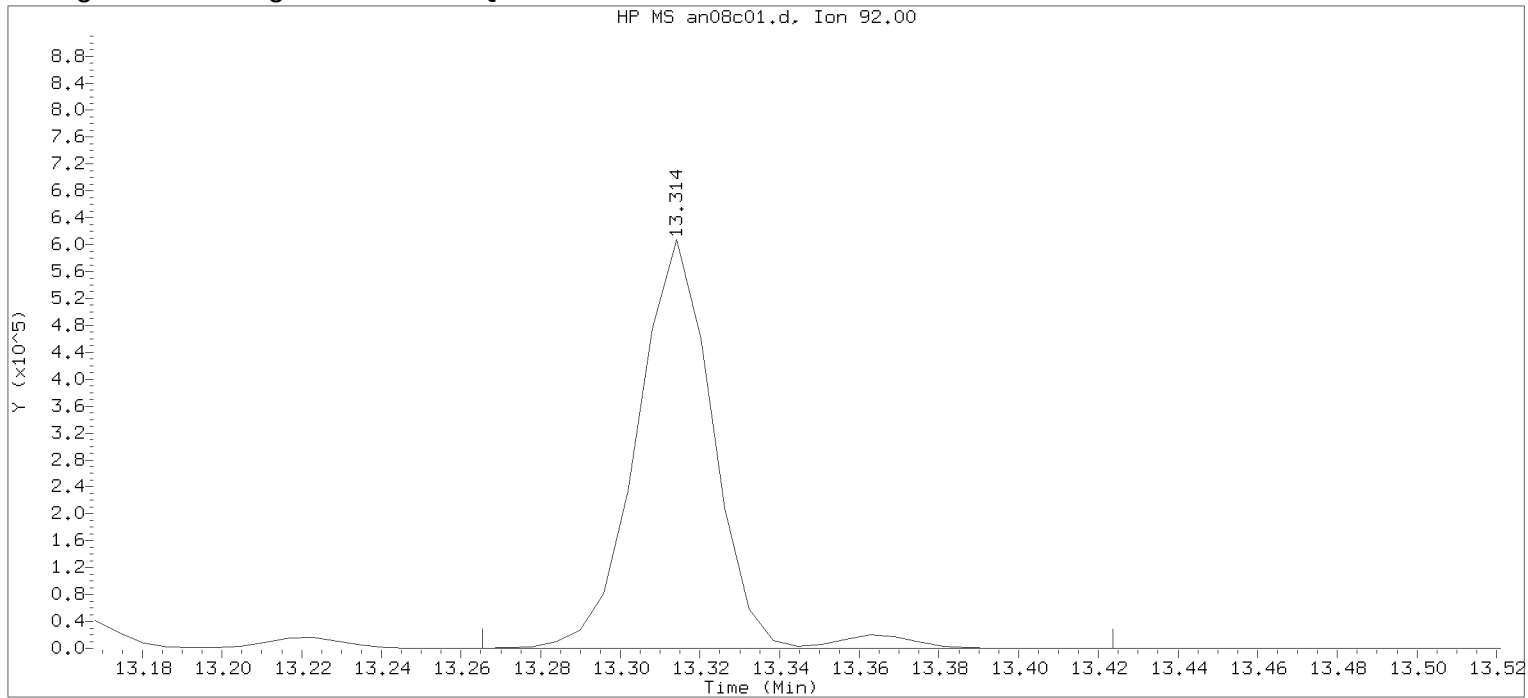
Digitally signed by Stephanie A. Selis
on 11/08/2012 at 00:56.
Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:59.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12nov08a.b/an08c01.d

Instrument ID: HP09685.i

Injection date and time: 08-NOV-2012 00:31

Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 08-NOV-2012 00:51

Date, time and analyst ID of latest file update: 08-Nov-2012 00:51 Automation

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compound Number : 139

Compound Name : n-Butylbenzene

Scan Number : 1929

Retention Time (minutes): 13.314

Quant Ion : 92.00

Area : 820536

On-column Amount (ng) : 52.5442

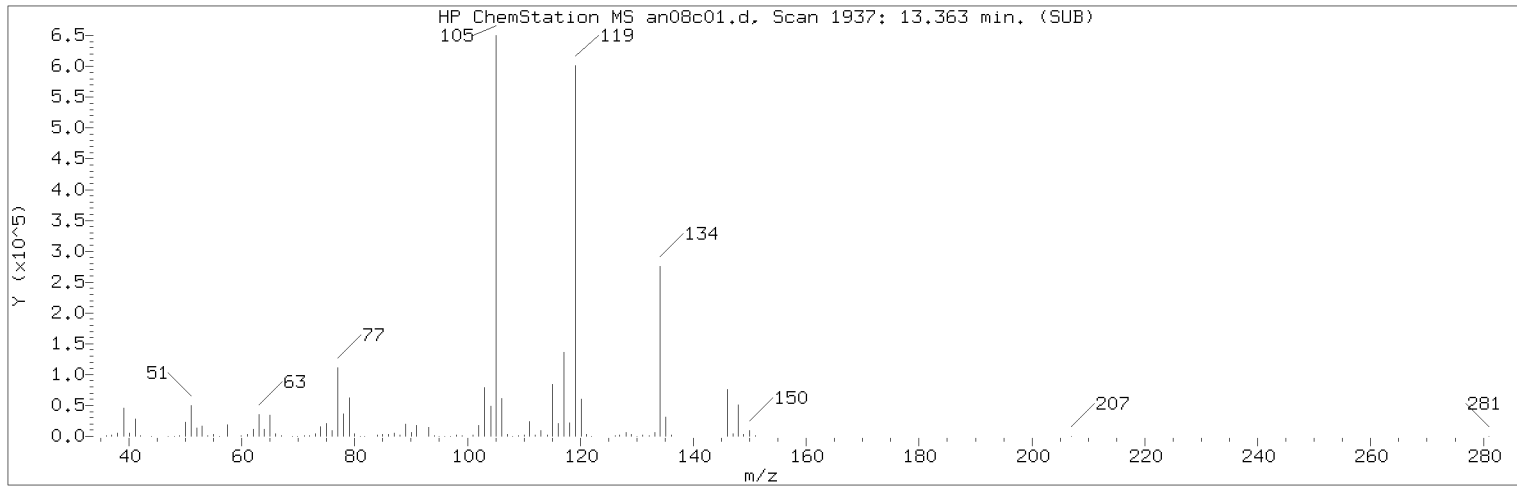
Integration start scan : 1920 Integration stop scan: 1946

Y at integration start : 0 Y at integration end: 0

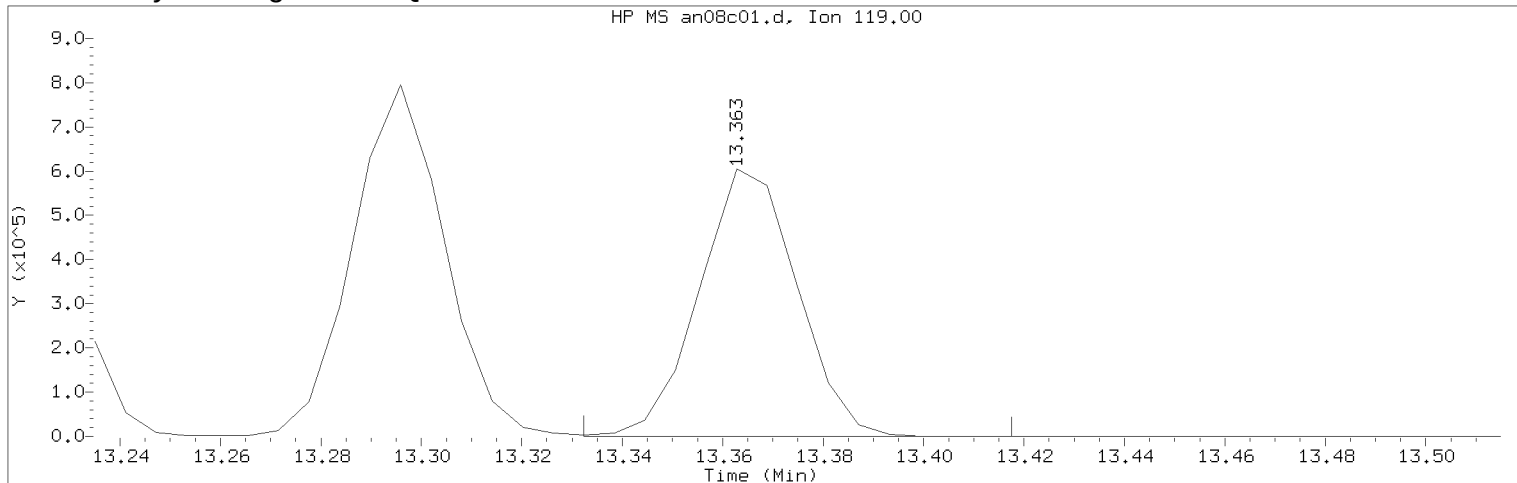
Digitally signed by Stephanie A. Selis on 11/08/2012 at 00:56.

Target 3.5 esignature user TAP03 Page 3403 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12nov08a.b/an08c01.d

Instrument ID: HP09685.i

Injection date and time: 08-NOV-2012 00:31

Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m

Sublist used: 8260S-F2C

Calibration date and time: 08-NOV-2012 00:53

Date, time and analyst ID of latest file update: 08-Nov-2012 00:56 sas00403

Sample Name: VSTD050

Lab Sample ID: VSTD050

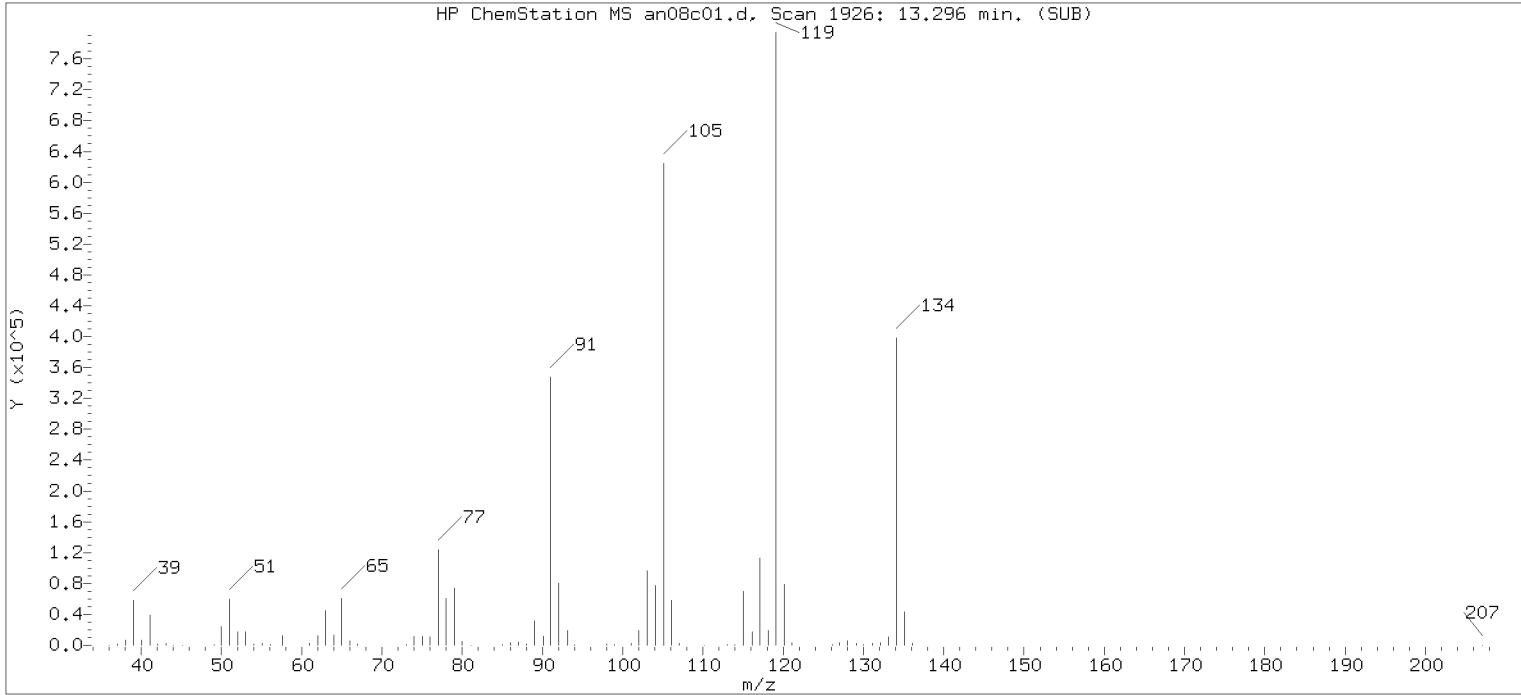
Compound Number	: 141	
Compound Name	: 1,2-Diethylbenzene	
Scan Number	: 1937	
Retention Time (minutes)	: 13.363	
Quant Ion	: 119.00	
Area (flag)	: 817428M	
On-Column Amount (ng)	: 49.6219	
Integration start scan	: 1931	Integration stop scan: 1945
Y at integration start	: 0	Y at integration end: 0

Reason for manual integration: improper integration

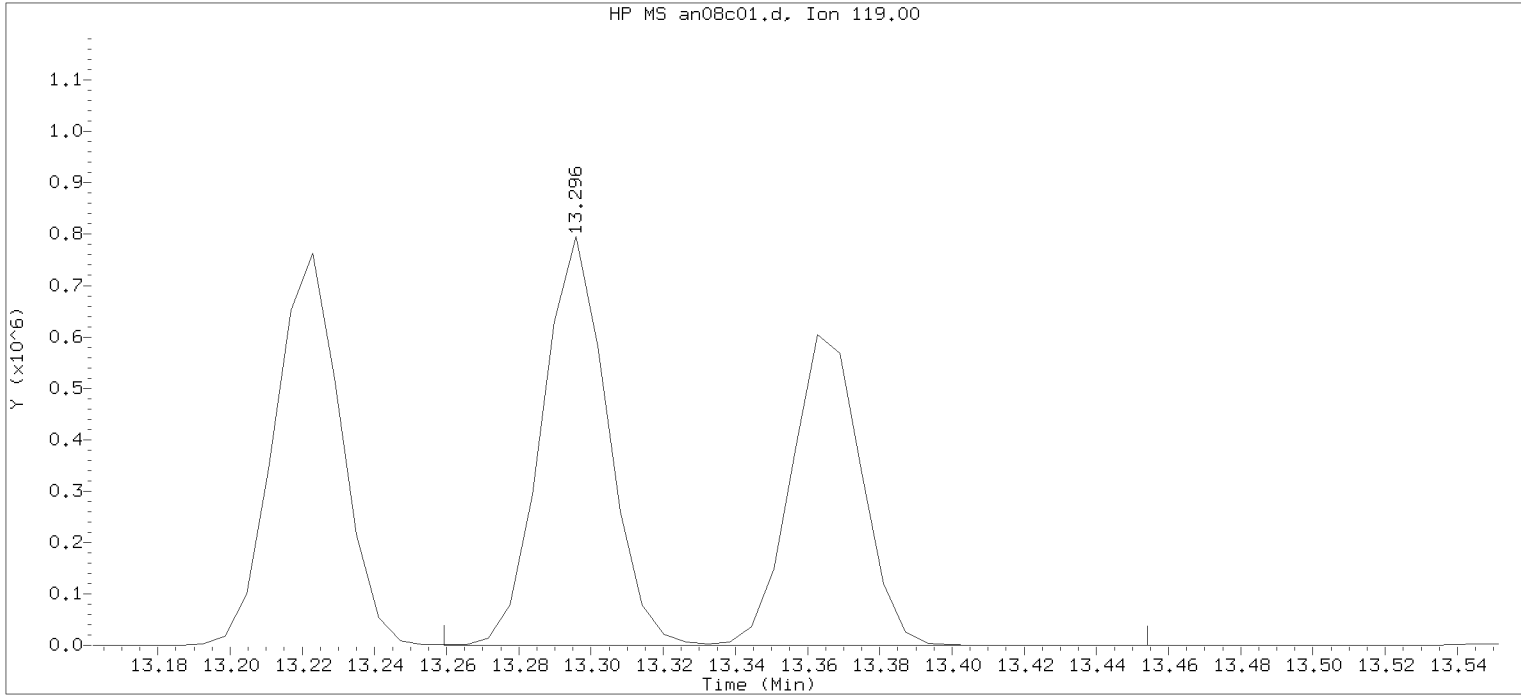
Analyst responsible for change: Digitally signed by Stephanie A. Selis
on 11/08/2012 at 00:56.
Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:59.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12nov08a.b/an08c01.d

Instrument ID: HP09685.i

Injection date and time: 08-NOV-2012 00:31

Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m

Sublist used: 8260S-2C

Calibration date and time: 08-NOV-2012 00:51

Date, time and analyst ID of latest file update: 08-Nov-2012 00:51 Automation

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compound Number : 141

Compound Name : 1,2-Diethylbenzene

Scan Number : 1926

Retention Time (minutes): 13.296

Quant Ion : 119.00

Area : 1826071

On-column Amount (ng) : 110.8513

Integration start scan : 1919 Integration stop scan: 1951

Y at integration start : 0 Y at integration end: 0

Digitally signed by Stephanie A. Selis on 11/08/2012 at 00:56.

Target 3.5 esignature user TAP03 Page 003403 of 2648

Data File: /chem2/HP09953.i/12oct04b,b/bc04t01.d

Page 1

Date : 04-OCT-2012 15:01

Client ID: BFB SEP 25-12

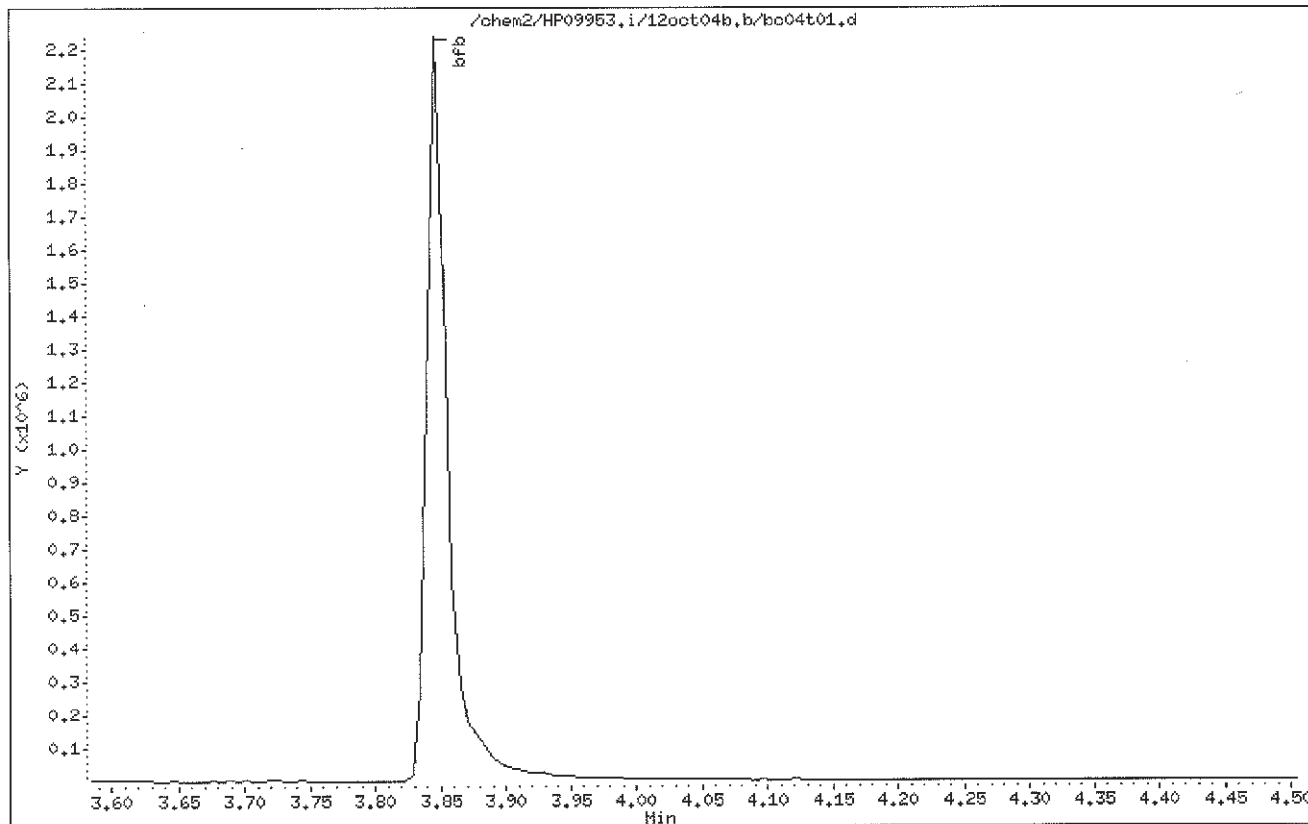
Instrument: HP09953.i

Sample Info: BFB SEP 25-12;50 ug BFB;2;3;3;3;3;3

Operator: ERS02237

Column phase: DB-624

Column diameter: 0.18



Digitally signed by Emily R. Styer on 10/04/2012 at 15:08.
Target 3.5 esignature user ID: ers02237

Data File: /chem2/HP09953.1/12oct04b.b/bo04t01.d

Page 2

Date : 04-OCT-2012 15:01

Client ID: BFB SEP 25-12

Instrument: HP09953.1

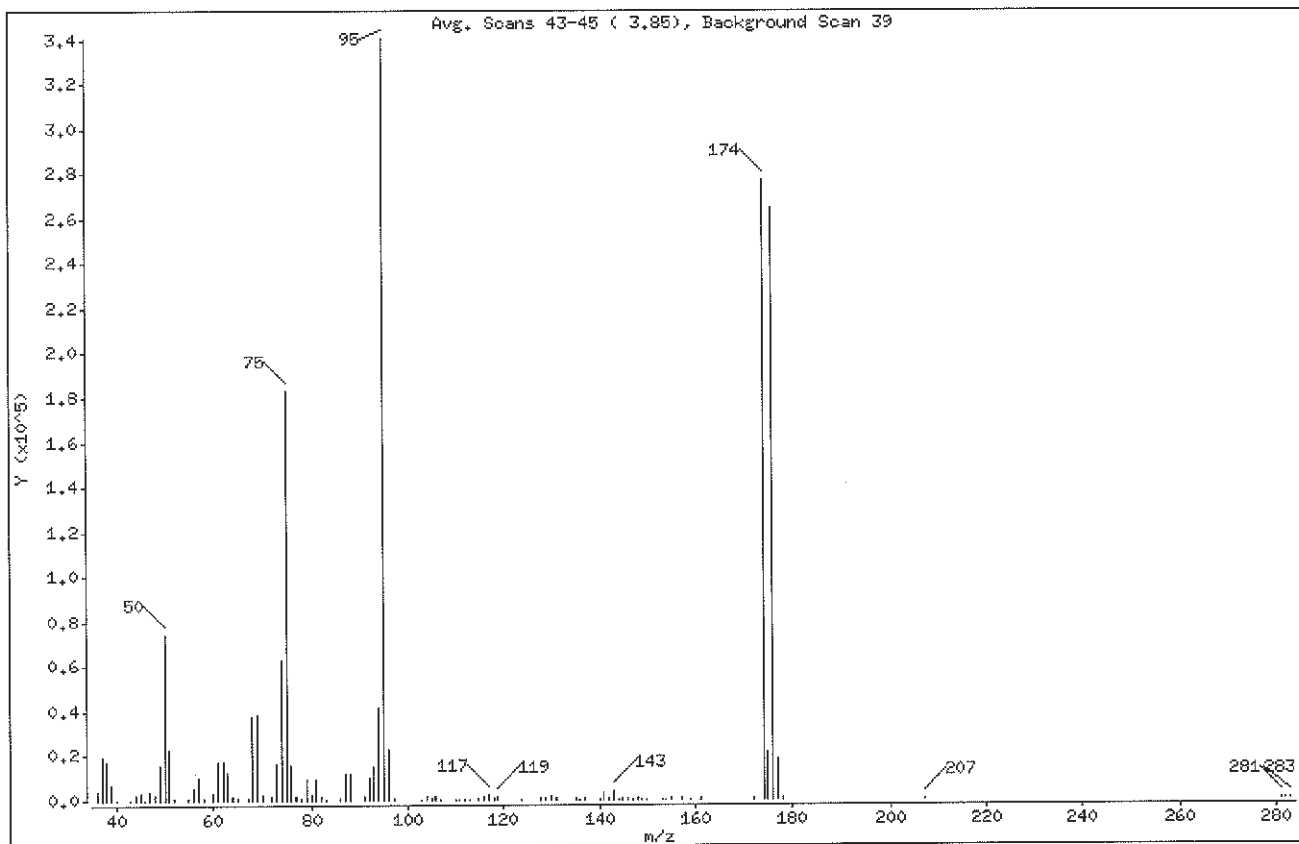
Sample Info: BFB SEP 25-12;50 ug BFB;2;3;3;3;3;3

Operator: ERS02237

Column phase: DB-624

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	21.93
75	30.00 - 60.00% of mass 95	53.70
96	5.00 - 9.00% of mass 95	6.75
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	81.31
175	5.00 - 9.00% of mass 174	6.17 (7.59)
176	95.00 - 101.00% of mass 174	77.80 (95.68)
177	5.00 - 9.00% of mass 176	5.22 (6.71)

Digitally signed by Emily R. Styer on 10/04/2012 at 15:08.
Target 3.5 esignature user ID: ers02237

Data File: /chem2/HP09953.i/12oct04b.b/bc04t01.d

Page 3

Date : 04-OCT-2012 15:01

Client ID: BFB SEP 25-12

Instrument: HP09953.i

Sample Info: BFB SEP 25-12;50 ug BFB;2;3;++++;

Operator: ERS02237

Column phase: DB-624

Column diameter: 0.18

Data File: bc04t01.d

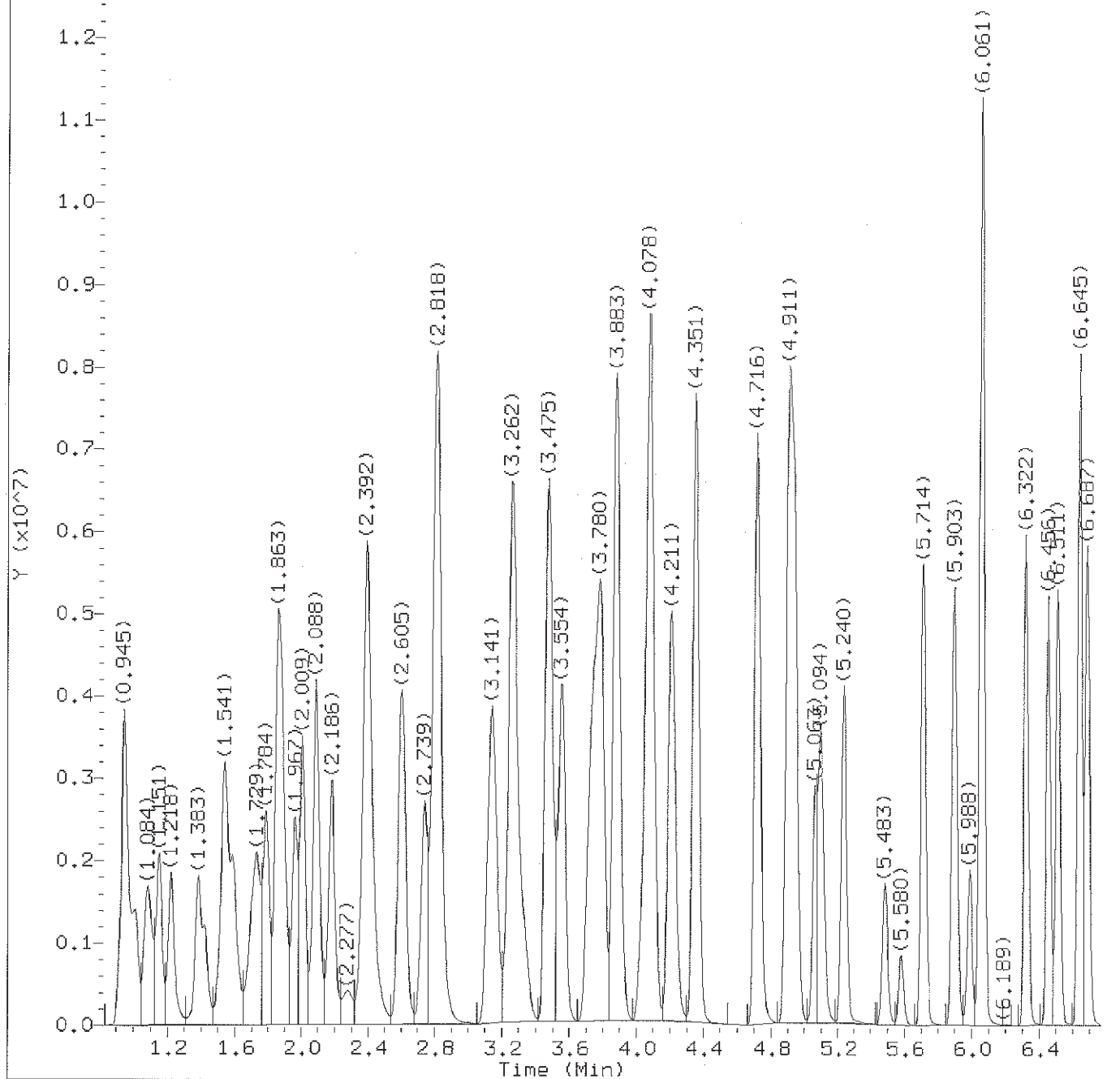
Spectrum: Avg. Scans 43-45 (3.85), Background Scan 39

Location of Maximum: 95.00

Number of points: 100

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3645	68.00	37624	104.00	1540	145.00	434
37.00	19520	69.00	38328	105.00	482	146.00	437
38.00	17136	70.00	2663	106.00	1452	147.00	253
39.00	7088	72.00	1759	107.00	368	148.00	898
40.00	118	73.00	16109	110.00	104	149.00	135
43.00	206	74.00	62376	111.00	212	150.00	359
44.00	2063	75.00	182848	112.00	90	153.00	217
45.00	3274	76.00	15648	113.00	178	154.00	200
46.00	370	77.00	1950	115.00	441	155.00	972
47.00	4037	78.00	1083	116.00	1240	157.00	549
48.00	2161	79.00	9315	117.00	2208	159.00	368
49.00	15827	80.00	2581	118.00	1145	161.00	557
50.00	74656	81.00	9256	119.00	1800	172.00	749
51.00	22496	82.00	1887	124.00	198	174.00	276864
52.00	1034	83.00	275	128.00	1173	175.00	21000
55.00	949	86.00	454	129.00	700	176.00	264896
56.00	5538	87.00	11827	130.00	1342	177.00	17768
57.00	9797	88.00	11530	131.00	592	178.00	548
58.00	467	91.00	1272	135.00	622	207.00	121
60.00	3436	92.00	9965	136.00	93	281.00	129
61.00	17152	93.00	14917	137.00	538	282.00	31
62.00	16888	94.00	41312	140.00	235	283.00	298
63.00	12800	95.00	340480	141.00	3451		
64.00	1205	96.00	22968	142.00	481		
65.00	576	97.00	708	143.00	3824		
67.00	925	103.00	89	144.00	134		

Digitally signed by Emily R. Styer on 10/04/2012 at 15:08.
Target 3.5 esignature user ID: ers02237



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i01.d
Injection date and time: 04-OCT-2012 15:15

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m
Calibration date and time: 17-OCT-2012 11:05

Sublist used: 8260S

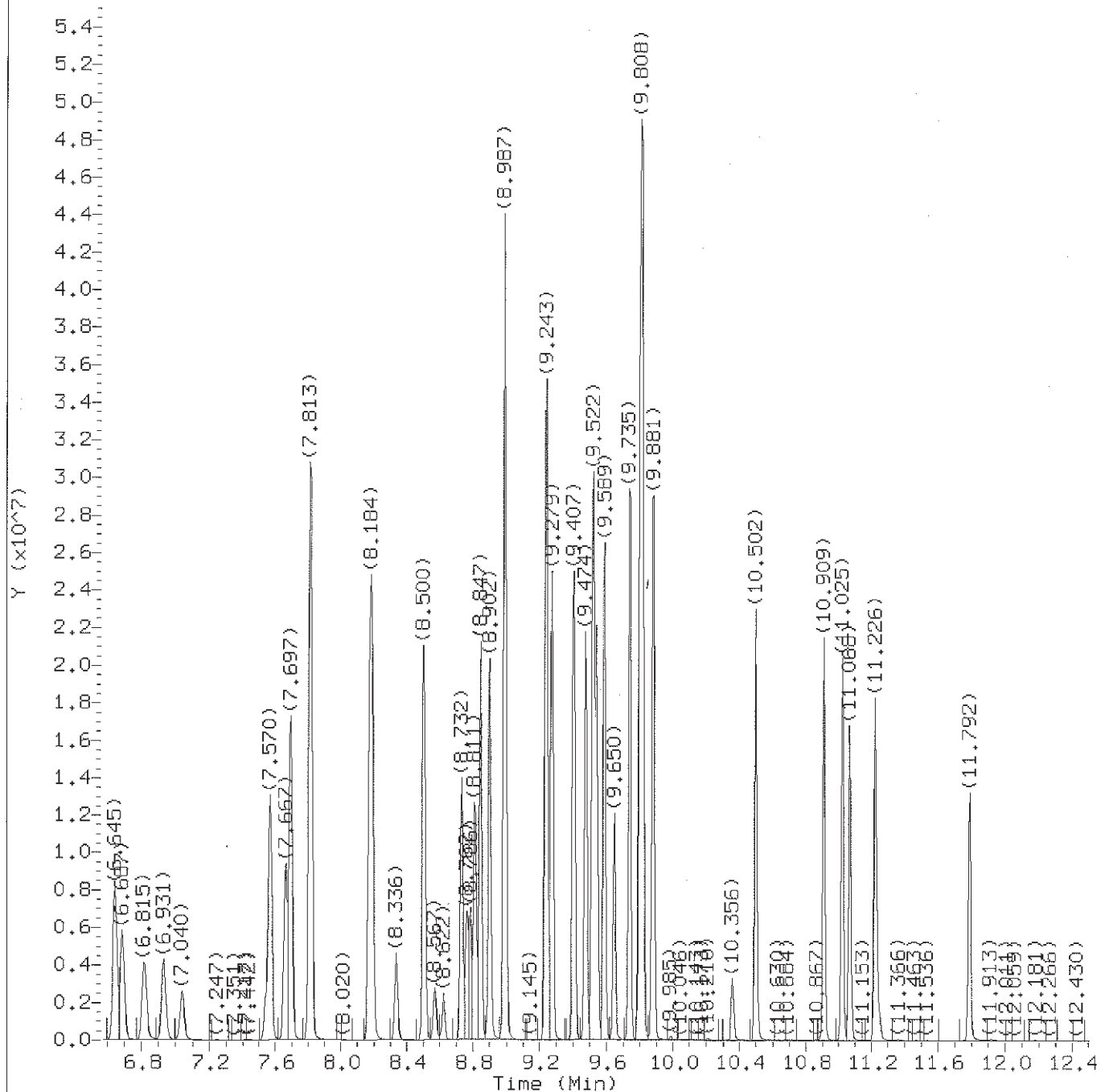
Date, time and analyst ID of latest file update: 22-Oct-2012 15:55 ers02237

Sample Name: VSTD300

Lab Sample ID: VSTD300

Digitally signed by Emily R. Styer
on 10/22/2012 at 15:59.

Target 3.5 esignature user ID: ers02237



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i01.d

Instrument ID: HP09953.i

Injection date and time: 04-OCT-2012 15:15

Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m

Sublist used: 8260S

Calibration date and time: 17-OCT-2012 11:05

Date, time and analyst ID of latest file update: 22-Oct-2012 15:55 ers02237

Sample Name: VSTD300

Lab Sample ID: VSTD300

Digitally signed by Emily R. Styer
on 10/22/2012 at 15:59.

Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i01.d
 Injection date and time: 04-OCT-2012 15:15

Instrument ID: HP09953.i
 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m

Sublist used: 8260S

Calibration date and time: 17-OCT-2012 11:05

Date, time and analyst ID of latest file update: 22-Oct-2012 15:55 ers02237

Sample Name: VSTD300

Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
2) Dichlorodifluoromethane	(2)	1.084	85	3503081	295.384
4) Chloromethane	(2)	1.151	50	3160249	269.498
5) Vinyl Chloride	(2)	1.218	62	2677603	272.574
9) Bromomethane	(2)	1.383	94	1666115	270.565
10) Chloroethane	(2)	1.425	64	1288924	251.890
11) Dichlorofluoromethane	(2)	1.535	67	3854817	270.325
13) Trichlorofluoromethane	(2)	1.589	101	3752233	300.255
15) Ethanol	(1)	1.650	45	920189	12939.642
17) Freon 123a	(2)	1.729	67	2300341	269.726
18) Acrolein	(1)	1.790	56	2838023	2734.948
19) 1,1-Dichloroethene	(2)	1.857	96	1584831	276.951
20) Acetone	(2)	1.881	58	292238	448.203
22) Freon 113	(2)	1.881	101	1946655	291.063
24) Methyl Iodide	(2)	1.967	142	3452339	290.605
23) 2-Propanol	(1)	1.973	45	699411	1439.874
25) Carbon Disulfide	(2)	2.009	76	5361564	284.226
29) Allyl Chloride	(2)	2.088	41	3377312	271.408
27) Methyl Acetate	(2)	2.100	43	1219138	243.611
31) Methylene Chloride	(2)	2.186	84	1762329	265.232
30)*t-Butyl alcohol-d10	(1)	2.222	65	134009	250.000
32) t-Butyl alcohol	(1)	2.283	59	887203	1305.452
33) Acrylonitrile	(2)	2.368	53	616243	282.584
35) trans-1,2-Dichloroethene	(2)	2.386	96	1852533	286.877
34) Methyl Tertiary Butyl Ether	(2)	2.405	73	5495778	295.799
38) n-Hexane	(2)	2.605	57	3160998	281.340
40) 1,1-Dichloroethane	(2)	2.739	63	4021268	283.635
41) di-Isopropyl ether	(2)	2.812	45	7518610	278.785
42) 2-Chloro-1,3-butadiene	(2)	2.818	53	3756222	302.183
44) Ethyl t-butyl ether	(2)	3.147	59	6539227	296.438
46) cis-1,2-Dichloroethene	(2)	3.262	96	2118220	290.908
48) 2,2-Dichloropropane	(2)	3.275	77	3320871	307.819
45) 2-Butanone	(2)	3.281	43	1912620	573.624
50) Propionitrile	(1)	3.335	54	1304271	1449.736
51) Methacrylonitrile	(2)	3.475	67	1823026	758.249
52) Bromochloromethane	(2)	3.481	128	1046531	299.023
53) Tetrahydrofuran	(1)	3.524	71	428493	602.390
54) Chloroform	(2)	3.561	83	3914029	289.052
55)\$Dibromofluoromethane	(2)	3.713	113	341858	50.639

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 4

Digitally signed by Emily R. Styer
 on 10/22/2012 at 15:59.

Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i01.d
 Injection date and time: 04-OCT-2012 15:15

Instrument ID: HP09953.i
 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S

Calibration date and time: 17-OCT-2012 11:05

Date, time and analyst ID of latest file update: 22-Oct-2012 15:55 ers02237

Sample Name: VSTD300

Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
55) \$Dibromofluoromethane	(2)	3.707	111	351339	51.083
56) 1,1,1-Trichloroethane	(2)	3.731	97	3613220	312.689
57) Cyclohexane	(2)	3.786	56	4079112	298.813
57) Cyclohexane	(2)	3.786	84	3157800	303.686
57) Cyclohexane	(2)	3.786	69	1181048	303.128
58) 1,1-Dichloropropene	(2)	3.877	75	3164204	305.149
59) Carbon Tetrachloride	(2)	3.889	117	3399229	327.201
61) \$1,2-Dichloroethane-d4	(2)	4.023	102	69744	49.152
61) \$1,2-Dichloroethane-d4	(2)	4.023	65	446807	52.052
61) \$1,2-Dichloroethane-d4	(2)	4.023	104	45126	50.817
60) Isobutyl Alcohol	(1)	4.047	41	976145	3906.882
62) Benzene	(2)	4.078	78	8117402	284.443
64) 1,2-Dichloroethane	(2)	4.102	62	3329936	308.361
64) 1,2-Dichloroethane	(2)	4.102	98	234978	304.968
65) t-Amyl methyl ether	(2)	4.211	73	5565515	308.377
69) n-Heptane	(2)	4.351	43	4022388	300.936
67) *Fluorobenzene	(2)	4.357	96	1348200	50.000
70) n-Butanol	(1)	4.710	56	1432148	8577.976
72) Trichloroethene	(2)	4.716	95	2230689	303.230
73) Methylcyclohexane	(2)	4.911	83	4015636	309.723
74) 1,2-Dichloropropane	(2)	4.941	63	2356264	296.295
78) Dibromomethane	(2)	5.063	93	1337746	313.920
76) Methyl Methacrylate	(2)	5.100	69	1410514	347.146
77) 1,4-Dioxane	(1)	5.106	88	257946	3980.921
81) Bromodichloromethane	(2)	5.240	83	3046358	328.827
82) 2-Nitropropane	(1)	5.483	41	1285593	599.154
83) 2-Chloroethyl Vinyl Ether	(2)	5.580	63	417407	300.047
84) cis-1,3-Dichloropropene	(2)	5.714	75	3529231	331.119
85) 4-Methyl-2-pentanone	(2)	5.903	43	4490842	599.872
86) \$Toluene-d8	(3)	5.988	98	1374394	47.949
86) \$Toluene-d8	(3)	5.988	100	892395	48.232
87) Toluene	(3)	6.061	92	5334017	282.235
47) 1,2-Dichloroethene (Total)	(2)		96	3970753	577.785
88) trans-1,3-Dichloropropene	(3)	6.322	75	3410374	323.251
89) Ethyl Methacrylate	(3)	6.456	69	2703793	340.269
90) 1,1,2-Trichloroethane	(3)	6.511	97	1721893	290.339
92) Tetrachloroethene	(3)	6.645	166	2540229	305.224
93) 1,3-Dichloropropane	(3)	6.687	76	3243314	295.455

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 2 of 4

Digitally signed by Emily R. Styer
 on 10/22/2012 at 15:59.
 Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i01.d
Injection date and time: 04-OCT-2012 15:15

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S

Calibration date and time: 17-OCT-2012 11:05

Date, time and analyst ID of latest file update: 22-Oct-2012 15:55 ers02237

Sample Name: VSTD300

Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
95) 2-Hexanone	(3)	6.815	43	3225440	600.576
97) Dibromochloromethane	(3)	6.931	129	2320513	332.473
98) 1,2-Dibromoethane	(3)	7.040	107	1837764	306.920
99) *Chlorobenzene-d5	(3)	7.545	117	1000979	50.000
100) Chlorobenzene	(3)	7.570	112	6103774	288.666
101) 1,1,1,2-Tetrachloroethane	(3)	7.667	131	2427284	315.797
102) Ethylbenzene	(3)	7.697	91	10521801	292.590
103) m+p-Xylene	(3)	7.813	106	8447066	601.305
104) o-Xylene	(3)	8.178	106	4269468	312.457
106) Styrene	(3)	8.190	104	6946503	323.256
107) Bromoform	(3)	8.336	173	1639590	358.130
108) Isopropylbenzene	(3)	8.506	105	10705079	293.779
111) Cyclohexanone	(1)	8.567	55	849007	3749.417
112) \$4-Bromofluorobenzene	(3)	8.622	95	570475	53.098
112) \$4-Bromofluorobenzene	(3)	8.622	174	467017	52.916
114) Bromobenzene	(4)	8.732	156	2902348	252.628
113) 1,1,2,2-Tetrachloroethane	(4)	8.762	83	2494192	242.736
116) 1,2,3-Trichloropropane	(4)	8.786	110	725684	249.549
115) trans-1,4-Dichloro-2-butene	(4)	8.811	53	2126558	667.737
117) n-Propylbenzene	(4)	8.847	91	11438641	298.961
119) 2-Chlorotoluene	(4)	8.902	126	2823661	249.869
123) 4-Chlorotoluene	(4)	8.987	126	3098410	259.751
122) 1,3,5-Trimethylbenzene	(4)	8.993	105	9628589	238.528
126) tert-Butylbenzene	(4)	9.236	134	2502446	275.061
127) Pentachloroethane	(4)	9.243	167	2315323	296.698
128) 1,2,4-Trimethylbenzene	(4)	9.279	105	9710102	237.531
129) sec-Butylbenzene	(4)	9.407	105	11107358	217.310
131) 1,3-Dichlorobenzene	(4)	9.474	146	5863159	261.108
133) *1,4-Dichlorobenzene-d4	(4)	9.522	152	789231	50.000
132) p-Isopropyltoluene	(4)	9.522	119	10502027	233.402
134) 1,4-Dichlorobenzene	(4)	9.541	146	6064775	251.689
135) 1,2,3-Trimethylbenzene	(4)	9.589	105	9738241	231.260
136) Benzyl Chloride	(4)	9.650	126	1214646	321.638
137) 1,3-Diethylbenzene	(4)	9.741	119	6885730	262.492
138) 1,4-Diethylbenzene	(4)	9.796	119	7370539A	261.041
140) 1,2-Dichlorobenzene	(4)	9.808	146	6149171	266.840
139) n-Butylbenzene	(4)	9.814	92	5962333	255.741
141) 1,2-Diethylbenzene	(4)	9.881	119	5932753A	216.237

A = User selected an alternate hit.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 3 of 4

Digitally signed by Emily R. Styer
on 10/22/2012 at 15:59.

Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i01.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 15:15 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 17-OCT-2012 11:05
Date, time and analyst ID of latest file update: 22-Oct-2012 15:55 ers02237

Sample Name: VSTD300

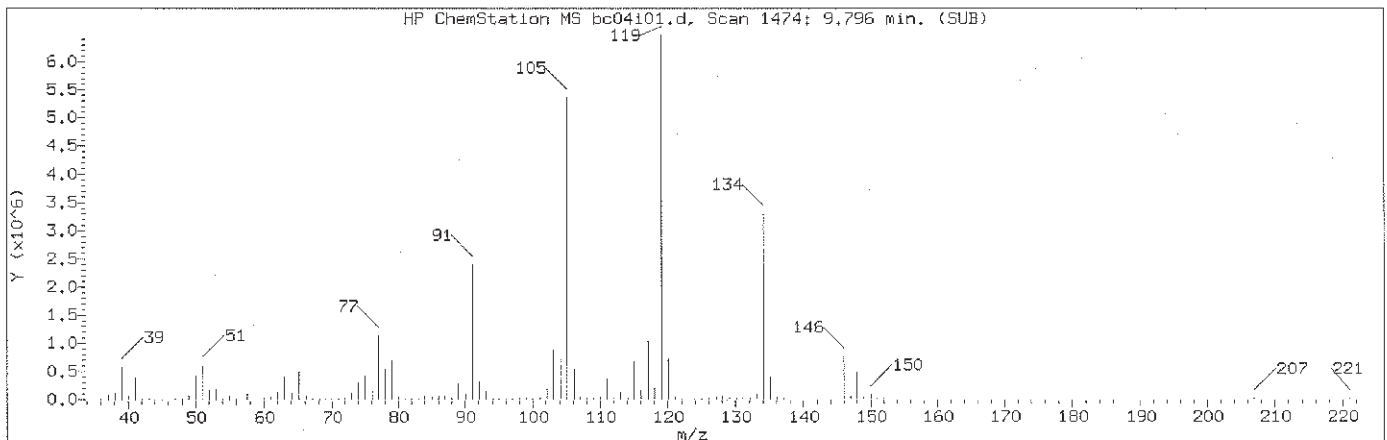
Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,2-Dibromo-3-chloropropane	(4)	10.356	75	570811	275.678
145) 1,3,5-Trichlorobenzene	(4)	10.502	180	5031529	258.846
146) 1,2,4-Trichlorobenzene	(4)	10.909	180	4205742	249.945
147) Hexachlorobutadiene	(4)	11.025	225	2574518	258.052
148) Naphthalene	(4)	11.068	128	7968337	233.146
149) 1,2,3-Trichlorobenzene	(4)	11.226	180	3606972	226.176
105) Xylene (Total)	(3)		106	12716534	913.762
150) 2-Methylnaphthalene	(4)	11.792	142	4074551	195.280

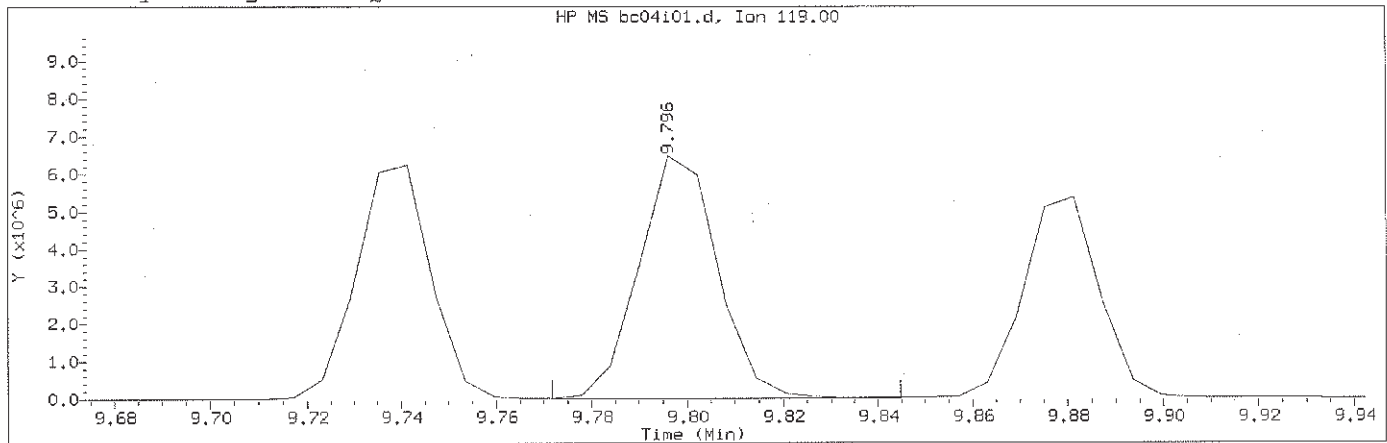
page 4 of 4

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on 10/22/2012 at 15:59.
Target 3.5 esignature user ID: ers02237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04i01.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 15:15 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 17-OCT-2012 11:05
Date, time and analyst ID of latest file update: 22-Oct-2012 15:55 ers02237

Sample Name: VSTD300

Lab Sample ID: VSTD300

Compound Number : 138
Compound Name : 1,4-Diethylbenzene
Scan Number : 1474
Retention Time (minutes): 9.796
Quant Ion : 119.00
Area (flag) : 7370539A
On-Column Amount (ng) : 261.0413
Integration start scan : 1469 Integration stop scan: 1481
Y at integration start : 404 Y at integration end: 404

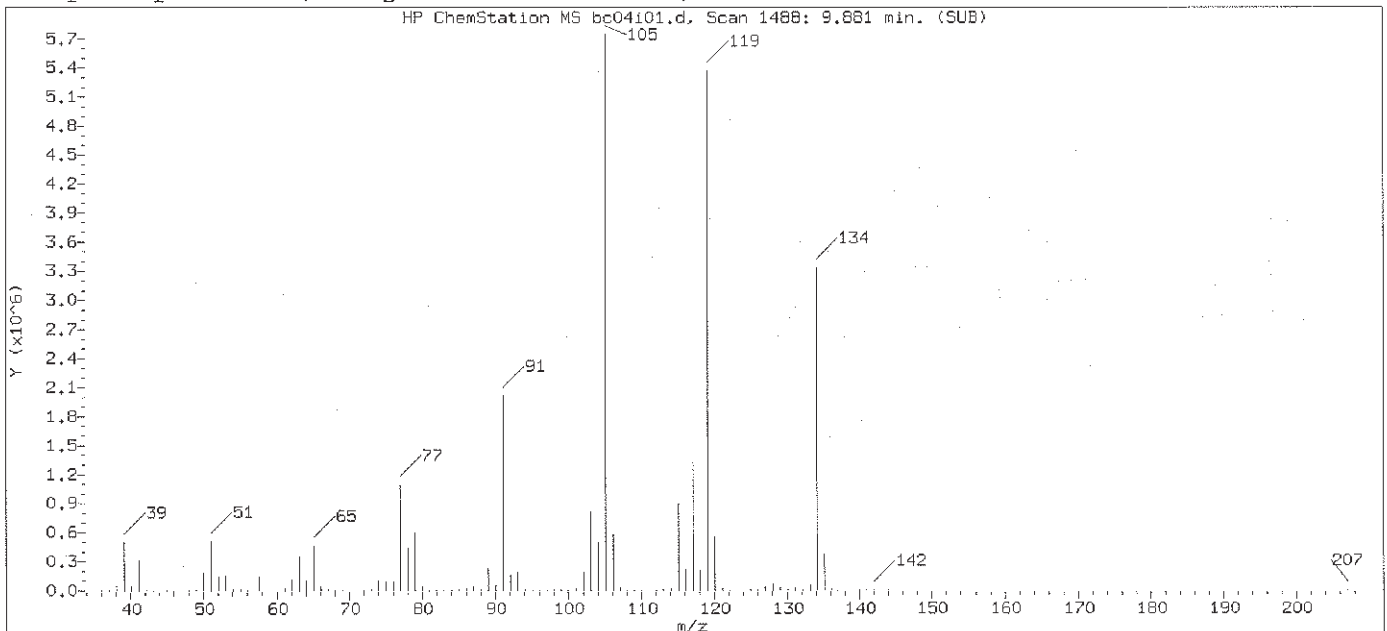
Reason for manual integration: improper integration

Digitally signed by Emily R. Styer
Analyst responsible for change: on 10/22/2012 at 15:59.
Target 3.5 esignature user ID: ers02237

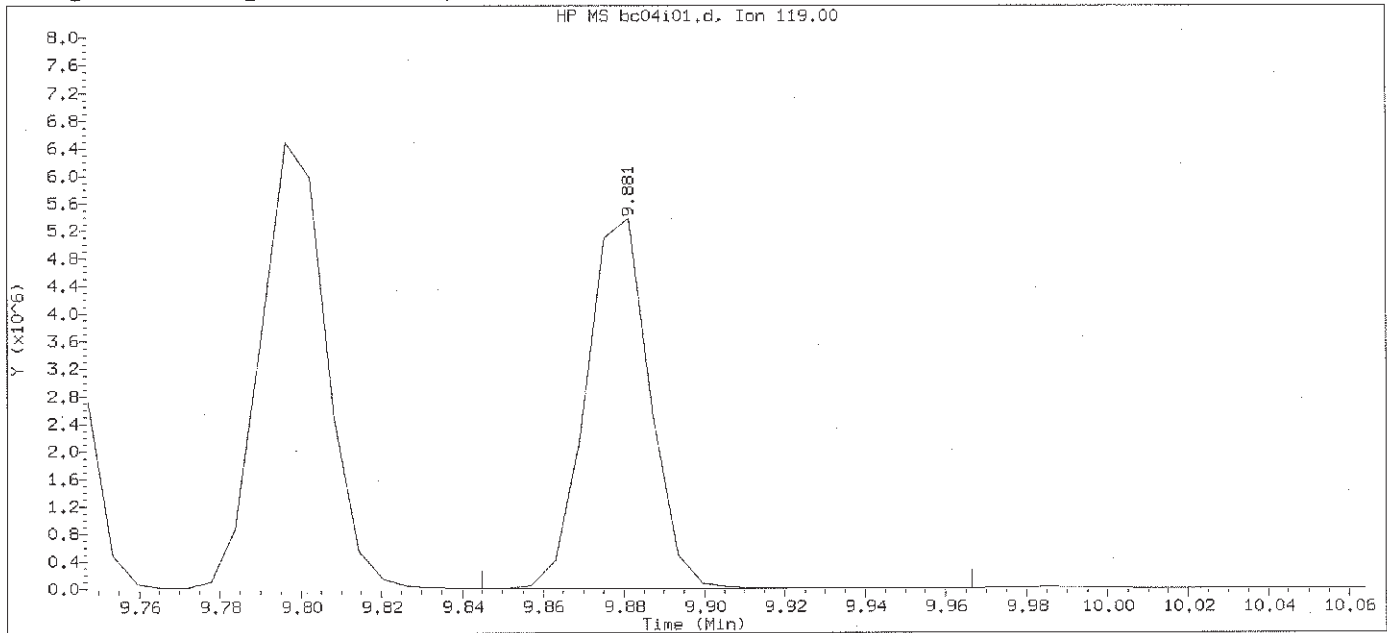
GC/MS audit/management approval:

Signature 10/22/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04i01.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 15:15 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 05-OCT-2012 16:20
Date, time and analyst ID of latest file update: 05-Oct-2012 16:20 ers02237

Sample Name: VSTD300

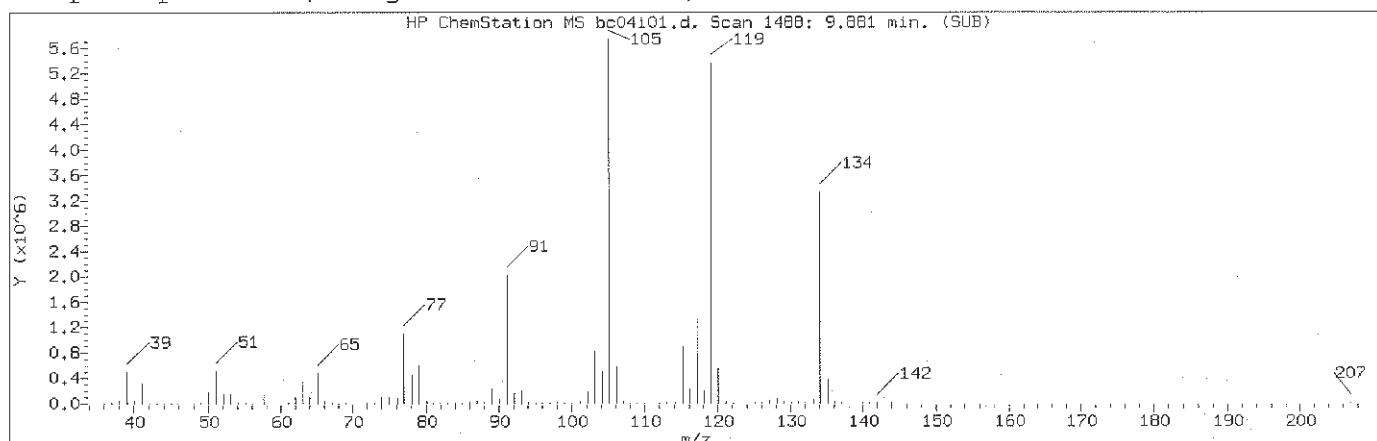
Lab Sample ID: VSTD300

Compound Number : 138
Compound Name : 1,4-Diethylbenzene
Scan Number : 1488
Retention Time (minutes): 9.881
Quant Ion : 119.00
Area : 5933056
On-column Amount (ng) : 251.4232
Integration start scan : 1481 Integration stop scan: 1501
Y at integration start : 404 Y at integration end: 404

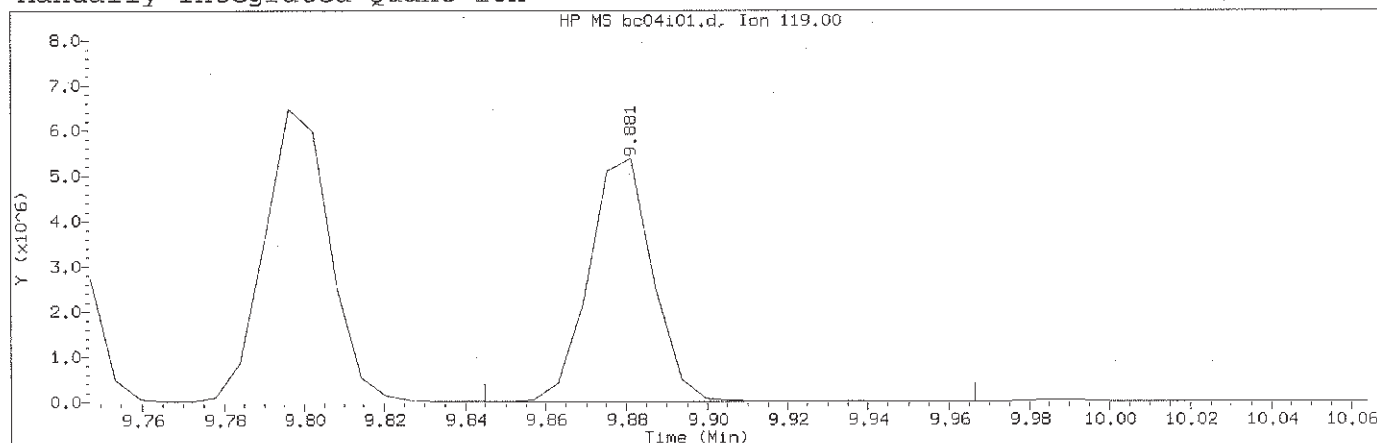
Digitally signed by Emily R. Styer on 10/22/2012 at 15:59.

Target 3.5 esignature usTAP03: Page 554 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04i01.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 15:15 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 17-OCT-2012 11:05
Date, time and analyst ID of latest file update: 22-Oct-2012 15:55 ers02237

Sample Name: VSTD300

Lab Sample ID: VSTD300

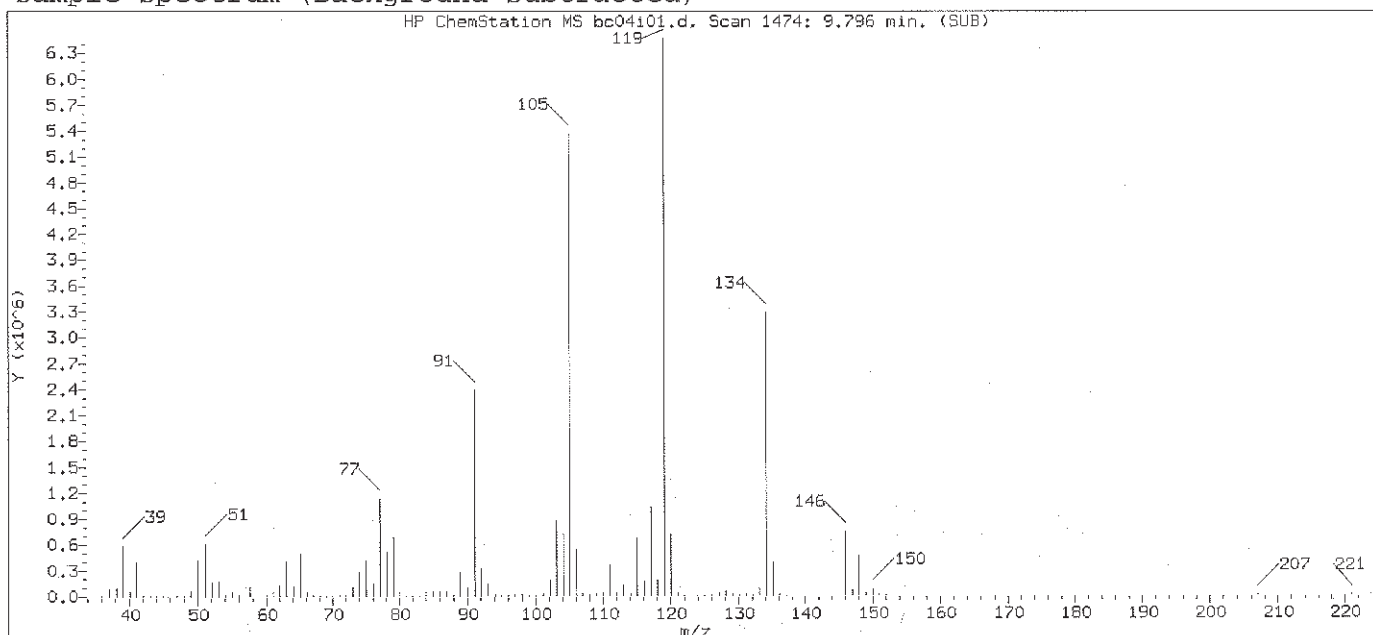
Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1488
Retention Time (minutes): 9.881
Quant Ion : 119.00
Area (flag) : 5932753A
On-Column Amount (ng) : 216.2366
Integration start scan : 1481 Integration stop scan: 1501
Y at integration start : 432 Y at integration end: 432

Reason for manual integration: improper integration

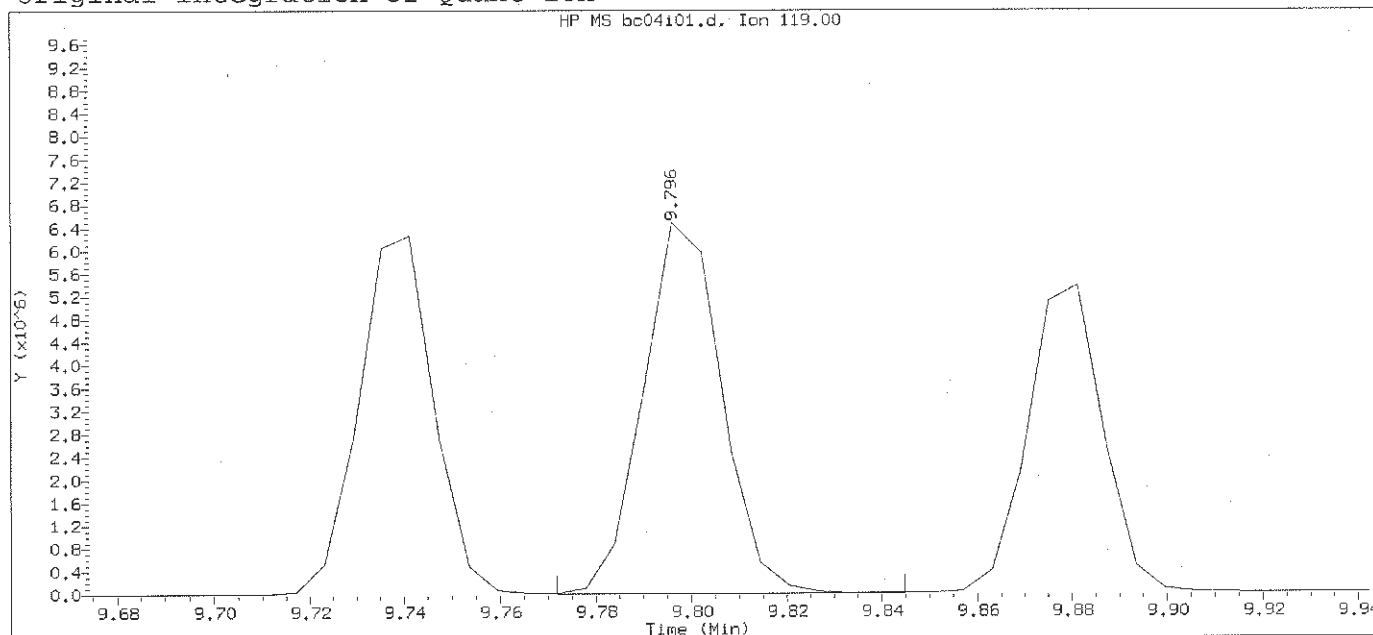
Analyst responsible for change: Digitally signed by Emily R. Styer
on 10/22/2012 at 15:59.
Target 3.5 esignature user ID: ers02237

GC/MS audit/management approval: 10/22/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04i01.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 15:15 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 05-OCT-2012 16:20
Date, time and analyst ID of latest file update: 05-Oct-2012 16:20 ers02237

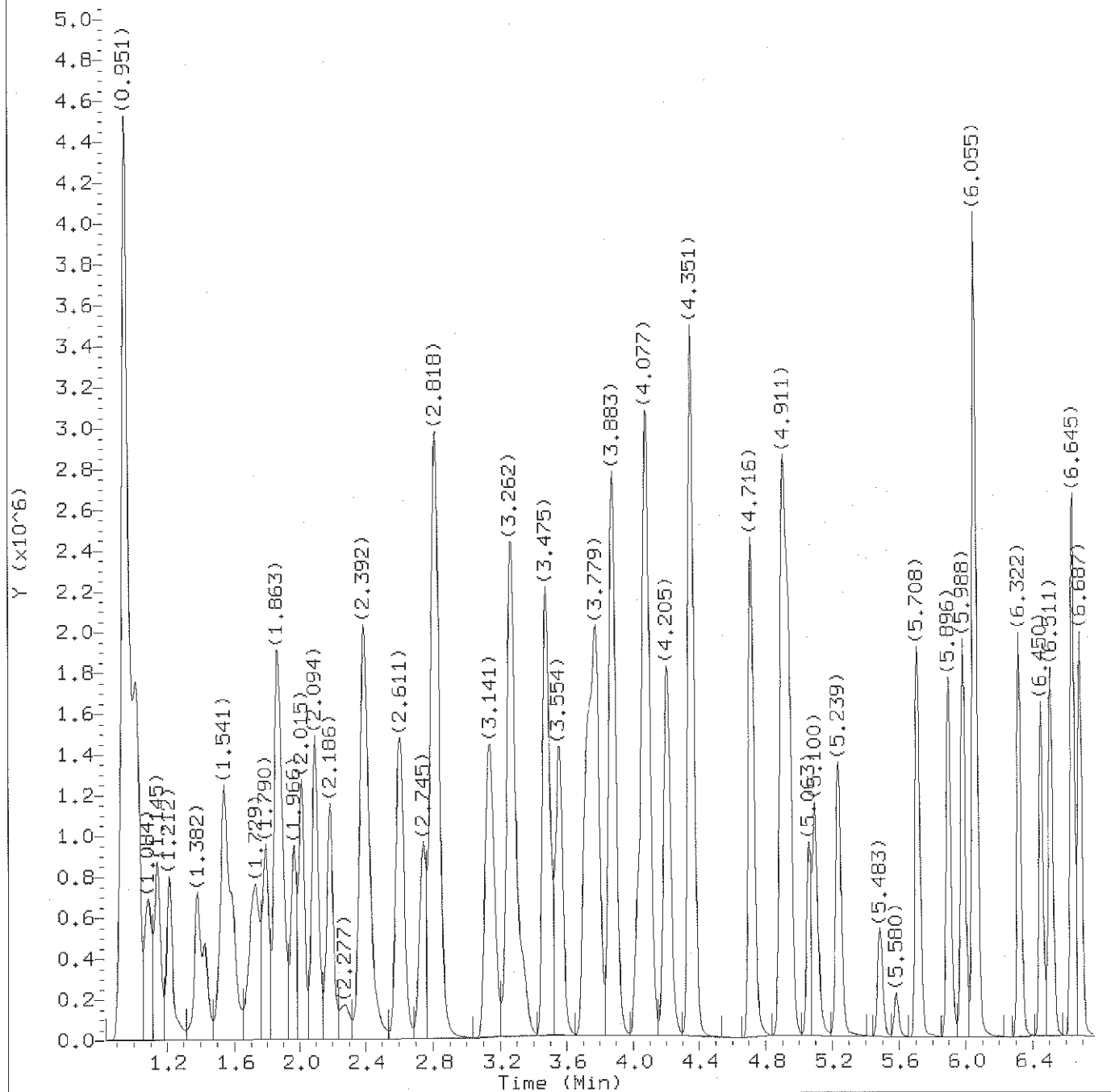
Sample Name: VSTD300

Lab Sample ID: VSTD300

Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1474
Retention Time (minutes): 9.796
Quant Ion : 119.00
Area : 7370294
On-column Amount (ng) : 261.0336
Integration start scan : 1469 Integration stop scan: 1481
Y at integration start : 432 Y at integration end: 432

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Target 3.5 esignature us PAP03: Page 556 of 2648



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i02.d
Injection date and time: 04-OCT-2012 15:38

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m
Calibration date and time: 17-OCT-2012 11:05

Sublist used: 8260S

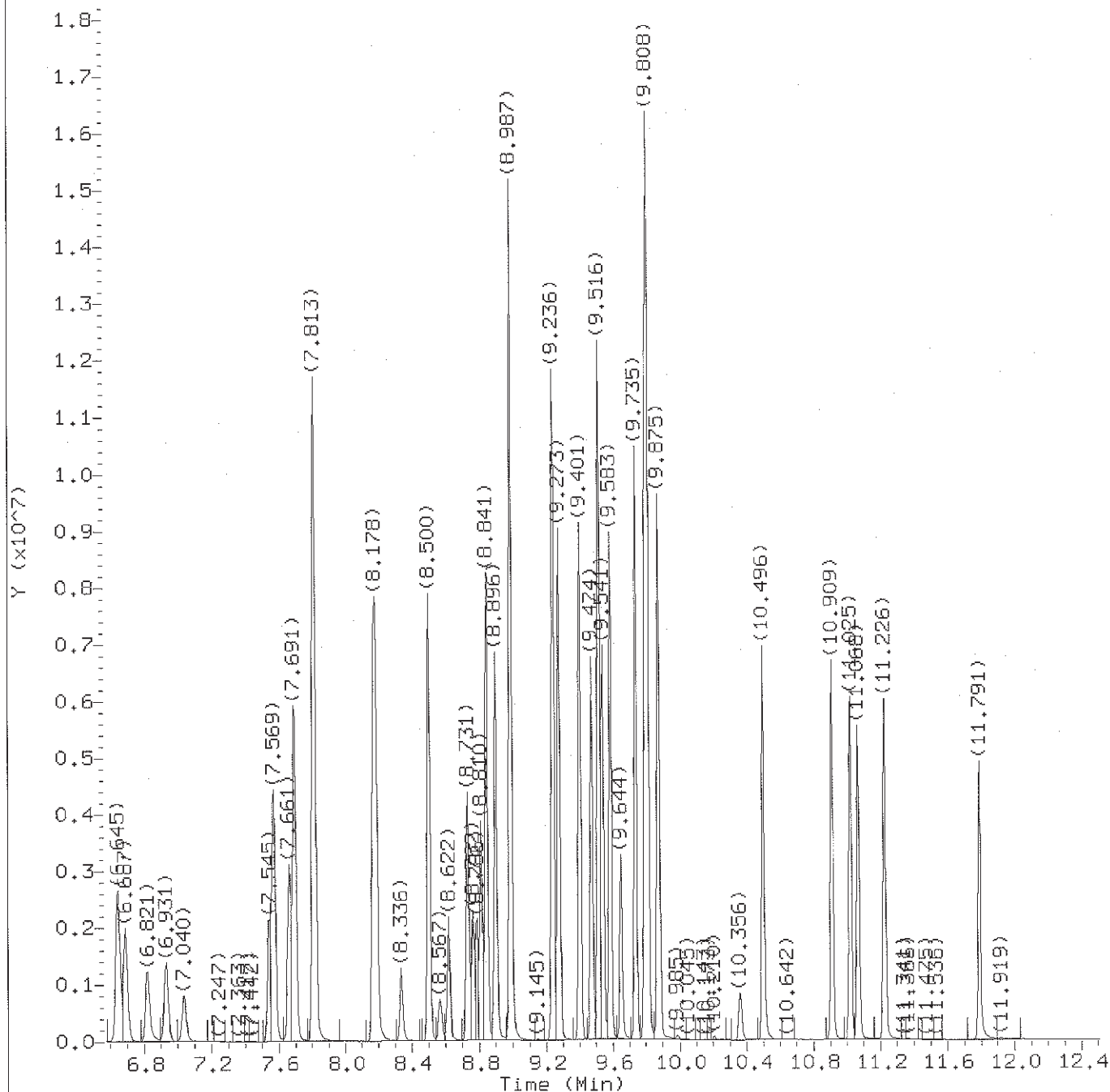
Date, time and analyst ID of latest file update: 22-Oct-2012 15:55 ers02237

Sample Name: VSTD100

Lab Sample ID: VSTD100

Digitally signed by Emily R. Styer
on 10/22/2012 at 15:59.

Target 3.5 esignature user ID: ers02237



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i02.d
 Injection date and time: 04-OCT-2012 15:38

Instrument ID: HP09953.i
 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m
 Calibration date and time: 17-OCT-2012 11:05

Sublist used: 8260S

Date, time and analyst ID of latest file update: 22-Oct-2012 15:55 ers02237

Sample Name: VSTD100

Lab Sample ID: VSTD100

Digitally signed by Emily R. Styer
 on 10/22/2012 at 15:59.

Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i02.d
 Injection date and time: 04-OCT-2012 15:38

Instrument ID: HP09953.i
 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
 Calibration date and time: 17-OCT-2012 11:05
 Date, time and analyst ID of latest file update: 22-Oct-2012 15:55 ers02237

Sample Name: VSTD100

Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
2) Dichlorodifluoromethane	(2)	1.090	85	1276667	102.808
4) Chloromethane	(2)	1.145	50	1214530	98.913
5) Vinyl Chloride	(2)	1.212	62	1021034	99.263
9) Bromomethane	(2)	1.382	94	636241	98.673
10) Chloroethane	(2)	1.425	64	518241	96.722
11) Dichlorofluoromethane	(2)	1.541	67	1427558	95.606
13) Trichlorofluoromethane	(2)	1.589	101	1331989	101.792
15) Ethanol	(1)	1.656	45	344742	5214.147
17) Freon 123a	(2)	1.723	67	868404	97.244
18) Acrolein	(1)	1.790	56	1041396	1079.426
19) 1,1-Dichloroethene	(2)	1.863	96	602133	100.490
20) Acetone	(2)	1.881	58	113881	166.801
22) Freon 113	(2)	1.881	101	725852	103.647
24) Methyl Iodide	(2)	1.966	142	1244404	100.037
23) 2-Propanol	(1)	1.979	45	218967	484.858
25) Carbon Disulfide	(2)	2.015	76	2034944	103.023
29) Allyl Chloride	(2)	2.094	41	1262347	96.882
27) Methyl Acetate	(2)	2.106	43	422604	80.647
31) Methylene Chloride	(2)	2.186	84	669110	96.172
30)*t-Butyl alcohol-d10	(1)	2.216	65	124592	250.000
32) t-Butyl alcohol	(1)	2.277	59	308429	488.132
33) Acrylonitrile	(2)	2.368	53	218144	95.532
35) trans-1,2-Dichloroethene	(2)	2.392	96	674042	99.684
34) Methyl Tertiary Butyl Ether	(2)	2.411	73	1891819	97.243
38) n-Hexane	(2)	2.611	57	1220772	103.765
40) 1,1-Dichloroethane	(2)	2.745	63	1499814	101.029
41) di-Isopropyl ether	(2)	2.812	45	2857764	101.197
42) 2-Chloro-1,3-butadiene	(2)	2.818	53	1358443	104.369
44) Ethyl t-butyl ether	(2)	3.141	59	2384080	103.214
46) cis-1,2-Dichloroethene	(2)	3.262	96	769093	100.873
48) 2,2-Dichloropropane	(2)	3.268	77	1178369	104.312
45) 2-Butanone	(2)	3.281	43	644854	184.702
50) Propionitrile	(1)	3.341	54	434615	519.601
51) Methacrylonitrile	(2)	3.475	67	612489	243.292
52) Bromochloromethane	(2)	3.481	128	358207	97.746
53) Tetrahydrofuran	(1)	3.524	71	144367	218.296
54) Chloroform	(2)	3.560	83	1394633	98.361
55)\$Dibromofluoromethane	(2)	3.706	113	351060	49.663

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

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 on 10/22/2012 at 15:59.
 Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i02.d
 Injection date and time: 04-OCT-2012 15:38

Instrument ID: HP09953.i
 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
 Calibration date and time: 17-OCT-2012 11:05
 Date, time and analyst ID of latest file update: 22-Oct-2012 15:55 ers02237

Sample Name: VSTD100

Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
55) \$Dibromofluoromethane	(2)	3.712	111	358393	49.765
56) 1,1,1-Trichloroethane	(2)	3.731	97	1248932	103.221
57) Cyclohexane	(2)	3.779	56	1508605	105.541
57) Cyclohexane	(2)	3.779	84	1140796	104.775
57) Cyclohexane	(2)	3.779	69	431227	105.700
58) 1,1-Dichloropropene	(2)	3.877	75	1120899	103.234
59) Carbon Tetrachloride	(2)	3.889	117	1139628	104.763
61) \$1,2-Dichloroethane-d4	(2)	4.023	102	70999	47.786
61) \$1,2-Dichloroethane-d4	(2)	4.023	65	437255	48.648
61) \$1,2-Dichloroethane-d4	(2)	4.023	104	45560	48.998
60) Isobutyl Alcohol	(1)	4.041	41	307545	1323.941
62) Benzene	(2)	4.077	78	2988785	100.019
64) 1,2-Dichloroethane	(2)	4.096	62	1123707	99.377
64) 1,2-Dichloroethane	(2)	4.096	98	80903	100.277
65) t-Amyl methyl ether	(2)	4.205	73	1941821	102.753
69) n-Heptane	(2)	4.351	43	1461849	104.449
67) *Fluorobenzene	(2)	4.351	96	1411705	50.000
70) n-Butanol	(1)	4.710	56	437775	2820.276
72) Trichloroethene	(2)	4.716	95	787211	102.196
73) Methylcyclohexane	(2)	4.905	83	1398444	103.009
74) 1,2-Dichloropropane	(2)	4.941	63	842013	101.118
78) Dibromomethane	(2)	5.063	93	441809	99.013
77) 1,4-Dioxane	(1)	5.100	88	84957	1410.255
76) Methyl Methacrylate	(2)	5.100	69	445097	104.616
81) Bromodichloromethane	(2)	5.239	83	1016149	104.750
82) 2-Nitropropane	(1)	5.483	41	384351	194.982
83) 2-Chloroethyl Vinyl Ether	(2)	5.580	63	97327	98.073
84) cis-1,3-Dichloropropene	(2)	5.708	75	1195232	107.094
85) 4-Methyl-2-pentanone	(2)	5.896	43	1468653	187.750
86) \$Toluene-d8	(3)	5.988	98	1403210	50.300
86) \$Toluene-d8	(3)	5.988	100	904791	50.247
87) Toluene	(3)	6.055	92	1856733	100.945
47) 1,2-Dichloroethene (Total)	(2)		96	1443135	200.557
88) trans-1,3-Dichloropropene	(3)	6.322	75	1106386	107.752
89) Ethyl Methacrylate	(3)	6.450	69	854032	110.434
90) 1,1,2-Trichloroethane	(3)	6.511	97	568928	98.568
92) Tetrachloroethene	(3)	6.645	166	831104	102.608
93) 1,3-Dichloropropane	(3)	6.687	76	1073987	100.526

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

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 on 10/22/2012 at 15:59.
 Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i02.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 15:38 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 17-OCT-2012 11:05
Date, time and analyst ID of latest file update: 22-Oct-2012 15:55 ers02237

Sample Name: VSTD100

Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
95) 2-Hexanone	(3)	6.815	43	1013207	186.149
97) Dibromochloromethane	(3)	6.931	129	725215	106.762
98) 1,2-Dibromoethane	(3)	7.040	107	587748	100.857
99) *Chlorobenzene-d5	(3)	7.539	117	974195	50.000
100) Chlorobenzene	(3)	7.569	112	2071116	100.642
101) 1,1,1,2-Tetrachloroethane	(3)	7.661	131	780052	104.277
102) Ethylbenzene	(3)	7.691	91	3684829	105.285
103) m+p-Xylene	(3)	7.813	106	2853838	208.736
104) o-Xylene	(3)	8.172	106	1405210	105.666
106) Styrene	(3)	8.190	104	2272155	108.642
107) Bromoform	(3)	8.336	173	467597	104.944
108) Isopropylbenzene	(3)	8.500	105	3792238	106.932
111) Cyclohexanone	(1)	8.567	55	235512	1259.902
112) \$4-Bromofluorobenzene	(3)	8.622	95	517525	49.494
112) \$4-Bromofluorobenzene	(3)	8.622	174	423632	49.320
114) Bromobenzene	(4)	8.731	156	899173	102.504
113) 1,1,2,2-Tetrachloroethane	(4)	8.762	83	772727	98.491
116) 1,2,3-Trichloropropane	(4)	8.786	110	220039	99.100
115) trans-1,4-Dichloro-2-butene	(4)	8.810	53	634561	260.955
117) n-Propylbenzene	(4)	8.841	91	4459514	105.878
119) 2-Chlorotoluene	(4)	8.896	126	891559	103.327
122) 1,3,5-Trimethylbenzene	(4)	8.987	105	3301423	107.113
123) 4-Chlorotoluene	(4)	8.987	126	952955	104.630
126) tert-Butylbenzene	(4)	9.236	134	758676	109.216
127) Pentachloroethane	(4)	9.242	167	631552	105.993
128) 1,2,4-Trimethylbenzene	(4)	9.273	105	3385876	108.475
129) sec-Butylbenzene	(4)	9.401	105	4260863	109.177
131) 1,3-Dichlorobenzene	(4)	9.474	146	1806611	105.370
132) p-Isopropyltoluene	(4)	9.516	119	3756978	109.354
133) *1,4-Dichlorobenzene-d4	(4)	9.522	152	602614	50.000
134) 1,4-Dichlorobenzene	(4)	9.541	146	1855943	100.874
135) 1,2,3-Trimethylbenzene	(4)	9.583	105	3347461	104.112
136) Benzyl Chloride	(4)	9.650	126	332946	115.466
137) 1,3-Diethylbenzene	(4)	9.735	119	2155124	107.598
138) 1,4-Diethylbenzene	(4)	9.796	119	2267805A	105.191
140) 1,2-Dichlorobenzene	(4)	9.808	146	1818682	103.361
139) n-Butylbenzene	(4)	9.814	92	1935270	108.715
141) 1,2-Diethylbenzene	(4)	9.875	119	1840767A	90.960

A = User selected an alternate hit.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

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Digitally signed by Emily R. Styer
on 10/22/2012 at 15:59.
Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i02.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 15:38 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 17-OCT-2012 11:05
Date, time and analyst ID of latest file update: 22-Oct-2012 15:55 ers02237

Sample Name: VSTD100

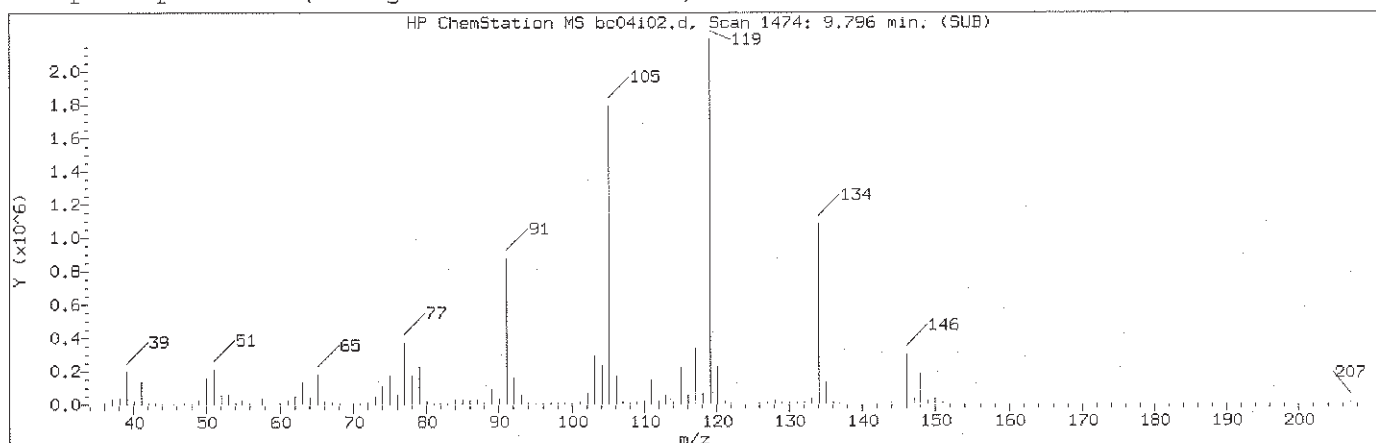
Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,2-Dibromo-3-chloropropane	(4)	10.356	75	165808	104.877
145) 1,3,5-Trichlorobenzene	(4)	10.502	180	1574227	106.066
146) 1,2,4-Trichlorobenzene	(4)	10.909	180	1380565	107.454
147) Hexachlorobutadiene	(4)	11.025	225	813215	106.754
148) Naphthalene	(4)	11.068	128	2784038	106.684
149) 1,2,3-Trichlorobenzene	(4)	11.226	180	1240268	101.855
105) Xylene (Total)	(3)		106	4259048	314.402
150) 2-Methylnaphthalene	(4)	11.791	142	1583804	99.840

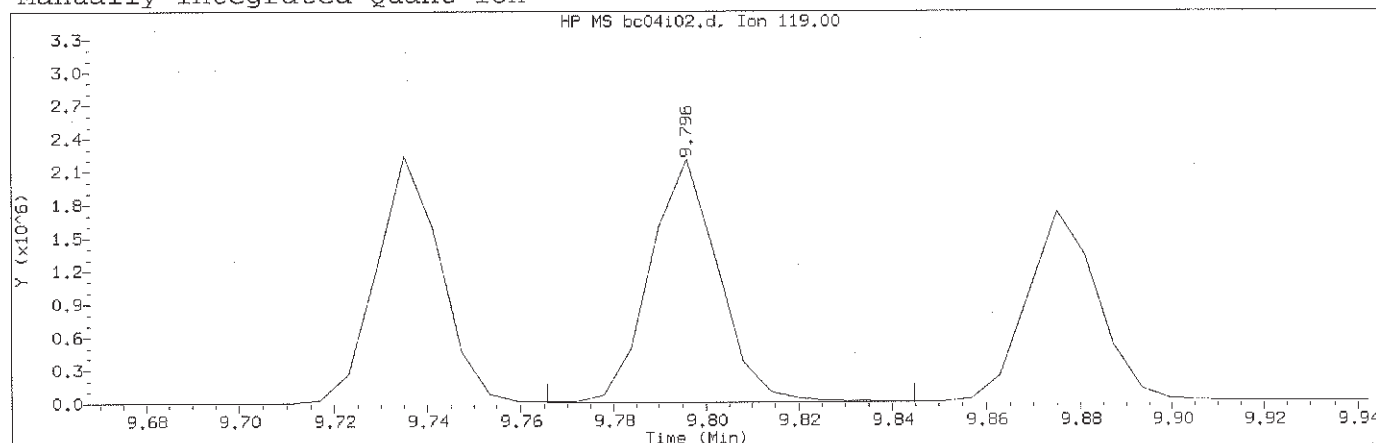
page 4 of 4

Digitally signed by Emily R. Styer
on 10/22/2012 at 15:59.
Target 3.5 esignature user ID: ers02237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04i02.d
Injection date and time: 04-OCT-2012 15:38

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 17-OCT-2012 11:05
Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD100

Lab Sample ID: VSTD100

Compound Number : 138
Compound Name : 1,4-Diethylbenzene
Scan Number : 1474
Retention Time (minutes): 9.796
Quant Ion : 119.00
Area (flag) : 2267805A
On-Column Amount (ng) : 105.1915
Integration start scan : 1468 Integration stop scan: 1481
Y at integration start : 273 Y at integration end: 273

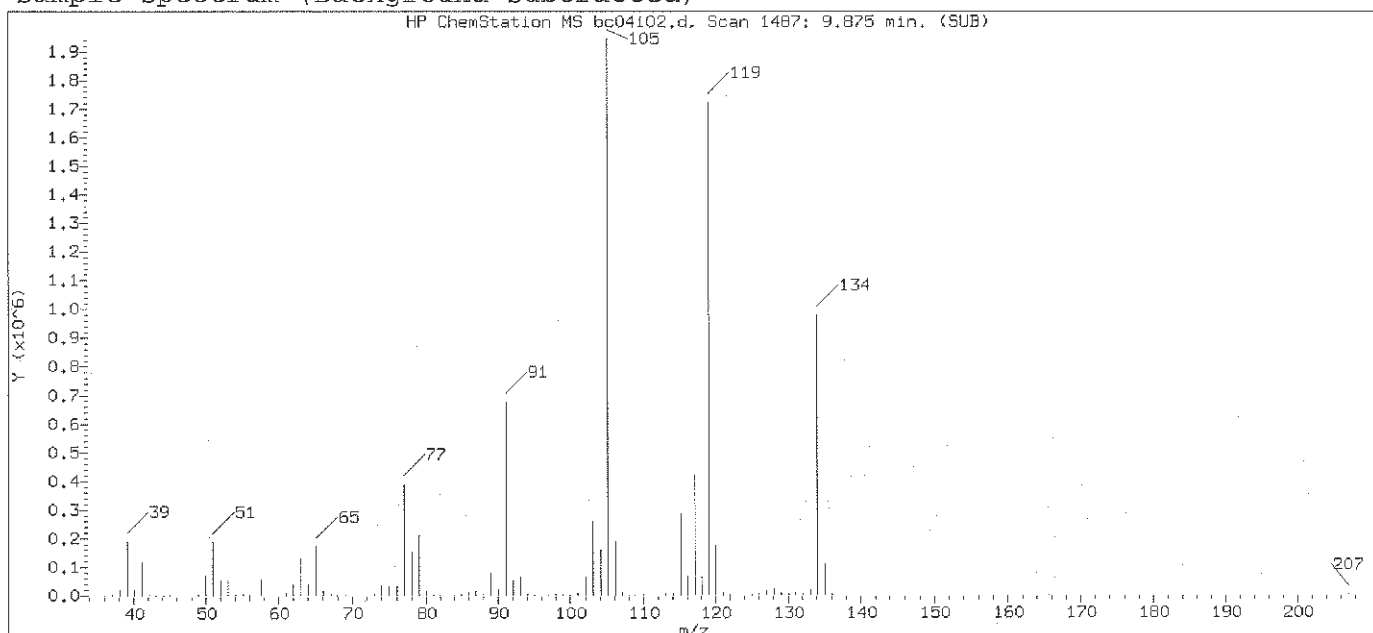
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Emily R. Styer
on 10/22/2012 at 15:59.
Target 3.5 esignature user ID: ers02237

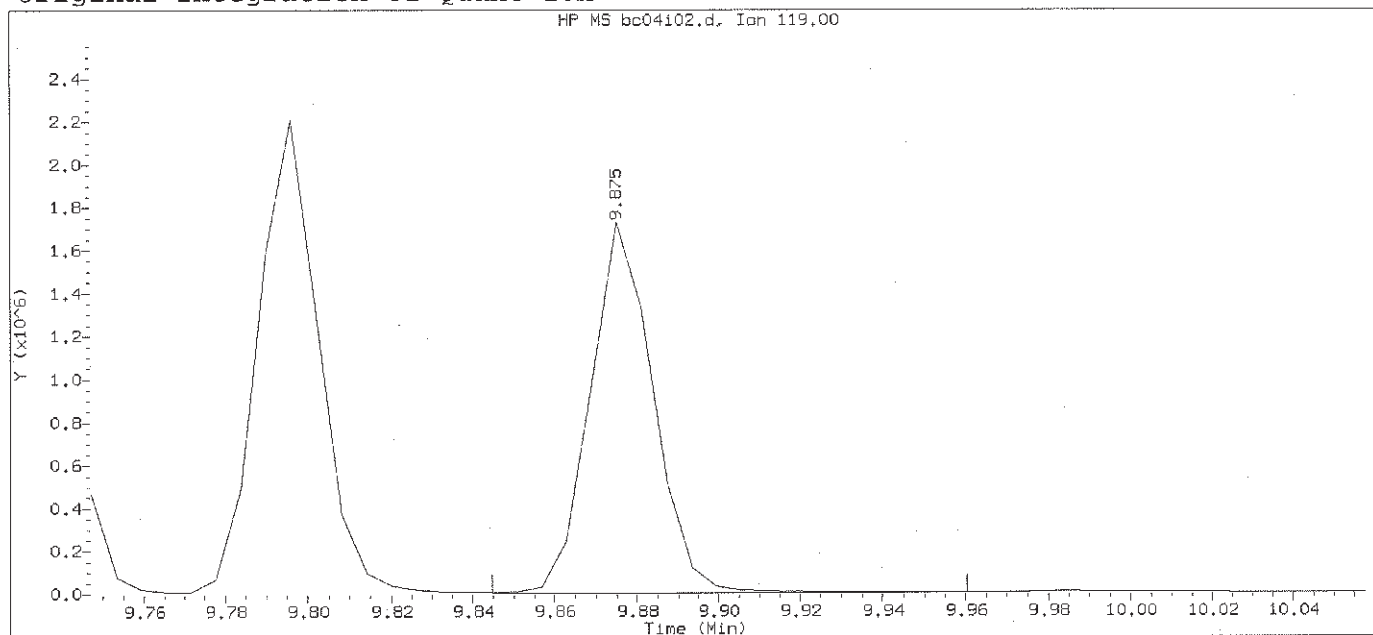
GC/MS audit/management approval: _____

Signature 10/22/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04102.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 15:38 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 05-OCT-2012 16:20
Date, time and analyst ID of latest file update: 05-Oct-2012 16:20 ers02237

Sample Name: VSTD100

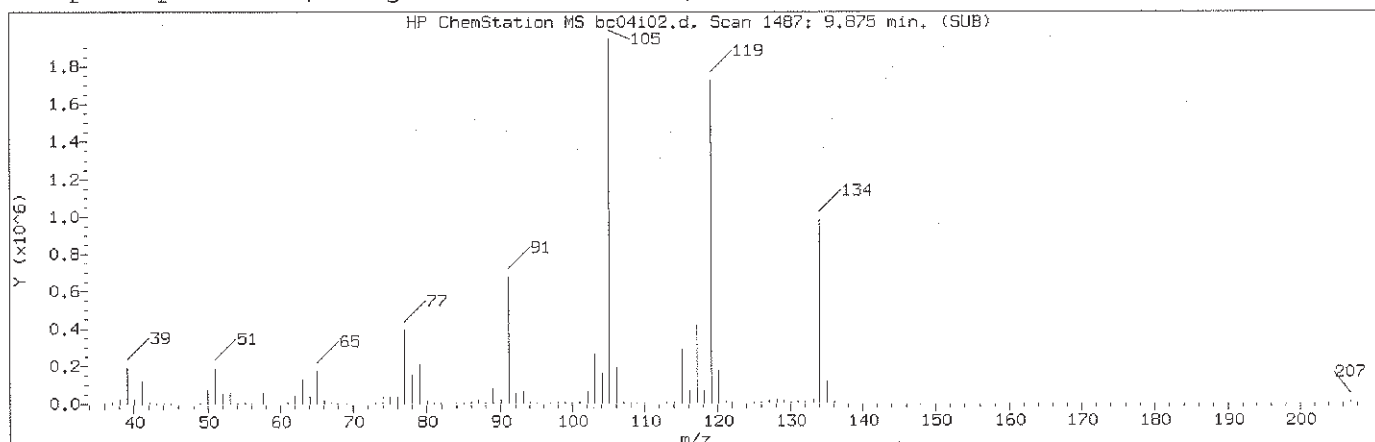
Lab Sample ID: VSTD100

Compound Number	: 138	
Compound Name	: 1,4-Diethylbenzene	
Scan Number	: 1487	
Retention Time (minutes)	: 9.875	
Quant Ion	: 119.00	
Area	: 1840736	
On-column Amount (ng)	: 102.1606	
Integration start scan	: 1481	Integration stop scan: 1500
Y at integration start	: 273	Y at integration end: 273

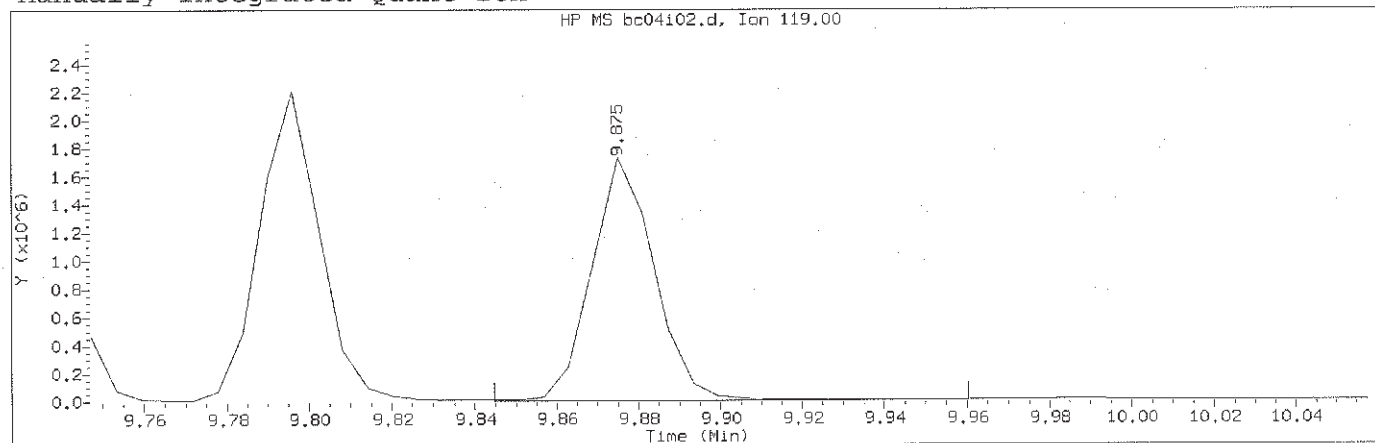
Digitally signed by Emily R. Styer on 10/22/2012 at 15:59.

Target 3.5 esignature usTAP03: Page 564 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04i02.d
Injection date and time: 04-OCT-2012 15:38

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 17-OCT-2012 11:05
Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD100

Lab Sample ID: VSTD100

Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1487
Retention Time (minutes): 9.875
Quant Ion : 119.00
Area (flag) : 1840767A
On-Column Amount (ng) : 90.9598
Integration start scan : 1481 Integration stop scan: 1500
Y at integration start : 273 Y at integration end: 273

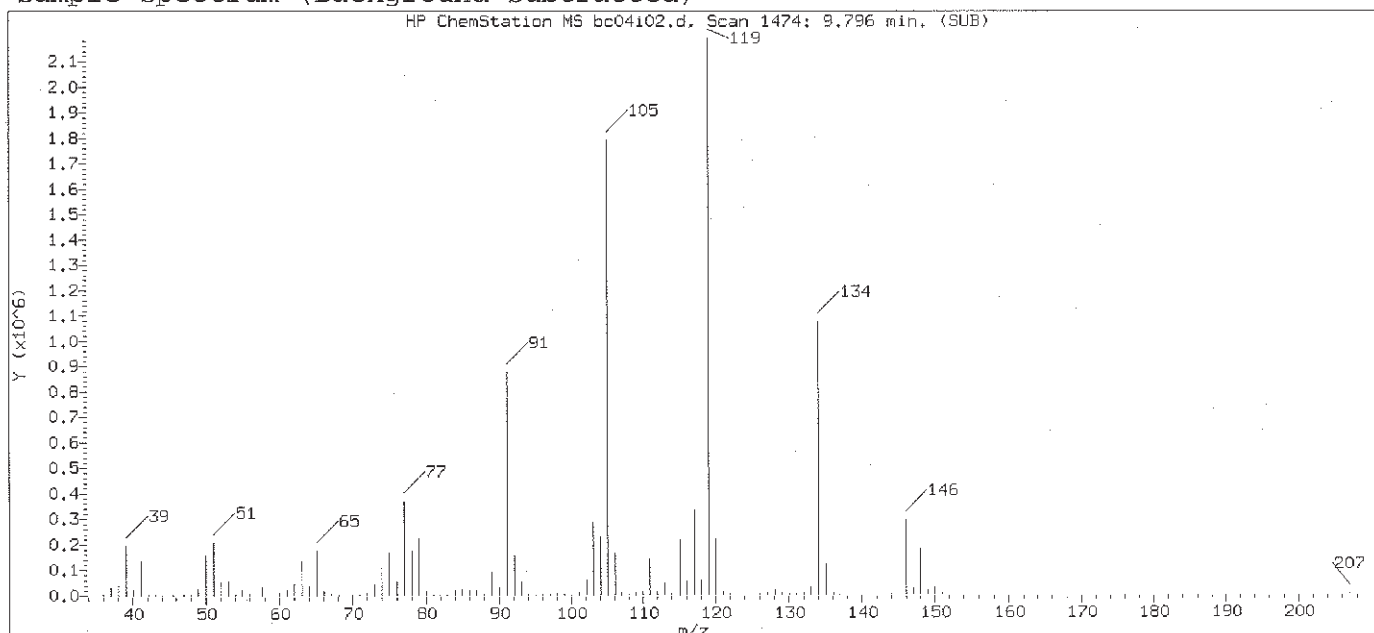
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Emily R. Styer
on 10/22/2012 at 15:59.
Target 3.5 esignature user ID: ers02237

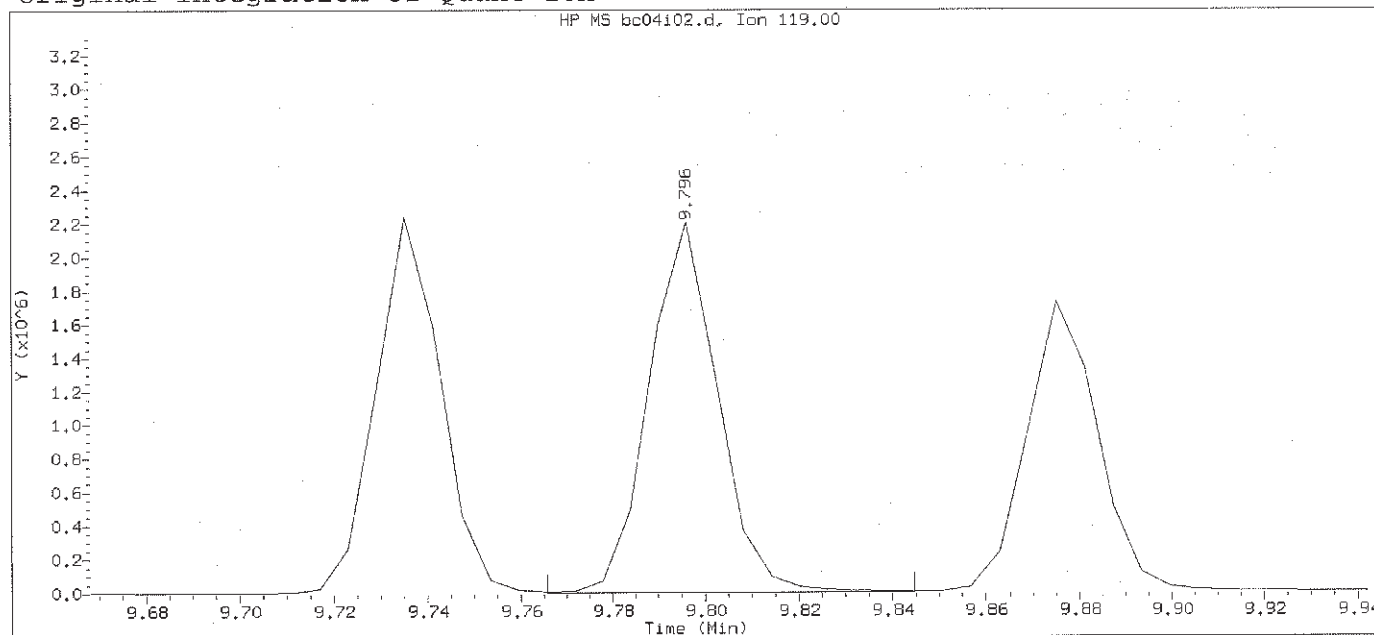
GC/MS audit/management approval:

Signature 10/22/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04i02.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 15:38 Analyst ID: ERS02237

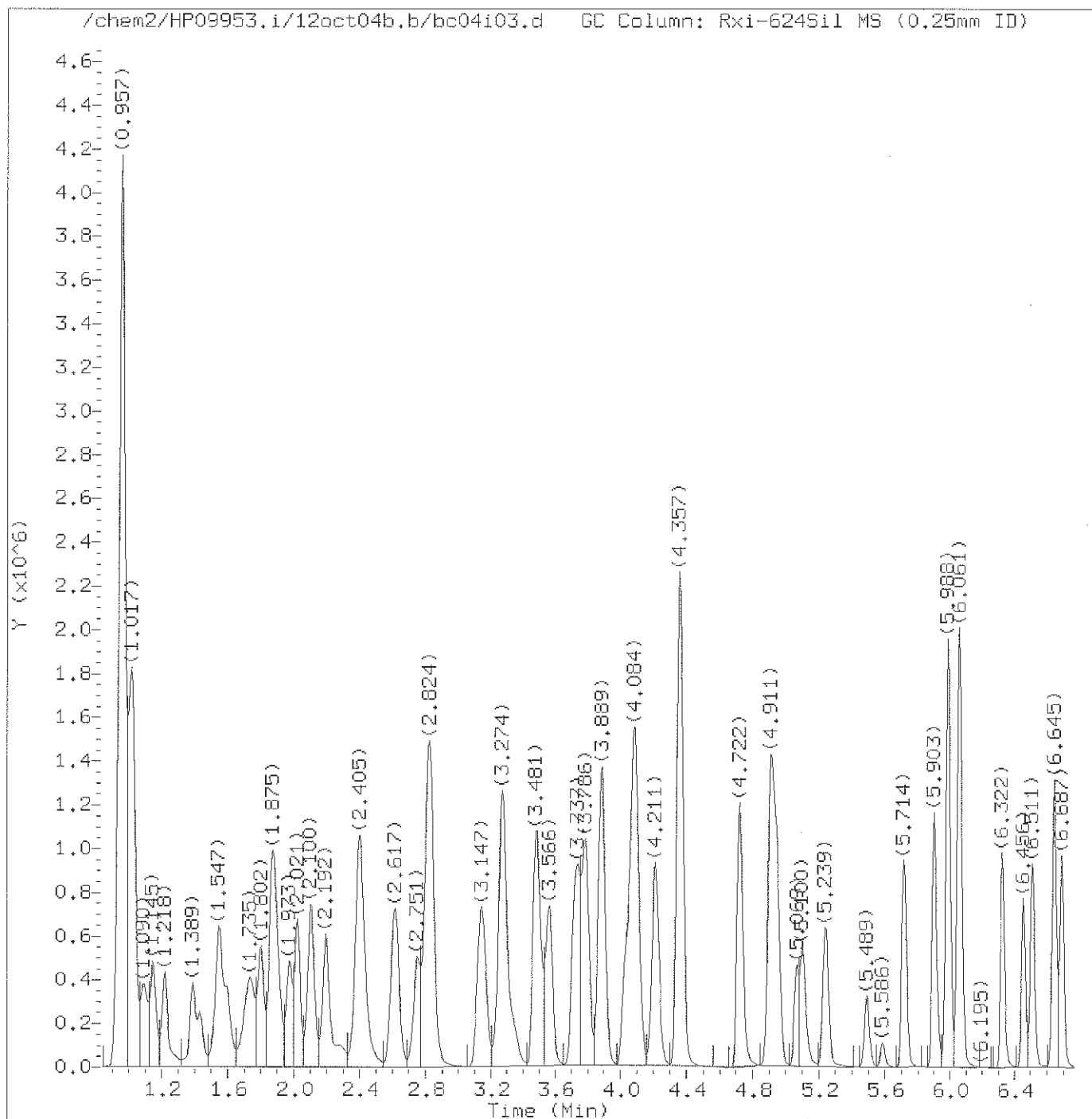
Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 05-OCT-2012 16:20
Date, time and analyst ID of latest file update: 05-Oct-2012 16:20 ers02237

Sample Name: VSTD100

Lab Sample ID: VSTD100

Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1474
Retention Time (minutes): 9.796
Quant Ion : 119.00
Area : 2267842
On-column Amount (ng) : 105.1936
Integration start scan : 1468 Integration stop scan: 1481
Y at integration start : 273 Y at integration end: 273

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Target 3.5 esignature usTAP03: Page 566 of 2648



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i03.d
Injection date and time: 04-OCT-2012 16:31

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m

Sublist used: 8260S

Calibration date and time: 22-OCT-2012 18:11

Date, time and analyst ID of latest file update: 22-Oct-2012 18:11 ers02237

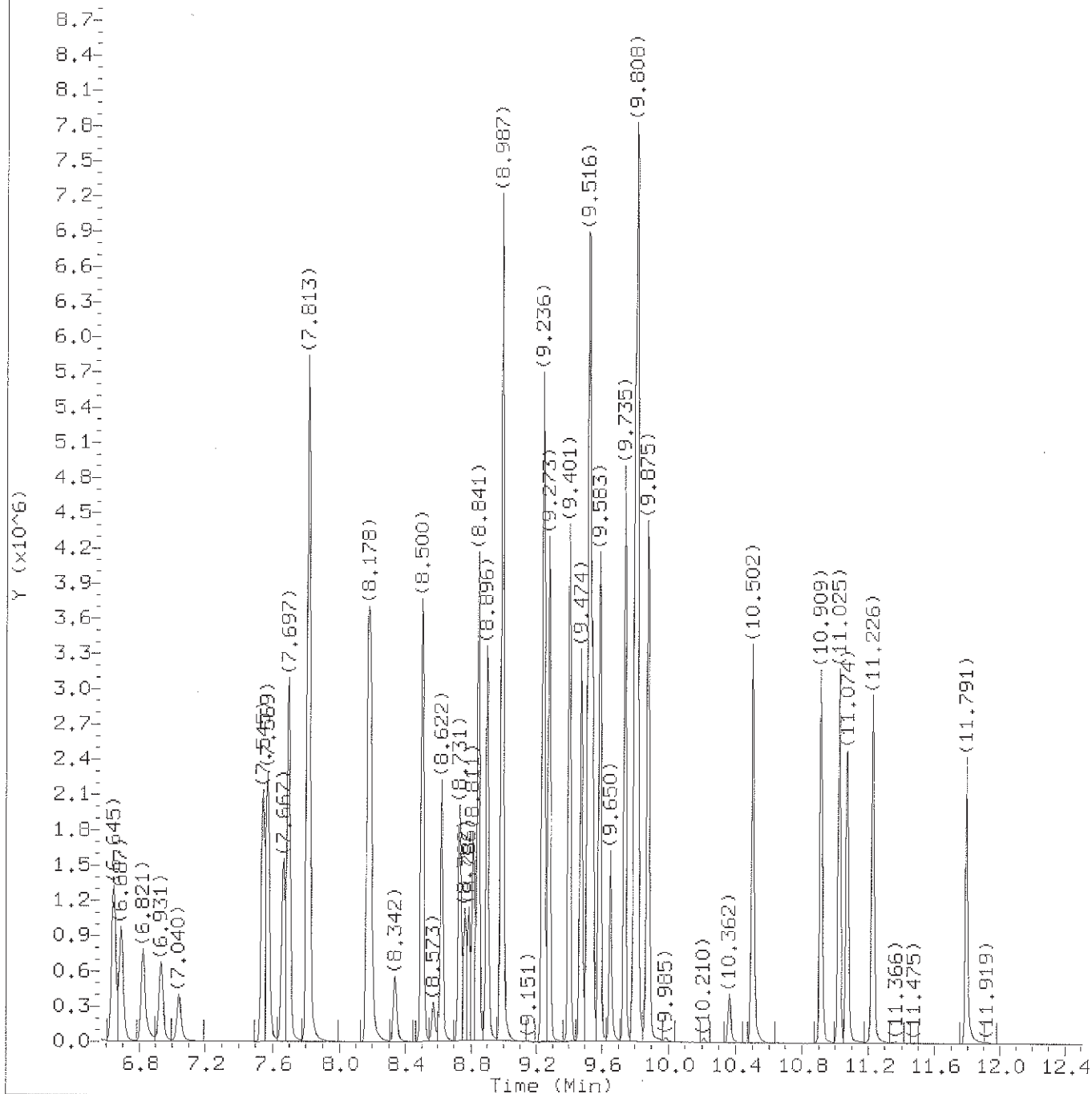
Sample Name: VSTD050

Lab Sample ID: VSTD050

Digitally signed by Emily R. Styer
on 10/22/2012 at 18:11.

Target 3.5 esignature user ID: ers02237

page 1 of 2



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i03.d
Injection date and time: 04-OCT-2012 16:31

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m
Calibration date and time: 22-OCT-2012 18:11

Sublist used: 8260S

Date, time and analyst ID of latest file update: 22-Oct-2012 18:11 ers02237

Sample Name: VSTD050

Lab Sample ID: VSTD050

Digitally signed by Emily R. Styer
on 10/22/2012 at 18:11.

Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i03.d
Injection date and time: 04-OCT-2012 16:31

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 18:11
Date, time and analyst ID of latest file update: 22-Oct-2012 18:11 ers02237

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.097	85	630120	49.437
4) Chloromethane	(2)	1.145	50	624853	49.580
5) Vinyl Chloride	(2)	1.218	62	525728	49.796
9) Bromomethane	(2)	1.389	94	329405	49.772
10) Chloroethane	(2)	1.437	64	271598	49.386
11) Dichlorofluoromethane	(2)	1.547	67	762179	49.732
13) Trichlorofluoromethane	(2)	1.595	101	667469	49.696
15) Ethanol	(1)	1.681	45	192429	2702.436
17) Freon 123a	(2)	1.735	67	456195	49.771
18) Acrolein	(1)	1.802	56	621418	598.076
19) 1,1-Dichloroethene	(2)	1.869	96	313107	50.910
20) Acetone	(2)	1.894	58	65462	93.416
22) Freon 113	(2)	1.894	101	367676	51.151
24) Methyl Iodide	(2)	1.973	142	646290	50.619
23) 2-Propanol	(1)	1.991	45	132967	273.386
25) Carbon Disulfide	(2)	2.021	76	1055387	52.057
29) Allyl Chloride	(2)	2.100	41	654140	48.912
27) Methyl Acetate	(2)	2.113	43	226724	42.154
31) Methylene Chloride	(2)	2.198	84	350346	49.060
30)*t-Butyl alcohol-d10	(1)	2.222	65	134182	250.000
32) t-Butyl alcohol	(1)	2.289	59	172609	253.654
33) Acrylonitrile	(2)	2.380	53	128958	55.022
35) trans-1,2-Dichloroethene	(2)	2.398	96	350791	50.544
34) Methyl Tertiary Butyl Ether	(2)	2.417	73	977661	48.961
38) n-Hexane	(2)	2.617	57	619644	51.315
40) 1,1-Dichloroethane	(2)	2.751	63	779457	51.154
41) di-Isopropyl ether	(2)	2.818	45	1485533	51.252
42) 2-Chloro-1,3-butadiene	(2)	2.830	53	694118	51.957
44) Ethyl t-butyl ether	(2)	3.147	59	1205616	50.852
46) cis-1,2-Dichloroethene	(2)	3.268	96	399250	51.018
48) 2,2-Dichloropropane	(2)	3.281	77	596186	51.418
45) 2-Butanone	(2)	3.287	43	404844	112.974
50) Propionitrile	(1)	3.348	54	238202	264.427
51) Methacrylonitrile	(2)	3.481	67	322067	124.640
52) Bromochloromethane	(2)	3.487	128	180296	47.933
53) Tetrahydrofuran	(1)	3.536	71	85724	120.358
54) Chloroform	(2)	3.566	83	723072	49.685
55)\$Dibromofluoromethane	(2)	3.719	113	358152	49.363

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

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on 10/22/2012 at 18:11.
Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i03.d
Injection date and time: 04-OCT-2012 16:31

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 18:11
Date, time and analyst ID of latest file update: 22-Oct-2012 18:11 ers02237

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
55) \$Dibromofluoromethane	(2)	3.719	111	364188	49.269
56) 1,1,1-Trichloroethane	(2)	3.737	97	629938	50.723
57) Cyclohexane	(2)	3.786	56	766133	52.219
57) Cyclohexane	(2)	3.786	84	587013	52.527
57) Cyclohexane	(2)	3.786	69	219972	52.531
58) 1,1-Dichloropropene	(2)	3.883	75	577520	51.821
59) Carbon Tetrachloride	(2)	3.895	117	575166	51.513
61) \$1,2-Dichloroethane-d4	(2)	4.029	102	78180	51.265
61) \$1,2-Dichloroethane-d4	(2)	4.029	65	472559	51.223
61) \$1,2-Dichloroethane-d4	(2)	4.029	104	47549	49.822
60) Isobutyl Alcohol	(1)	4.047	41	158526	633.660
62) Benzene	(2)	4.078	78	1546326	50.416
64) 1,2-Dichloroethane	(2)	4.108	62	573101	49.380
64) 1,2-Dichloroethane	(2)	4.102	98	41961	50.672
65) t-Amyl methyl ether	(2)	4.211	73	981990	50.626
69) n-Heptane	(2)	4.357	43	729815	50.804
67) *Fluorobenzene	(2)	4.357	96	1448978	50.000
70) n-Butanol	(1)	4.716	56	223795	1338.711
72) Trichloroethene	(2)	4.722	95	403939	51.091
73) Methylcyclohexane	(2)	4.911	83	688743	49.427
74) 1,2-Dichloropropane	(2)	4.947	63	435771	50.986
78) Dibromomethane	(2)	5.069	93	227649	49.705
76) Methyl Methacrylate	(2)	5.100	69	221084	50.627
77) 1,4-Dioxane	(1)	5.112	88	45856	706.790
81) Bromodichloromethane	(2)	5.239	83	504703	50.689
82) 2-Nitropropane	(1)	5.489	41	242076	115.446
83) 2-Chloroethyl Vinyl Ether	(2)	5.586	63	51940	53.750
84) cis-1,3-Dichloropropene	(2)	5.714	75	601638	52.521
85) 4-Methyl-2-pentanone	(2)	5.903	43	974500	121.578
86) \$Toluene-d8	(3)	5.988	98	1432517	49.957
86) \$Toluene-d8	(3)	5.988	100	928087	50.142
87) Toluene	(3)	6.061	92	959508	50.750
47) 1,2-Dichloroethene (Total)	(2)		96	750041	101.562
88) trans-1,3-Dichloropropene	(3)	6.322	75	550298	52.139
89) Ethyl Methacrylate	(3)	6.456	69	415827	52.311
90) 1,1,2-Trichloroethane	(3)	6.511	97	293420	49.456
92) Tetrachloroethene	(3)	6.645	166	423746	50.895
93) 1,3-Dichloropropane	(3)	6.687	76	548697	49.965

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

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on 10/22/2012 at 18:11.
Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i03.d
Injection date and time: 04-OCT-2012 16:31

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 18:11
Date, time and analyst ID of latest file update: 22-Oct-2012 18:11 ers02237

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
95) 2-Hexanone	(3)	6.821	43	675931	120.214
97) Dibromochloromethane	(3)	6.937	129	355957	50.980
98) 1,2-Dibromoethane	(3)	7.040	107	299873	50.061
99)*Chlorobenzene-d5	(3)	7.545	117	1001377	50.000
100) Chlorobenzene	(3)	7.569	112	1055868	49.915
101) 1,1,1,2-Tetrachloroethane	(3)	7.667	131	386498	50.265
102) Ethylbenzene	(3)	7.697	91	1880409	52.270
103) m+p-Xylene	(3)	7.813	106	1442438	102.639
104) o-Xylene	(3)	8.172	106	716665	52.428
106) Styrene	(3)	8.190	104	1134071	52.753
107) Bromoform	(3)	8.342	173	227511	49.675
108) Isopropylbenzene	(3)	8.500	105	1927682	52.880
111) Cyclohexanone	(1)	8.573	55	114753	622.561
112)\$4-Bromofluorobenzene	(3)	8.622	95	529532	49.267
112)\$4-Bromofluorobenzene	(3)	8.622	174	438218	49.634
114) Bromobenzene	(4)	8.738	156	451855	50.362
113) 1,1,2,2-Tetrachloroethane	(4)	8.762	83	397520	49.538
116) 1,2,3-Trichloropropane	(4)	8.786	110	111781	49.221
115) trans-1,4-Dichloro-2-butene	(4)	8.811	53	319126	128.312
117) n-Propylbenzene	(4)	8.841	91	2277058	42.730
119) 2-Chlorotoluene	(4)	8.896	126	450539	51.052
123) 4-Chlorotoluene	(4)	8.987	126	475634	51.058
122) 1,3,5-Trimethylbenzene	(4)	8.993	105	1667157	52.885
126) tert-Butylbenzene	(4)	9.236	134	374113	52.656
127) Pentachloroethane	(4)	9.242	167	300287	49.274
128) 1,2,4-Trimethylbenzene	(4)	9.273	105	1699852	53.246
129) sec-Butylbenzene	(4)	9.401	105	2157545	54.051
131) 1,3-Dichlorobenzene	(4)	9.474	146	891875	50.859
132) p-Isopropyltoluene	(4)	9.516	119	1887837	53.724
133)*1,4-Dichlorobenzene-d4	(4)	9.522	152	616350	50.000
134) 1,4-Dichlorobenzene	(4)	9.541	146	928276	49.329
135) 1,2,3-Trimethylbenzene	(4)	9.583	105	1648154	50.118
136) Benzyl Chloride	(4)	9.650	126	158892	53.876
137) 1,3-Diethylbenzene	(4)	9.735	119	1048974	51.204
138) 1,4-Diethylbenzene	(4)	9.796	119	1107058A	50.206
140) 1,2-Dichlorobenzene	(4)	9.808	146	890516	49.483
139) n-Butylbenzene	(4)	9.814	92	969262	53.236
141) 1,2-Diethylbenzene	(4)	9.875	119	899920A	49.290

A = User selected an alternate hit.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 3 of 4

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on 10/22/2012 at 18:11.
Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i03.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 16:31 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 18:11
Date, time and analyst ID of latest file update: 22-Oct-2012 18:11 ers02237

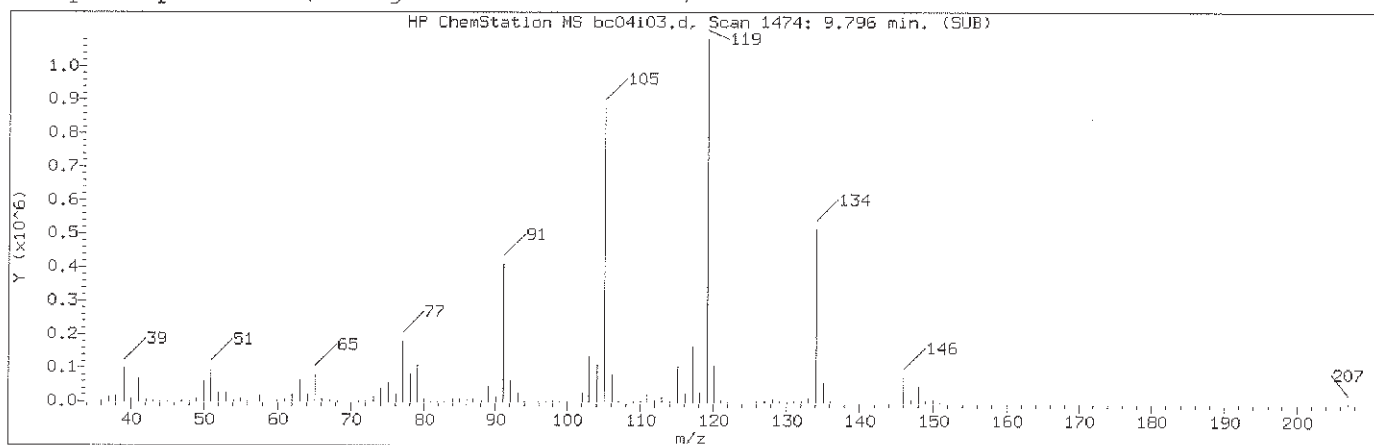
Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,2-Dibromo-3-chloropropane	(4)	10.362	75	81091	50.149
145) 1,3,5-Trichlorobenzene	(4)	10.502	180	778348	51.273
146) 1,2,4-Trichlorobenzene	(4)	10.909	180	684806	52.113
147) Hexachlorobutadiene	(4)	11.025	225	401913	51.585
148) Naphthalene	(4)	11.074	128	1443189	54.071
149) 1,2,3-Trichlorobenzene	(4)	11.226	180	646742	51.929
105) Xylene (Total)	(3)		106	2159103	155.067
150) 2-Methylnaphthalene	(4)	11.791	142	806194	50.125

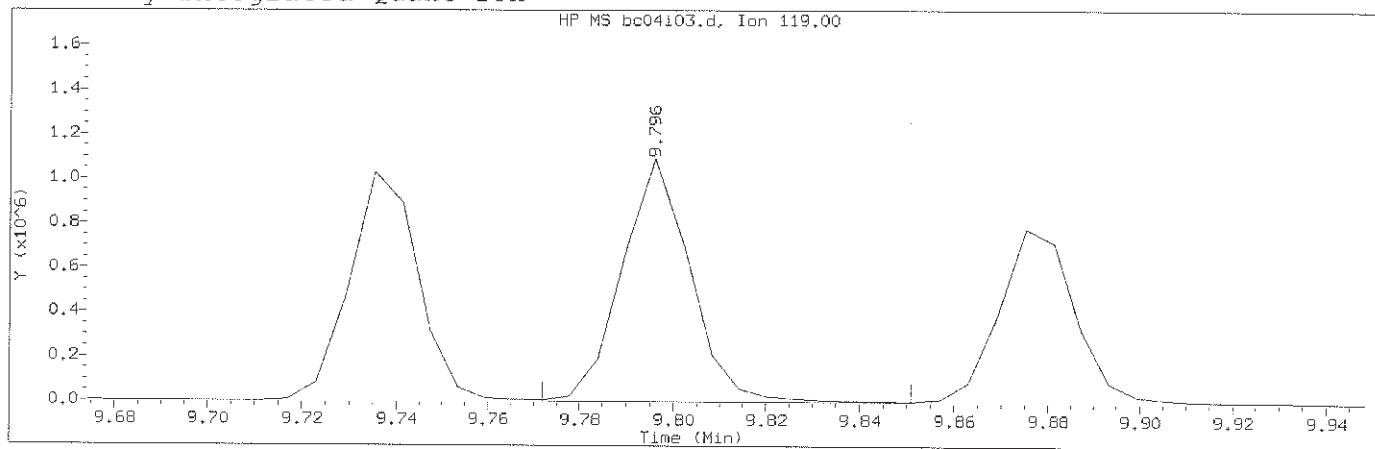
page 4 of 4

Digitally signed by Emily R. Styer
on 10/22/2012 at 18:11.
Target 3.5 esignature user ID: ers02237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04i03.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 16:31 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 18:11
Date, time and analyst ID of latest file update: 22-Oct-2012 18:11 ers02237

Sample Name: VSTD050 Lab Sample ID: VSTD050

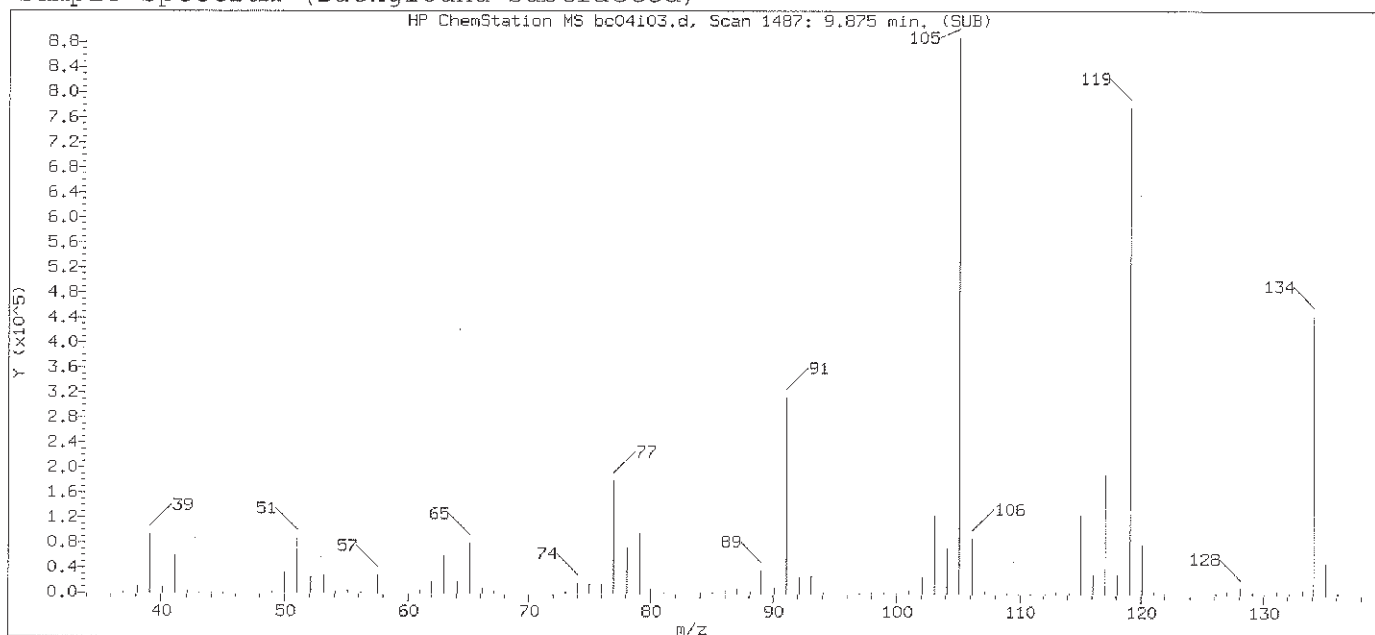
Compound Number : 138
Compound Name : 1,4-Diethylbenzene
Scan Number : 1474
Retention Time (minutes): 9.796
Quant Ion : 119.00
Area (flag) : 1107058A
On-Column Amount (ng) : 50.2062
Integration start scan : 1469 Integration stop scan: 1482
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

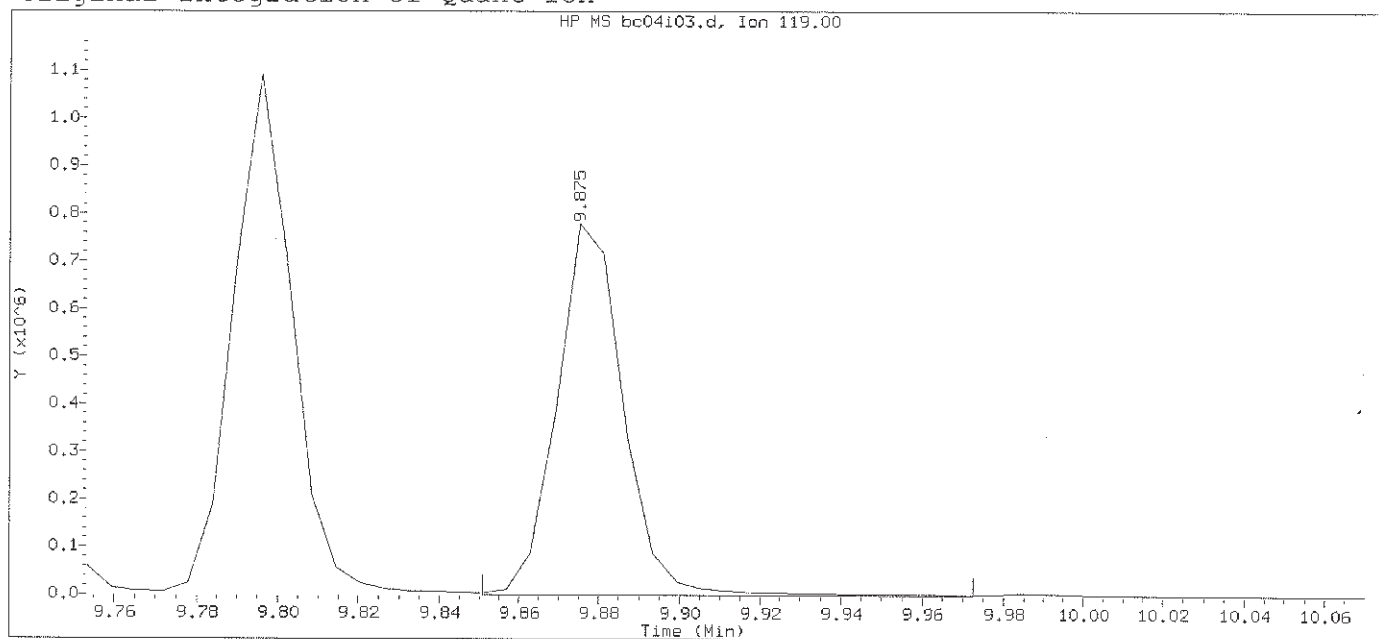
Analyst responsible for change: Digitally signed by Emily R. Styer
on 10/22/2012 at 18:11.
Target 3.5 esignature user ID: ers02237

GC/MS audit/management approval: *mmg* 10/23/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04i03.d

Instrument ID: HP09953.i

Injection date and time: 04-OCT-2012 16:31

Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m

Sublist used: 8260S

Calibration date and time: 05-OCT-2012 16:20

Date, time and analyst ID of latest file update: 05-Oct-2012 16:20 ers02237

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compound Number : 138

Compound Name : 1,4-Diethylbenzene

Scan Number : 1487

Retention Time (minutes): 9.875

Quant Ion : 119.00

Area : 899920

On-column Amount (ng) : 48.8324

Integration start scan : 1482

Integration stop scan: 1502

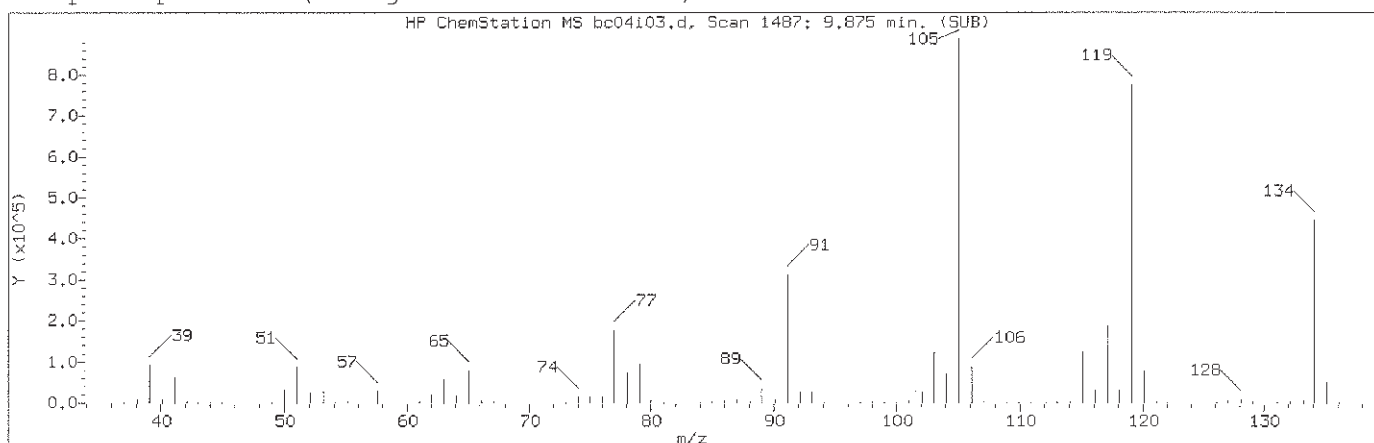
Y at integration start : 0

Y at integration end: 0

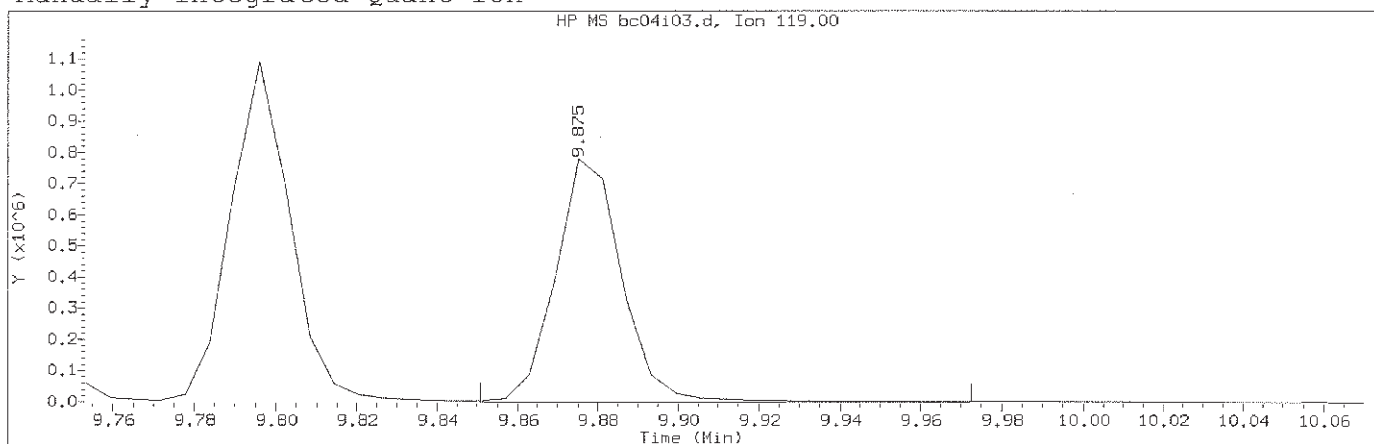
Digitally signed by Emily R. Styer on 10/22/2012 at 18:11.

Target 3.5 esignature user ID: ers02237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04i03.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 16:31 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 18:11
Date, time and analyst ID of latest file update: 22-Oct-2012 18:11 ers02237

Sample Name: VSTD050 Lab Sample ID: VSTD050

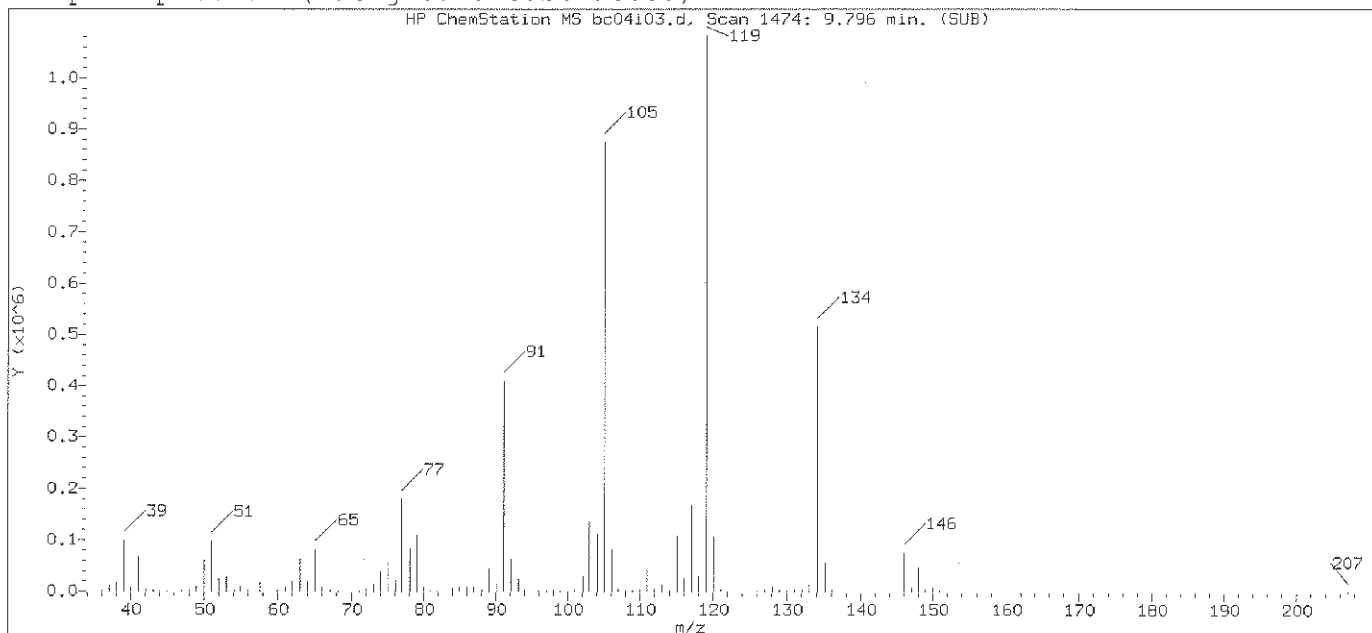
Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1487
Retention Time (minutes): 9.875
Quant Ion : 119.00
Area (flag) : 899920A
On-Column Amount (ng) : 49.2897
Integration start scan : 1482 Integration stop scan: 1502
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

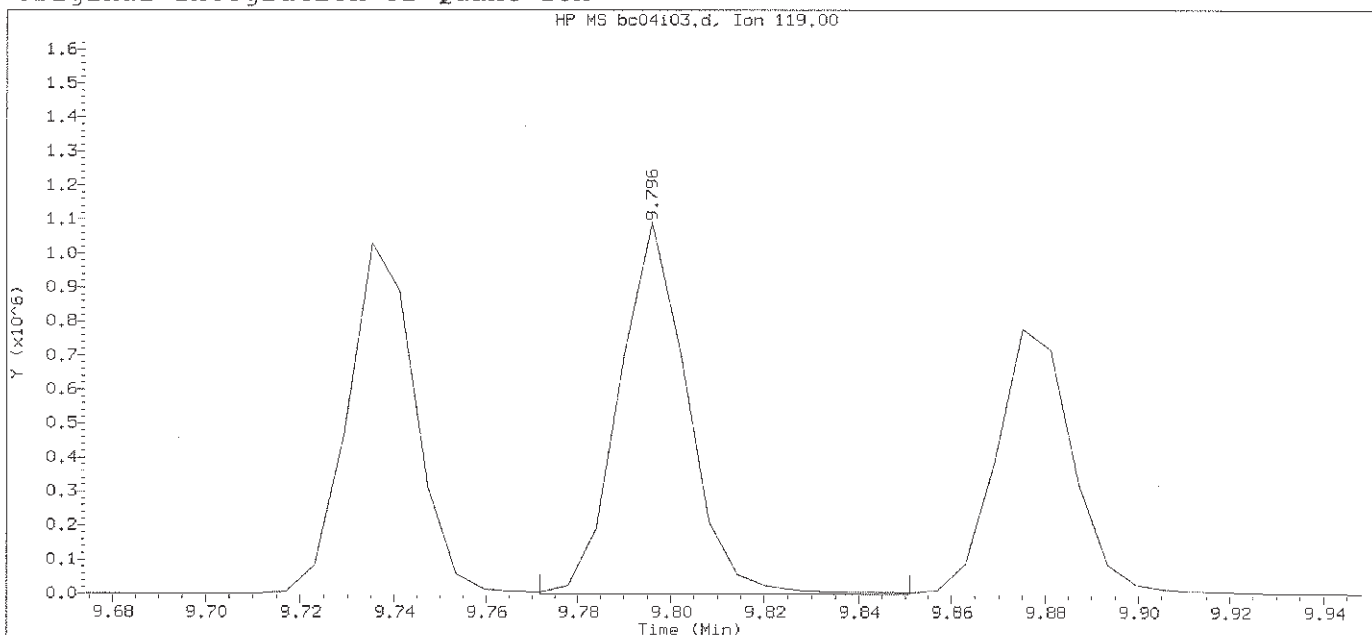
Analyst responsible for change: Digitally signed by Emily R. Styer
on 10/22/2012 at 18:11.
Target 3.5 esignature user ID: ers02237

GC/MS audit/management approval: *crmm* 10/33/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04i03.d

Instrument ID: HP09953.i

Injection date and time: 04-OCT-2012 16:31

Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m

Sublist used: 8260S

Calibration date and time: 05-OCT-2012 16:20

Date, time and analyst ID of latest file update: 05-Oct-2012 16:20 ers02237

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compound Number : 141

Compound Name : 1,2-Diethylbenzene

Scan Number : 1474

Retention Time (minutes): 9.796

Quant Ion : 119.00

Area : 1107058

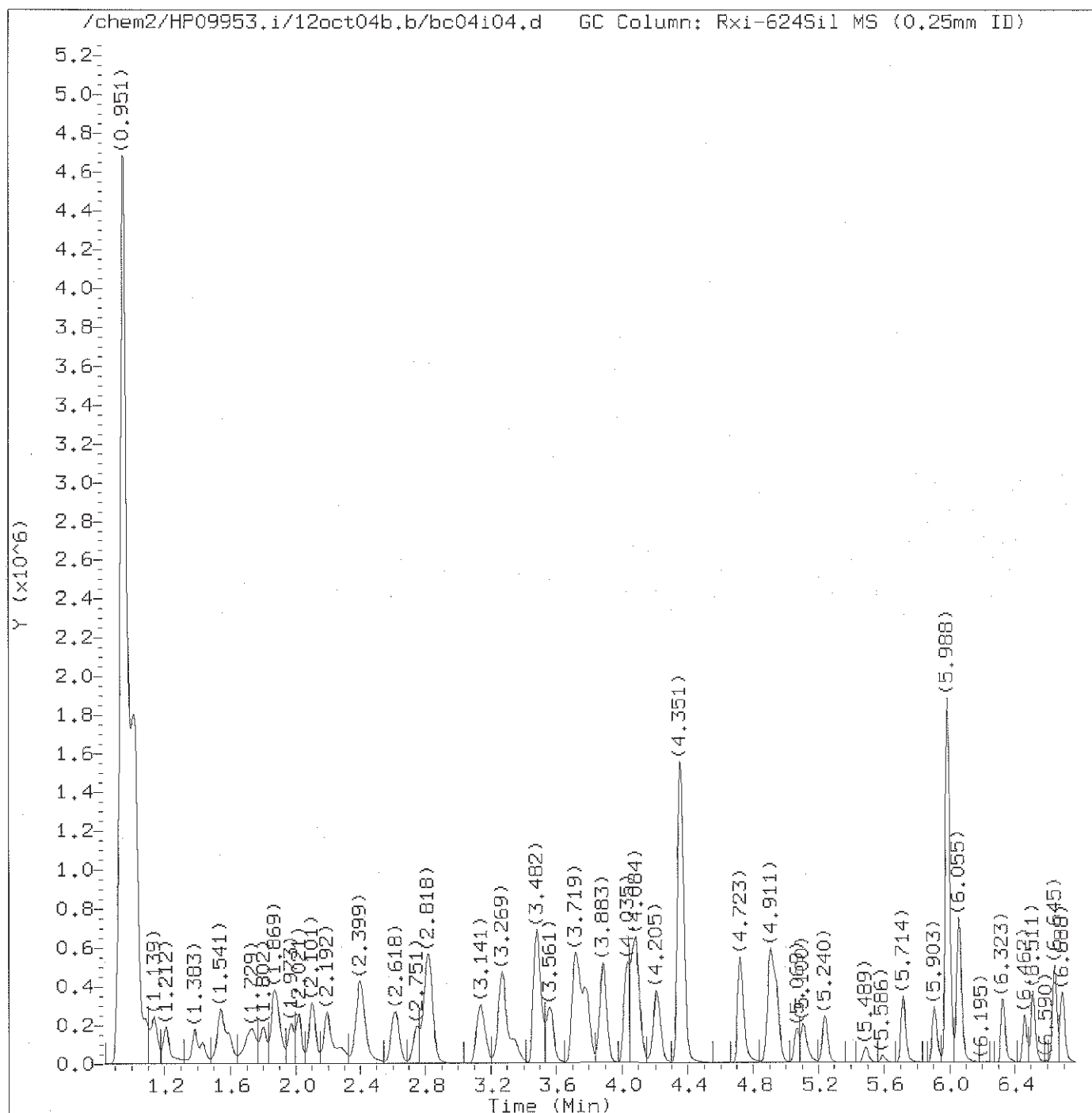
On-column Amount (ng) : 50.2064

Integration start scan : 1469 Integration stop scan: 1482

Y at integration start : 0 Y at integration end: 0

Digitally signed by Emily R. Styer on 10/22/2012 at 18:11.

Target 3.5 esignature user ID: ers02237



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i04.d
Injection date and time: 04-OCT-2012 16:55

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m
Calibration date and time: 22-OCT-2012 15:59

Sublist used: 8260S

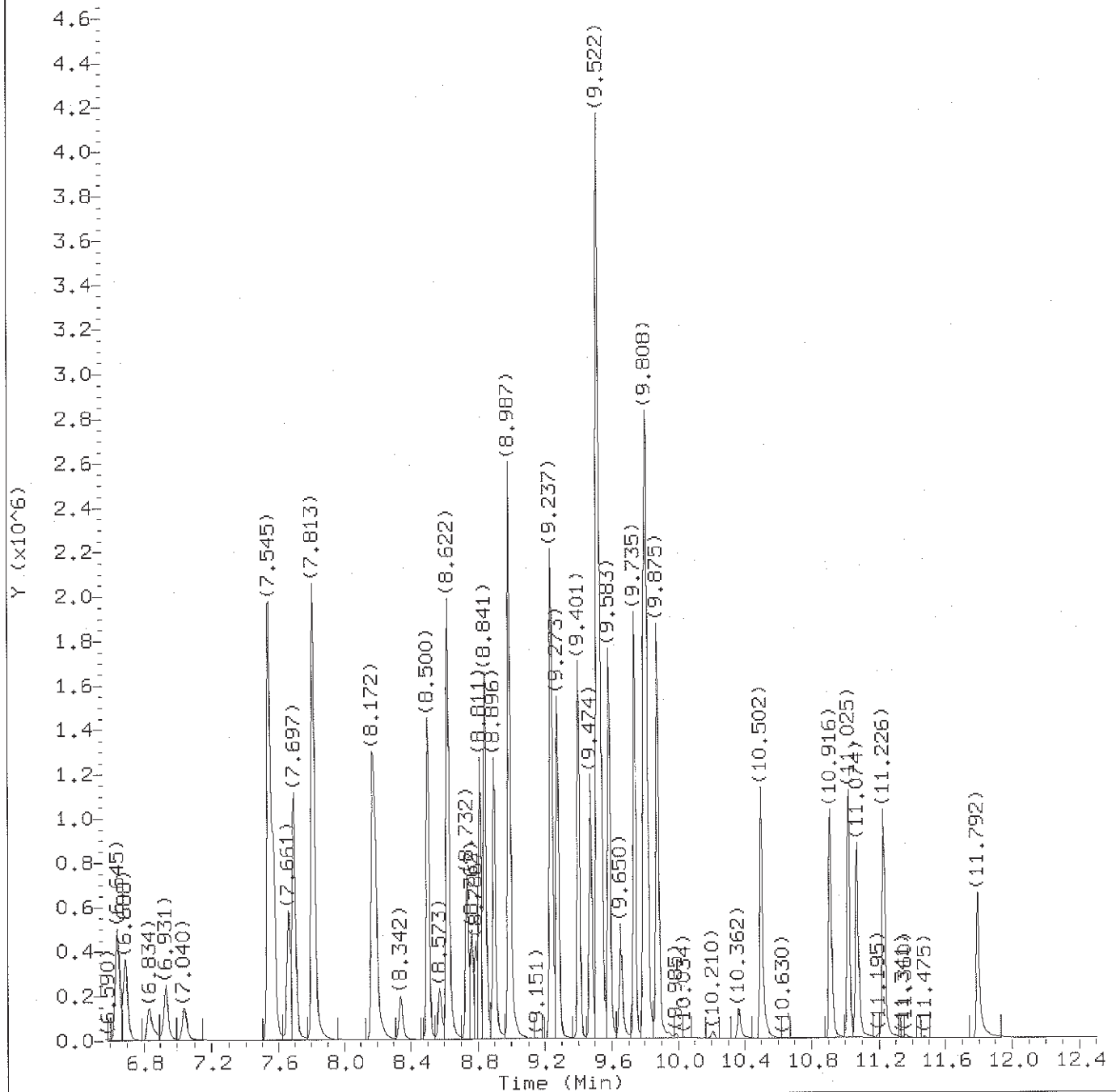
Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD020

Lab Sample ID: VSTD020

Digitally signed by Emily R. Styer
on 10/22/2012 at 15:59.

Target 3.5 esignature user ID: ers02237



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i04.d
Injection date and time: 04-OCT-2012 16:55

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 15:59
Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD020

Lab Sample ID: VSTD020

Digitally signed by Emily R. Styer
on 10/22/2012 at 15:59.

Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i04.d
 Injection date and time: 04-OCT-2012 16:55

Instrument ID: HP09953.i
 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
 Calibration date and time: 22-OCT-2012 15:59
 Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD020

Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
2) Dichlorodifluoromethane	(2)	1.091	85	270519	21.487
4) Chloromethane	(2)	1.139	50	272471	21.887
5) Vinyl Chloride	(2)	1.212	62	224255	21.504
9) Bromomethane	(2)	1.383	94	140108	21.432
10) Chloroethane	(2)	1.431	64	119708	22.036
11) Dichlorofluoromethane	(2)	1.541	67	318054	21.010
13) Trichlorofluoromethane	(2)	1.589	101	282499	21.294
15) Ethanol	(1)	1.681	45	149216	2007.687
17) Freon 123a	(2)	1.736	67	188649	20.836
18) Acrolein	(1)	1.802	56	203723	187.849
19) 1,1-Dichloroethene	(2)	1.863	96	119821	19.724
22) Freon 113	(2)	1.882	101	138897	19.563
20) Acetone	(2)	1.894	58	27366	39.535
24) Methyl Iodide	(2)	1.973	142	250748	19.882
23) 2-Propanol	(1)	1.985	45	101947	200.818
25) Carbon Disulfide	(2)	2.021	76	393243	19.637
29) Allyl Chloride	(2)	2.101	41	276576	20.936
27) Methyl Acetate	(2)	2.107	43	98708	18.579
31) Methylene Chloride	(2)	2.192	84	140680	19.944
30)*t-Butyl alcohol-d10	(1)	2.216	65	140055	250.000
32) t-Butyl alcohol	(1)	2.289	59	139038	195.752
33) Acrylonitrile	(2)	2.386	53	43204	18.662
35) trans-1,2-Dichloroethene	(2)	2.399	96	136756	19.949
34) Methyl Tertiary Butyl Ether	(2)	2.411	73	390730	19.810
38) n-Hexane	(2)	2.618	57	235162	19.716
40) 1,1-Dichloroethane	(2)	2.745	63	303118	20.139
41) di-Isopropyl ether	(2)	2.812	45	579451	20.239
42) 2-Chloro-1,3-butadiene	(2)	2.831	53	259878	19.693
44) Ethyl t-butyl ether	(2)	3.141	59	468426	20.002
46) cis-1,2-Dichloroethene	(2)	3.269	96	154342	19.967
48) 2,2-Dichloropropane	(2)	3.275	77	219493	19.165
45) 2-Butanone	(2)	3.287	43	123694	34.945
50) Propionitrile	(1)	3.348	54	188055	200.005
51) Methacrylonitrile	(2)	3.482	67	252363	98.874
52) Bromochloromethane	(2)	3.482	128	76082	20.477
53) Tetrahydrofuran	(1)	3.530	71	27167	36.544
54) Chloroform	(2)	3.567	83	282119	19.625
55)\$Dibromofluoromethane	(2)	3.713	113	359326	50.137

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 4

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 on 10/22/2012 at 15:59.
 Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i04.d
Injection date and time: 04-OCT-2012 16:55

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S

Calibration date and time: 22-OCT-2012 15:59

Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD020

Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
55) \$Dibromofluoromethane	(2)	3.713	111	364073	49.863
56) 1,1,1-Trichloroethane	(2)	3.737	97	236807	19.304
57) Cyclohexane	(2)	3.786	56	279910	19.315
57) Cyclohexane	(2)	3.786	84	212811	19.278
57) Cyclohexane	(2)	3.786	69	79508	19.222
58) 1,1-Dichloropropene	(2)	3.883	75	213841	19.426
59) Carbon Tetrachloride	(2)	3.889	117	209595	19.004
61) \$1,2-Dichloroethane-d4	(2)	4.029	102	76245	50.615
61) \$1,2-Dichloroethane-d4	(2)	4.029	65	447265	49.082
61) \$1,2-Dichloroethane-d4	(2)	4.035	104	46502	49.328
60) Isobutyl Alcohol	(1)	4.053	41	124825	478.028
62) Benzene	(2)	4.078	78	602866	19.899
64) 1,2-Dichloroethane	(2)	4.102	62	224037	19.542
64) 1,2-Dichloroethane	(2)	4.096	98	16771	20.503
65) t-Amyl methyl ether	(2)	4.205	73	379298	19.797
69) n-Heptane	(2)	4.351	43	271285	19.118
67) *Fluorobenzene	(2)	4.358	96	1431262	50.000
70) n-Butanol	(1)	4.716	56	166420	953.757
72) Trichloroethene	(2)	4.723	95	154416	19.772
73) Methylcyclohexane	(2)	4.911	83	285706	20.757
74) 1,2-Dichloropropane	(2)	4.942	63	168266	19.931
78) Dibromomethane	(2)	5.063	93	87666	19.378
77) 1,4-Dioxane	(1)	5.106	88	31961	471.966
76) Methyl Methacrylate	(2)	5.106	69	81876	18.981
81) Bromodichloromethane	(2)	5.240	83	190655	19.385
82) 2-Nitropropane	(1)	5.489	41	59340	29.724
83) 2-Chloroethyl Vinyl Ether	(2)	5.593	63	16696	18.839
84) cis-1,3-Dichloropropene	(2)	5.714	75	218706	19.329
85) 4-Methyl-2-pentanone	(2)	5.903	43	249868	31.988
86) \$Toluene-d8	(3)	5.988	98	1403900	50.648
86) \$Toluene-d8	(3)	5.988	100	901453	50.383
87) Toluene	(3)	6.055	92	362312	19.824
47) 1,2-Dichloroethene (Total)	(2)		96	291098	39.915
88) trans-1,3-Dichloropropene	(3)	6.329	75	198437	19.450
89) Ethyl Methacrylate	(3)	6.462	69	149387	19.441
90) 1,1,2-Trichloroethane	(3)	6.511	97	113429	19.778
92) Tetrachloroethene	(3)	6.645	166	157462	19.565
93) 1,3-Dichloropropane	(3)	6.694	76	211679	19.941

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

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on 10/22/2012 at 15:59.
Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i04.d
Injection date and time: 04-OCT-2012 16:55

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 15:59
Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD020

Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
95) 2-Hexanone	(3)	6.834	43	179670	33.344
97) Dibromochloromethane	(3)	6.931	129	129863	19.241
98) 1,2-Dibromoethane	(3)	7.040	107	114351	19.749
99) *Chlorobenzene-d5	(3)	7.545	117	967974	50.000
100) Chlorobenzene	(3)	7.570	112	406008	19.856
101) 1,1,1,2-Tetrachloroethane	(3)	7.667	131	146749	19.744
102) Ethylbenzene	(3)	7.697	91	693718	19.949
103) m+p-Xylene	(3)	7.813	106	543620	40.017
104) o-Xylene	(3)	8.172	106	263046	19.907
106) Styrene	(3)	8.190	104	410820	19.769
107) Bromoform	(3)	8.342	173	82612	18.660
108) Isopropylbenzene	(3)	8.500	105	712728	20.226
111) Cyclohexanone	(1)	8.573	55	85134	467.035
112) \$4-Bromofluorobenzene	(3)	8.622	95	516807	49.743
112) \$4-Bromofluorobenzene	(3)	8.622	174	425956	49.910
114) Bromobenzene	(4)	8.738	156	173231	20.496
113) 1,1,2,2-Tetrachloroethane	(4)	8.762	83	155375	20.554
116) 1,2,3-Trichloropropane	(4)	8.786	110	44619	20.856
115) trans-1,4-Dichloro-2-butene	(4)	8.811	53	243179	103.791
117) n-Propylbenzene	(4)	8.841	91	870369	17.533
119) 2-Chlorotoluene	(4)	8.896	126	170974	20.565
122) 1,3,5-Trimethylbenzene	(4)	8.987	105	623271	20.987
123) 4-Chlorotoluene	(4)	8.987	126	181742	20.710
126) tert-Butylbenzene	(4)	9.237	134	139047	20.775
127) Pentachloroethane	(4)	9.243	167	118993	20.727
128) 1,2,4-Trimethylbenzene	(4)	9.273	105	633613	21.068
129) sec-Butylbenzene	(4)	9.401	105	799220	21.254
131) 1,3-Dichlorobenzene	(4)	9.474	146	340213	20.594
132) p-Isopropyltoluene	(4)	9.516	119	698474	21.100
133) *1,4-Dichlorobenzene-d4	(4)	9.522	152	580630	50.000
134) 1,4-Dichlorobenzene	(4)	9.541	146	361304	20.381
135) 1,2,3-Trimethylbenzene	(4)	9.583	105	682368	22.026
136) Benzyl Chloride	(4)	9.650	126	53672	19.318
137) 1,3-Diethylbenzene	(4)	9.735	119	424089	21.975
138) 1,4-Diethylbenzene	(4)	9.796	119	451547A	21.738
139) n-Butylbenzene	(4)	9.815	92	360988	21.047
140) 1,2-Dichlorobenzene	(4)	9.815	146	345561	20.383
141) 1,2-Diethylbenzene	(4)	9.875	119	374244A	21.759

A = User selected an alternate hit.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 3 of 4

Digitally signed by Emily R. Styer
on 10/22/2012 at 15:59.
Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i04.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 16:55 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 15:59
Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD020

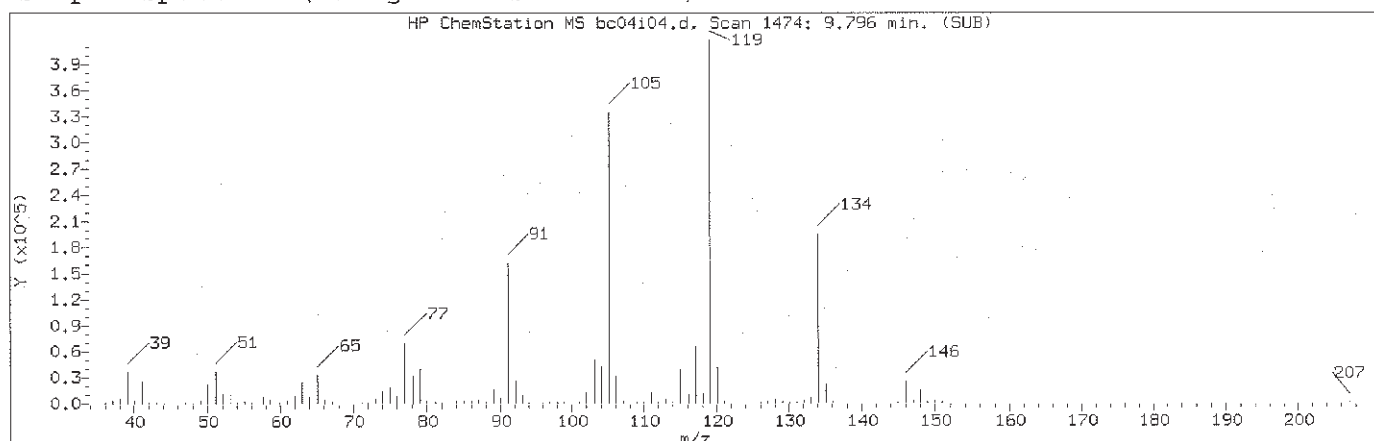
Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
144) 1,2-Dibromo-3-chloropropane	(4)	10.362	75	30988	20.343
145) 1,3,5-Trichlorobenzene	(4)	10.502	180	292713	20.469
146) 1,2,4-Trichlorobenzene	(4)	10.916	180	257143	20.772
147) Hexachlorobutadiene	(4)	11.025	225	148992	20.299
148) Naphthalene	(4)	11.074	128	539365	21.451
149) 1,2,3-Trichlorobenzene	(4)	11.226	180	248545	21.184
105) Xylene (Total)	(3)		106	806666	59.924
150) 2-Methylnaphthalene	(4)	11.798	142	303986	20.584

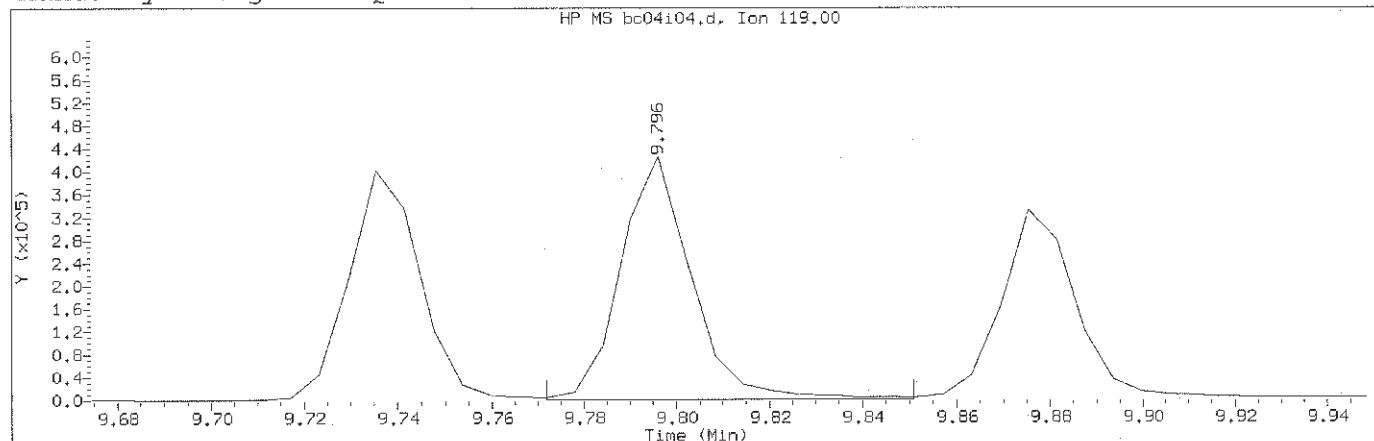
page 4 of 4

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on 10/22/2012 at 15:59.
Target 3.5 esignature user ID: ers02237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04i04.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 16:55 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 15:59
Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD020

Lab Sample ID: VSTD020

Compound Number : 138
Compound Name : 1,4-Diethylbenzene
Scan Number : 1474
Retention Time (minutes): 9.796
Quant Ion : 119.00
Area (flag) : 451547A
On-Column Amount (ng) : 21.7379
Integration start scan : 1469 Integration stop scan: 1482
Y at integration start : 0 Y at integration end: 0

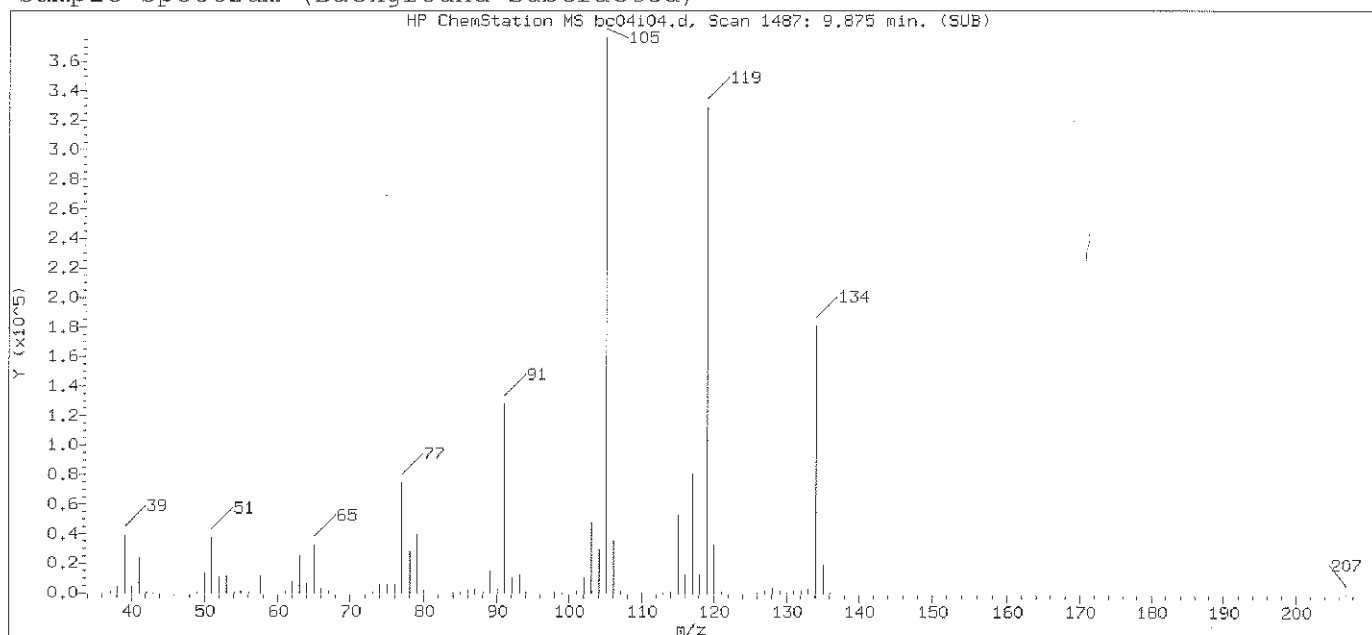
Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Emily R. Styer
on 10/22/2012 at 15:59.
Target 3.5 esignature user ID: ers02237

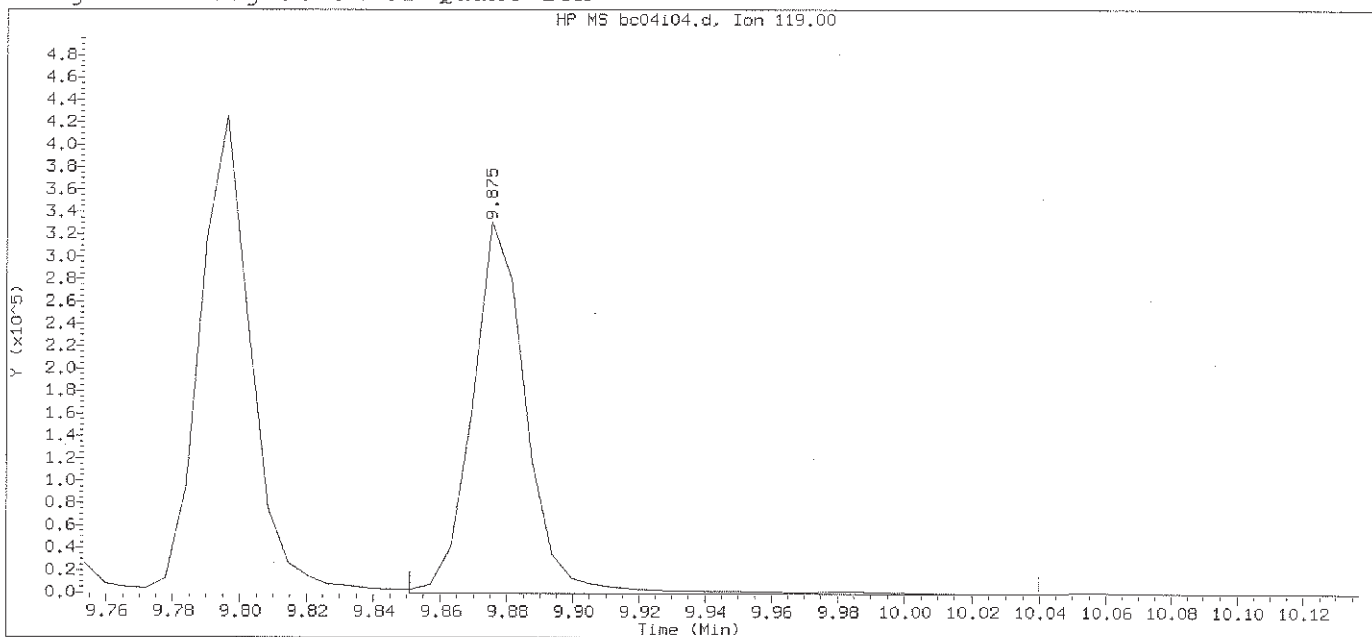
GC/MS audit/management approval:

Signature 10/23/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04i04.d

Instrument ID: HP09953.i

Injection date and time: 04-OCT-2012 16:55

Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m

Sublist used: 8260S

Calibration date and time: 05-OCT-2012 16:20

Date, time and analyst ID of latest file update: 05-Oct-2012 16:20 ers02237

Sample Name: VSTD020

Lab Sample ID: VSTD020

Compound Number : 138

Compound Name : 1,4-Diethylbenzene

Scan Number : 1487

Retention Time (minutes): 9.875

Quant Ion : 119.00

Area : 378826

On-column Amount (ng) : 21.8208

Integration start scan : 1482

Integration stop scan: 1513

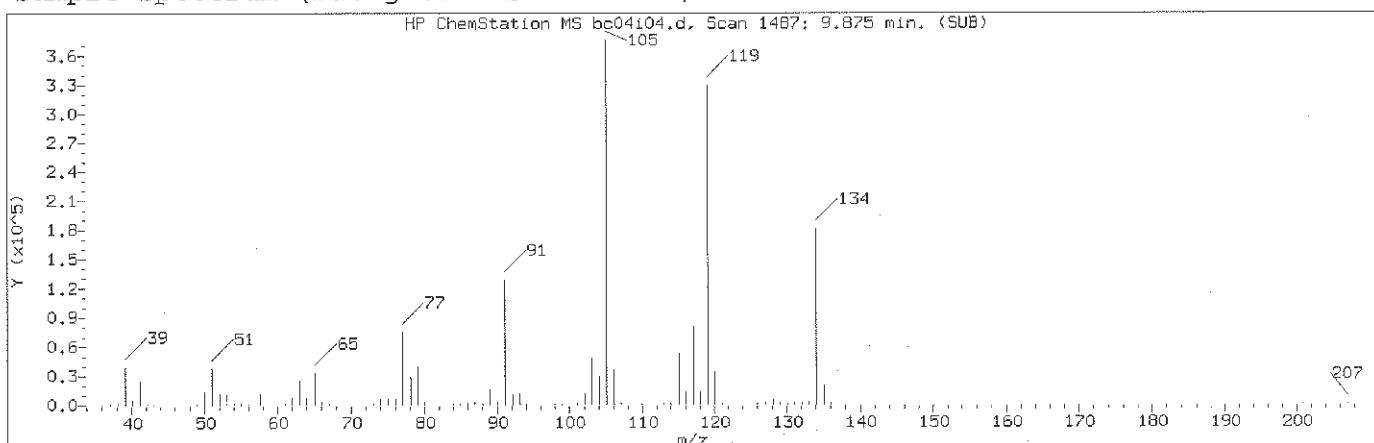
Y at integration start : 0

Y at integration end: 0

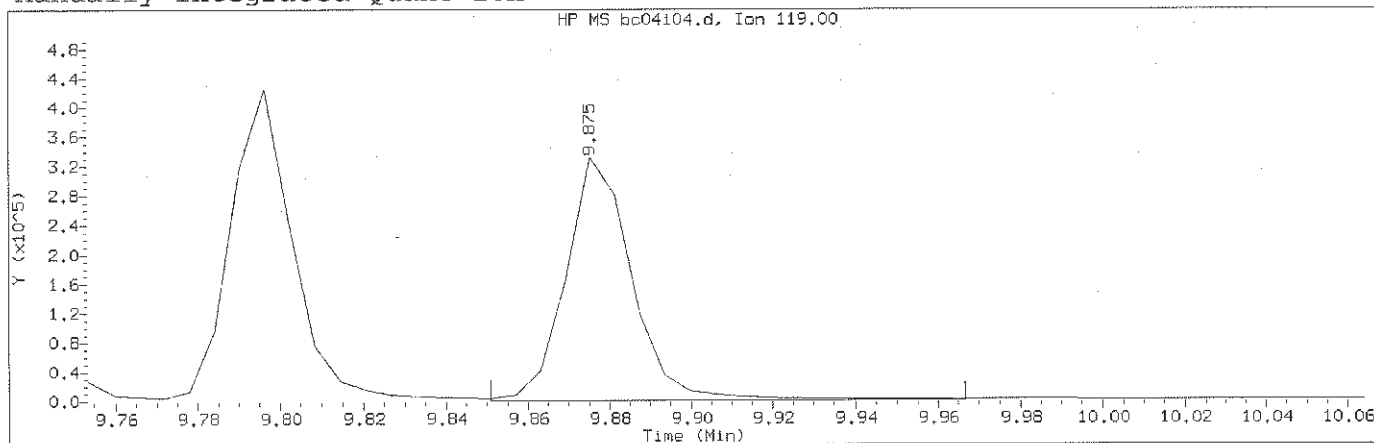
Digitally signed by Emily R. Styer on 10/23/2012 at 14:02.

Target 3.5 esignature user ID: ers02237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04i04.d

Instrument ID: HP09953.i

Injection date and time: 04-OCT-2012 16:55

Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m

Sublist used: 8260S

Calibration date and time: 22-OCT-2012 15:59

Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD020

Lab Sample ID: VSTD020

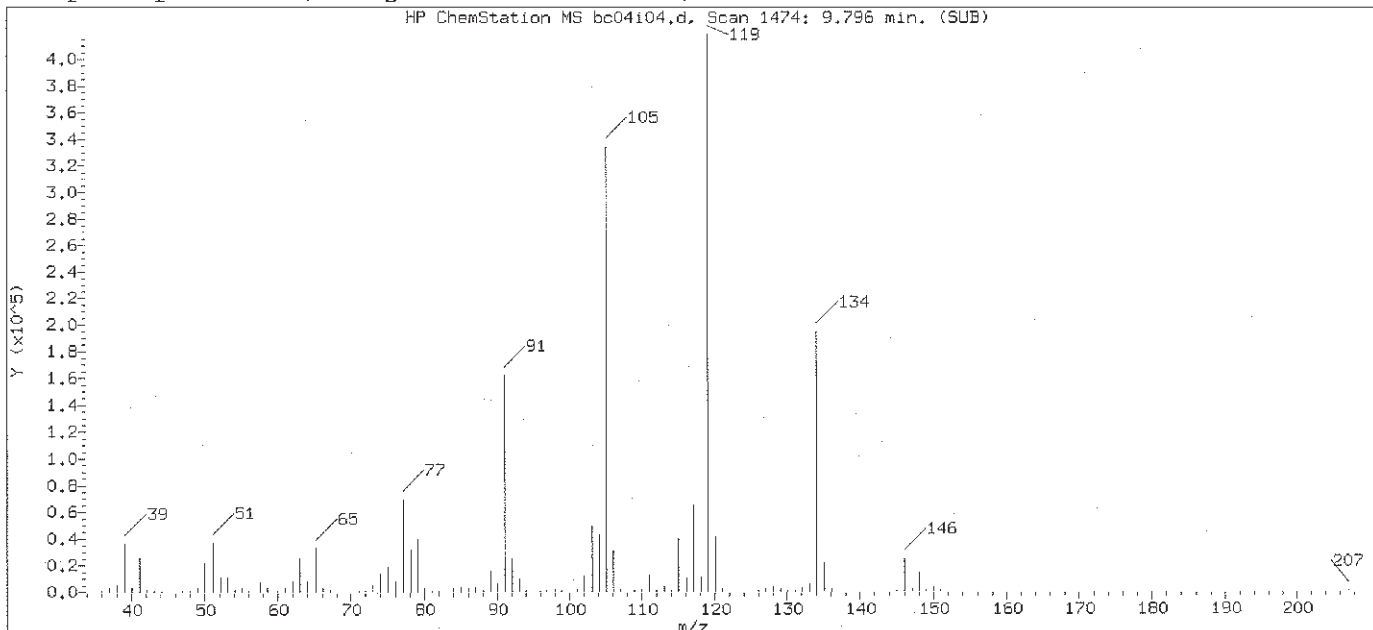
Compound Number	: 141	
Compound Name	: 1,2-Diethylbenzene	
Scan Number	: 1487	
Retention Time (minutes)	: 9.875	
Quant Ion	: 119.00	
Area (flag)	: 374244A	
On-Column Amount (ng)	: 21.7588	
Integration start scan	: 1482	Integration stop scan: 1501
Y at integration start	: 0	Y at integration end: 0

Reason for manual integration: improper integration

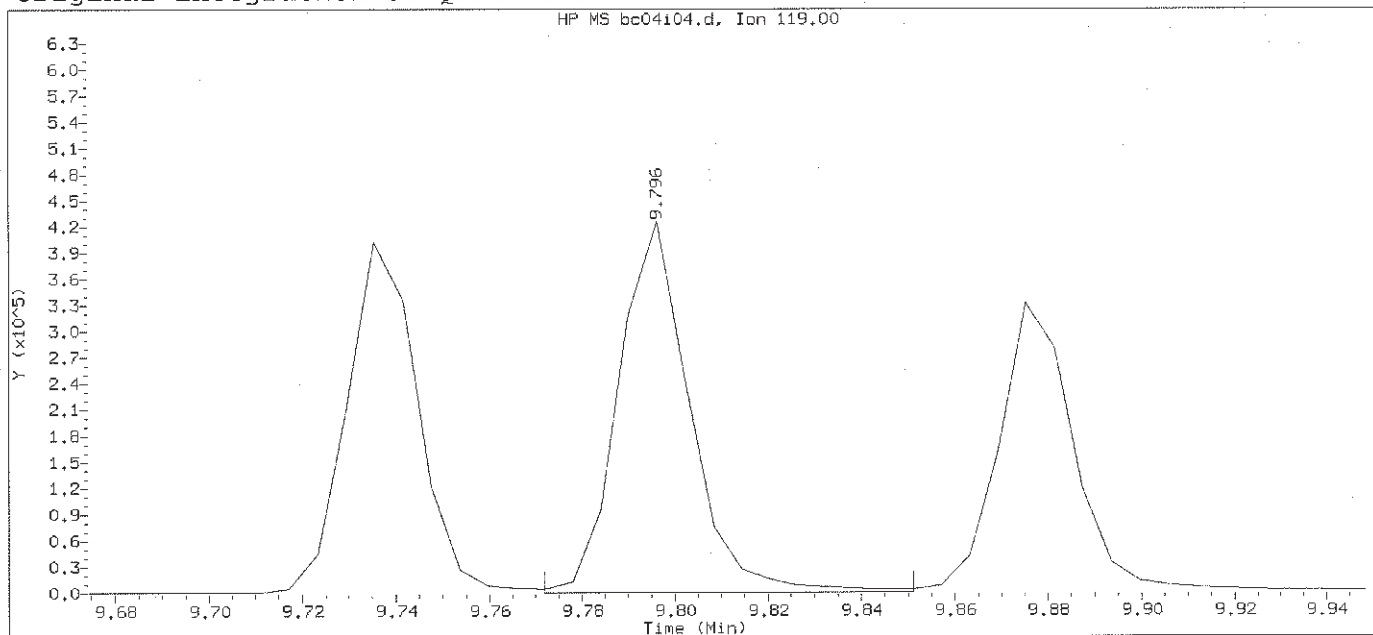
Analyst responsible for change: Digitally signed by Emily R. Styer
on 10/22/2012 at 15:59.
Target 3.5 esignature user ID: ers02237

GC/MS audit/management approval: 10/23/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04104.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 16:55 Analyst ID: ERS02237

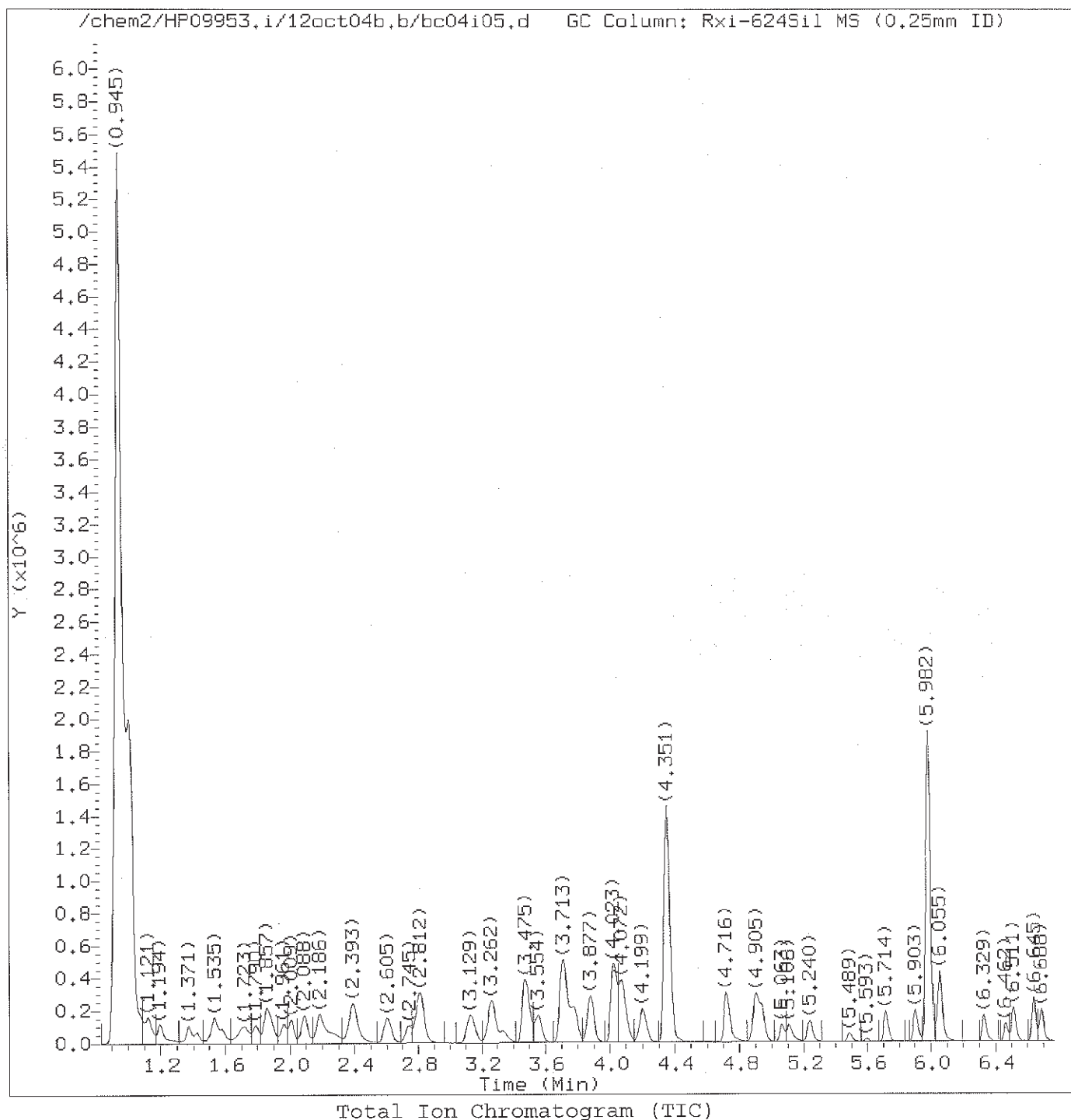
Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 05-OCT-2012 16:20
Date, time and analyst ID of latest file update: 05-Oct-2012 16:20 ers02237

Sample Name: VSTD020

Lab Sample ID: VSTD020

Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1474
Retention Time (minutes): 9.796
Quant Ion : 119.00
Area : 451547
On-column Amount (ng) : 21.7380
Integration start scan : 1469 Integration stop scan: 1482
Y at integration start : 0 Y at integration end: 0

Digitally signed by Emily R. Styer on 10/22/2012 at 15:59.
Target 3.5 esignature usTAP03: Page 586 of 2648



Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i05.d
Injection date and time: 04-OCT-2012 17:21

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m
Calibration date and time: 22-OCT-2012 15:59

Sublist used: 8260S

Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD010

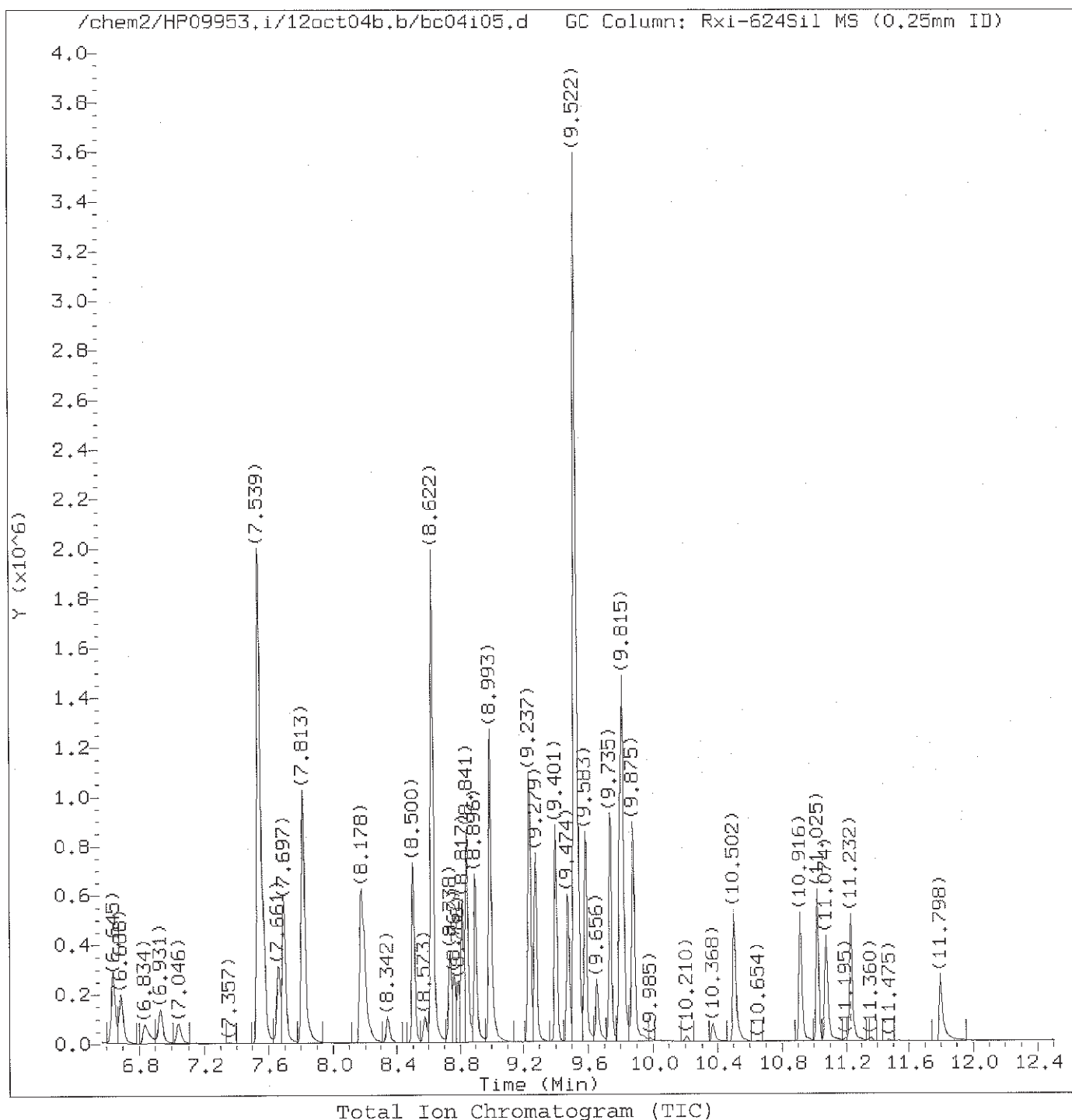
Lab Sample ID: VSTD010

Digitally signed by Emily R. Styer
on 10/22/2012 at 15:59.

Target 3.5 esignature user ID: ers02237

TAP03 Page 587 of 2648

page 1 of 2



Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i05.d
Injection date and time: 04-OCT-2012 17:21

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m
Calibration date and time: 22-OCT-2012 15:59

Sublist used: 8260S

Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD010

Lab Sample ID: VSTD010

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on 10/22/2012 at 15:59.

Target 3.5 esignature user ID: ers02237

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page 2 of 2

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i05.d
Injection date and time: 04-OCT-2012 17:21

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 15:59
Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD010

Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
2) Dichlorodifluoromethane	(2)	1.078	85	150047	11.642
4) Chloromethane	(2)	1.127	50	149058	11.696
5) Vinyl Chloride	(2)	1.194	62	124010	11.616
9) Bromomethane	(2)	1.371	94	78127	11.674
10) Chloroethane	(2)	1.425	64	66082	11.883
11) Dichlorofluoromethane	(2)	1.529	67	167745	10.824
13) Trichlorofluoromethane	(2)	1.577	101	153771	11.322
15) Ethanol	(1)	1.669	45	79674	960.372
17) Freon 123a	(2)	1.723	67	99554	10.741
18) Acrolein	(1)	1.790	56	115960	95.790
19) 1,1-Dichloroethene	(2)	1.857	96	66417	10.679
22) Freon 113	(2)	1.875	101	74986	10.316
20) Acetone	(2)	1.888	58	15038	21.222
24) Methyl Iodide	(2)	1.961	142	137039	10.614
23) 2-Propanol	(1)	1.973	45	58873	103.893
25) Carbon Disulfide	(2)	2.009	76	217348	10.602
29) Allyl Chloride	(2)	2.088	41	146708	10.848
27) Methyl Acetate	(2)	2.107	43	56860	10.454
31) Methylene Chloride	(2)	2.180	84	79246	10.974
30) *t-Butyl alcohol-d10	(1)	2.216	65	156335	250.000
32) t-Butyl alcohol	(1)	2.271	59	92188	116.276
33) Acrylonitrile	(2)	2.380	53	25208	10.636
35) trans-1,2-Dichloroethene	(2)	2.386	96	75603	10.773
34) Methyl Tertiary Butyl Ether	(2)	2.399	73	218832	10.837
38) n-Hexane	(2)	2.599	57	123774	10.137
40) 1,1-Dichloroethane	(2)	2.739	63	161611	10.489
41) di-Isopropyl ether	(2)	2.806	45	315036	10.748
42) 2-Chloro-1,3-butadiene	(2)	2.818	53	138623	10.261
44) Ethyl t-butyl ether	(2)	3.129	59	248813	10.378
46) cis-1,2-Dichloroethene	(2)	3.256	96	84603	10.691
48) 2,2-Dichloropropane	(2)	3.269	77	119882	10.225
45) 2-Butanone	(2)	3.287	43	82430	22.748
50) Propionitrile	(1)	3.342	54	106819	101.776
51) Methacrylonitrile	(2)	3.469	67	142013	54.350
52) Bromochloromethane	(2)	3.475	128	41122	10.811
53) Tetrahydrofuran	(1)	3.524	71	16265	19.600
54) Chloroform	(2)	3.554	83	157317	10.690
55) \$Dibromofluoromethane	(2)	3.707	113	366937	50.013

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 4

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Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i05.d
 Injection date and time: 04-OCT-2012 17:21

Instrument ID: HP09953.i
 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S

Calibration date and time: 22-OCT-2012 15:59

Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD010

Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
55) \$Dibromofluoromethane	(2)	3.707	111	371612	49.716
56) 1,1,1-Trichloroethane	(2)	3.731	97	129379	10.302
57) Cyclohexane	(2)	3.774	56	151584	10.217
57) Cyclohexane	(2)	3.774	84	114166	10.102
57) Cyclohexane	(2)	3.780	69	42443	10.023
58) 1,1-Dichloropropene	(2)	3.877	75	115585	10.257
59) Carbon Tetrachloride	(2)	3.883	117	112546	9.968
61) \$1,2-Dichloroethane-d4	(2)	4.023	102	77921	50.529
61) \$1,2-Dichloroethane-d4	(2)	4.023	65	463774	49.714
61) \$1,2-Dichloroethane-d4	(2)	4.023	104	48822	50.588
60) Isobutyl Alcohol	(1)	4.047	41	73014	250.495
62) Benzene	(2)	4.072	78	330839	10.667
64) 1,2-Dichloroethane	(2)	4.096	62	124128	10.577
64) 1,2-Dichloroethane	(2)	4.096	98	8939	10.675
65) t-Amyl methyl ether	(2)	4.199	73	205377	10.471
69) n-Heptane	(2)	4.345	43	147290	10.139
67) *Fluorobenzene	(2)	4.351	96	1465221	50.000
72) Trichloroethene	(2)	4.716	95	82604	10.332
70) n-Butanol	(1)	4.716	56	90316	463.702
73) Methylcyclohexane	(2)	4.905	83	142523	10.115
74) 1,2-Dichloropropane	(2)	4.935	63	91518	10.589
78) Dibromomethane	(2)	5.063	93	49470	10.682
77) 1,4-Dioxane	(1)	5.106	88	18179	240.493
76) Methyl Methacrylate	(2)	5.106	69	45049	10.202
81) Bromodichloromethane	(2)	5.240	83	101877	10.118
82) 2-Nitropropane	(1)	5.489	41	42144	20.153
83) 2-Chloroethyl Vinyl Ether	(2)	5.593	63	8088	9.627
84) cis-1,3-Dichloropropene	(2)	5.714	75	115310	9.955
85) 4-Methyl-2-pentanone	(2)	5.903	43	166969	21.080
86) \$Toluene-d8	(3)	5.982	98	1419183	50.605
86) \$Toluene-d8	(3)	5.982	100	918077	50.717
87) Toluene	(3)	6.055	92	199751	10.803
47) 1,2-Dichloroethene (Total)	(2)		96	160206	21.464
88) trans-1,3-Dichloropropene	(3)	6.329	75	104487	10.123
89) Ethyl Methacrylate	(3)	6.462	69	78243	10.064
90) 1,1,2-Trichloroethane	(3)	6.511	97	64934	11.191
92) Tetrachloroethene	(3)	6.645	166	86069	10.570
93) 1,3-Dichloropropane	(3)	6.688	76	116762	10.872

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

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Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i05.d
Injection date and time: 04-OCT-2012 17:21

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 15:59
Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD010

Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
95) 2-Hexanone	(3)	6.834	43	116657	21.675
97) Dibromochloromethane	(3)	6.931	129	69764	10.216
98) 1,2-Dibromoethane	(3)	7.046	107	63063	10.765
99) *Chlorobenzene-d5	(3)	7.539	117	979343	50.000
100) Chlorobenzene	(3)	7.570	112	221971	10.730
101) 1,1,1,2-Tetrachloroethane	(3)	7.661	131	77988	10.371
102) Ethylbenzene	(3)	7.697	91	369585	10.504
103) m+p-Xylene	(3)	7.813	106	288074	20.960
104) o-Xylene	(3)	8.178	106	137109	10.256
106) Styrene	(3)	8.196	104	212853	10.124
107) Bromoform	(3)	8.342	173	43892	9.799
108) Isopropylbenzene	(3)	8.500	105	371145	10.410
111) Cyclohexanone	(1)	8.573	55	46385	269.616
112) \$4-Bromofluorobenzene	(3)	8.622	95	519754	49.446
112) \$4-Bromofluorobenzene	(3)	8.622	174	427068	49.459
114) Bromobenzene	(4)	8.738	156	94282	10.957
113) 1,1,2,2-Tetrachloroethane	(4)	8.762	83	88912	11.553
116) 1,2,3-Trichloropropane	(4)	8.786	110	25361	11.644
115) trans-1,4-Dichloro-2-butene	(4)	8.817	53	129748	54.395
117) n-Propylbenzene	(4)	8.841	91	475084	11.448
119) 2-Chlorotoluene	(4)	8.896	126	91793	10.845
122) 1,3,5-Trimethylbenzene	(4)	8.993	105	330103	10.918
123) 4-Chlorotoluene	(4)	8.993	126	96192	10.767
126) tert-Butylbenzene	(4)	9.237	134	70796	10.390
127) Pentachloroethane	(4)	9.243	167	60155	10.292
128) 1,2,4-Trimethylbenzene	(4)	9.279	105	335489	10.957
129) sec-Butylbenzene	(4)	9.401	105	421676	11.015
131) 1,3-Dichlorobenzene	(4)	9.480	146	181690	10.803
132) p-Isopropyltoluene	(4)	9.516	119	363998	10.801
133) *1,4-Dichlorobenzene-d4	(4)	9.522	152	591113	50.000
134) 1,4-Dichlorobenzene	(4)	9.541	146	200533	11.111
135) 1,2,3-Trimethylbenzene	(4)	9.583	105	349168	11.071
136) Benzyl Chloride	(4)	9.656	126	28566	10.100
137) 1,3-Diethylbenzene	(4)	9.735	119	209951	10.686
138) 1,4-Diethylbenzene	(4)	9.796	119	229166A	10.837
139) n-Butylbenzene	(4)	9.815	92	187903	10.761
140) 1,2-Dichlorobenzene	(4)	9.815	146	186703	10.817
141) 1,2-Diethylbenzene	(4)	9.875	119	192419A	10.989

A = User selected an alternate hit.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

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Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i05.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 17:21 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 15:59
Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD010

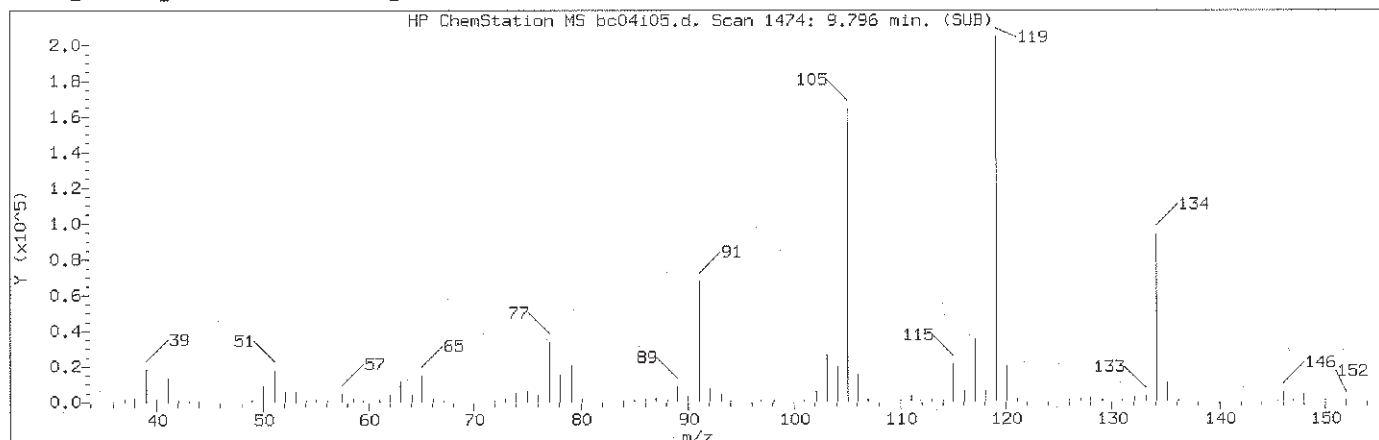
Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,2-Dibromo-3-chloropropane	(4)	10.368	75	16779	10.820
145) 1,3,5-Trichlorobenzene	(4)	10.502	180	155538	10.683
146) 1,2,4-Trichlorobenzene	(4)	10.916	180	135944	10.787
147) Hexachlorobutadiene	(4)	11.025	225	80013	10.708
148) Naphthalene	(4)	11.074	128	287170	11.218
149) 1,2,3-Trichlorobenzene	(4)	11.232	180	135639	11.356
105) Xylene (Total)	(3)		106	425183	31.215
150) 2-Methylnaphthalene	(4)	11.798	142	142444	9.944

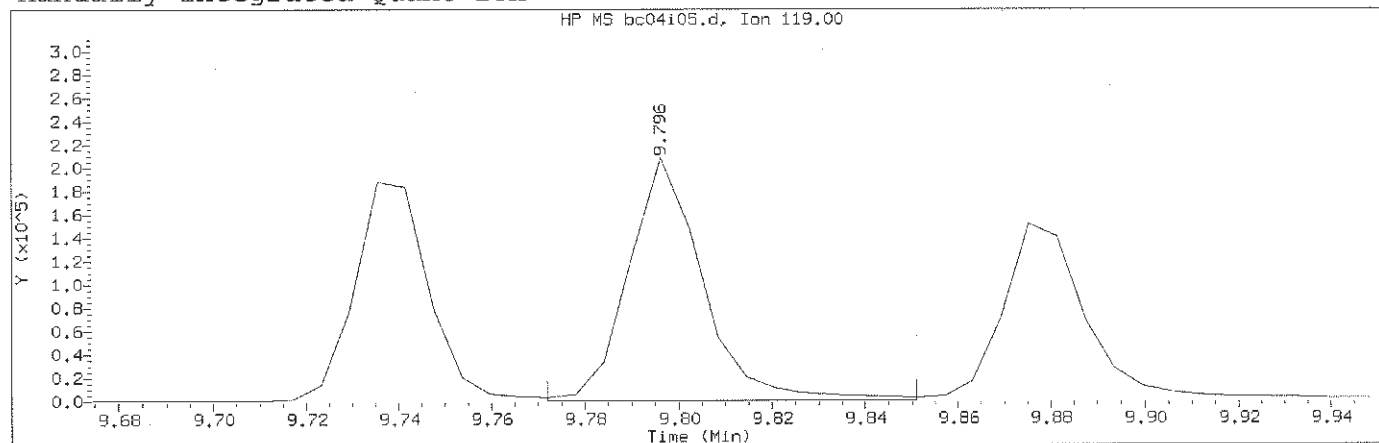
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on 10/22/2012 at 15:59.
Target 3.5 esignature user ID: ers02237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04i05.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 17:21 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 15:59
Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD010

Lab Sample ID: VSTD010

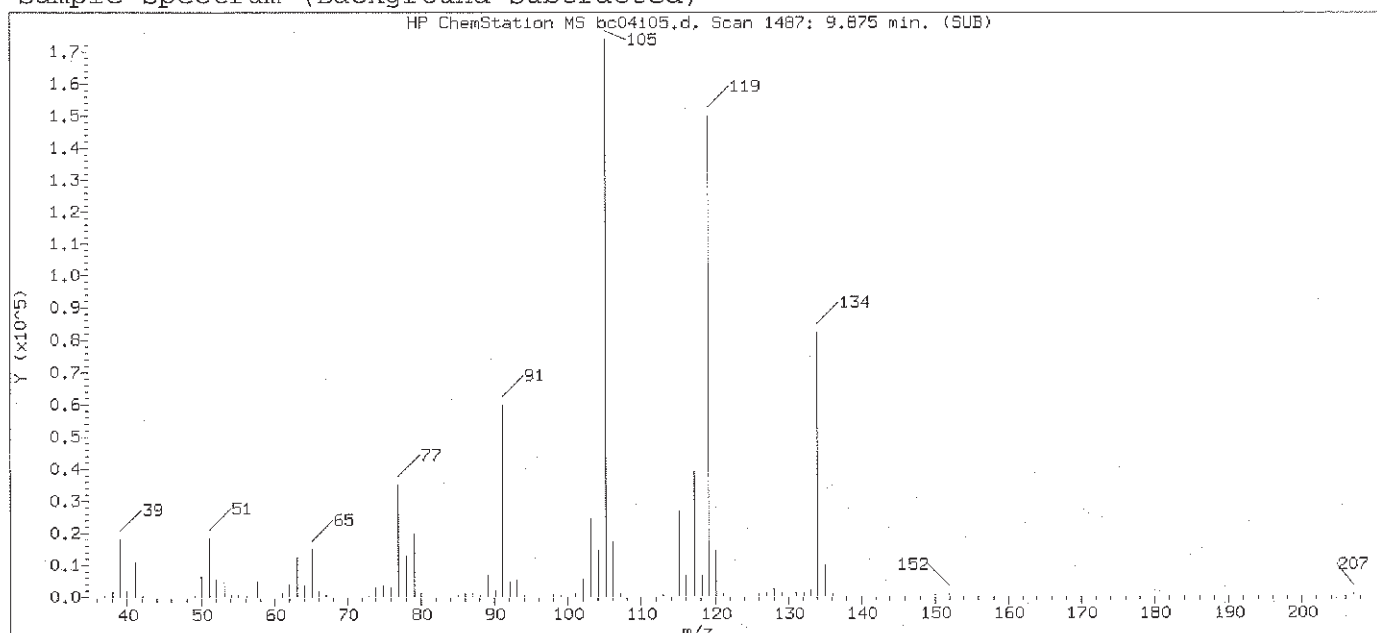
Compound Number : 138
Compound Name : 1,4-Diethylbenzene
Scan Number : 1474
Retention Time (minutes): 9.796
Quant Ion : 119.00
Area (flag) : 229166A
On-Column Amount (ng) : 10.8366
Integration start scan : 1469 Integration stop scan: 1482
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

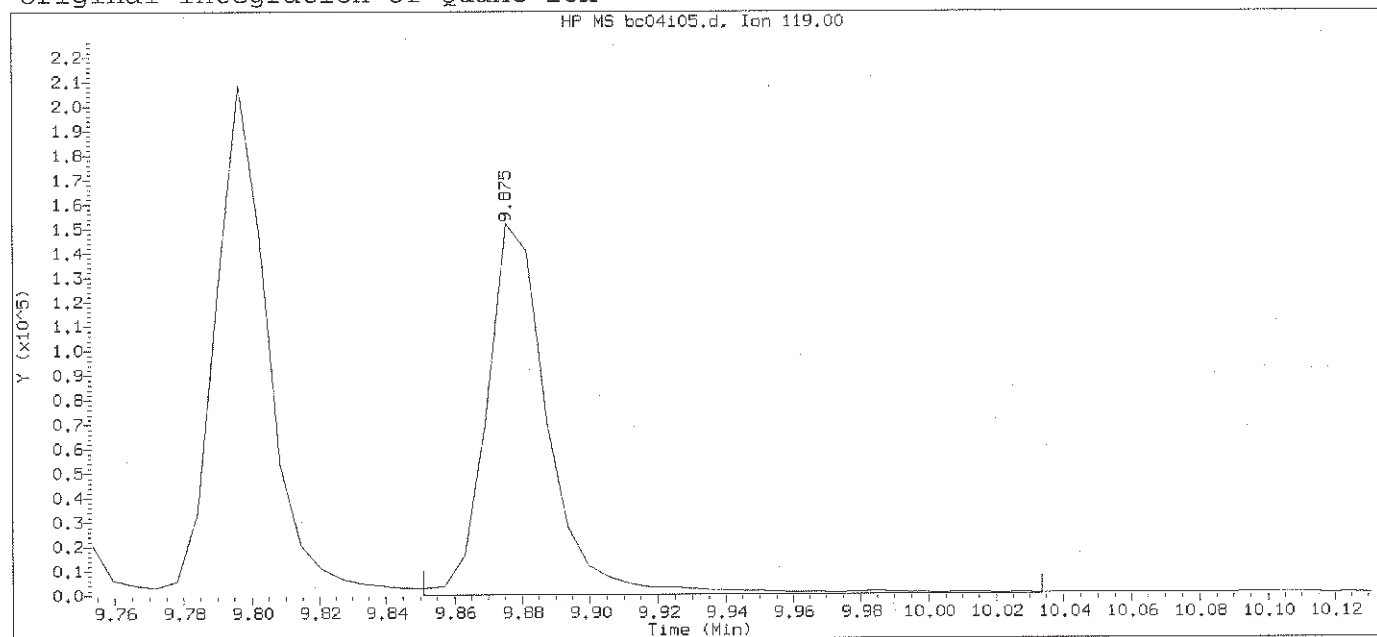
Digitally signed by Emily R. Styer
Analyst responsible for change: on 10/22/2012 at 15:59.
Target 3.5 esignature user ID: ers02237

GC/MS audit/management approval:

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04105.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 17:21 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 05-OCT-2012 16:20
Date, time and analyst ID of latest file update: 05-Oct-2012 16:20 ers02237

Sample Name: VSTD010

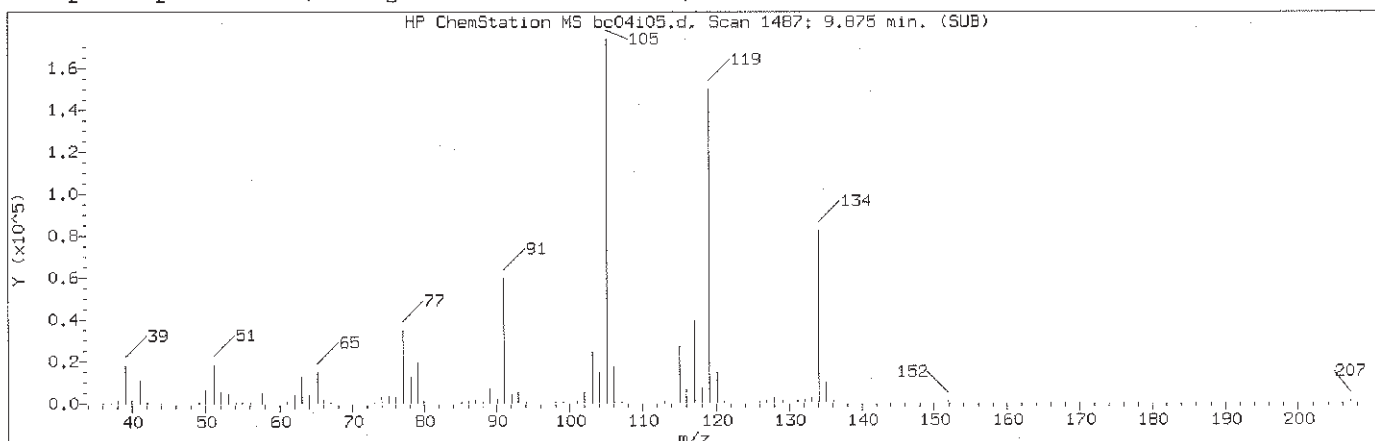
Lab Sample ID: VSTD010

Compound Number : 138
Compound Name : 1,4-Diethylbenzene
Scan Number : 1487
Retention Time (minutes): 9.875
Quant Ion : 119.00
Area : 193777
On-column Amount (ng) : 10.9639
Integration start scan : 1482 Integration stop scan: 1512
Y at integration start : 0 Y at integration end: 0

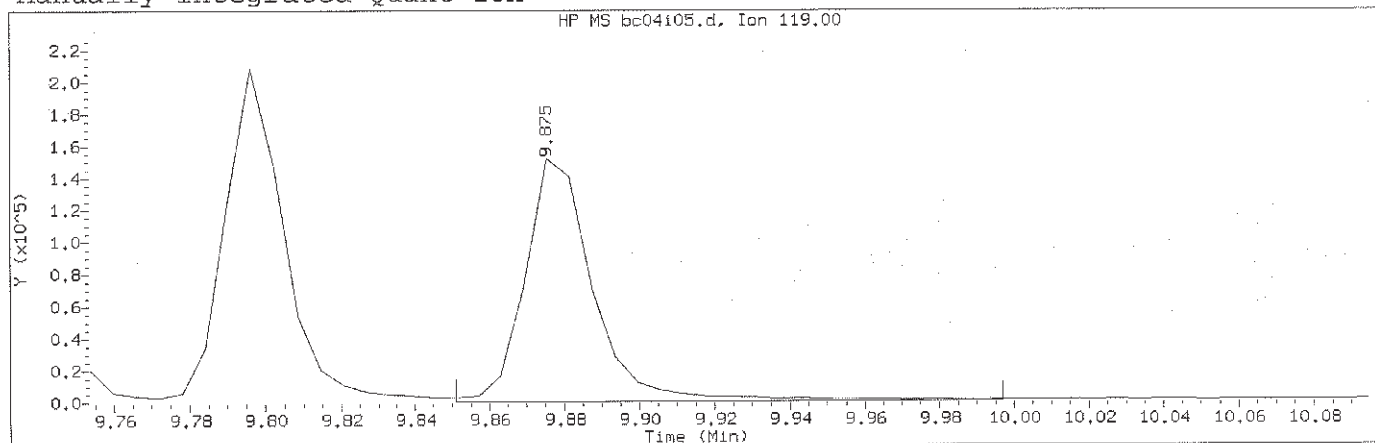
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Target 3.5 esignature us FAP03: Page 594 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04i05.d
Injection date and time: 04-OCT-2012 17:21

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 15:59
Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD010

Lab Sample ID: VSTD010

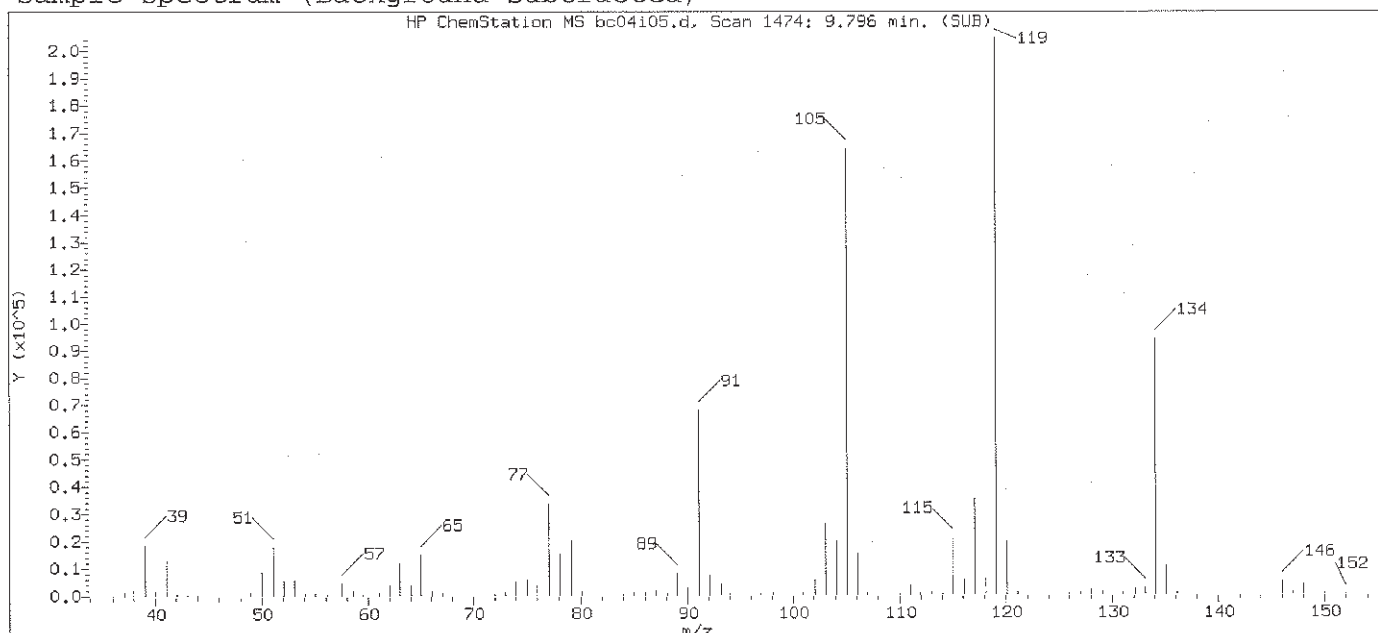
Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1487
Retention Time (minutes): 9.875
Quant Ion : 119.00
Area (flag) : 192419A
On-Column Amount (ng) : 10.9890
Integration start scan : 1482 Integration stop scan: 1506
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

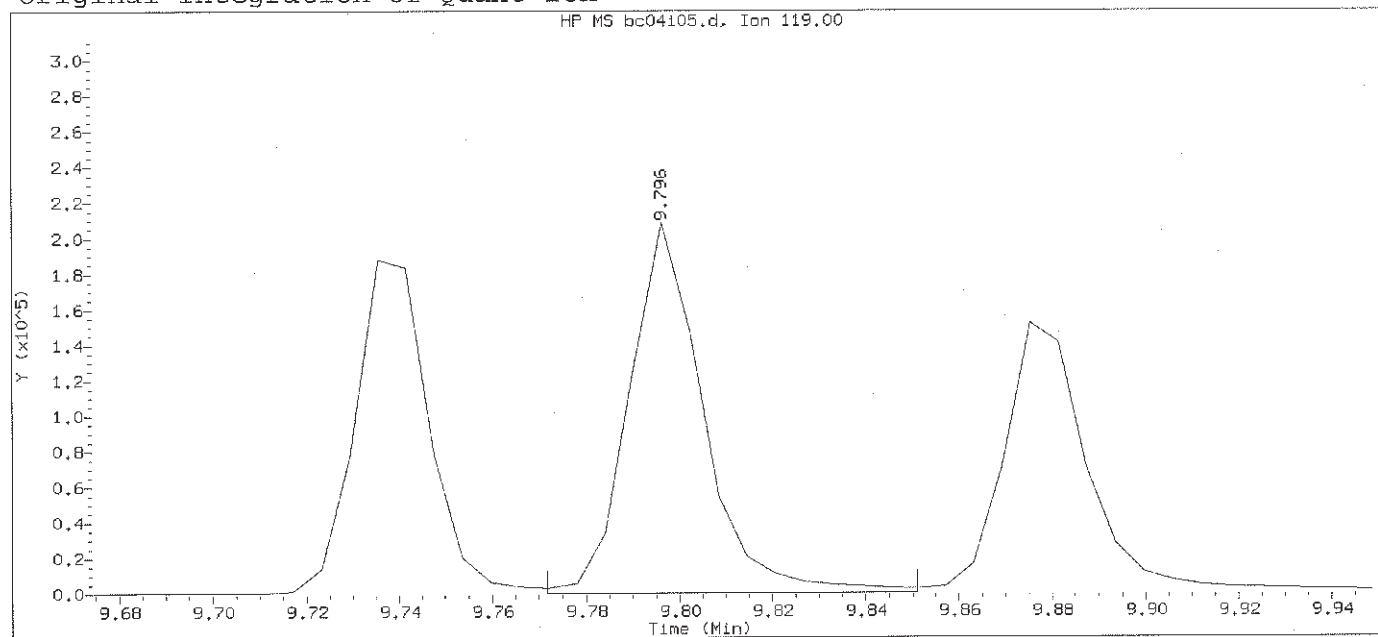
Analyst responsible for change: Digitally signed by Emily R. Styer
on 10/22/2012 at 15:59.
Target 3.5 esignature user ID: ers02237

GC/MS audit/management approval: amg 10/23/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04105.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 17:21 Analyst ID: ERS02237

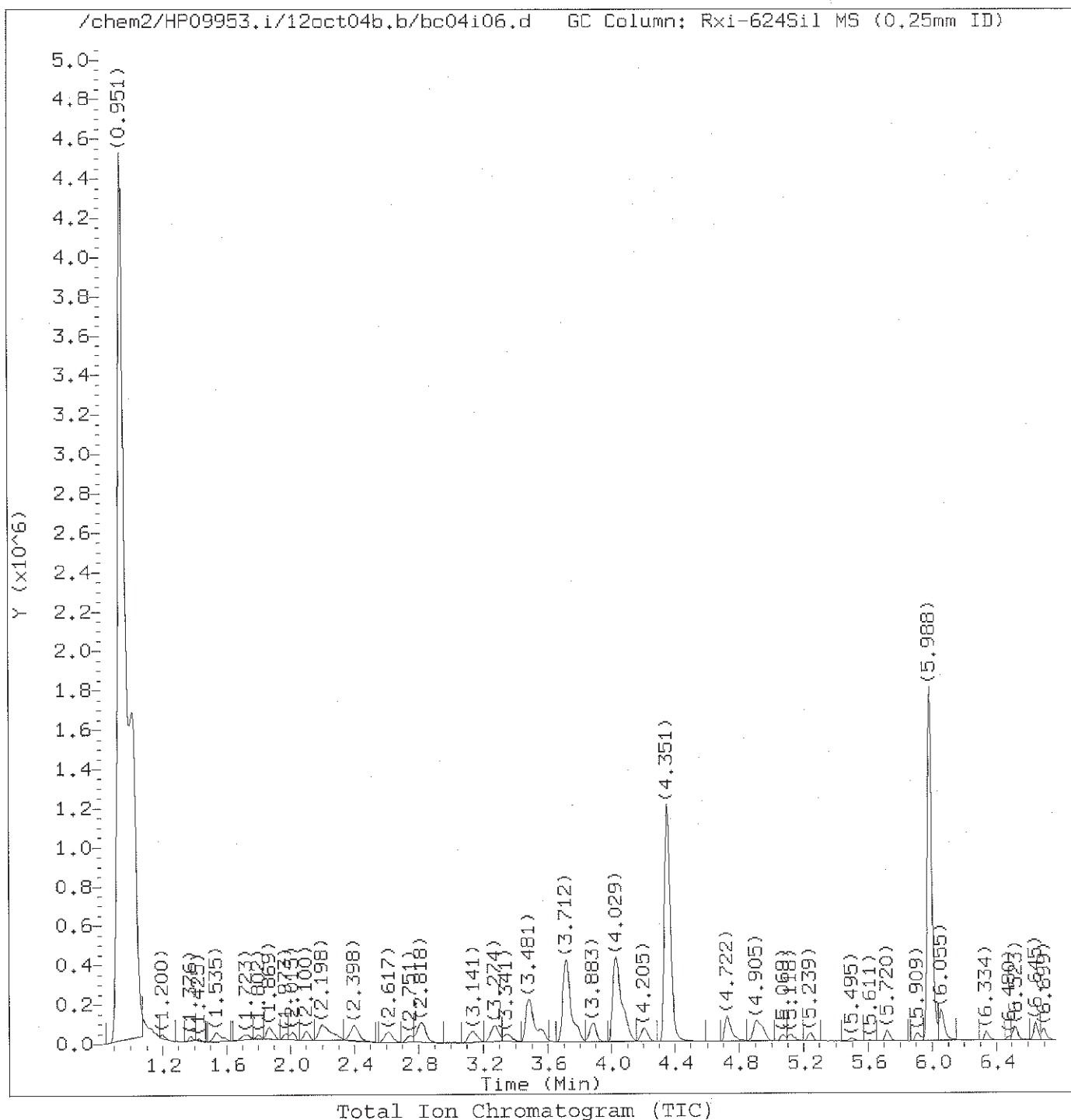
Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 05-OCT-2012 16:20
Date, time and analyst ID of latest file update: 05-Oct-2012 16:20 ers02237

Sample Name: VSTD010

Lab Sample ID: VSTD010

Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1474
Retention Time (minutes): 9.796
Quant Ion : 119.00
Area : 229166
On-column Amount (ng) : 10.8367
Integration start scan : 1469 Integration stop scan: 1482
Y at integration start : 0 Y at integration end: 0

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Target 3.5 esignature us PAP03: Page 596 of 2648



Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i06.d
Injection date and time: 04-OCT-2012 17:43

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 15:59
Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD004

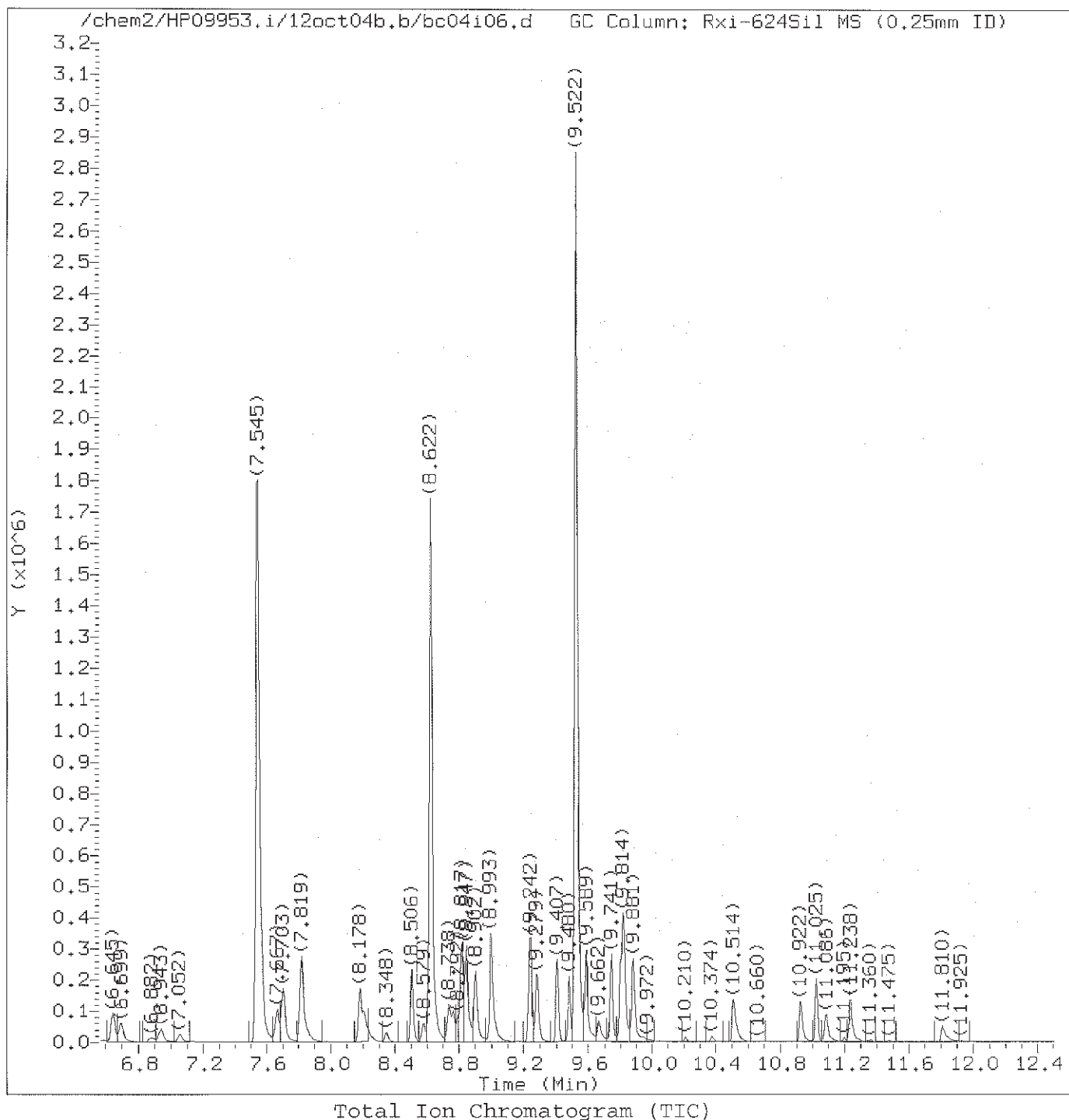
Lab Sample ID: VSTD004

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Target 3.5 esignature user ID: ers02237

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Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i06.d
Injection date and time: 04-OCT-2012 17:43

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m
Calibration date and time: 22-OCT-2012 15:59

Sublist used: 8260S

Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD004

Lab Sample ID: VSTD004

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Target 3.5 esignature user ID: ers02237

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Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i06.d
 Injection date and time: 04-OCT-2012 17:43

Instrument ID: HP09953.i
 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
 Calibration date and time: 22-OCT-2012 15:59
 Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD004

Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
2) Dichlorodifluoromethane	(2)	1.084	85	37976	3.040
4) Chloromethane	(2)	1.133	50	42338	3.428
5) Vinyl Chloride	(2)	1.200	62	35845	3.464
9) Bromomethane	(2)	1.376	94	22751	3.508
10) Chloroethane	(2)	1.425	64	19733	3.661
11) Dichlorofluoromethane	(2)	1.535	67	61000	4.061
13) Trichlorofluoromethane	(2)	1.583	101	41615	3.162
15) Ethanol	(1)	1.668	45	41435	524.669
17) Freon 123a	(2)	1.735	67	36547	4.069
18) Acrolein	(1)	1.796	56	42206	36.625
19) 1,1-Dichloroethene	(2)	1.863	96	24099	3.998
22) Freon 113	(2)	1.881	101	27065	3.842
20) Acetone	(2)	1.900	58	6496	9.459
24) Methyl Iodide	(2)	1.966	142	48201	3.852
23) 2-Propanol	(1)	1.985	45	40298	74.705
25) Carbon Disulfide	(2)	2.015	76	74642	3.757
29) Allyl Chloride	(2)	2.100	41	53297	4.066
27) Methyl Acetate	(2)	2.112	43	24932	4.730
31) Methylene Chloride	(2)	2.185	84	30188	4.314
30)*t-Butyl alcohol-d10	(1)	2.222	65	148820	250.000
32) t-Butyl alcohol	(1)	2.283	59	60215	79.784
35) trans-1,2-Dichloroethene	(2)	2.392	96	26154	3.845
33) Acrylonitrile	(2)	2.398	53	9239	4.022
34) Methyl Tertiary Butyl Ether	(2)	2.405	73	77347	3.953
38) n-Hexane	(2)	2.611	57	47280	3.995
40) 1,1-Dichloroethane	(2)	2.745	63	57662	3.861
41) di-Isopropyl ether	(2)	2.812	45	107593	3.788
42) 2-Chloro-1,3-butadiene	(2)	2.824	53	47085	3.596
44) Ethyl t-butyl ether	(2)	3.141	59	85941	3.699
46) cis-1,2-Dichloroethene	(2)	3.268	96	28646	3.735
48) 2,2-Dichloropropane	(2)	3.274	77	41896	3.687
45) 2-Butanone	(2)	3.299	43	27525	7.838
50) Propionitrile	(1)	3.354	54	73438	73.505
51) Methacrylonitrile	(2)	3.475	67	95517	37.719
52) Bromochloromethane	(2)	3.487	128	14187	3.849
53) Tetrahydrofuran	(1)	3.536	71	5102	6.459
54) Chloroform	(2)	3.566	83	57557	4.036
55)\$Dibromofluoromethane	(2)	3.712	113	356845	50.186

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 4

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 on 10/22/2012 at 15:59.
 Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i06.d
 Injection date and time: 04-OCT-2012 17:43

Instrument ID: HP09953.i
 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
 Calibration date and time: 22-OCT-2012 15:59
 Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD004

Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
55) \$Dibromofluoromethane	(2)	3.712	111	364410	50.304
56) 1,1,1-Trichloroethane	(2)	3.737	97	44574	3.662
57) Cyclohexane	(2)	3.779	56	52722	3.667
57) Cyclohexane	(2)	3.779	84	40096	3.661
57) Cyclohexane	(2)	3.785	69	15077	3.674
58) 1,1-Dichloropropene	(2)	3.883	75	40067	3.669
59) Carbon Tetrachloride	(2)	3.889	117	38709	3.538
61) \$1,2-Dichloroethane-d4	(2)	4.023	102	75702	50.653
61) \$1,2-Dichloroethane-d4	(2)	4.029	65	445548	49.281
61) \$1,2-Dichloroethane-d4	(2)	4.023	104	47183	50.447
60) Isobutyl Alcohol	(1)	4.053	41	51449	185.424
62) Benzene	(2)	4.077	78	118028	3.927
64) 1,2-Dichloroethane	(2)	4.108	62	43494	3.824
64) 1,2-Dichloroethane	(2)	4.096	98	2839	3.498
65) t-Amyl methyl ether	(2)	4.205	73	68061	3.580
69) n-Heptane	(2)	4.351	43	54424	3.866
67) *Fluorobenzene	(2)	4.357	96	1420014	50.000
72) Trichloroethene	(2)	4.722	95	28626	3.695
70) n-Butanol	(1)	4.728	56	57553	310.411
73) Methylcyclohexane	(2)	4.911	83	49140	3.598
74) 1,2-Dichloropropane	(2)	4.947	63	31024	3.704
78) Dibromomethane	(2)	5.063	93	16738M	3.729
77) 1,4-Dioxane	(1)	5.118	88	11131	154.690
76) Methyl Methacrylate	(2)	5.124	69	13950	3.260
81) Bromodichloromethane	(2)	5.239	83	33626	3.446
82) 2-Nitropropane	(1)	5.489	41	12289	8.541
83) 2-Chloroethyl Vinyl Ether	(2)	5.611	63	2259	3.664
84) cis-1,3-Dichloropropene	(2)	5.720	75	36509	3.252
85) 4-Methyl-2-pentanone	(2)	5.909	43	40675	5.732
86) \$Toluene-d8	(3)	5.988	98	1365406	50.541
86) \$Toluene-d8	(3)	5.988	100	876784	50.279
87) Toluene	(3)	6.055	92	68633	3.853
47) 1,2-Dichloroethene (Total)	(2)		96	54800	7.580
88) trans-1,3-Dichloropropene	(3)	6.334	75	32513	3.270
89) Ethyl Methacrylate	(3)	6.480	69	22070	2.947
90) 1,1,2-Trichloroethane	(3)	6.523	97	21228	3.798
92) Tetrachloroethene	(3)	6.645	166	28343	3.613
93) 1,3-Dichloropropane	(3)	6.699	76	38339	3.706

M = Compound was manually integrated.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 2 of 4

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 on 10/22/2012 at 15:59.
 Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i06.d
Injection date and time: 04-OCT-2012 17:43

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S

Calibration date and time: 22-OCT-2012 15:59

Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD004

Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
95) 2-Hexanone	(3)	6.882	43	28067	6.043
97) Dibromochloromethane	(3)	6.943	129	21600	3.284
98) 1,2-Dibromoethane	(3)	7.052	107	20390	3.613
99)*Chlorobenzene-d5	(3)	7.545	117	943427	50.000
100) Chlorobenzene	(3)	7.569	112	77108	3.869
101) 1,1,1,2-Tetrachloroethane	(3)	7.667	131	25356	3.500
102) Ethylbenzene	(3)	7.703	91	119112	3.514
103) m+p-Xylene	(3)	7.819	106	93142	7.035
104) o-Xylene	(3)	8.178	106	42876	3.329
106) Styrene	(3)	8.208	104	63202	3.121
107) Bromoform	(3)	8.348	173	14678	3.402
108) Isopropylbenzene	(3)	8.506	105	115597	3.366
111) Cyclohexanone	(1)	8.579	55	29440	206.469
112)\$4-Bromofluorobenzene	(3)	8.622	95	495698	48.952
112)\$4-Bromofluorobenzene	(3)	8.622	174	405601	48.761
114) Bromobenzene	(4)	8.738	156	32476	4.021
113) 1,1,2,2-Tetrachloroethane	(4)	8.768	83	29829	4.129
116) 1,2,3-Trichloropropane	(4)	8.792	110	8060	3.942
115) trans-1,4-Dichloro-2-butene	(4)	8.817	53	81823	36.542
117) n-Propylbenzene	(4)	8.847	91	154010	7.450
119) 2-Chlorotoluene	(4)	8.902	126	31781	4.000
122) 1,3,5-Trimethylbenzene	(4)	8.993	105	106133	3.740
123) 4-Chlorotoluene	(4)	8.999	126	32021	3.818
126) tert-Butylbenzene	(4)	9.236	134	22008	3.441
127) Pentachloroethane	(4)	9.249	167	19753	3.600
128) 1,2,4-Trimethylbenzene	(4)	9.279	105	104554	3.638
129) sec-Butylbenzene	(4)	9.407	105	134929	3.755
131) 1,3-Dichlorobenzene	(4)	9.480	146	59913	3.795
133)*1,4-Dichlorobenzene-d4	(4)	9.522	152	554900	50.000
132) p-Isopropyltoluene	(4)	9.522	119	116276	3.675
134) 1,4-Dichlorobenzene	(4)	9.541	146	70174	4.142
135) 1,2,3-Trimethylbenzene	(4)	9.589	105	115731	3.909
136) Benzyl Chloride	(4)	9.662	126	7645	2.879
137) 1,3-Diethylbenzene	(4)	9.741	119	63269	3.430
138) 1,4-Diethylbenzene	(4)	9.802	119	71726A	3.613
139) n-Butylbenzene	(4)	9.814	92	56862	3.469
140) 1,2-Dichlorobenzene	(4)	9.820	146	63928	3.946
141) 1,2-Diethylbenzene	(4)	9.881	119	62482A	3.801

A = User selected an alternate hit.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04i06.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 17:43 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 15:59
Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD004

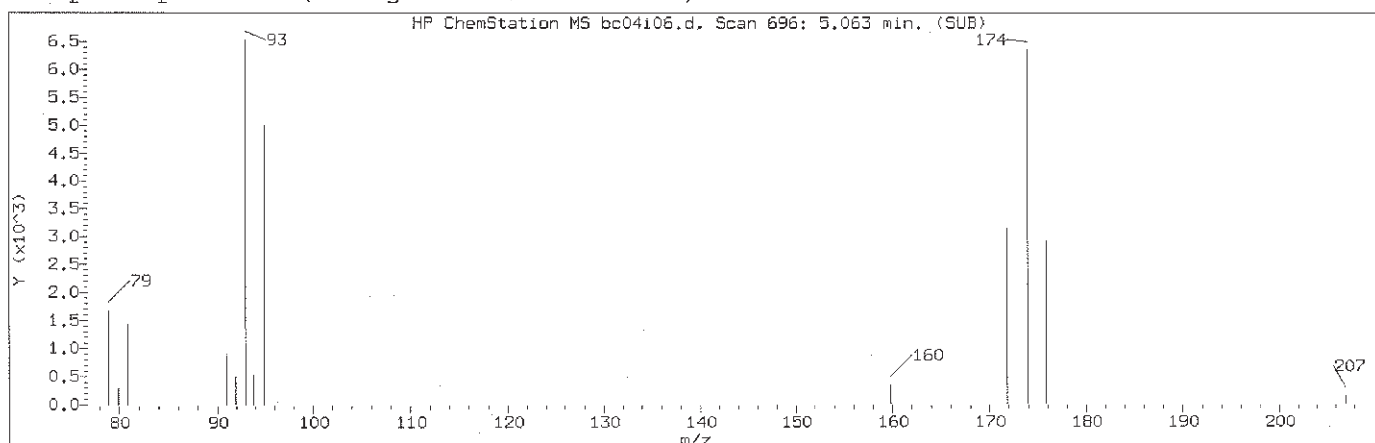
Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
144) 1,2-Dibromo-3-chloropropane	(4)	10.374	75	5417	3.721
145) 1,3,5-Trichlorobenzene	(4)	10.514	180	52441	3.837
146) 1,2,4-Trichlorobenzene	(4)	10.928	180	44140	3.731
147) Hexachlorobutadiene	(4)	11.025	225	26791	3.819
148) Naphthalene	(4)	11.086	128	84603	3.521
149) 1,2,3-Trichlorobenzene	(4)	11.238	180	44588	3.977
105) Xylene (Total)	(3)		106	136018	10.364
150) 2-Methylnaphthalene	(4)	11.810	142	38880	3.508

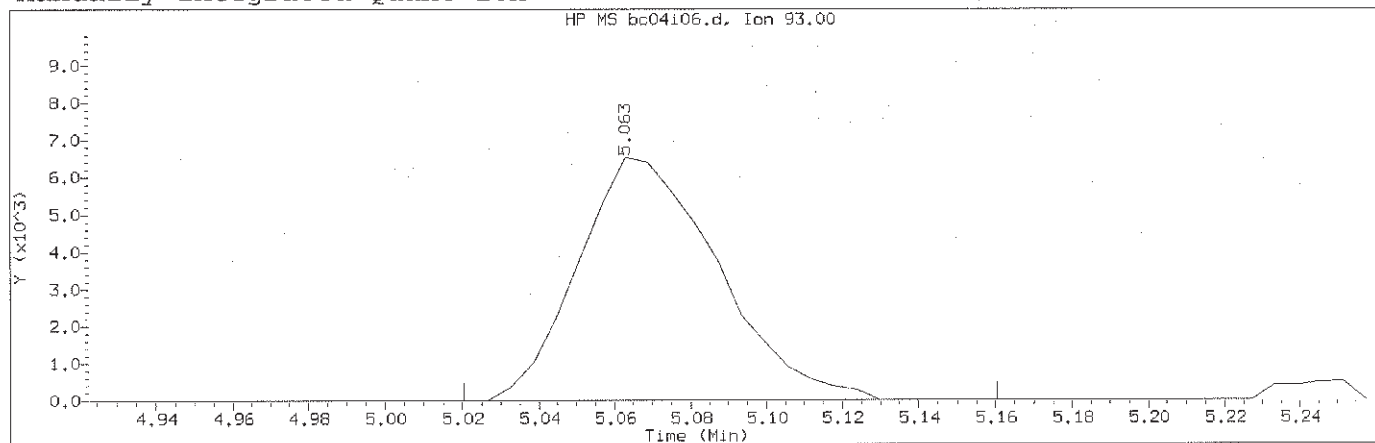
page 4 of 4

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on 10/22/2012 at 15:59.
Target 3.5 esignature user ID: ers02237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04i06.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 17:43 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 15:59
Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD004

Lab Sample ID: VSTD004

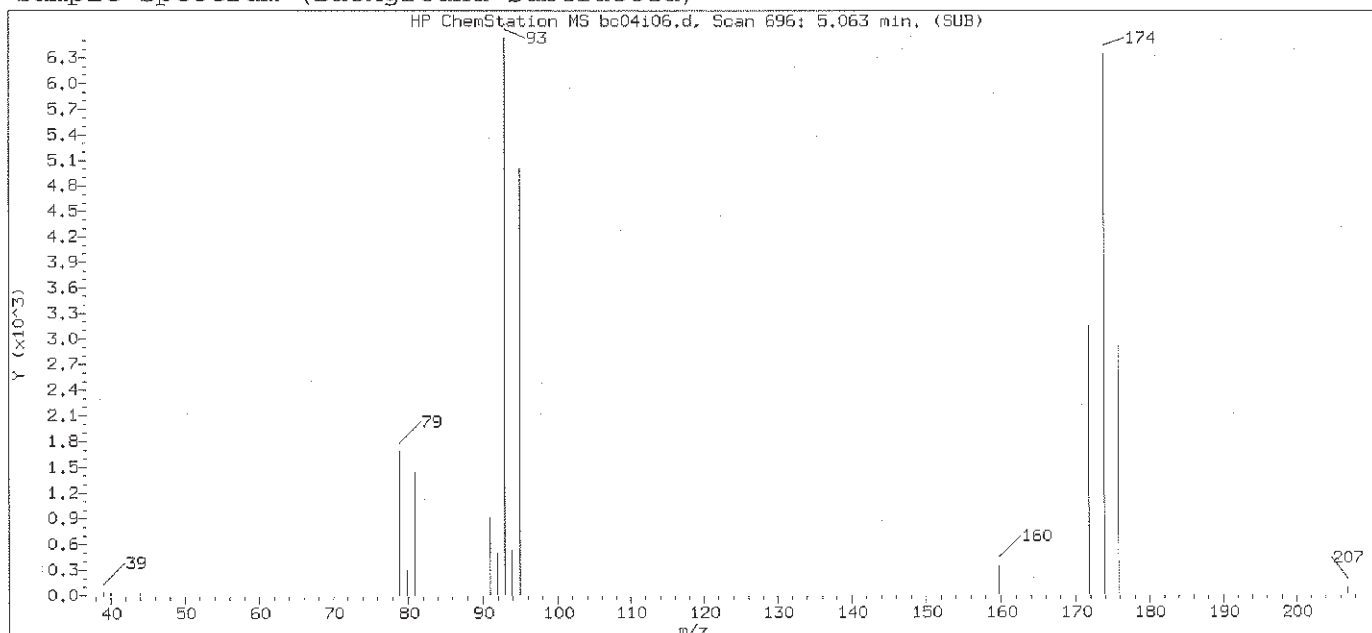
Compound Number : 78
Compound Name : Dibromomethane
Scan Number : 696
Retention Time (minutes): 5.063
Quant Ion : 93.00
Area (flag) : 16738M
On-Column Amount (ng) : 3.7292
Integration start scan : 688 Integration stop scan: 711
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

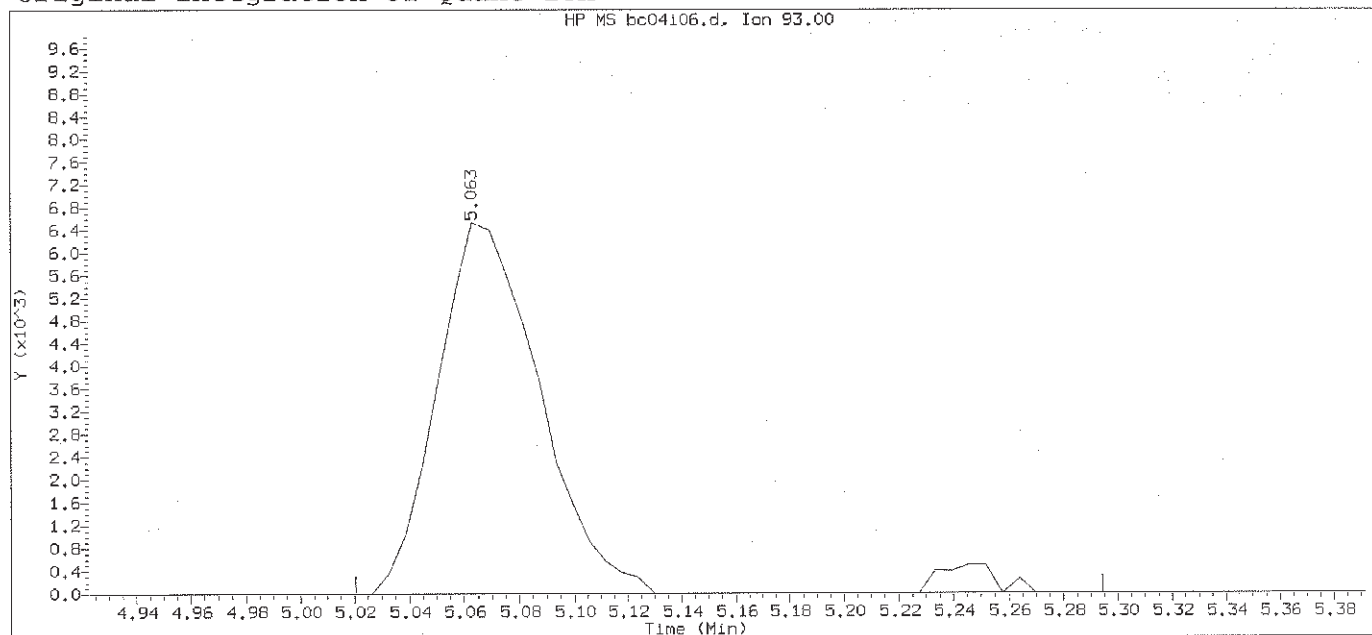
Analyst responsible for change: Digitally signed by Emily R. Styer
on 10/22/2012 at 15:59.
Target 3.5 esignature user ID: ers02237

GC/MS audit/management approval: mmg 10/23/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04i06.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 17:43 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 05-OCT-2012 16:20
Date, time and analyst ID of latest file update: 05-Oct-2012 16:20 ers02237

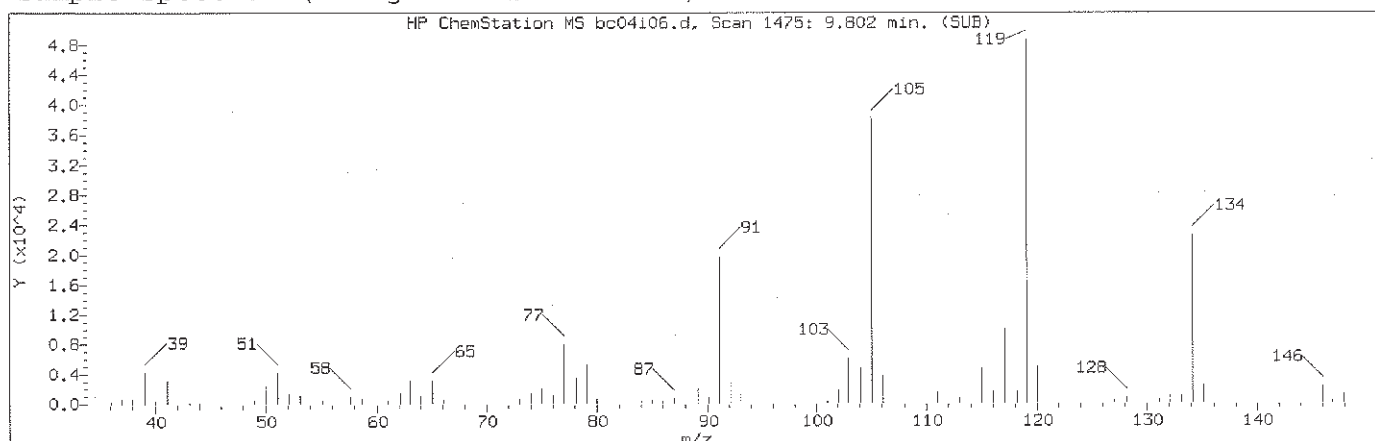
Sample Name: VSTD004

Lab Sample ID: VSTD004

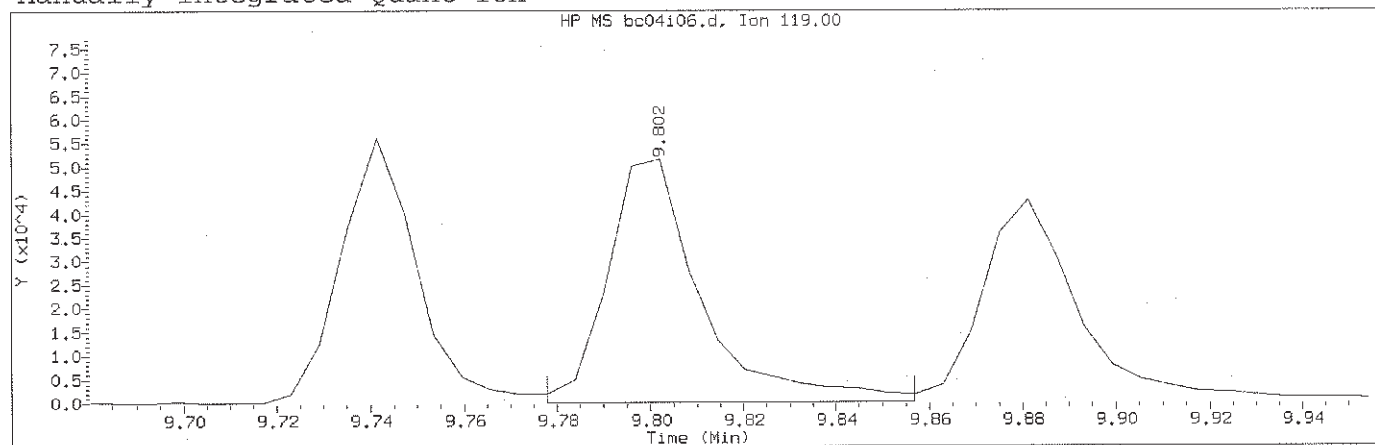
Compound Number	: 78	
Compound Name	: Dibromomethane	
Scan Number	: 696	
Retention Time (minutes)	: 5.063	
Quant Ion	: 93.00	
Area	: 17488	
On-column Amount (ng)	: 3.8693	
Integration start scan	: 688	Integration stop scan: 733
Y at integration start	: 0	Y at integration end: 0

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Target 3.5 esignature usTAP03: Page 604 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04i06.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 17:43 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 15:59
Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD004

Lab Sample ID: VSTD004

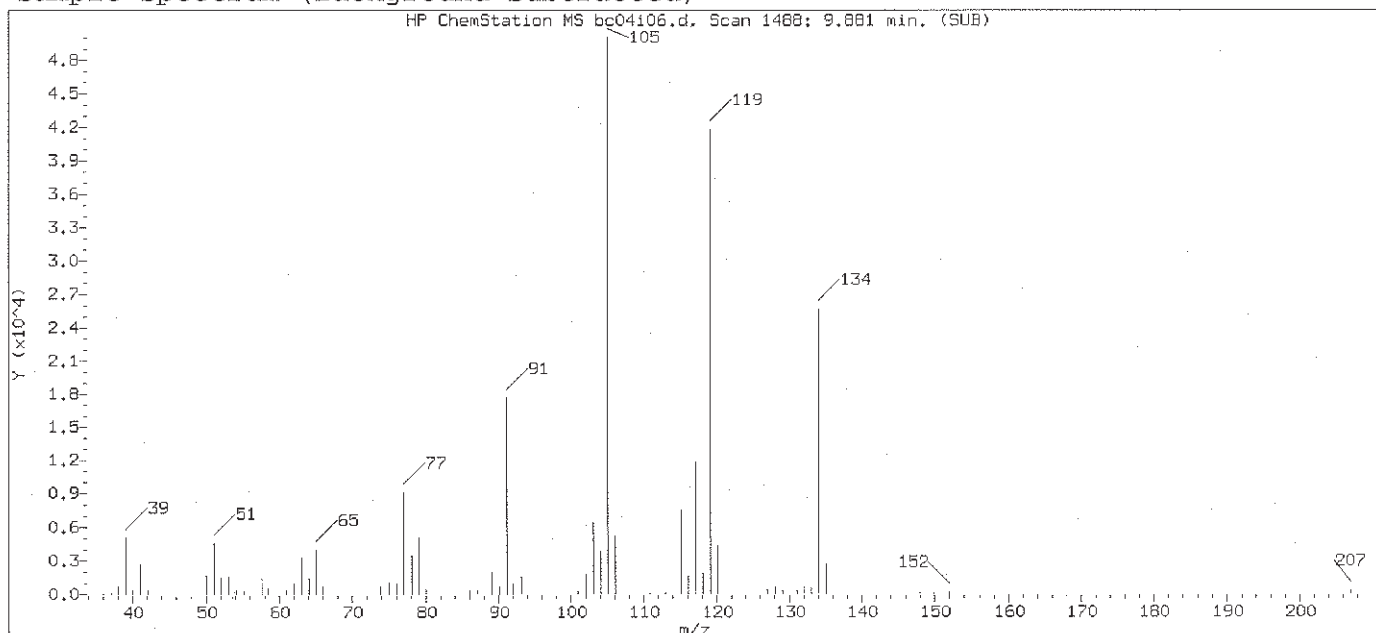
Compound Number : 138
Compound Name : 1,4-Diethylbenzene
Scan Number : 1475
Retention Time (minutes): 9.802
Quant Ion : 119.00
Area (flag) : 71726A
On-Column Amount (ng) : 3.6131
Integration start scan : 1470 Integration stop scan: 1483
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

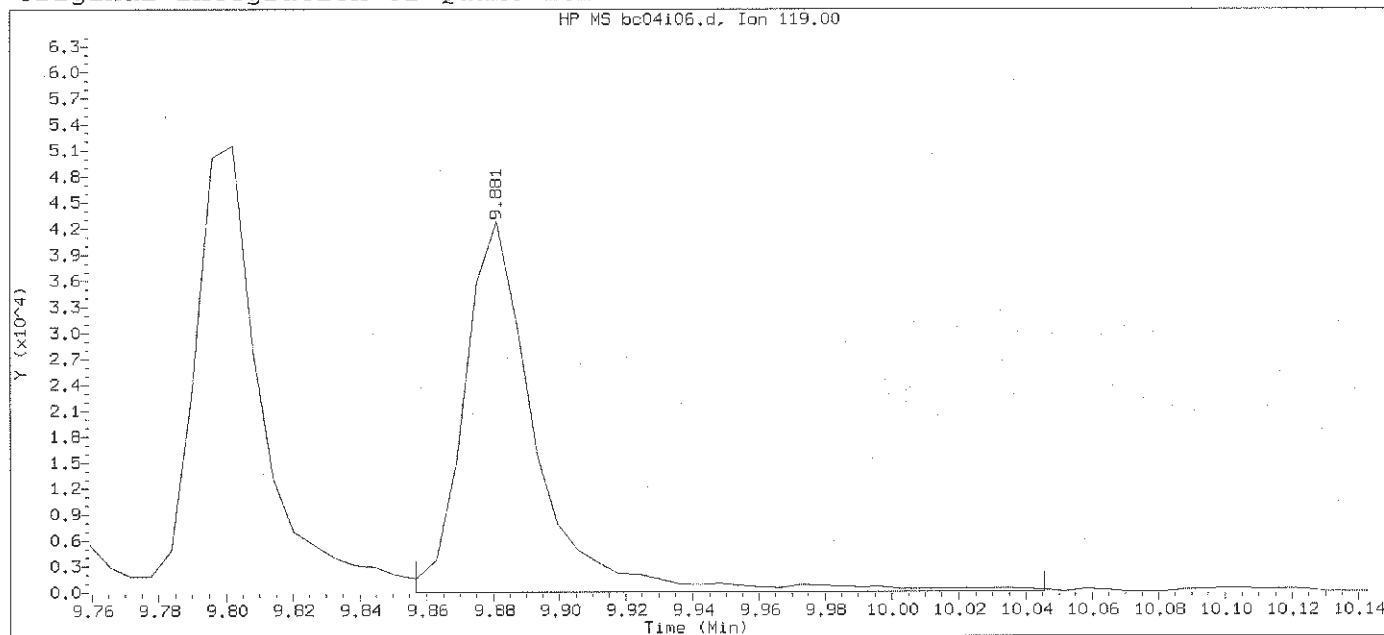
Analyst responsible for change: Digitally signed by Emily R. Styer
on 10/22/2012 at 15:59.
Target 3.5 esignature user ID: ers02237

GC/MS audit/management approval: mmg 10/23/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04i06.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 17:43 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 05-OCT-2012 16:20
Date, time and analyst ID of latest file update: 05-Oct-2012 16:20 ers02237

Sample Name: VSTD004

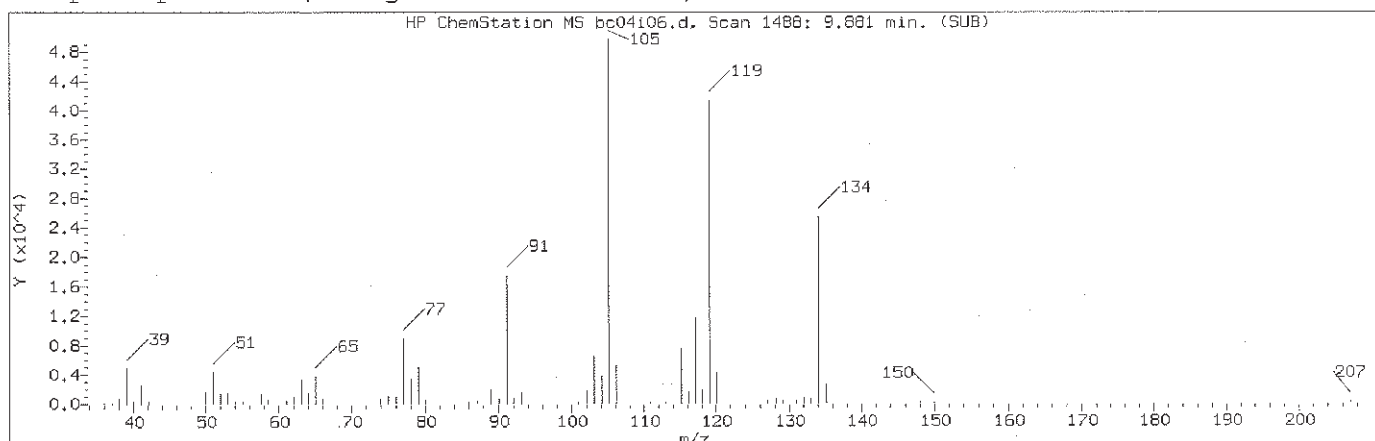
Lab Sample ID: VSTD004

Compound Number : 138
Compound Name : 1,4-Diethylbenzene
Scan Number : 1488
Retention Time (minutes): 9.881
Quant Ion : 119.00
Area : 64789
On-column Amount (ng) : 3.9050
Integration start scan : 1483 Integration stop scan: 1514
Y at integration start : 0 Y at integration end: 0

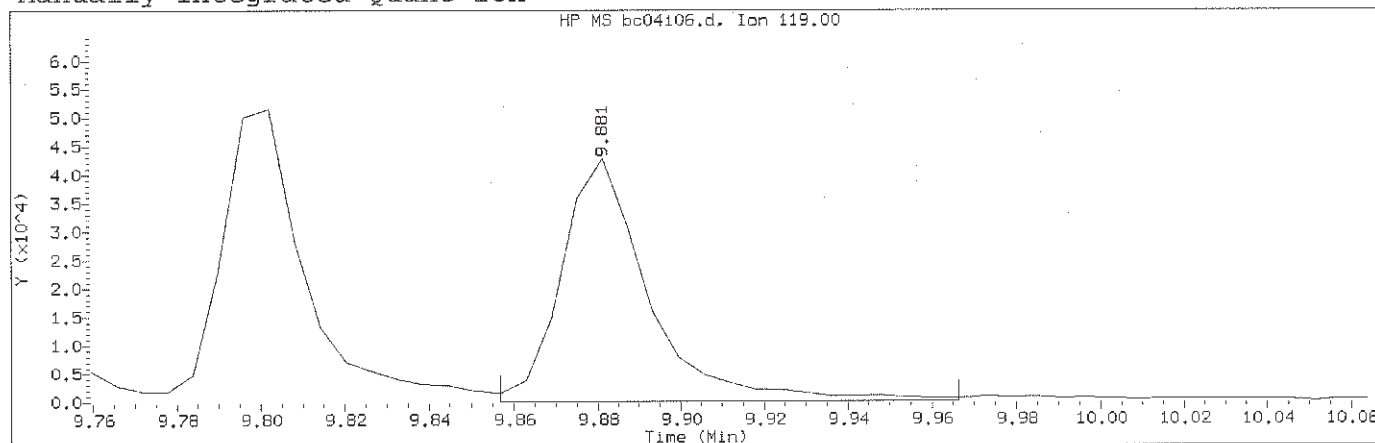
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Target 3.5 esignature use TAP03 Page 606 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04106.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 17:43 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 15:59
Date, time and analyst ID of latest file update: 22-Oct-2012 15:59 ers02237

Sample Name: VSTD004

Lab Sample ID: VSTD004

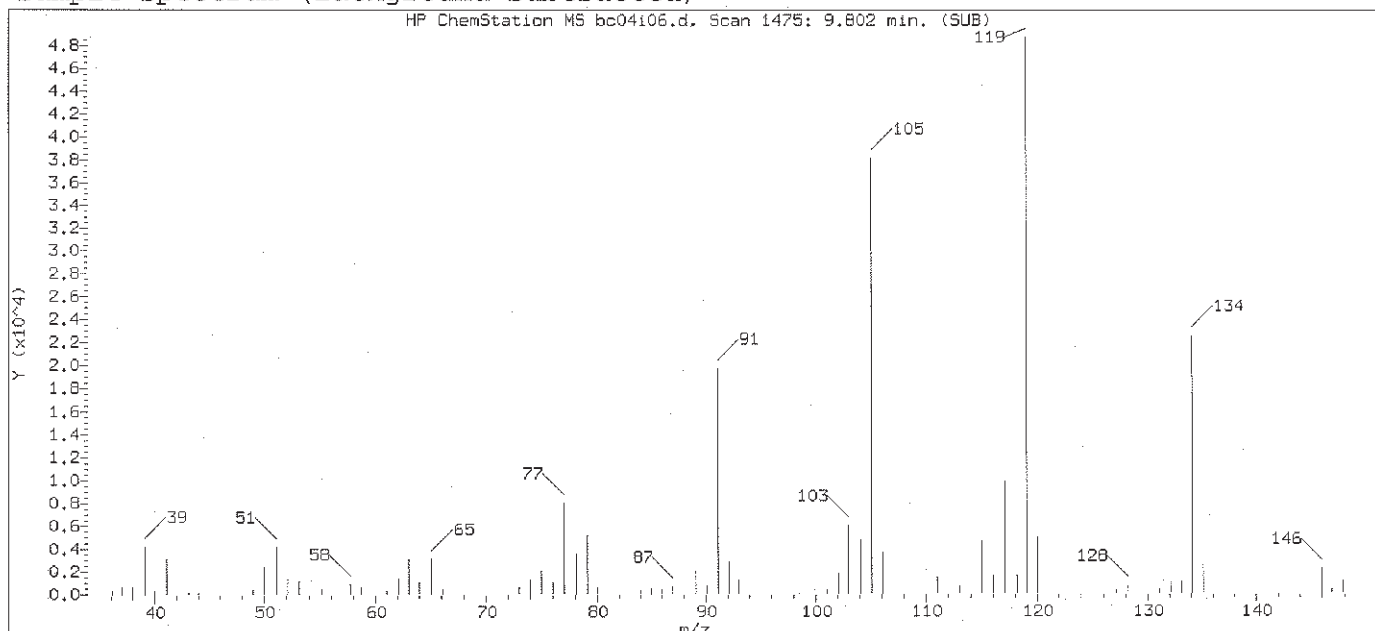
Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1488
Retention Time (minutes): 9.881
Quant Ion : 119.00
Area (flag) : 62482A
On-Column Amount (ng) : 3.8012
Integration start scan : 1483 Integration stop scan: 1501
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

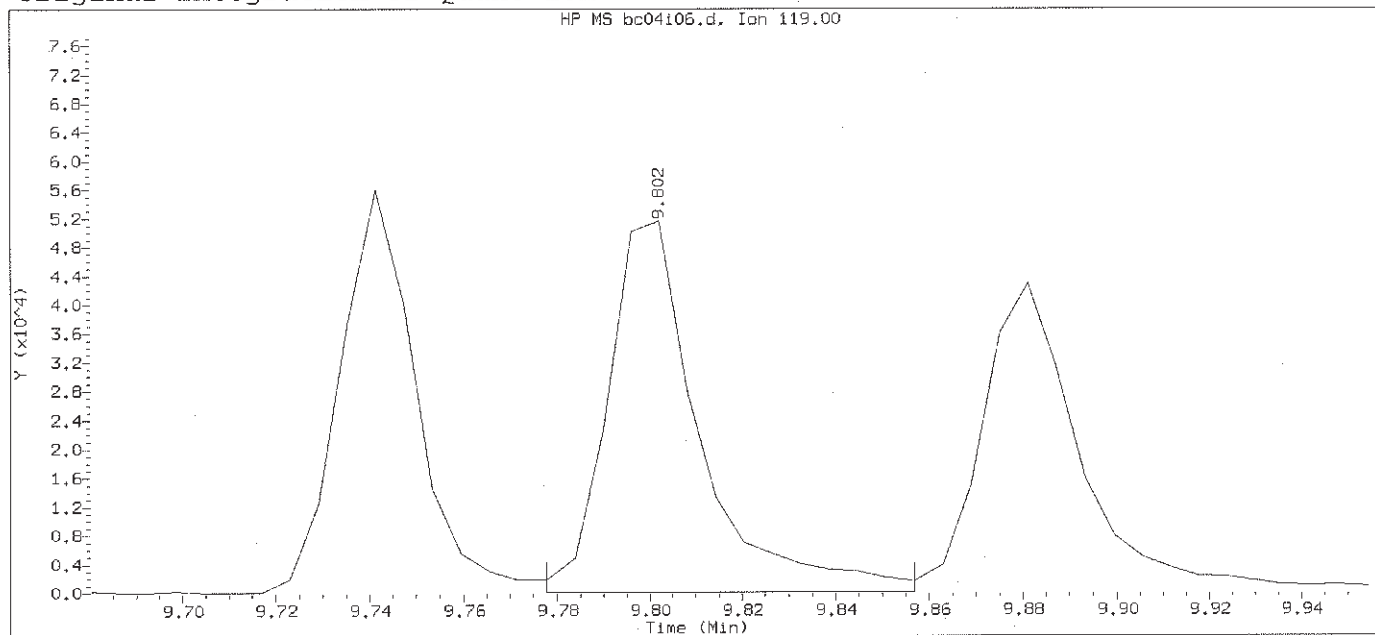
Analyst responsible for change: Digitally signed by Emily R. Styer
on 10/22/2012 at 15:59.
Target 3.5 esignature user ID: ers02237

GC/MS audit/management approval: 10/23/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04i06.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 17:43 Analyst ID: ERS02237

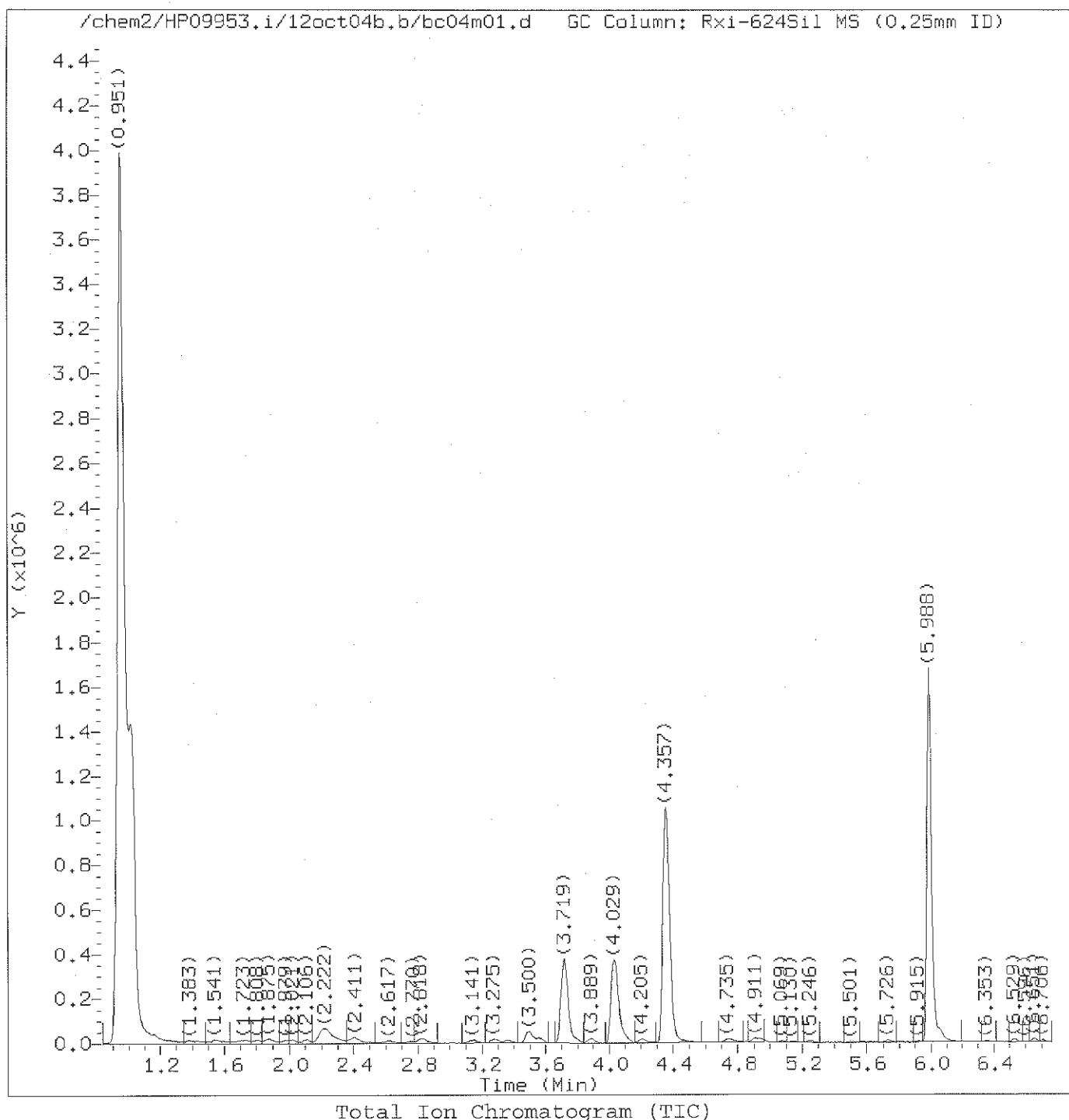
Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 05-OCT-2012 16:20
Date, time and analyst ID of latest file update: 05-Oct-2012 16:20 ers02237

Sample Name: VSTD004

Lab Sample ID: VSTD004

Compound Number	: 141	
Compound Name	: 1,2-Diethylbenzene	
Scan Number	: 1475	
Retention Time (minutes)	: 9.802	
Quant Ion	: 119.00	
Area	: 71725	
On-column Amount (ng)	: 3.6130	
Integration start scan	: 1470	Integration stop scan: 1483
Y at integration start	: 0	Y at integration end: 0

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Target 3.5 esignature usTAP03: Page 608 of 2648



Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04m01.d
Injection date and time: 04-OCT-2012 18:21

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 16:01
Date, time and analyst ID of latest file update: 22-Oct-2012 16:01 ers02237

Sample Name: MDL001

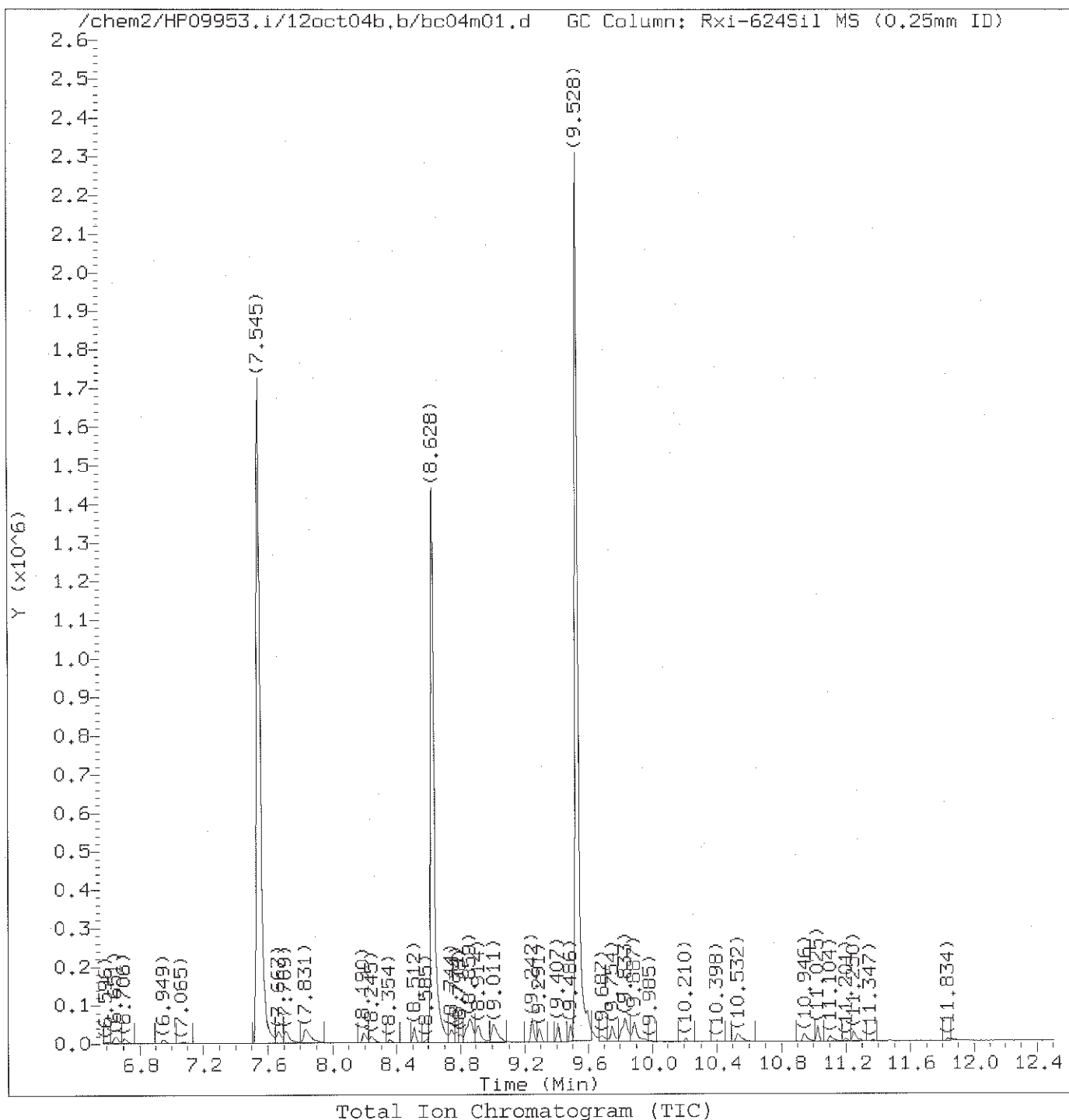
Lab Sample ID: MDL001

Digitally signed by Emily R. Styer
on 10/22/2012 at 16:04.

Target 3.5 esignature user ID: ers02237

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Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04m01.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 18:21 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 16:01
Date, time and analyst ID of latest file update: 22-Oct-2012 16:01 ers02237

Sample Name: MDL001

Lab Sample ID: MDL001

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on 10/22/2012 at 16:04.

Target 3.5 esignature user ID: ers02237

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Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04m01.d
 Injection date and time: 04-OCT-2012 18:21

Instrument ID: HP09953.i
 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
 Calibration date and time: 22-OCT-2012 16:01
 Date, time and analyst ID of latest file update: 22-Oct-2012 16:01 ers02237

Sample Name: MDL001

Lab Sample ID: MDL001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
2) Dichlorodifluoromethane	(2)	1.084	85	7567	0.634
4) Chloromethane	(2)	1.133	50	9774	0.828
5) Vinyl Chloride	(2)	1.200	62	7841	0.793
9) Bromomethane	(2)	1.370	94	5393	0.870
10) Chloroethane	(2)	1.431	64	4090	0.794
11) Dichlorofluoromethane	(2)	1.535	67	12923	0.900
13) Trichlorofluoromethane	(2)	1.583	101	8774	0.697
15) Ethanol	(1)	1.681	45	13341M	170.638
17) Freon 123a	(2)	1.723	67	7469	0.870
18) Acrolein	(1)	1.808	56	11440	10.028
19) 1,1-Dichloroethene	(2)	1.863	96	5138	0.892
22) Freon 113	(2)	1.887	101	5507	0.818
20) Acetone	(2)	1.918	58	1580	2.406
24) Methyl Iodide	(2)	1.973	142	10495	0.877
23) 2-Propanol	(1)	1.997	45	11175	20.926
25) Carbon Disulfide	(2)	2.021	76	16784M	0.884
29) Allyl Chloride	(2)	2.106	41	12540	1.001
27) Methyl Acetate	(2)	2.113	43	6154M	1.221
31) Methylene Chloride	(2)	2.186	84	10153	1.517
30) *t-Butyl alcohol-d10	(1)	2.222	65	147330	250.000
32) t-Butyl alcohol	(1)	2.277	59	17301	23.155
33) Acrylonitrile	(2)	2.386	53	2434	1.108
35) trans-1,2-Dichloroethene	(2)	2.405	96	5656	0.870
34) Methyl Tertiary Butyl Ether	(2)	2.411	73	18792	1.004
38) n-Hexane	(2)	2.624	57	8977	0.793
40) 1,1-Dichloroethane	(2)	2.751	63	12266	0.859
41) di-Isopropyl ether	(2)	2.818	45	24458	0.901
42) 2-Chloro-1,3-butadiene	(2)	2.830	53	8849	0.707
44) Ethyl t-butyl ether	(2)	3.141	59	19517	0.879
46) cis-1,2-Dichloroethene	(2)	3.275	96	6108	0.833
48) 2,2-Dichloropropane	(2)	3.287	77	8602	0.792
45) 2-Butanone	(2)	3.317	43	7821	2.329
50) Propionitrile	(1)	3.360	54	19330	19.543
52) Bromochloromethane	(2)	3.487	128	3357	0.952
51) Methacrylonitrile	(2)	3.494	67	23142	9.558
53) Tetrahydrofuran	(1)	3.554	71	1015	1.298
54) Chloroform	(2)	3.573	83	15949	1.170
55) \$Dibromofluoromethane	(2)	3.719	113	344271	50.639

M = Compound was manually integrated.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 4

Digitally signed by Emily R. Styer
 on 10/22/2012 at 16:04.
 Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04m01.d
 Injection date and time: 04-OCT-2012 18:21

Instrument ID: HP09953.i
 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
 Calibration date and time: 22-OCT-2012 16:01
 Date, time and analyst ID of latest file update: 22-Oct-2012 16:01 ers02237

Sample Name: MDL001

Lab Sample ID: MDL001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
56) 1,1,1-Trichloroethane	(2)	3.743	97	9001	0.773
57) Cyclohexane	(2)	3.792	56	9834	0.715
58) 1,1-Dichloropropene	(2)	3.889	75	7908	0.757
59) Carbon Tetrachloride	(2)	3.889	117	8121	0.776
61) \$1,2-Dichloroethane-d4	(2)	4.029	102	70914	49.626
60) Isobutyl Alcohol	(1)	4.071	41	13799	50.235
62) Benzene	(2)	4.078	78	25767	0.897
64) 1,2-Dichloroethane	(2)	4.102	62	10359	0.953
65) t-Amyl methyl ether	(2)	4.205	73	14563	0.801
69) n-Heptane	(2)	4.351	43	10298M	0.765
67) *Fluorobenzene	(2)	4.357	96	1357715	50.000
72) Trichloroethene	(2)	4.728	95	6196	0.836
70) n-Butanol	(1)	4.747	56	7629	41.563
73) Methylcyclohexane	(2)	4.911	83	8978	0.688
74) 1,2-Dichloropropane	(2)	4.947	63	6741	0.842
78) Dibromomethane	(2)	5.069	93	3918	0.913
77) 1,4-Dioxane	(1)	5.124	88	2160	30.322
76) Methyl Methacrylate	(2)	5.154	69	2598	0.635
81) Bromodichloromethane	(2)	5.246	83	8194	0.878
82) 2-Nitropropane	(1)	5.501	41	3110	4.724
83) 2-Chloroethyl Vinyl Ether	(2)	5.623	63	304	1.576
84) cis-1,3-Dichloropropene	(2)	5.726	75	7511	0.700
85) 4-Methyl-2-pentanone	(2)	5.915	43	6867	1.488
86) \$Toluene-d8	(3)	5.988	98	1293956	49.695
87) Toluene	(3)	6.061	92	15076	0.878
47) 1,2-Dichloroethene (Total)	(2)		96	11764	1.703
88) trans-1,3-Dichloropropene	(3)	6.347	75	6954	0.726
89) Ethyl Methacrylate	(3)	6.517	69	4428	0.613
90) 1,1,2-Trichloroethane	(3)	6.529	97	4759	0.883
92) Tetrachloroethene	(3)	6.657	166	6019	0.796
93) 1,3-Dichloropropane	(3)	6.706	76	8693	0.872
97) Dibromochloromethane	(3)	6.949	129	4720	0.744
95) 2-Hexanone	(3)	6.955	43	5532	1.913
98) 1,2-Dibromoethane	(3)	7.071	107	4339	0.798
99) *Chlorobenzene-d5	(3)	7.545	117	909282	50.000
100) Chlorobenzene	(3)	7.569	112	17283	0.900
101) 1,1,1,2-Tetrachloroethane	(3)	7.667	131	5697	0.816
102) Ethylbenzene	(3)	7.715	91	23638	0.724

M = Compound was manually integrated.

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\$ = Compound is a surrogate standard.

page 2 of 4

Digitally signed by Emily R. Styer
 on 10/22/2012 at 16:04.
 Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04m01.d
Injection date and time: 04-OCT-2012 18:21

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S

Calibration date and time: 22-OCT-2012 16:01

Date, time and analyst ID of latest file update: 22-Oct-2012 16:01 ers02237

Sample Name: MDL001

Lab Sample ID: MDL001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
103) m+p-Xylene	(3)	7.843	106	17897	1.402
104) o-Xylene	(3)	8.190	106	7931	0.639
106) Styrene	(3)	8.245	104	11275	0.578
107) Bromoform	(3)	8.354	173	3780	0.909
108) Isopropylbenzene	(3)	8.512	105	20871	0.631
111) Cyclohexanone	(1)	8.585	55	2856	92.010
112) \$4-Bromofluorobenzene	(3)	8.622	95	463586	47.500
114) Bromobenzene	(4)	8.744	156	7144	0.936
113) 1,1,2,2-Tetrachloroethane	(4)	8.774	83	7549	1.105
116) 1,2,3-Trichloropropane	(4)	8.811	110	1763	0.912
115) trans-1,4-Dichloro-2-butene	(4)	8.835	53	13971	6.600
117) n-Propylbenzene	(4)	8.865	91	26481	5.885
119) 2-Chlorotoluene	(4)	8.914	126	6477	0.862
122) 1,3,5-Trimethylbenzene	(4)	9.005	105	19668	0.733
123) 4-Chlorotoluene	(4)	9.023	126	7177	0.905
126) tert-Butylbenzene	(4)	9.242	134	4115	0.681
127) Pentachloroethane	(4)	9.255	167	4007	0.773
128) 1,2,4-Trimethylbenzene	(4)	9.291	105	18657	0.687
129) sec-Butylbenzene	(4)	9.407	105	24128	0.710
131) 1,3-Dichlorobenzene	(4)	9.486	146	12923	0.866
133) *1,4-Dichlorobenzene-d4	(4)	9.528	152	524553	50.000
132) p-Isopropyltoluene	(4)	9.528	119	22104	0.739
134) 1,4-Dichlorobenzene	(4)	9.547	146	18463	1.153
135) 1,2,3-Trimethylbenzene	(4)	9.595	105	24940	0.891
136) Benzyl Chloride	(4)	9.693	126	1321	0.526
137) 1,3-Diethylbenzene	(4)	9.754	119	11368	0.652
138) 1,4-Diethylbenzene	(4)	9.814	119	13313A	0.709
140) 1,2-Dichlorobenzene	(4)	9.826	146	14325	0.935
139) n-Butylbenzene	(4)	9.833	92	9042	0.584
141) 1,2-Diethylbenzene	(4)	9.887	119	12777A	0.822
144) 1,2-Dibromo-3-chloropropane	(4)	10.398	75	1263	0.918
145) 1,3,5-Trichlorobenzene	(4)	10.532	180	11788	0.912
146) 1,2,4-Trichlorobenzene	(4)	10.946	180	10294	0.920
147) Hexachlorobutadiene	(4)	11.025	225	6130	0.924
148) Naphthalene	(4)	11.104	128	20177	0.888
149) 1,2,3-Trichlorobenzene	(4)	11.250	180	10755	1.015
105) Xylene (Total)	(3)		106	25828	2.041
150) 2-Methylnaphthalene	(4)	11.846	142	8884	1.507

A = User selected an alternate hit.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 3 of 4

Digitally signed by Emily R. Styer
on 10/22/2012 at 16:04.
Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04m01.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 18:21 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 16:01
Date, time and analyst ID of latest file update: 22-Oct-2012 16:01 ers02237

Sample Name: MDL001

Lab Sample ID: MDL001

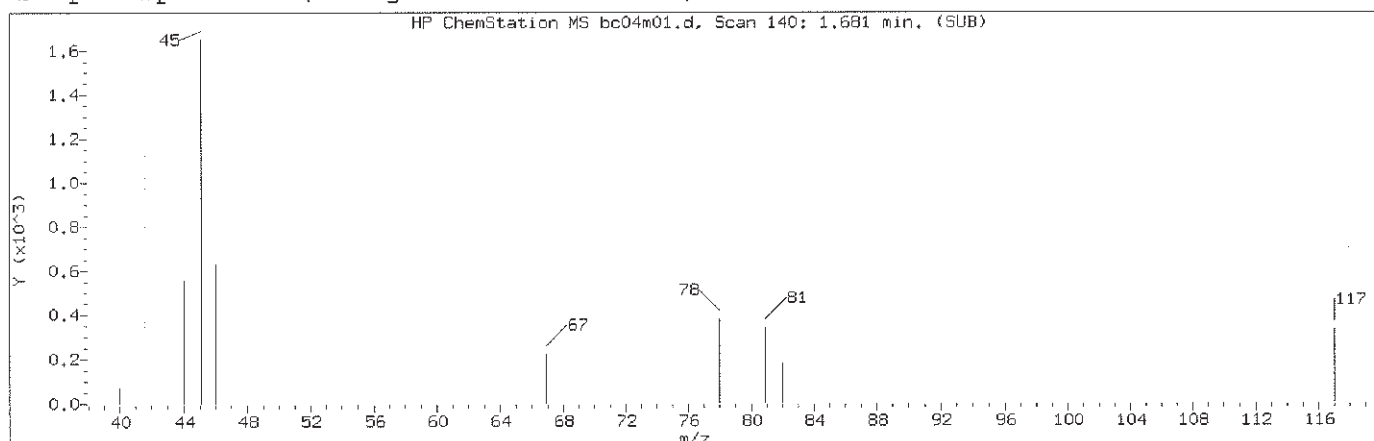
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====

A = User selected an alternate hit.
* = Compound is an internal standard.
\$ = Compound is a surrogate standard.

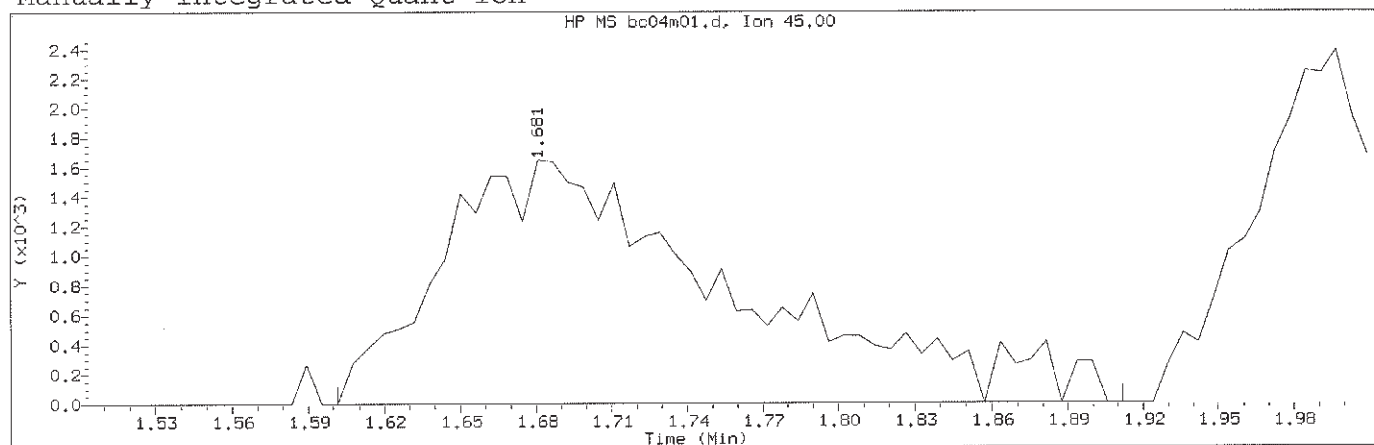
page 4 of 4

Digitally signed by Emily R. Styer
on 10/22/2012 at 16:04.
Target 3.5 esignature user ID: ers02237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04m01.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 18:21 Analyst ID: ERS02237

Method used: /opt/tp/target/HP09953.i/di8260b.m Sublist used: 8260S
Calibration date and time: 09-OCT-2012 11:38
Date, time and analyst ID of latest file update: 09-Oct-2012 11:43 rvn00349

Sample Name: MDL001 Lab Sample ID: MDL001

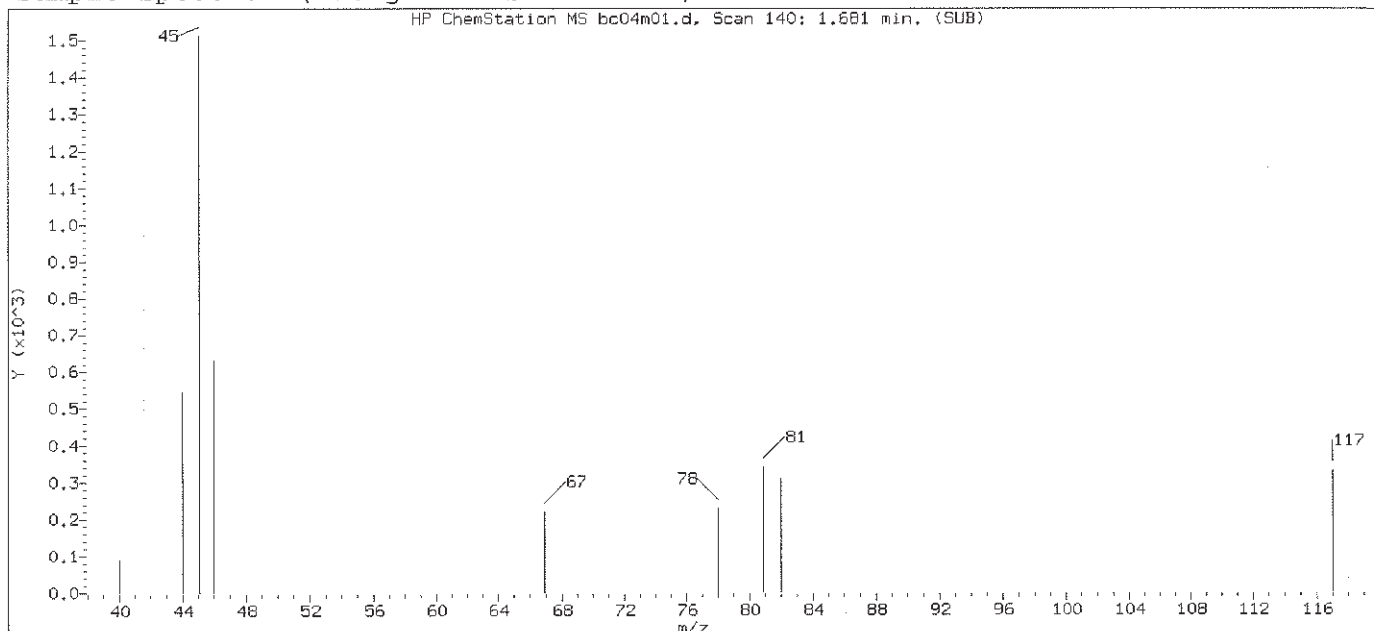
Compound Number : 15
Compound Name : Ethanol
Scan Number : 140
Retention Time (minutes): 1.681
Quant Ion : 45.00
Area (flag) : 13341M
On-Column Amount (ng) : 170.6383
Integration start scan : 126 Integration stop scan: 177
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

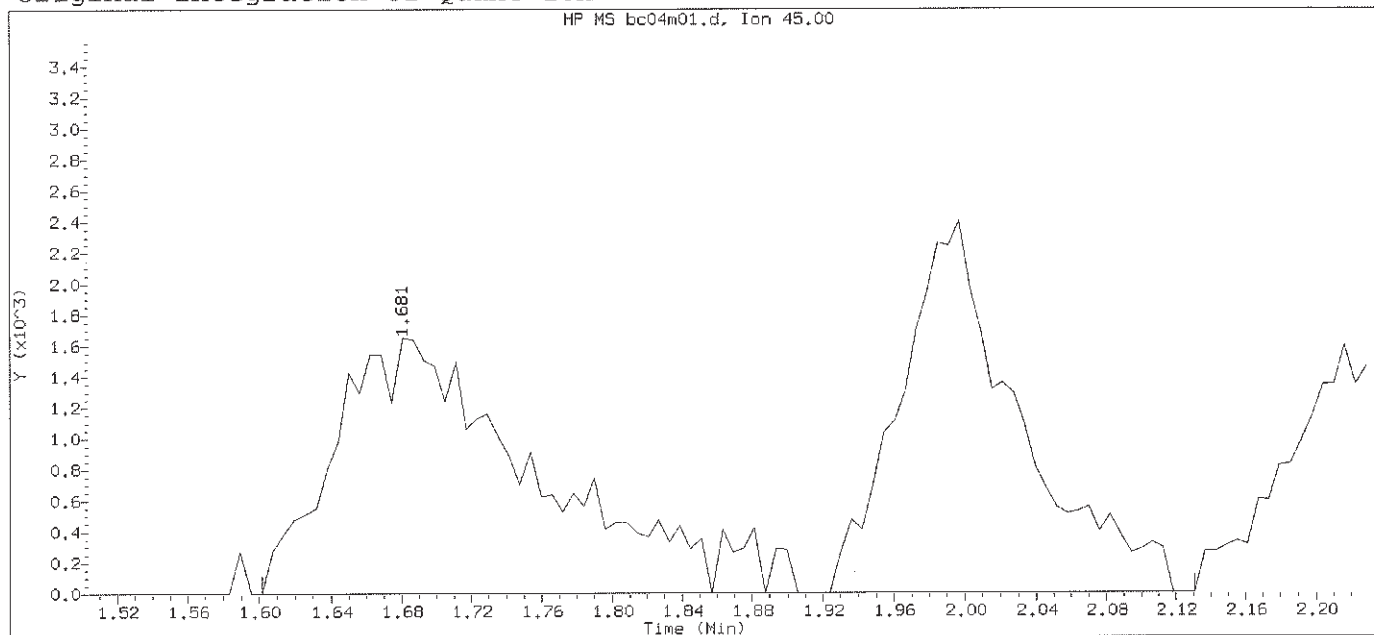
Analyst responsible for change: Digitally signed by Ryan V. Nolt
on 10/09/2012 at 11:49.
Target 3.5 esignature user ID: rvn00349

GC/MS audit/management approval: Amir 10912

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04m01.d
Injection date and time: 04-OCT-2012 18:21

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 08-OCT-2012 11:34
Date, time and analyst ID of latest file update: 08-Oct-2012 11:34 ers02237

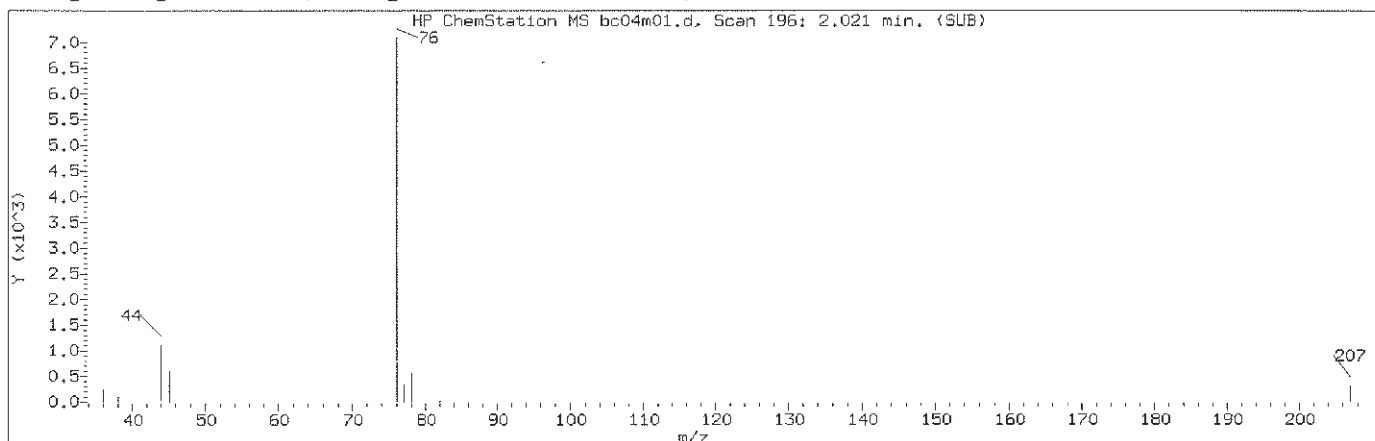
Sample Name: MDL001

Lab Sample ID: MDL001

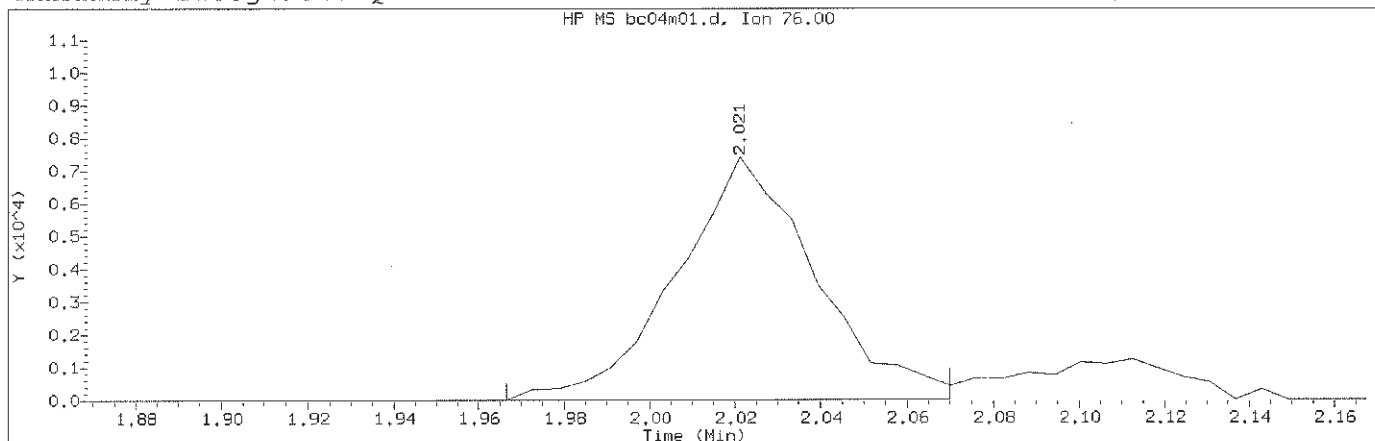
Compound Number	: 15	
Compound Name	: Ethanol	
Scan Number	: 140	
Retention Time (minutes)	: 1.681	
Quant Ion	: 45.00	
Area	: 24516	
On-column Amount (ng)	: 313.5814	
Integration start scan	: 126	Integration stop scan: 213
Y at integration start	: 0	Y at integration end: 0

Digitally signed by Ryan V. Nolt on 10/09/2012 at 11:49.
Target 3.5 esignature user: Ryan V. Nolt

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04m01.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 18:21 Analyst ID: ERS02237

Method used: /opt/tp/target/HP09953.i/di8260b.m Sublist used: 8260S
Calibration date and time: 09-OCT-2012 11:38
Date, time and analyst ID of latest file update: 09-Oct-2012 11:43 rvn00349

Sample Name: MDL001 Lab Sample ID: MDL001

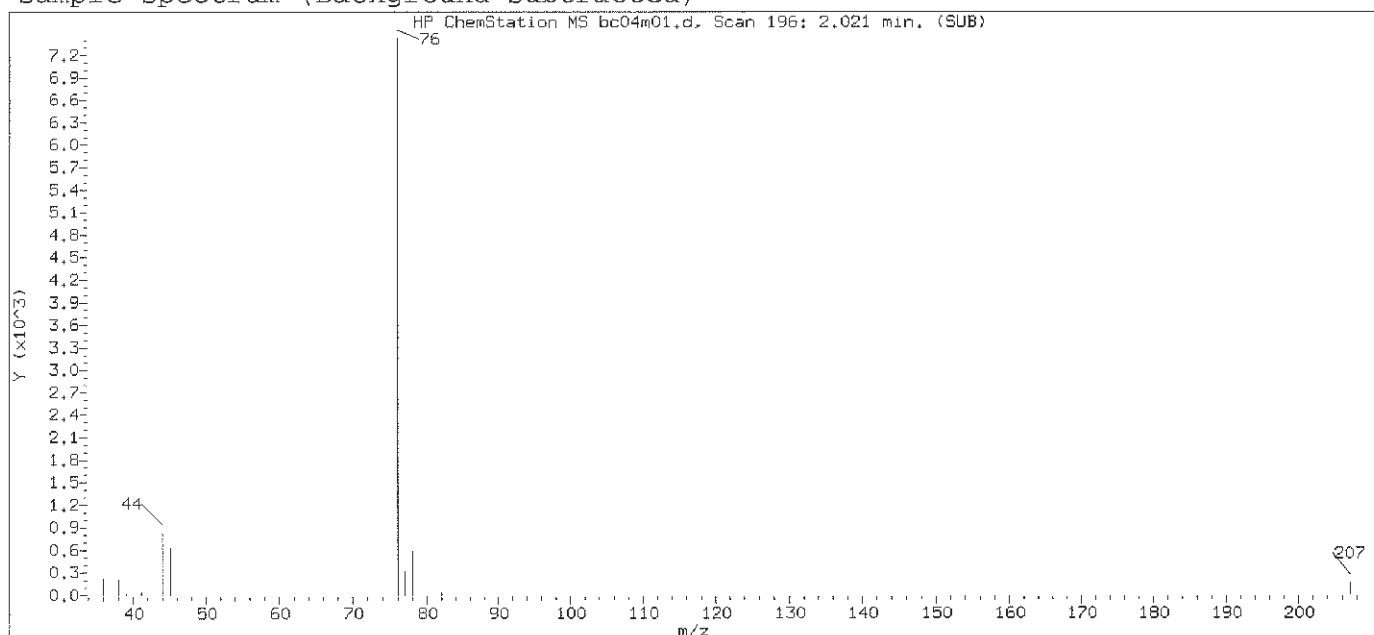
Compound Number : 25
Compound Name : Carbon Disulfide
Scan Number : 196
Retention Time (minutes): 2.021
Quant Ion : 76.00
Area (flag) : 16784M
On-Column Amount (ng) : 0.8835
Integration start scan : 186 Integration stop scan: 203
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

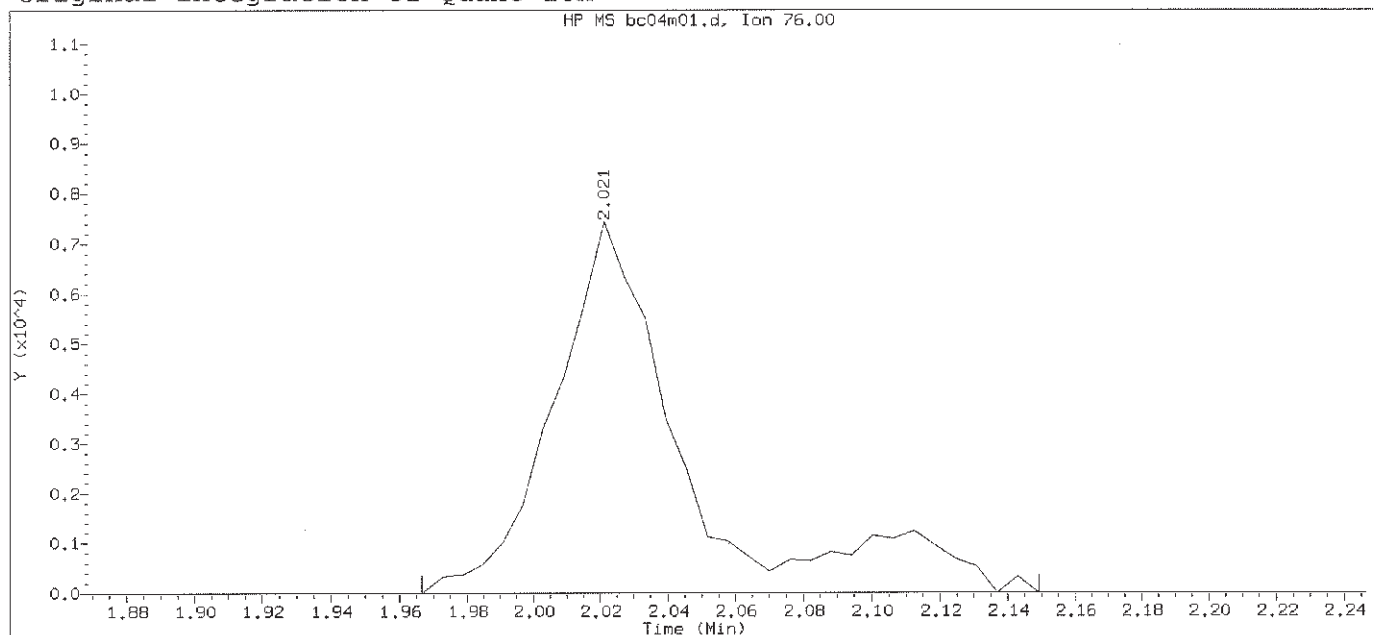
Analyst responsible for change: Digitally signed by Ryan V. Nolt
on 10/09/2012 at 11:49.
Target 3.5 esignature user ID: rvn00349

GC/MS audit/management approval: *Amey* 10912

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04m01.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 18:21 Analyst ID: ERS02237

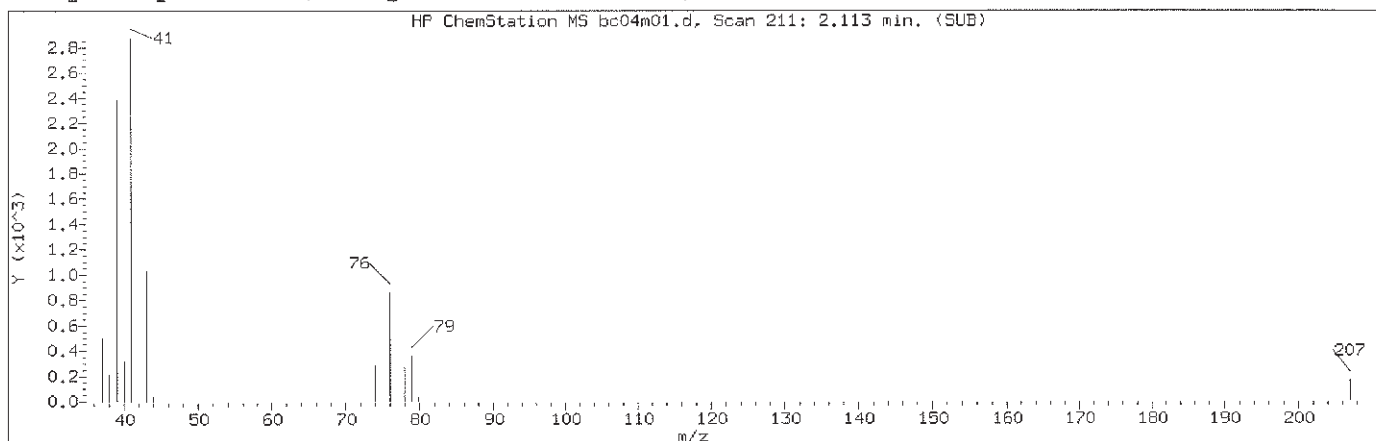
Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 08-OCT-2012 11:34
Date, time and analyst ID of latest file update: 08-Oct-2012 11:34 ers02237

Sample Name: MDL001 Lab Sample ID: MDL001

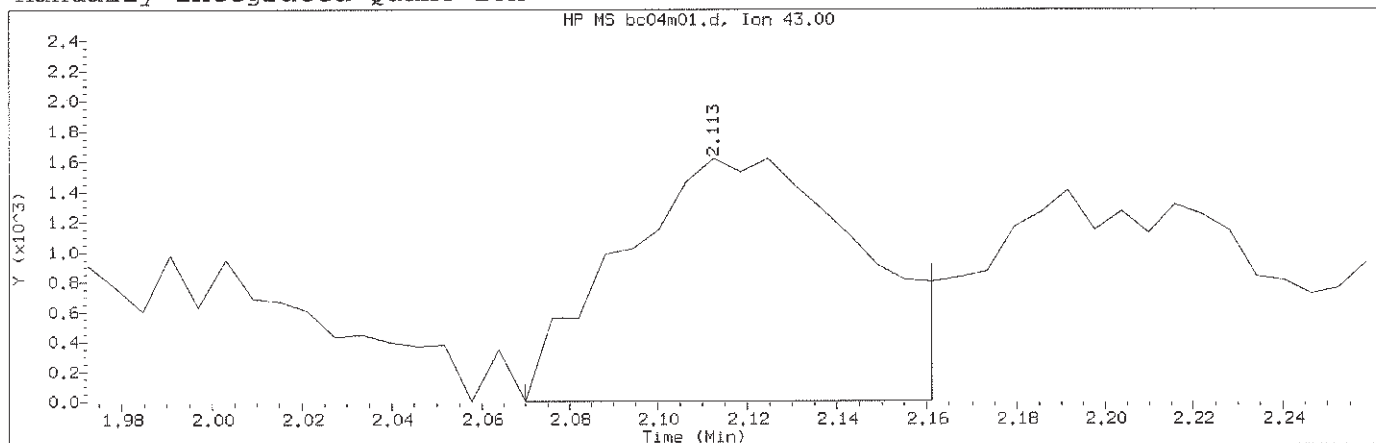
Compound Number : 25
Compound Name : Carbon Disulfide
Scan Number : 196
Retention Time (minutes): 2.021
Quant Ion : 76.00
Area : 19997
On-column Amount (ng) : 1.0527
Integration start scan : 186 Integration stop scan: 216
Y at integration start : 0 Y at integration end: 0

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Target 3.5 esignature use TAP03 Page 618 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04m01.d
Injection date and time: 04-OCT-2012 18:21

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /opt/tp/target/HP09953.i/di8260b.m
Calibration date and time: 09-OCT-2012 11:38
Date, time and analyst ID of latest file update: 09-Oct-2012 11:43 rvn00349

Sample Name: MDL001

Lab Sample ID: MDL001

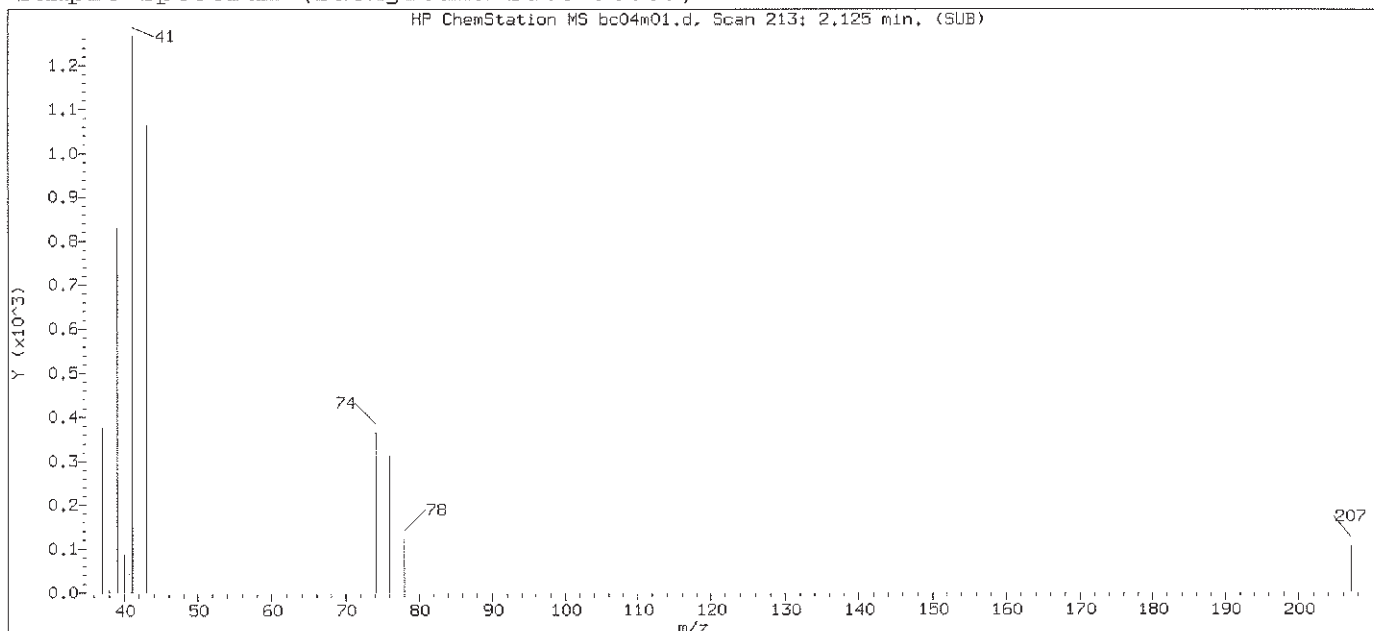
Compound Number	: 27	
Compound Name	: Methyl Acetate	
Scan Number	: 211	
Retention Time (minutes)	: 2.113	
Quant Ion	: 43.00	
Area (flag)	: 6154M	
On-Column Amount (ng)	: 1.2211	
Integration start scan	: 203	Integration stop scan: 218
Y at integration start	: 0	Y at integration end: 0

Reason for manual integration: improper integration

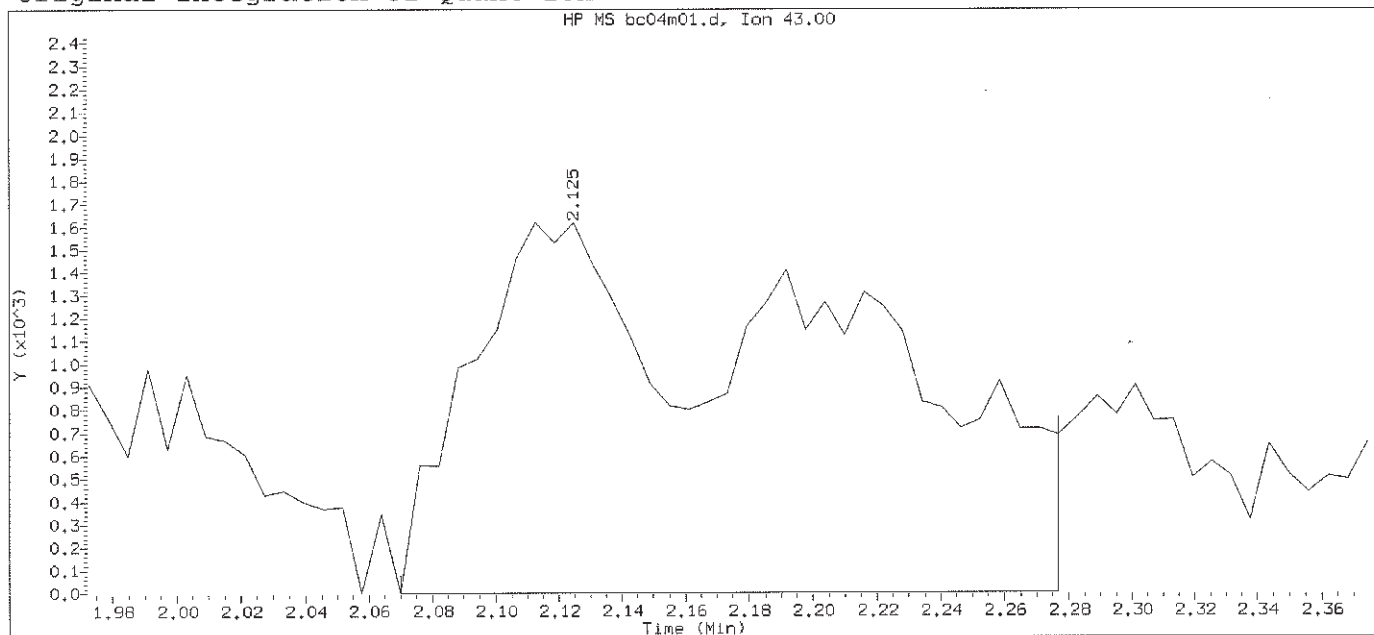
Analyst responsible for change: Digitally signed by Ryan V. Nolt
on 10/09/2012 at 11:49.
Target 3.5 esignature user ID: rvn00349

GC/MS audit/management approval: Am/lee 10/9/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04m01.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 18:21 Analyst ID: ERS02237

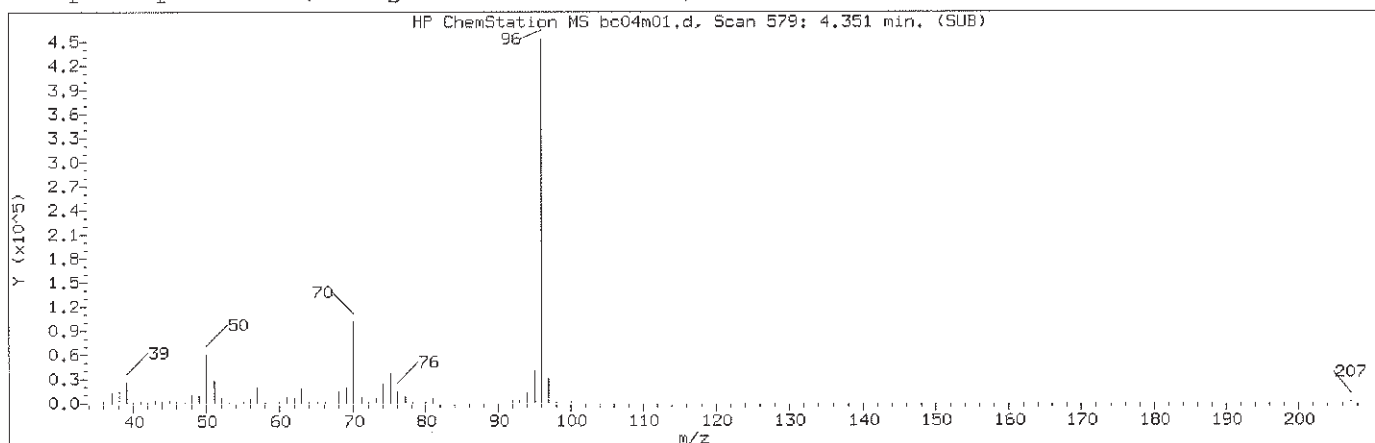
Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 08-OCT-2012 11:34
Date, time and analyst ID of latest file update: 08-Oct-2012 11:34 ers02237

Sample Name: MDL001 Lab Sample ID: MDL001

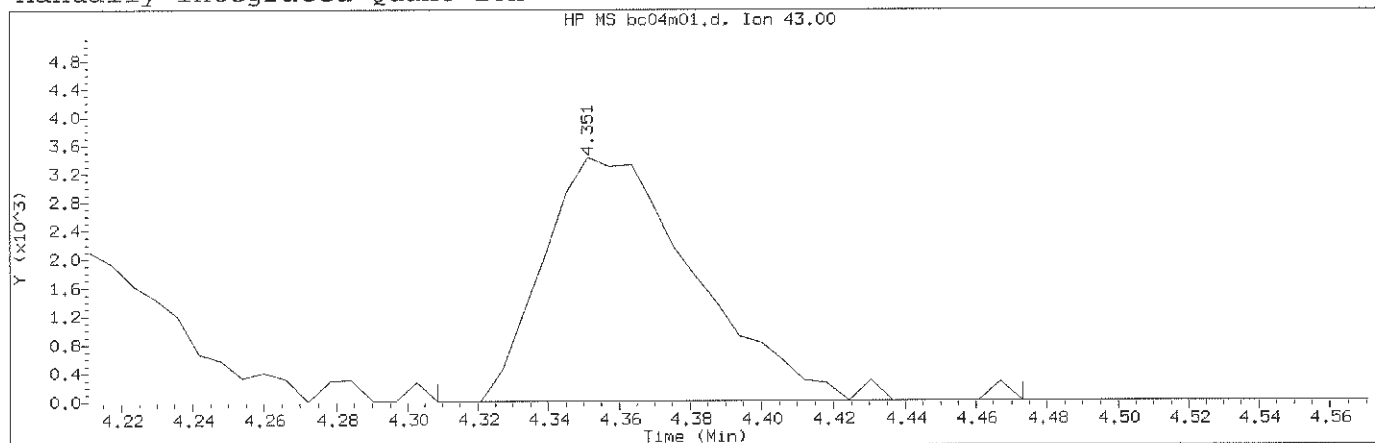
Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 213
Retention Time (minutes): 2.125
Quant Ion : 43.00
Area : 12950
On-column Amount (ng) : 2.5696
Integration start scan : 203 Integration stop scan: 237
Y at integration start : 0 Y at integration end: 0

Digitally signed by Ryan V. Nolt on 10/09/2012 at 11:49.
Target 3.5 esignature user ID: cn=Ryan V. Nolt, o=AP03 Page 620 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04m01.d
Injection date and time: 04-OCT-2012 18:21

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /opt/tp/target/HP09953.i/di8260b.m
Calibration date and time: 09-OCT-2012 11:38
Date, time and analyst ID of latest file update: 09-Oct-2012 11:43 rvn00349

Sample Name: MDL001

Lab Sample ID: MDL001

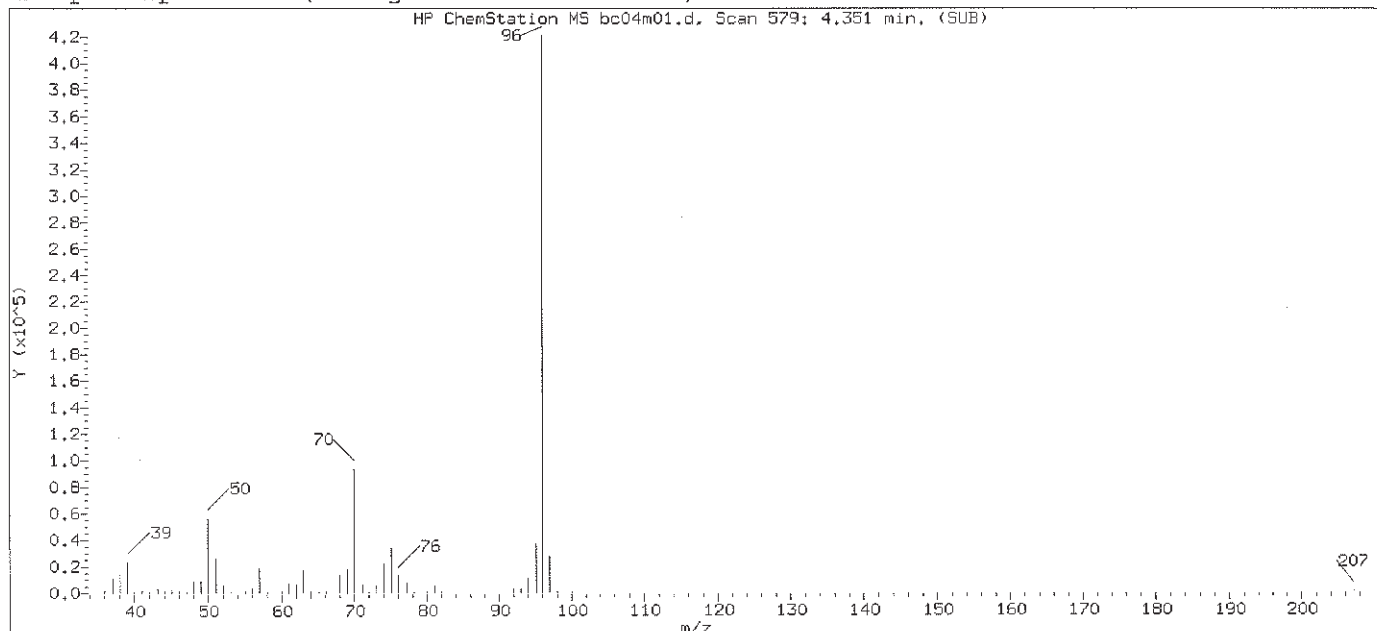
Compound Number	: 69	
Compound Name	: n-Heptane	
Scan Number	: 579	
Retention Time (minutes)	: 4.351	
Quant Ion	: 43.00	
Area (flag)	: 10298M	
On-Column Amount (ng)	: 0.7650	
Integration start scan	: 571	Integration stop scan: 598
Y at integration start	: 0	Y at integration end: 0

Reason for manual integration: improper integration

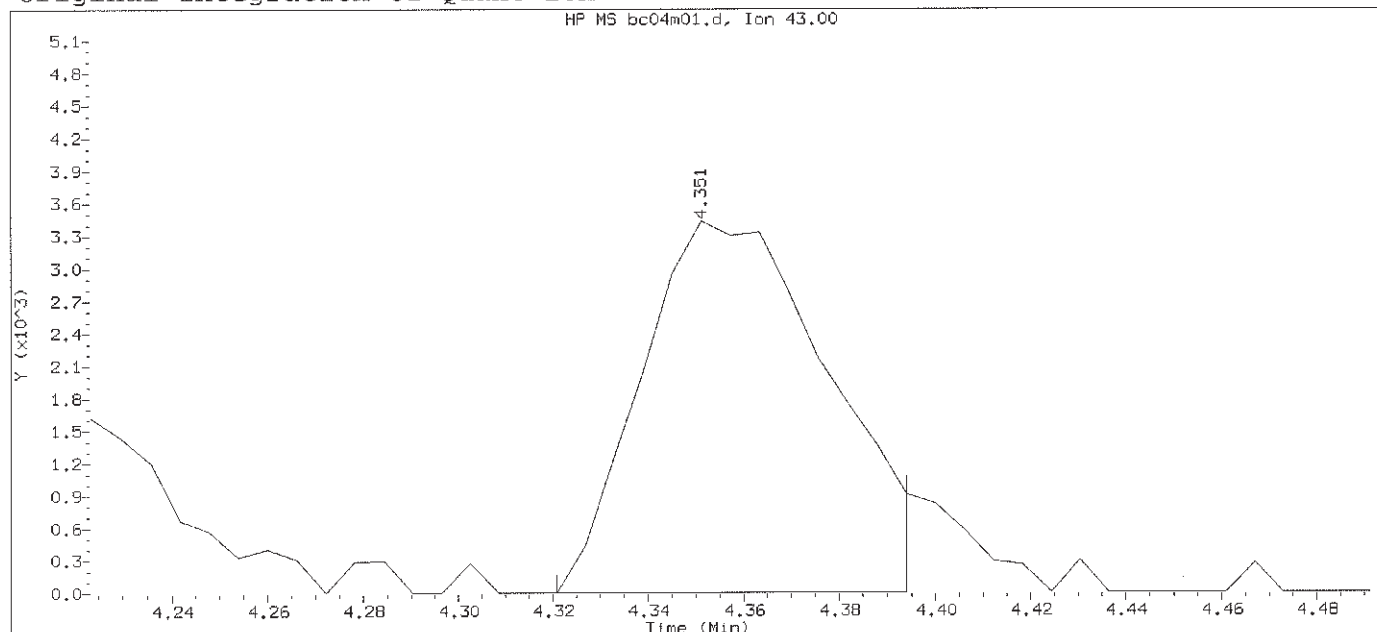
Analyst responsible for change: Digitally signed by Ryan V. Nolt
on 10/09/2012 at 11:49.
Target 3.5 esignature user ID: rvn00349

GC/MS audit/management approval: Ryan V. Nolt 10/9/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04m01.d

Instrument ID: HP09953.i

Injection date and time: 04-OCT-2012 18:21

Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m

Sublist used: 8260S

Calibration date and time: 08-OCT-2012 11:34

Date, time and analyst ID of latest file update: 08-Oct-2012 11:34 ers02237

Sample Name: MDL001

Lab Sample ID: MDL001

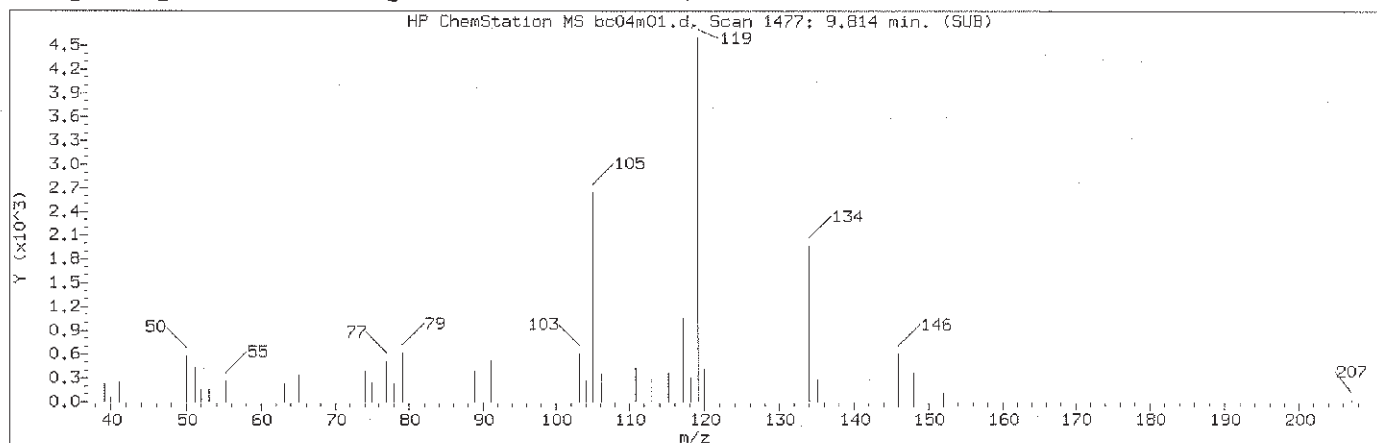
Compound Number : 69
 Compound Name : n-Heptane
 Scan Number : 579
 Retention Time (minutes): 4.351
 Quant Ion : 43.00
 Area : 9212
 On-column Amount (ng) : 0.6844
 Integration start scan : 573
 Y at integration start : 0

Integration stop scan: 585
 Y at integration end: 0

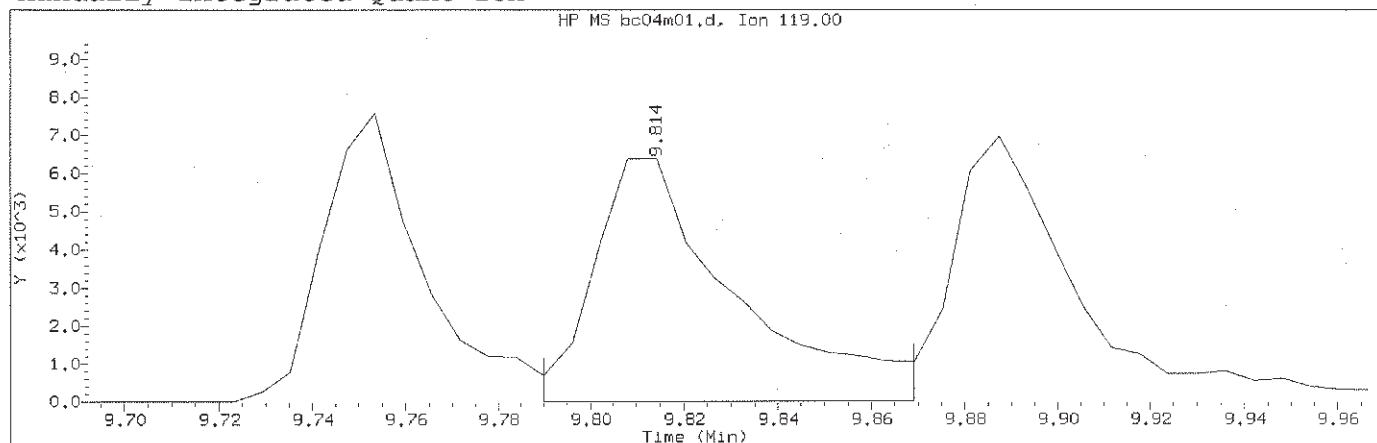
Digitally signed by Ryan V. Nolt on 10/09/2012 at 11:49.

Target 3.5 esignature use ID: 17700349
 TAP03 Page 622 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04m01.d

Instrument ID: HP09953.i

Injection date and time: 04-OCT-2012 18:21

Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m

Sublist used: 8260S

Calibration date and time: 22-OCT-2012 16:01

Date, time and analyst ID of latest file update: 22-Oct-2012 16:01 ers02237

Sample Name: MDL001

Lab Sample ID: MDL001

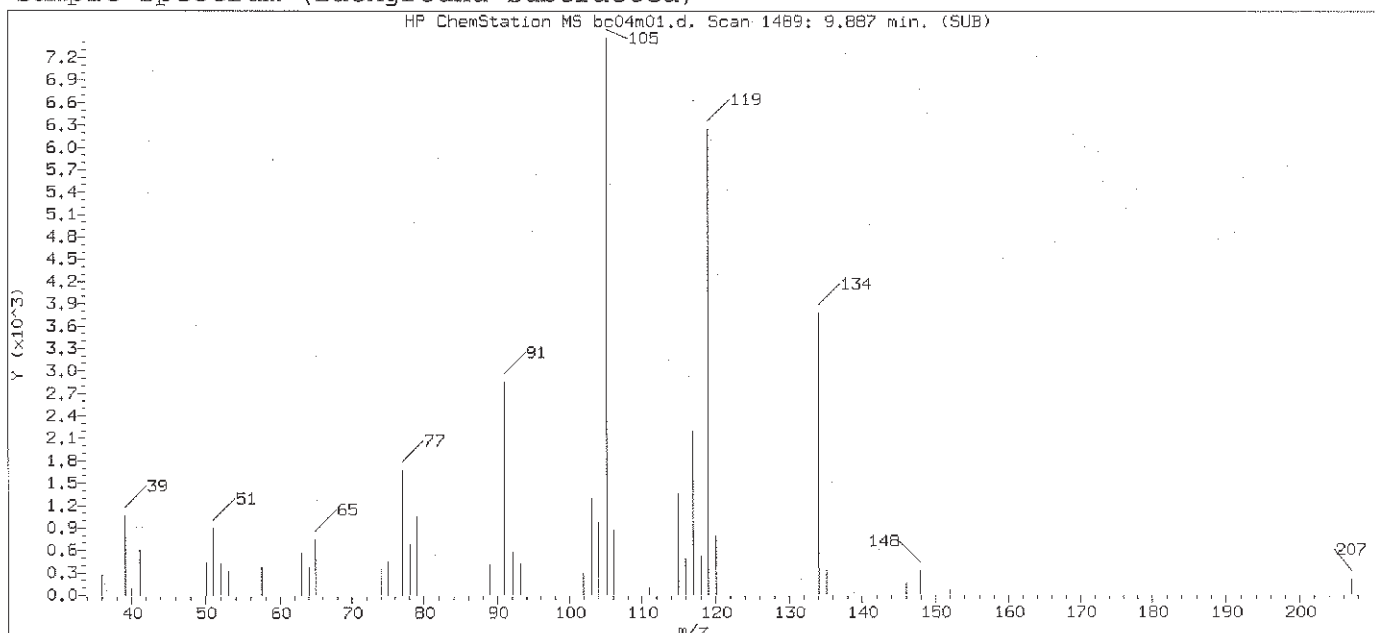
Compound Number : 138
 Compound Name : 1,4-Diethylbenzene
 Scan Number : 1477
 Retention Time (minutes): 9.814
 Quant Ion : 119.00
 Area (flag) : 13313A
 On-Column Amount (ng) : 0.7094
 Integration start scan : 1472
 Integration stop scan: 1485
 Y at integration start : 0
 Y at integration end: 0

Reason for manual integration: improper integration

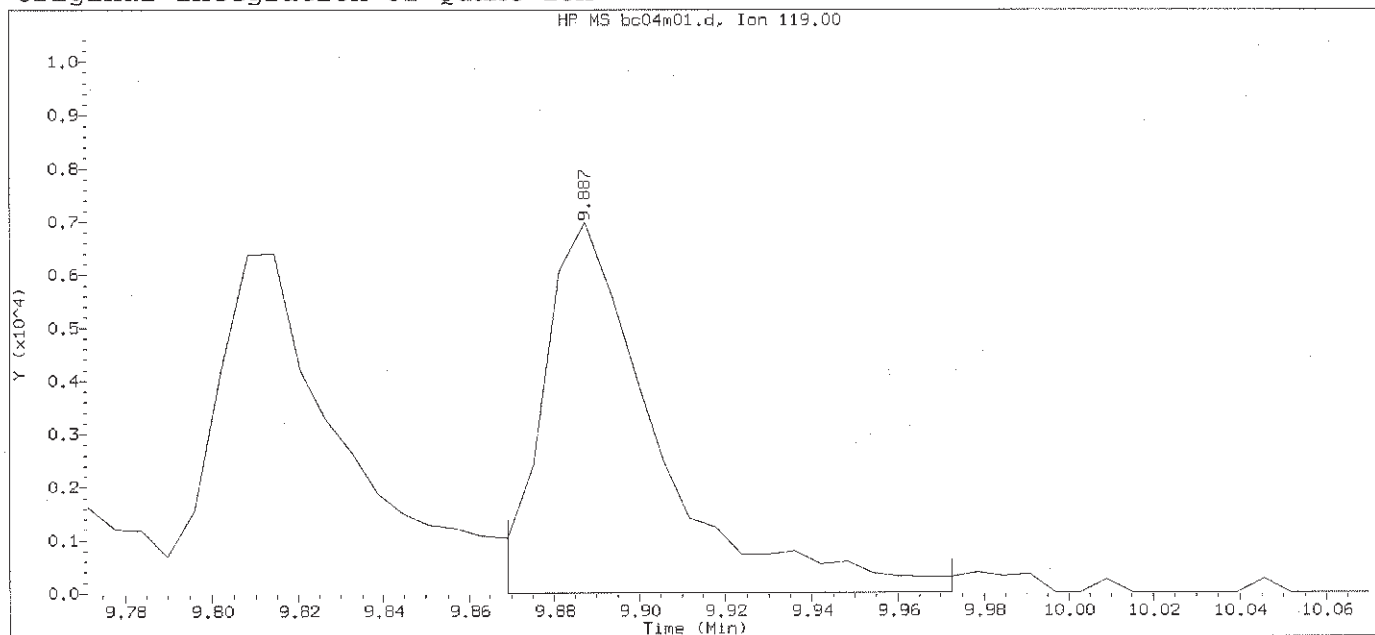
Analyst responsible for change: Digitally signed by Emily R. Styer
 on 10/22/2012 at 16:04.
 Target 3.5 esignature user ID: ers02237

GC/MS audit/management approval: *[Signature]* 10/23/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04m01.d

Instrument ID: HP09953.i

Injection date and time: 04-OCT-2012 18:21

Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m

Sublist used: 8260S

Calibration date and time: 08-OCT-2012 11:34

Date, time and analyst ID of latest file update: 08-Oct-2012 11:34 ers02237

Sample Name: MDL001

Lab Sample ID: MDL001

Compound Number : 138

Compound Name : 1,4-Diethylbenzene

Scan Number : 1489

Retention Time (minutes): 9.887

Quant Ion : 119.00

Area : 12886

On-column Amount (ng) : 0.8216

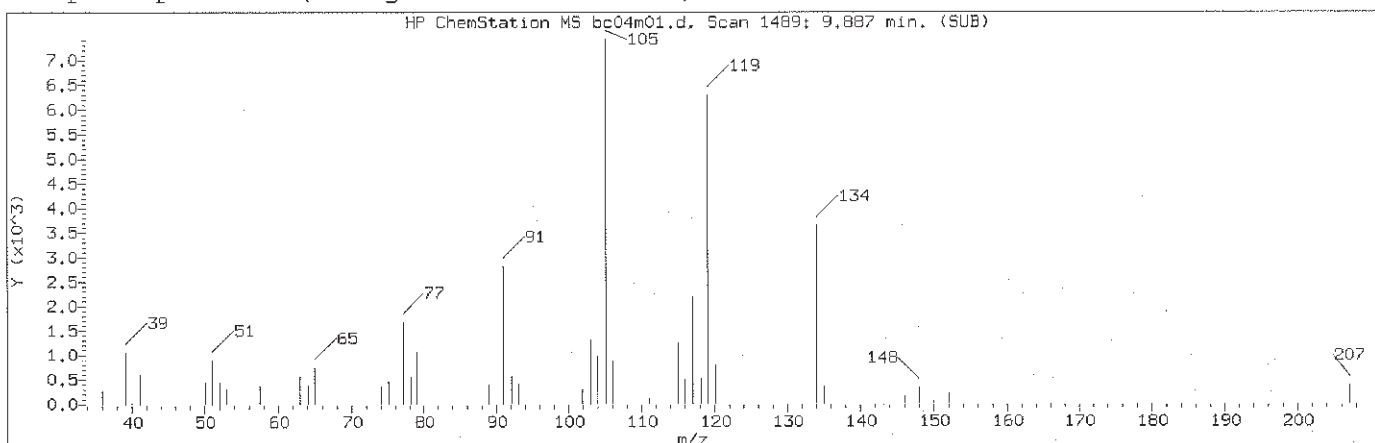
Integration start scan : 1485 Integration stop scan: 1502

Y at integration start : 0 Y at integration end: 0

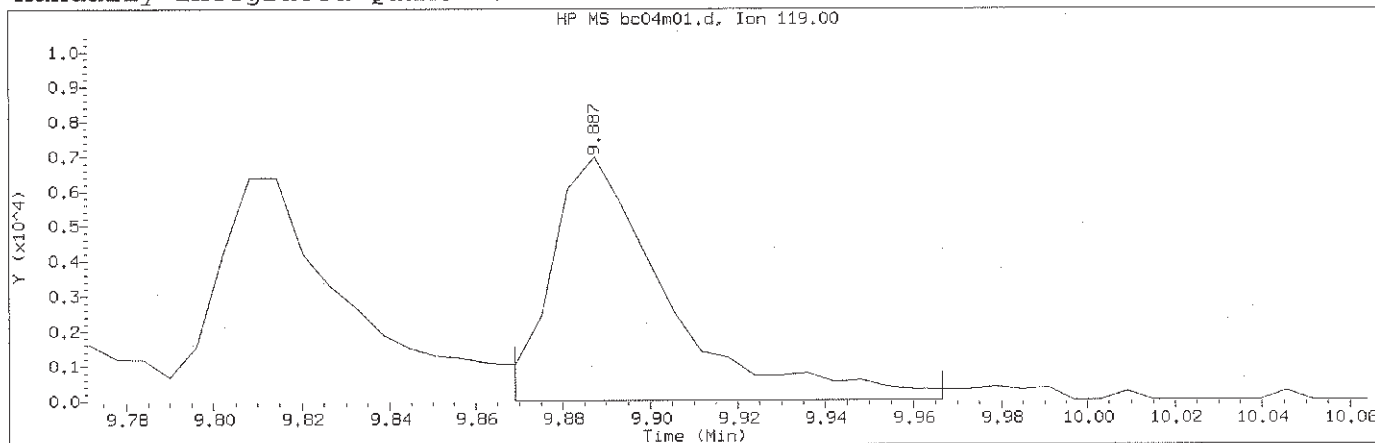
Digitally signed by Emily R. Styer on 10/22/2012 at 16:04.

Target 3.5 esignature us FAP03: Page 624 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04m01.d
Injection date and time: 04-OCT-2012 18:21

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 16:01
Date, time and analyst ID of latest file update: 22-Oct-2012 16:01 ers02237

Sample Name: MDL001

Lab Sample ID: MDL001

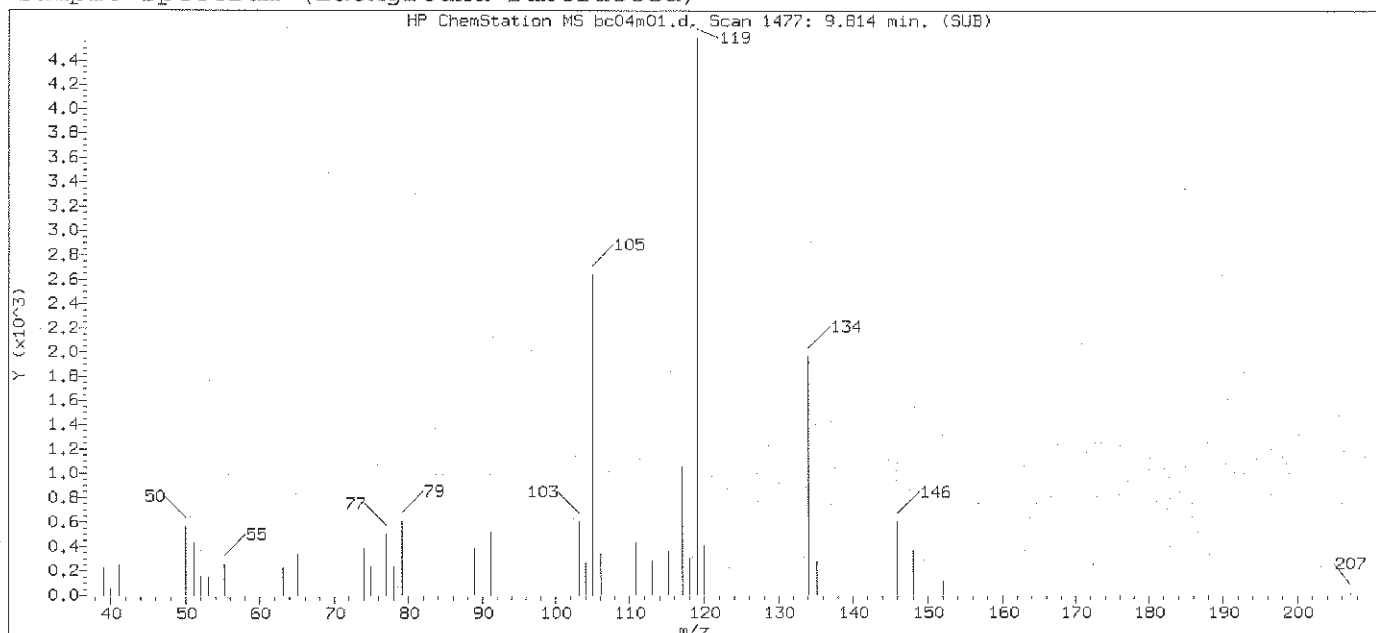
Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1489
Retention Time (minutes): 9.887
Quant Ion : 119.00
Area (flag) : 12777A
On-Column Amount (ng) : 0.8223
Integration start scan : 1485 Integration stop scan: 1501
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

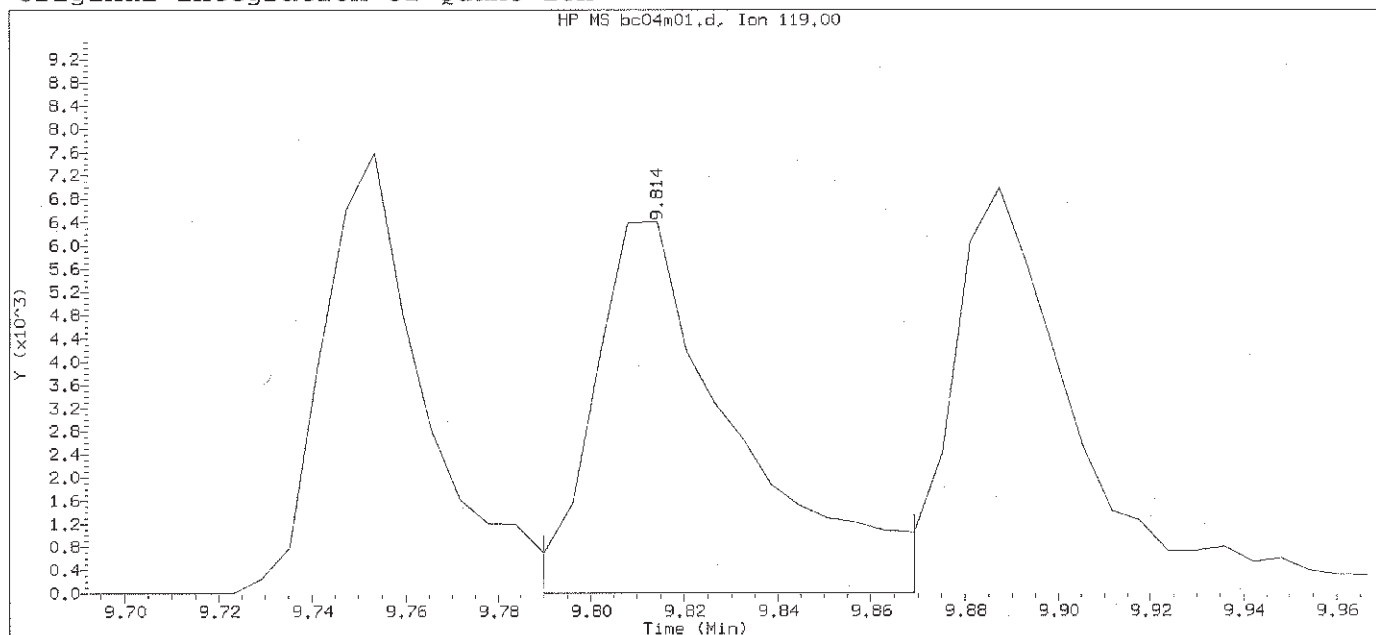
Analyst responsible for change: Digitally signed by Emily R. Styer
on 10/22/2012 at 16:04.
Target 3.5 esignature user ID: ers02237

GC/MS audit/management approval: amdy 10/23/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



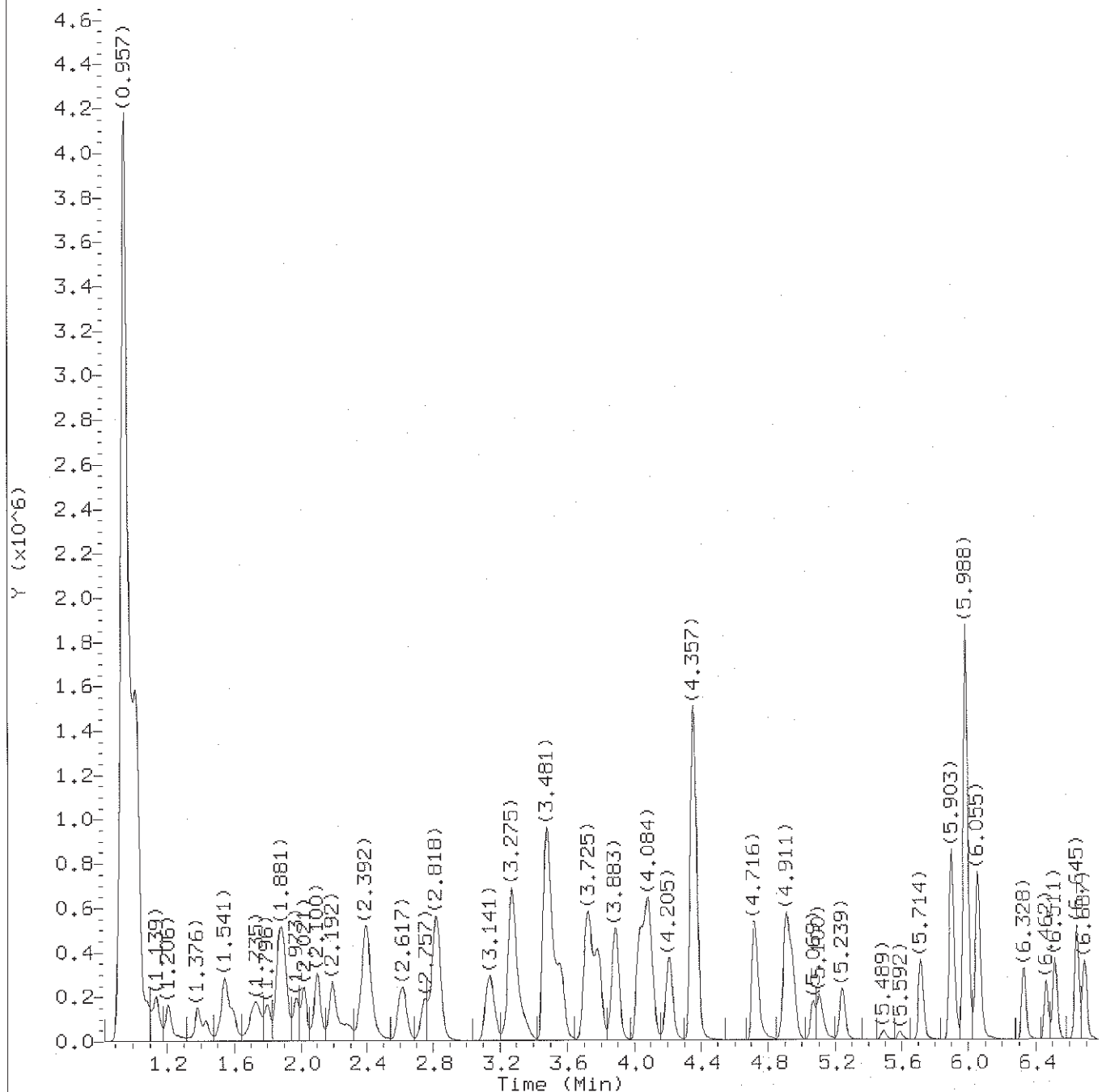
Data File: /chem2/HP09953.i/12oct04b.b/bc04m01.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 18:21 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 08-OCT-2012 11:34
Date, time and analyst ID of latest file update: 08-Oct-2012 11:34 ers02237

Sample Name: MDL001 Lab Sample ID: MDL001

Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1477
Retention Time (minutes): 9.814
Quant Ion : 119.00
Area : 13312
On-column Amount (ng) : 0.7094
Integration start scan : 1472 Integration stop scan: 1485
Y at integration start : 0 Y at integration end: 0

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Target 3.5 esignature us TAP03 Page 626 of 2648



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04v01.d
Injection date and time: 04-OCT-2012 18:46

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m
Calibration date and time: 22-OCT-2012 16:01

Sublist used: 8260S

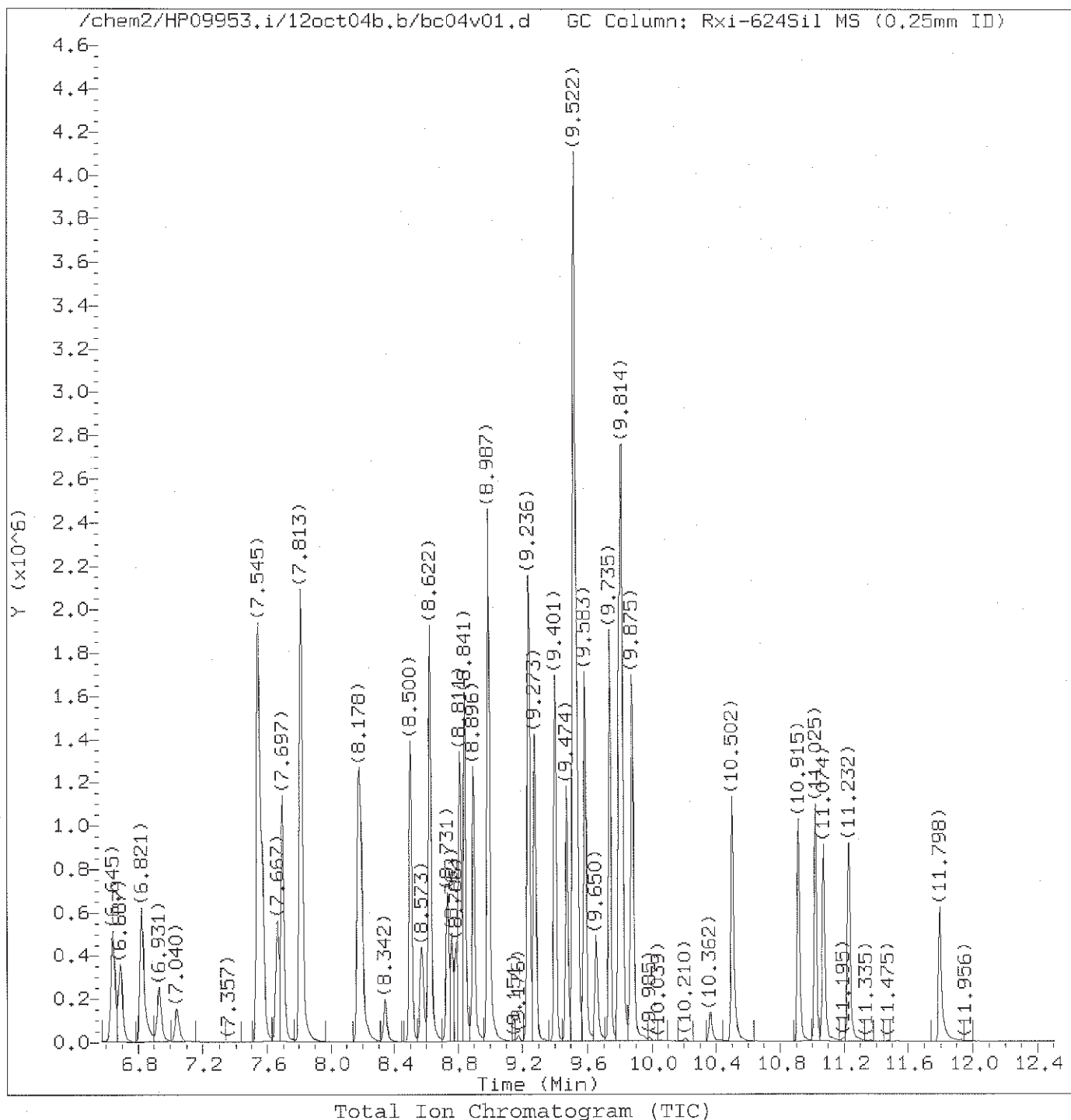
Date, time and analyst ID of latest file update: 22-Oct-2012 16:02 ers02237

Sample Name: LGBICV

Lab Sample ID: LGBICV

Digitally signed by Emily R. Styer
on 10/22/2012 at 16:03.

Target 3.5 esignature user ID: ers02237



Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04v01.d
Injection date and time: 04-OCT-2012 18:46

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 16:01
Date, time and analyst ID of latest file update: 22-Oct-2012 16:02 ers02237

Sample Name: LGBICV

Lab Sample ID: LGBICV

Digitally signed by Emily R. Styer
on 10/22/2012 at 16:03.

Target 3.5 esignature user ID: ers02237

TAP03 Page 628 of 2648

page 2 of 2

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04v01.d
Injection date and time: 04-OCT-2012 18:46

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S

Calibration date and time: 22-OCT-2012 16:01

Date, time and analyst ID of latest file update: 22-Oct-2012 16:02 ers02237

Sample Name: LGBICV

Lab Sample ID: LGBICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.091	85	197750	16.004
4) Chloromethane	(2)	1.139	50	228478	18.701
5) Vinyl Chloride	(2)	1.206	62	190493	18.612
9) Bromomethane	(2)	1.376	94	118921	18.536
10) Chloroethane	(2)	1.431	64	98780	18.528
11) Dichlorofluoromethane	(2)	1.541	67	337018	22.684
13) Trichlorofluoromethane	(2)	1.589	101	259595	19.938
15) Ethanol	(1)	1.668	45	78172M	1023.167
17) Freon 123a	(2)	1.729	67	197687	22.248
18) Acrolein	(1)	1.802	56	177096	158.852
19) 1,1-Dichloroethene	(2)	1.869	96	122675	20.576
22) Freon 113	(2)	1.887	101	140549	20.170
20) Acetone	(2)	1.894	58	144598	212.856
24) Methyl Iodide	(2)	1.973	142	241919	19.545
23) 2-Propanol	(1)	1.979	45	83247	159.518
25) Carbon Disulfide	(2)	2.021	76	377525	19.209
29) Allyl Chloride	(2)	2.100	41	272455	21.015
27) Methyl Acetate	(2)	2.113	43	101400	19.448
31) Methylene Chloride	(2)	2.192	84	142876	20.639
30)*t-Butyl alcohol-d10	(1)	2.228	65	143974	250.000
32) t-Butyl alcohol	(1)	2.295	59	147707	202.297
33) Acrylonitrile	(2)	2.380	53	225499	99.249
35) trans-1,2-Dichloroethene	(2)	2.398	96	140247	20.845
34) Methyl Tertiary Butyl Ether	(2)	2.411	73	392969	20.301
38) n-Hexane	(2)	2.611	57	217265	18.560
40) 1,1-Dichloroethane	(2)	2.745	63	303743	20.563
41) di-Isopropyl ether	(2)	2.812	45	566958	20.178
42) 2-Chloro-1,3-butadiene	(2)	2.830	53	262508	20.270
44) Ethyl t-butyl ether	(2)	3.141	59	457169	19.892
46) cis-1,2-Dichloroethene	(2)	3.268	96	156823	20.672
48) 2,2-Dichloropropane	(2)	3.275	77	224573	19.980
45) 2-Butanone	(2)	3.287	43	657304	189.213
50) Propionitrile	(1)	3.348	54	148909	154.061
51) Methacrylonitrile	(2)	3.481	67	405214	161.767
52) Bromochloromethane	(2)	3.481	128	73949	20.280
53) Tetrahydrofuran	(1)	3.530	71	78356	102.531
54) Chloroform	(2)	3.566	83	273717	19.402
55)\$Dibromofluoromethane	(2)	3.719	113	346696	49.292

M = Compound was manually integrated.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

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on 10/22/2012 at 16:03.
Target 3.5 esignature user ID: ers02237

page 1 of 4

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04v01.d
 Injection date and time: 04-OCT-2012 18:46

Instrument ID: HP09953.i
 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
 Calibration date and time: 22-OCT-2012 16:01
 Date, time and analyst ID of latest file update: 22-Oct-2012 16:02 ers02237

Sample Name: LGBICV

Lab Sample ID: LGBICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
56) 1,1,1-Trichloroethane	(2)	3.737	97	254004	21.098
57) Cyclohexane	(2)	3.786	56	287771	20.233
58) 1,1-Dichloropropene	(2)	3.883	75	213205	19.735
59) Carbon Tetrachloride	(2)	3.889	117	211283	19.520
61) \$1,2-Dichloroethane-d4	(2)	4.029	102	74932	50.686
60) Isobutyl Alcohol	(1)	4.047	41	130434	485.911
62) Benzene	(2)	4.084	78	604037	20.315
64) 1,2-Dichloroethane	(2)	4.102	62	225877	20.076
65) t-Amyl methyl ether	(2)	4.211	73	371452	19.754
69) n-Heptane	(2)	4.357	43	279016	20.036
67) *Fluorobenzene	(2)	4.357	96	1404652	50.000
70) n-Butanol	(1)	4.716	56	167354	933.003
72) Trichloroethene	(2)	4.722	95	154806	20.198
73) Methylcyclohexane	(2)	4.911	83	278791	20.639
74) 1,2-Dichloropropane	(2)	4.947	63	165610	19.988
78) Dibromomethane	(2)	5.069	93	88140	19.852
76) Methyl Methacrylate	(2)	5.106	69	82326	19.447
77) 1,4-Dioxane	(1)	5.112	88	30858	443.274
81) Bromodichloromethane	(2)	5.239	83	187042	19.378
82) 2-Nitropropane	(1)	5.489	41	33112	17.695
83) 2-Chloroethyl Vinyl Ether	(2)	5.592	63	17398	19.911
84) cis-1,3-Dichloropropene	(2)	5.714	75	230514	20.758
85) 4-Methyl-2-pentanone	(2)	5.903	43	745417	96.055
86) \$Toluene-d8	(3)	5.988	98	1371315	51.105
87) Toluene	(3)	6.055	92	360480	20.375
47) 1,2-Dichloroethene (Total)	(2)		96	297070	41.517
88) trans-1,3-Dichloropropene	(3)	6.328	75	194371	19.680
89) Ethyl Methacrylate	(3)	6.462	69	152408	20.489
90) 1,1,2-Trichloroethane	(3)	6.517	97	115240	20.757
92) Tetrachloroethene	(3)	6.645	166	162340	20.837
93) 1,3-Dichloropropane	(3)	6.693	76	207400	20.182
95) 2-Hexanone	(3)	6.821	43	551713	104.780
97) Dibromochloromethane	(3)	6.931	129	131063	20.059
98) 1,2-Dibromoethane	(3)	7.040	107	112309	20.036
99) *Chlorobenzene-d5	(3)	7.545	117	937064	50.000
100) Chlorobenzene	(3)	7.569	112	400651	20.240
101) 1,1,1,2-Tetrachloroethane	(3)	7.667	131	141105	19.610
102) Ethylbenzene	(3)	7.697	91	691559	20.543

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 2 of 4

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 on 10/22/2012 at 16:03.

Target 3.5 esignature user ID: ers02237

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04v01.d
Injection date and time: 04-OCT-2012 18:46

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 16:01
Date, time and analyst ID of latest file update: 22-Oct-2012 16:02 ers02237

Sample Name: LGBICV

Lab Sample ID: LGBICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
103) m+p-Xylene	(3)	7.813	106	539162	40.998
104) o-Xylene	(3)	8.172	106	255712	19.990
106) Styrene	(3)	8.190	104	406907	20.227
107) Bromoform	(3)	8.342	173	81196	18.945
108) Isopropylbenzene	(3)	8.500	105	709181	20.790
111) Cyclohexanone	(1)	8.567	55	171329	831.095
112) \$4-Bromofluorobenzene	(3)	8.622	95	497518	49.466
114) Bromobenzene	(4)	8.738	156	169840	20.969
113) 1,1,2,2-Tetrachloroethane	(4)	8.762	83	161055	22.232
116) 1,2,3-Trichloropropane	(4)	8.786	110	45010	21.954
115) trans-1,4-Dichloro-2-butene	(4)	8.811	53	248939	110.871
117) n-Propylbenzene	(4)	8.841	91	869148	18.130
119) 2-Chlorotoluene	(4)	8.896	126	170050	21.344
123) 4-Chlorotoluene	(4)	8.987	126	173437	20.623
122) 1,3,5-Trimethylbenzene	(4)	8.993	105	615548	21.629
126) tert-Butylbenzene	(4)	9.236	134	134662	20.995
127) Pentachloroethane	(4)	9.242	167	111648	20.293
128) 1,2,4-Trimethylbenzene	(4)	9.279	105	619780	21.505
129) sec-Butylbenzene	(4)	9.401	105	794378	22.044
131) 1,3-Dichlorobenzene	(4)	9.474	146	332066	20.975
132) p-Isopropyltoluene	(4)	9.516	119	693530	21.862
133) *1,4-Dichlorobenzene-d4	(4)	9.522	152	556424	50.000
134) 1,4-Dichlorobenzene	(4)	9.541	146	354298	20.855
135) 1,2,3-Trimethylbenzene	(4)	9.583	105	656675	22.119
136) Benzyl Chloride	(4)	9.650	126	53322	20.027
137) 1,3-Diethylbenzene	(4)	9.735	119	409266	22.129
138) 1,4-Diethylbenzene	(4)	9.796	119	434543A	21.829
139) n-Butylbenzene	(4)	9.814	92	359470	21.870
140) 1,2-Dichlorobenzene	(4)	9.814	146	335559	20.654
141) 1,2-Diethylbenzene	(4)	9.875	119	356315A	21.618
144) 1,2-Dibromo-3-chloropropane	(4)	10.362	75	31940	21.880
145) 1,3,5-Trichlorobenzene	(4)	10.502	180	285760	20.852
146) 1,2,4-Trichlorobenzene	(4)	10.915	180	252189	21.258
147) Hexachlorobutadiene	(4)	11.025	225	151733	21.572
148) Naphthalene	(4)	11.074	128	526560	21.853
149) 1,2,3-Trichlorobenzene	(4)	11.232	180	238593	21.221
105) Xylene (Total)	(3)		106	794874	60.989
150) 2-Methylnaphthalene	(4)	11.798	142	282627	19.996

A = User selected an alternate hit.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

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on 10/22/2012 at 16:03.

Target 3.5 esignature user ID: ers02237

page 3 of 4

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12oct04b.b/bc04v01.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 18:46 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 16:01
Date, time and analyst ID of latest file update: 22-Oct-2012 16:02 ers02237

Sample Name: LGBICV

Lab Sample ID: LGBICV

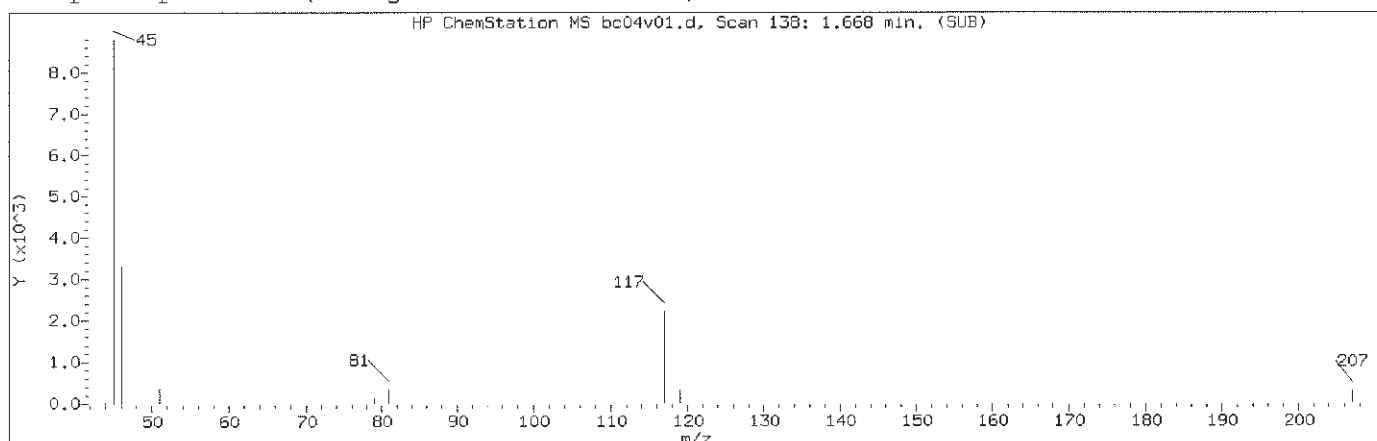
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====

A = User selected an alternate hit.
* = Compound is an internal standard.
\$ = Compound is a surrogate standard.

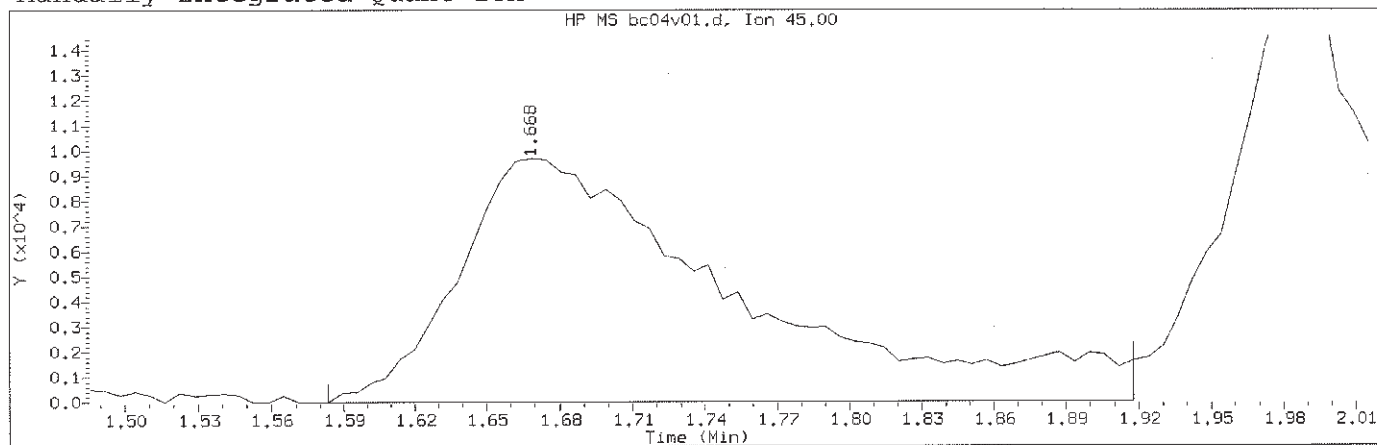
page 4 of 4

Digitally signed by Emily R. Styer
on 10/22/2012 at 16:03.
Target 3.5 esignature user ID: ers02237

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04v01.d
Injection date and time: 04-OCT-2012 18:46

Instrument ID: HP09953.i
Analyst ID: ERS02237

Method used: /opt/tp/target/HP09953.i/di8260b.m
Calibration date and time: 09-OCT-2012 11:38
Date, time and analyst ID of latest file update: 09-Oct-2012 11:43 rvn00349

Sample Name: LGBICV

Lab Sample ID: LGBICV

Compound Number	: 15	
Compound Name	: Ethanol	
Scan Number	: 138	
Retention Time (minutes)	: 1.668	
Quant Ion	: 45.00	
Area (flag)	: 78172M	
On-Column Amount (ng)	: 1023.1666	
Integration start scan	: 123	Integration stop scan: 178
Y at integration start	: 0	Y at integration end: 0

Reason for manual integration: improper integration

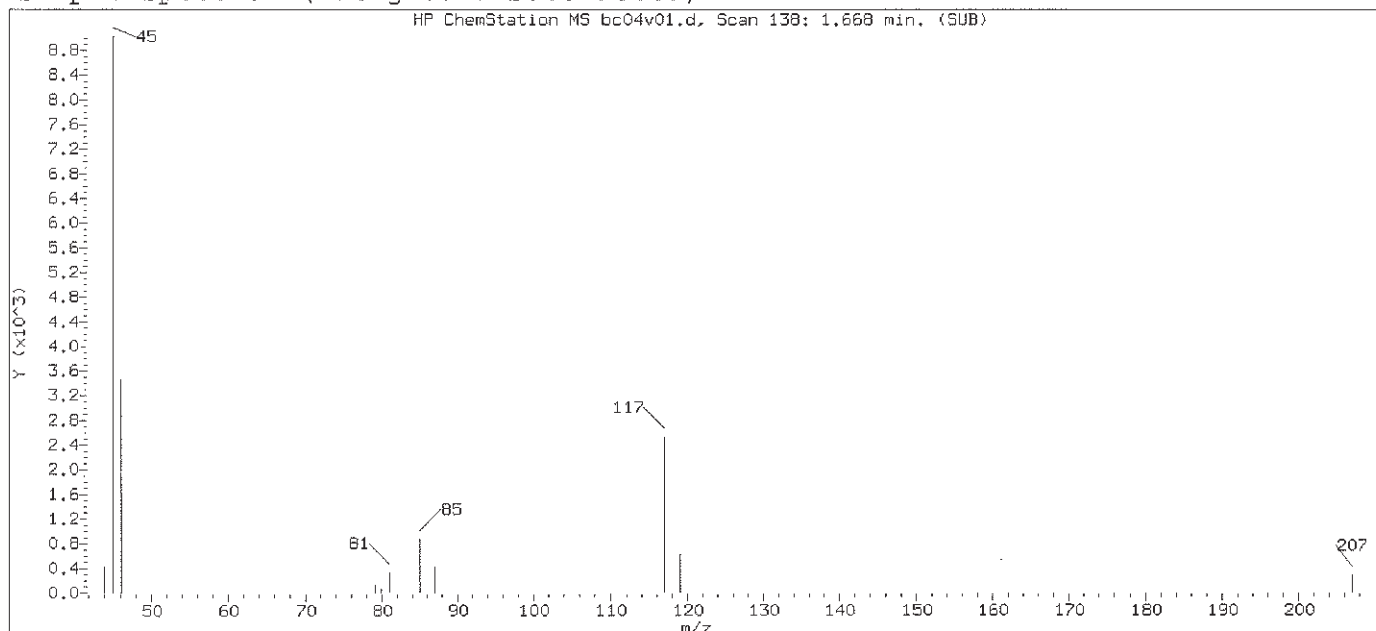
Analyst responsible for change: Digitally signed by Ryan V. Nolt
on 10/09/2012 at 11:49.
Target 3.5 esignature user ID: rvn00349

GC/MS audit/management approval: _____

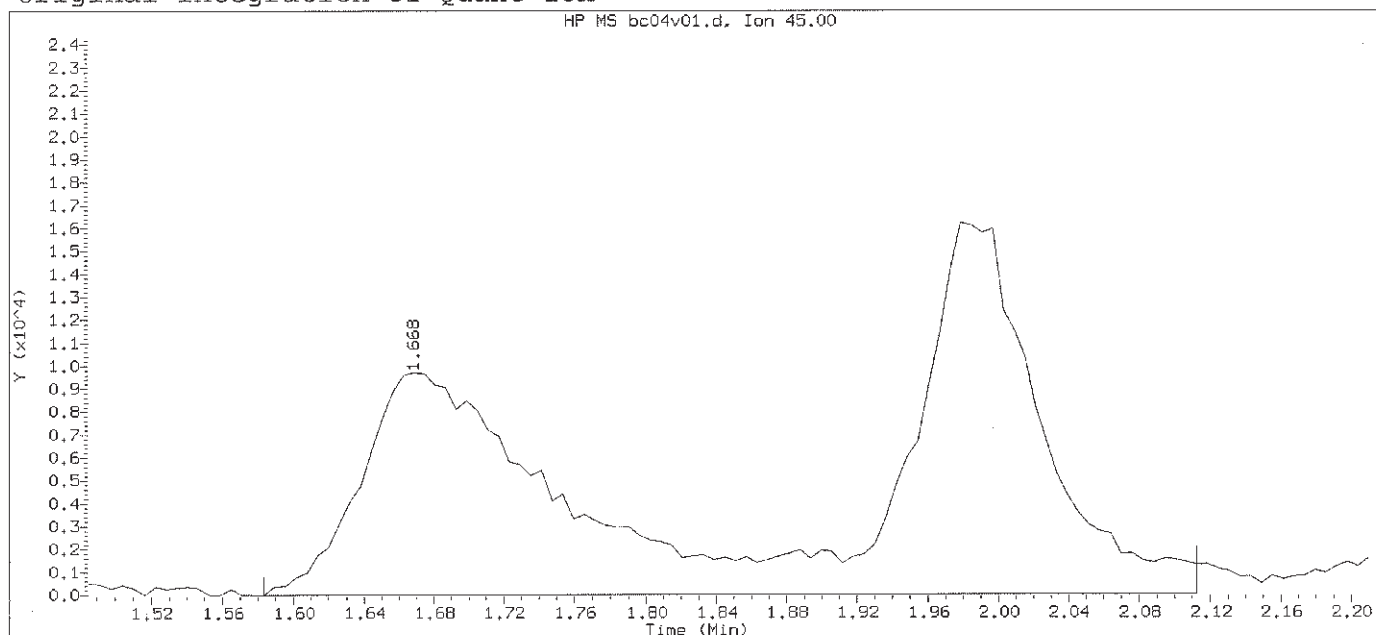
Signature

10912

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04v01.d

Instrument ID: HP09953.i

Injection date and time: 04-OCT-2012 18:46

Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m

Sublist used: 8260S

Calibration date and time: 08-OCT-2012 11:34

Date, time and analyst ID of latest file update: 08-Oct-2012 11:34 ers02237

Sample Name: LGBICV

Lab Sample ID: LGBICV

Compound Number	: 15	
Compound Name	: Ethanol	
Scan Number	: 138	
Retention Time (minutes)	: 1.668	
Quant Ion	: 45.00	
Area	: 153389	
On-column Amount (ng)	: 2007.6609	
Integration start scan	: 123	Integration stop scan: 210
Y at integration start	: 0	Y at integration end: 0

Digitally signed by Ryan V. Nolt on 10/09/2012 at 11:49.

Target 3.5 esignature user ID: rvn00349

HP ChemStation MS bc04v01.d, Scan 1474: 9.796 min. (SUB)

Mass spectrum plot showing relative intensity Y (x10⁵) versus m/z. The x-axis ranges from 40 to 150 m/z, and the y-axis ranges from 0.0 to 3.9 x 10⁵. The base peak is at m/z 119. Other significant peaks are labeled at m/z 39, 51, 62, 65, 77, 80, 91, 105, 106, 128, 134, 146, and 150.

m/z	Relative Intensity (Y x 10 ⁵)
39	0.5
51	0.6
62	0.3
65	0.4
77	0.9
80	0.3
91	1.6
105	3.4
106	0.4
119	3.9
128	0.3
134	2.1
146	0.4
150	0.3

HP MS bc04v01.d, Ion 119.00

Chromatogram showing three peaks at retention times 9.736, 9.796, and 9.876 minutes. The y-axis is labeled Y (x10^5) and ranges from 0.0 to 6.0. The x-axis is labeled Time (Min) and ranges from 9.68 to 9.94.

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 16:01
Date, time and analyst ID of latest file update: 22-Oct-2012 16:02 ers02237

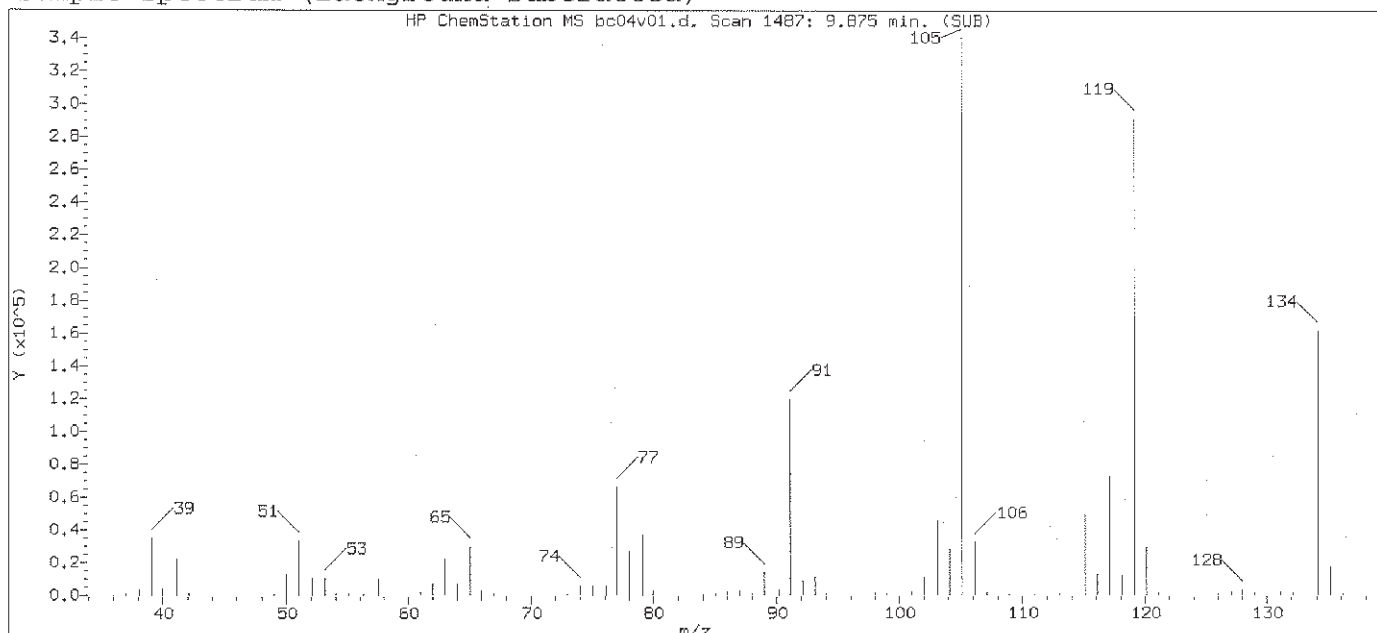
Lab Sample ID: LGBICV

Reason for manual integration: improper integration

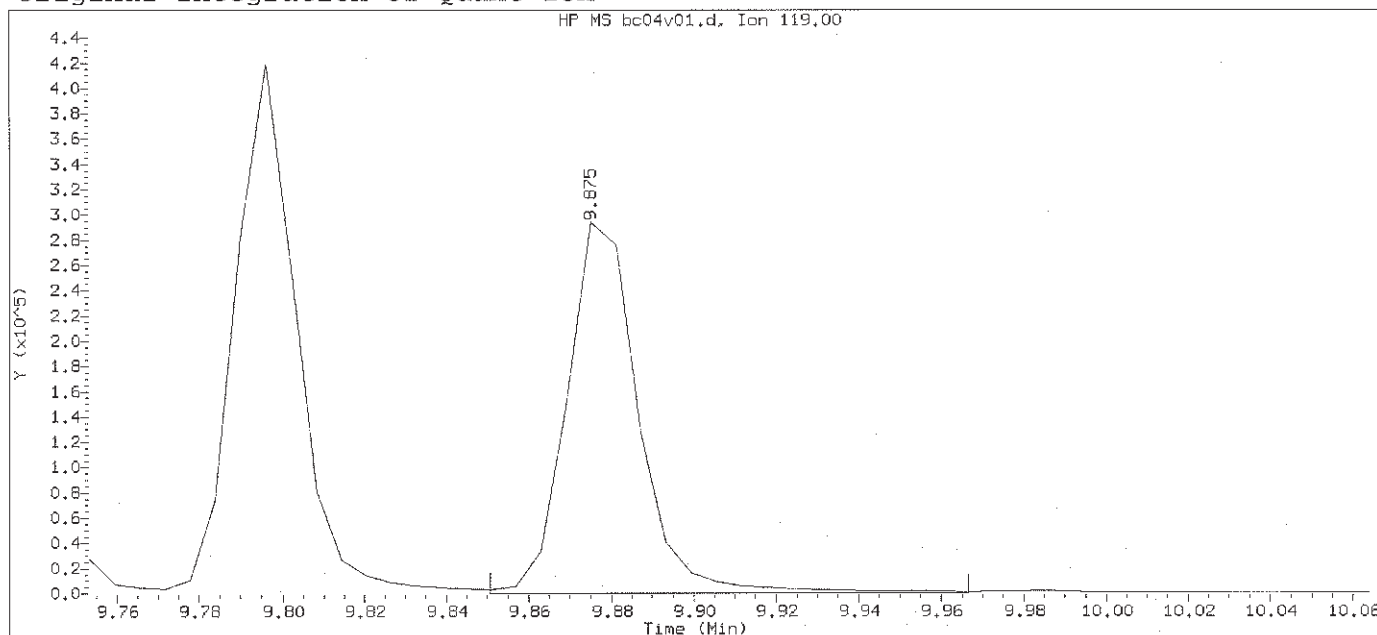
Analyst responsible for change: Digitally signed by Emily R. Styer
on 10/22/2012 at 16:03.
Target 3.5 esignature user ID: ers02237

GC/MS audit/management approval: *[Signature]* 10/23/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04v01.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 18:46 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 08-OCT-2012 11:34
Date, time and analyst ID of latest file update: 08-Oct-2012 11:34 ers02237

Sample Name: LGBICV

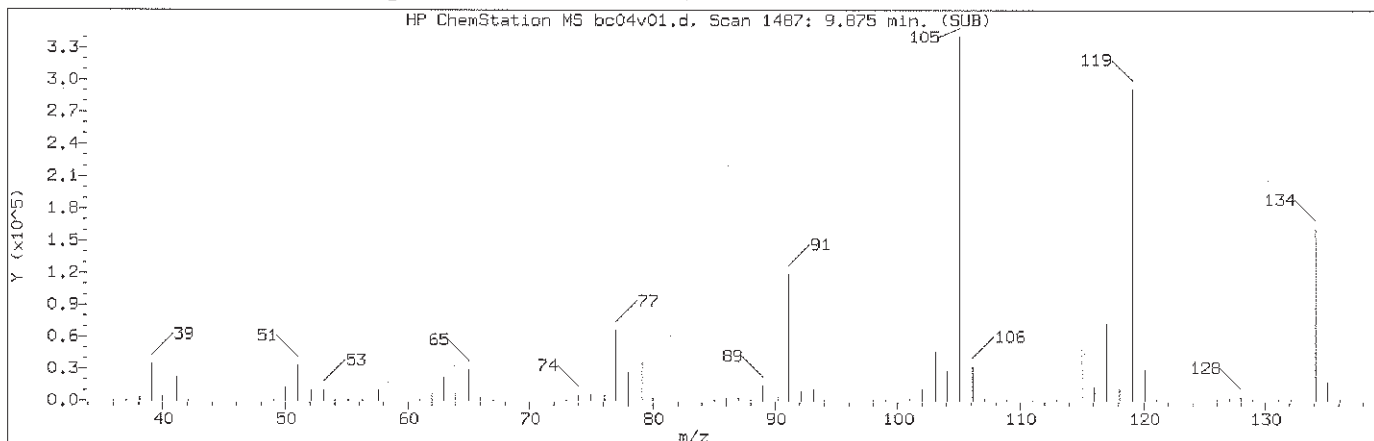
Lab Sample ID: LGBICV

Compound Number	: 138	
Compound Name	: 1,4-Diethylbenzene	
Scan Number	: 1487	
Retention Time (minutes)	: 9.875	
Quant Ion	: 119.00	
Area	: 356315	
On-column Amount (ng)	: 21.4170	
Integration start scan	: 1482	Integration stop scan: 1501
Y at integration start	: 0	Y at integration end: 0

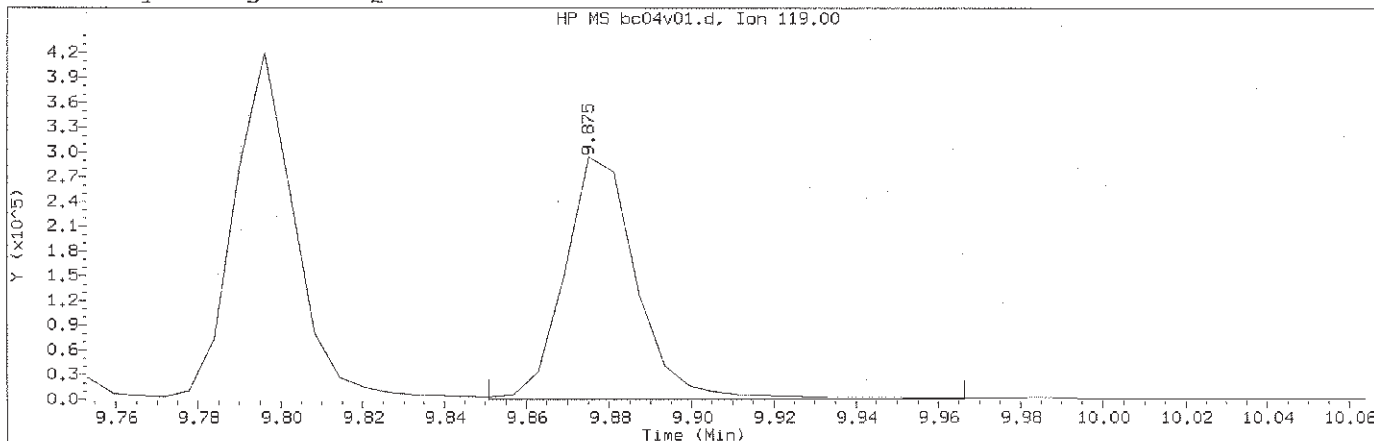
Digitally signed by Emily R. Styer on 10/22/2012 at 16:03.

Target 3.5 esignature use TAP03 Page 636 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04v01.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 18:46 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 22-OCT-2012 16:01
Date, time and analyst ID of latest file update: 22-Oct-2012 16:02 ers02237

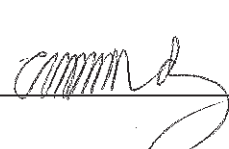
Sample Name: LGBICV

Lab Sample ID: LGBICV

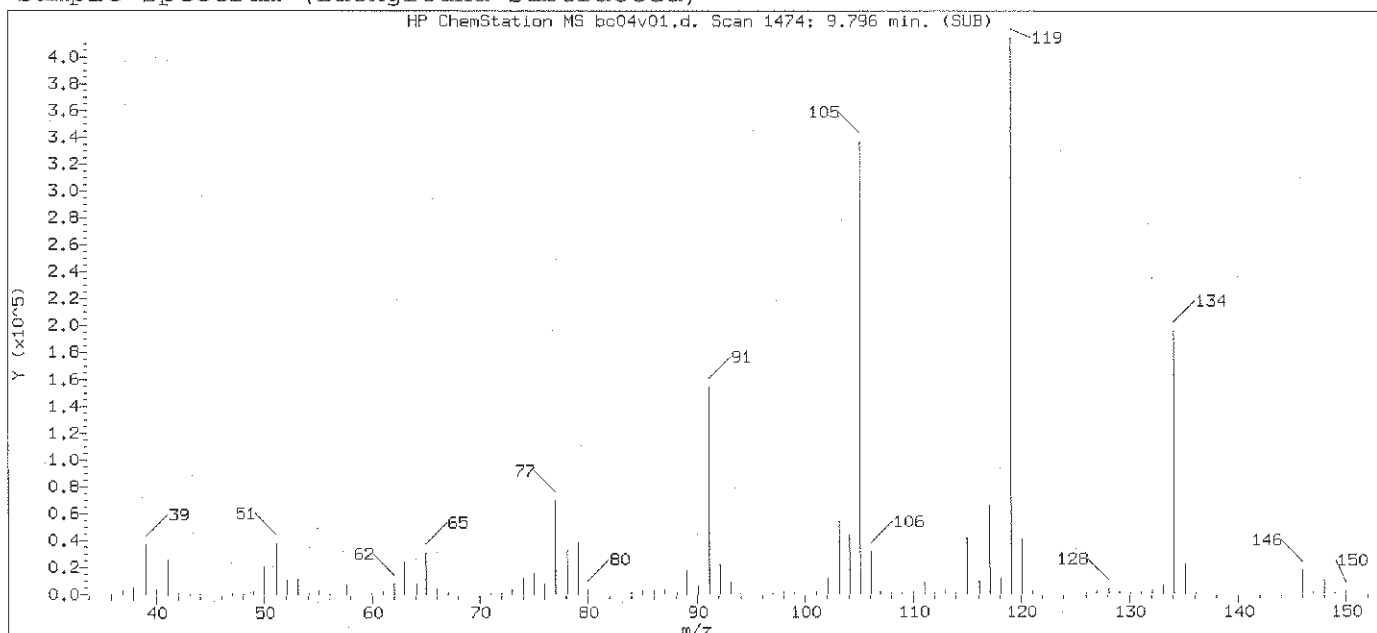
Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1487
Retention Time (minutes): 9.875
Quant Ion : 119.00
Area (flag) : 356315A
On-Column Amount (ng) : 21.6176
Integration start scan : 1482 Integration stop scan: 1501
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

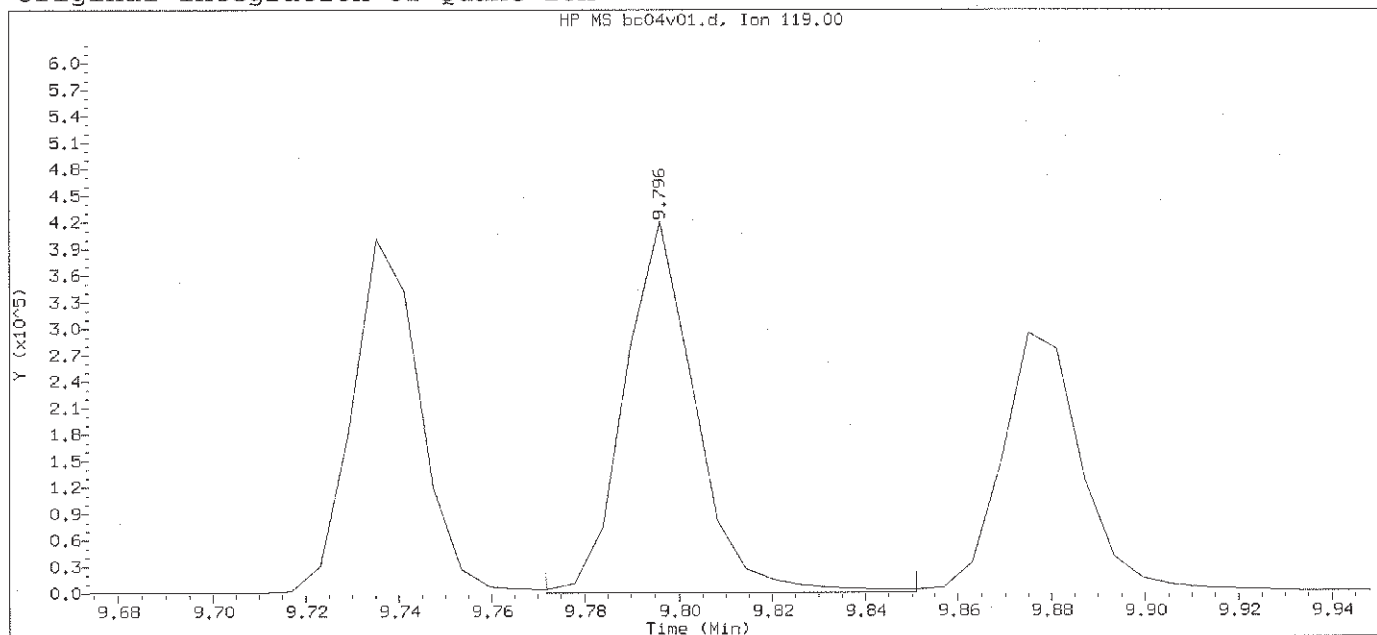
Analyst responsible for change: Digitally signed by Emily R. Styer
on 10/22/2012 at 16:03.
Target 3.5 esignature user ID: ers02237

GC/MS audit/management approval:  10/23/12

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12oct04b.b/bc04v01.d Instrument ID: HP09953.i
Injection date and time: 04-OCT-2012 18:46 Analyst ID: ERS02237

Method used: /chem2/HP09953.i/12oct04b.b/di8260b.m Sublist used: 8260S
Calibration date and time: 08-OCT-2012 11:34
Date, time and analyst ID of latest file update: 08-Oct-2012 11:34 ers02237

Sample Name: LGBICV

Lab Sample ID: LGBICV

Compound Number	: 141	
Compound Name	: 1,2-Diethylbenzene	
Scan Number	: 1474	
Retention Time (minutes)	: 9.796	
Quant Ion	: 119.00	
Area	: 434543	
On-column Amount (ng)	: 21.8294	
Integration start scan	: 1469	Integration stop scan: 1482
Y at integration start	: 0	Y at integration end: 0

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Target 3.5 esignature us PAP03: Page 638 of 2648

Page 1

Client ID: BFB

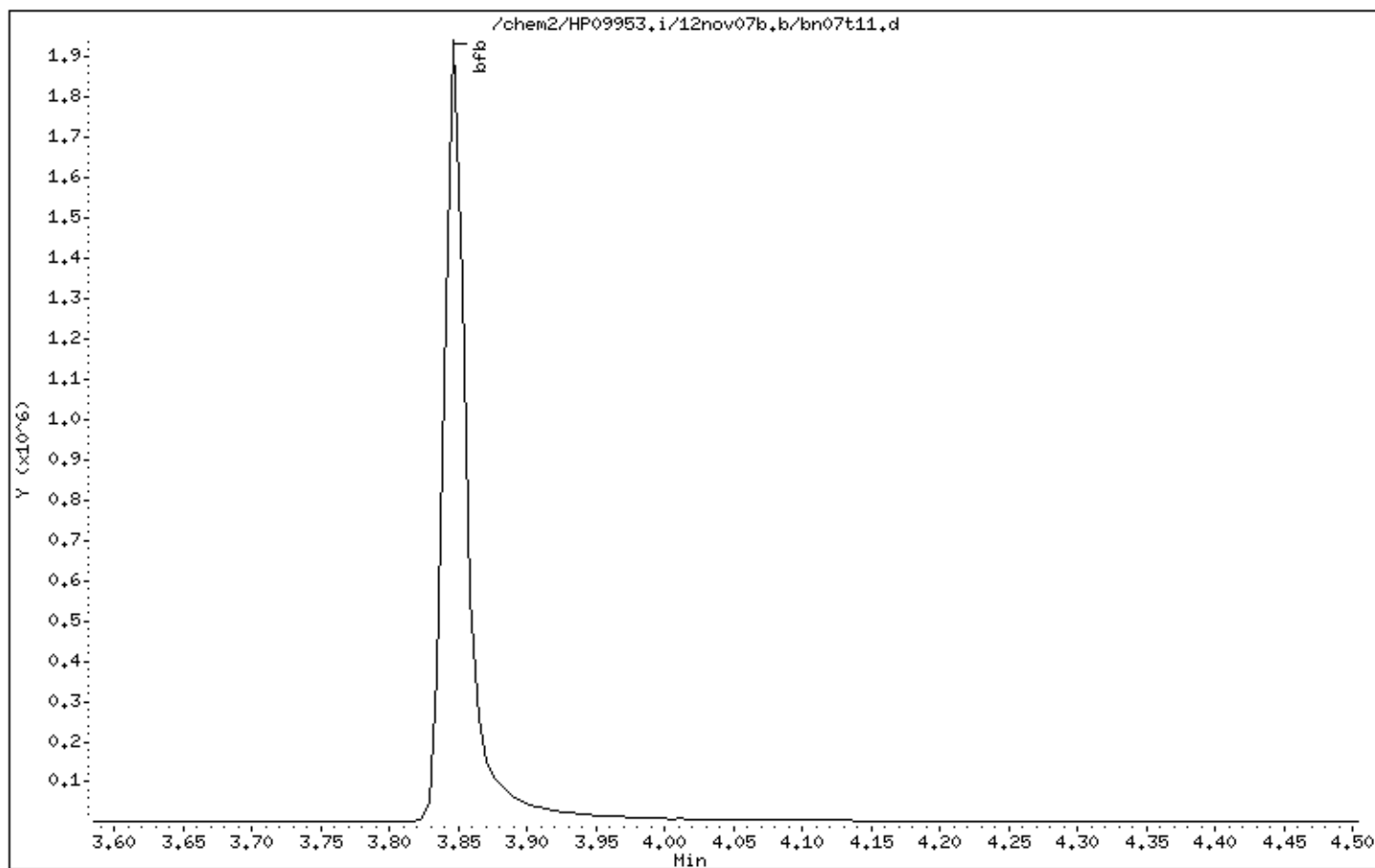
Instrument: HP09953.i

Sample Info: BFB;50NGBFB;2;3; ; ; ; ;

Operator: AEL02861

Column phase: DB-624

Column diameter: 0.18



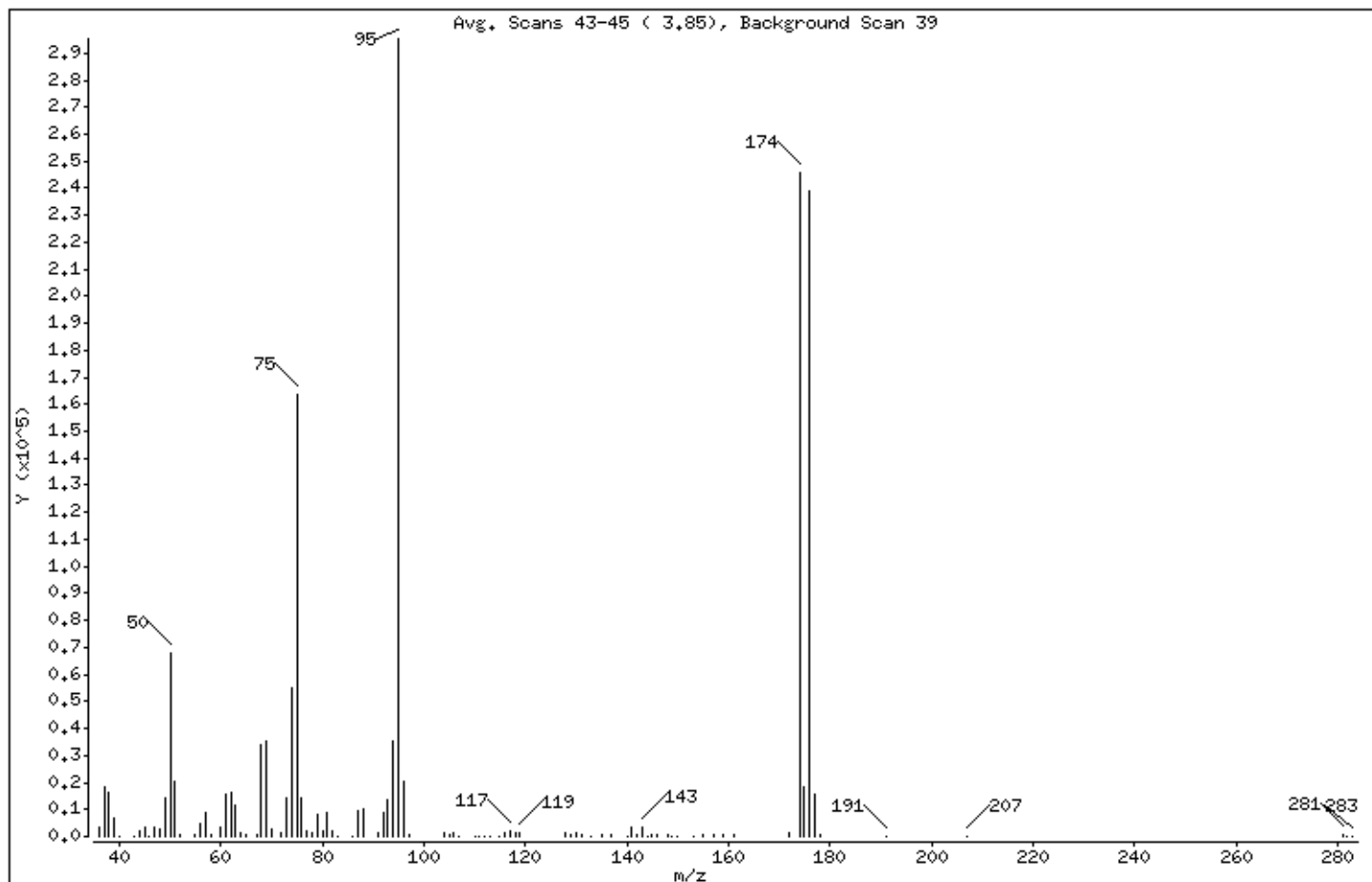
TAP03 Page 639 of 2648

Instrument: HP09953.i

Operator: AEL02861

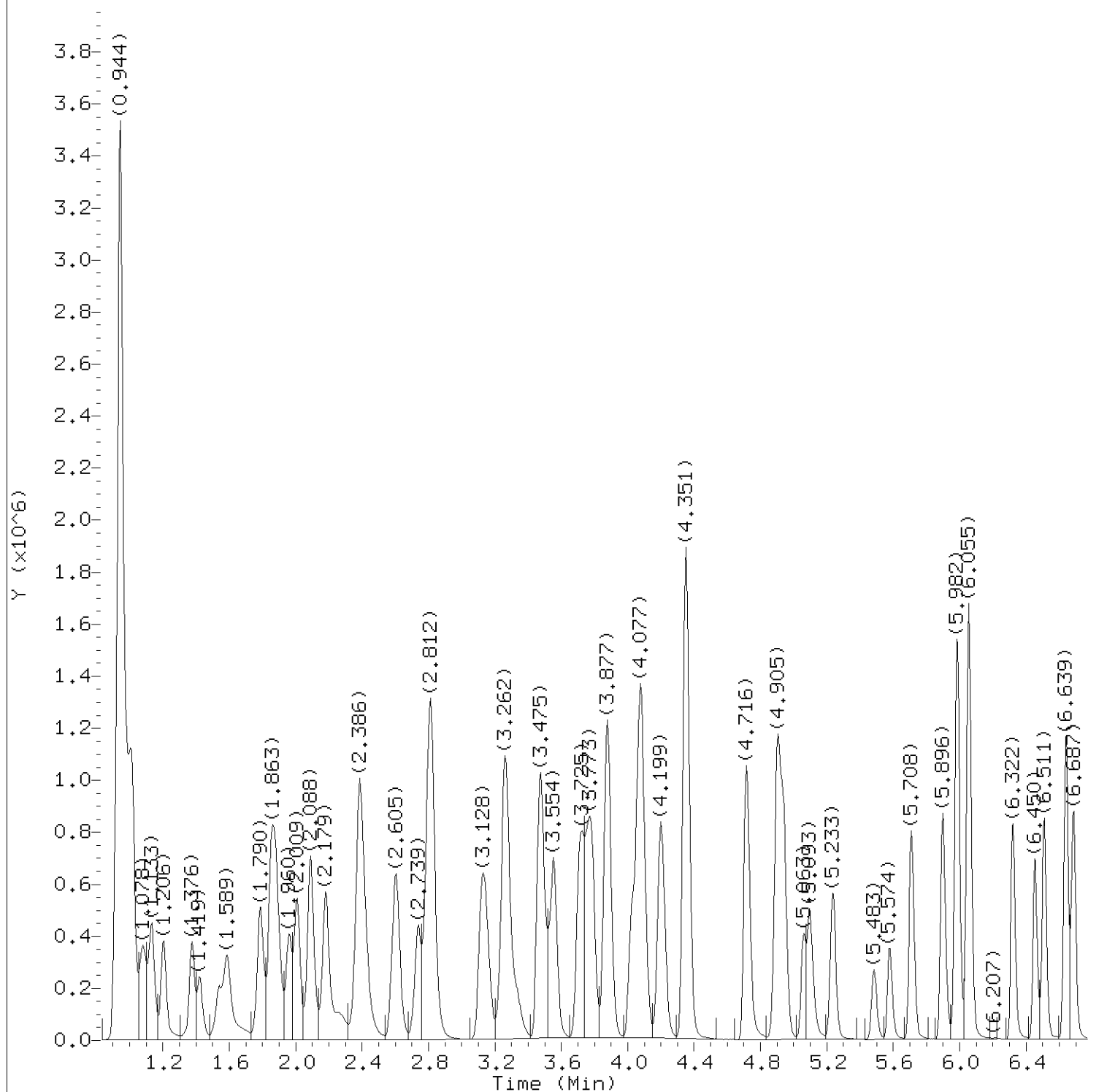
Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	23.00
75	30.00 - 60.00% of mass 95	55.32
96	5.00 - 9.00% of mass 95	6.80
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	83.26
175	5.00 - 9.00% of mass 174	6.20 (7.45)
176	95.00 - 101.00% of mass 174	81.02 (97.30)
177	5.00 - 9.00% of mass 176	5.33 (6.58)

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Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07c11.d
Injection date and time: 07-NOV-2012 21:58

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m
Calibration date and time: 07-NOV-2012 22:23

Sublist used: 8260S-F

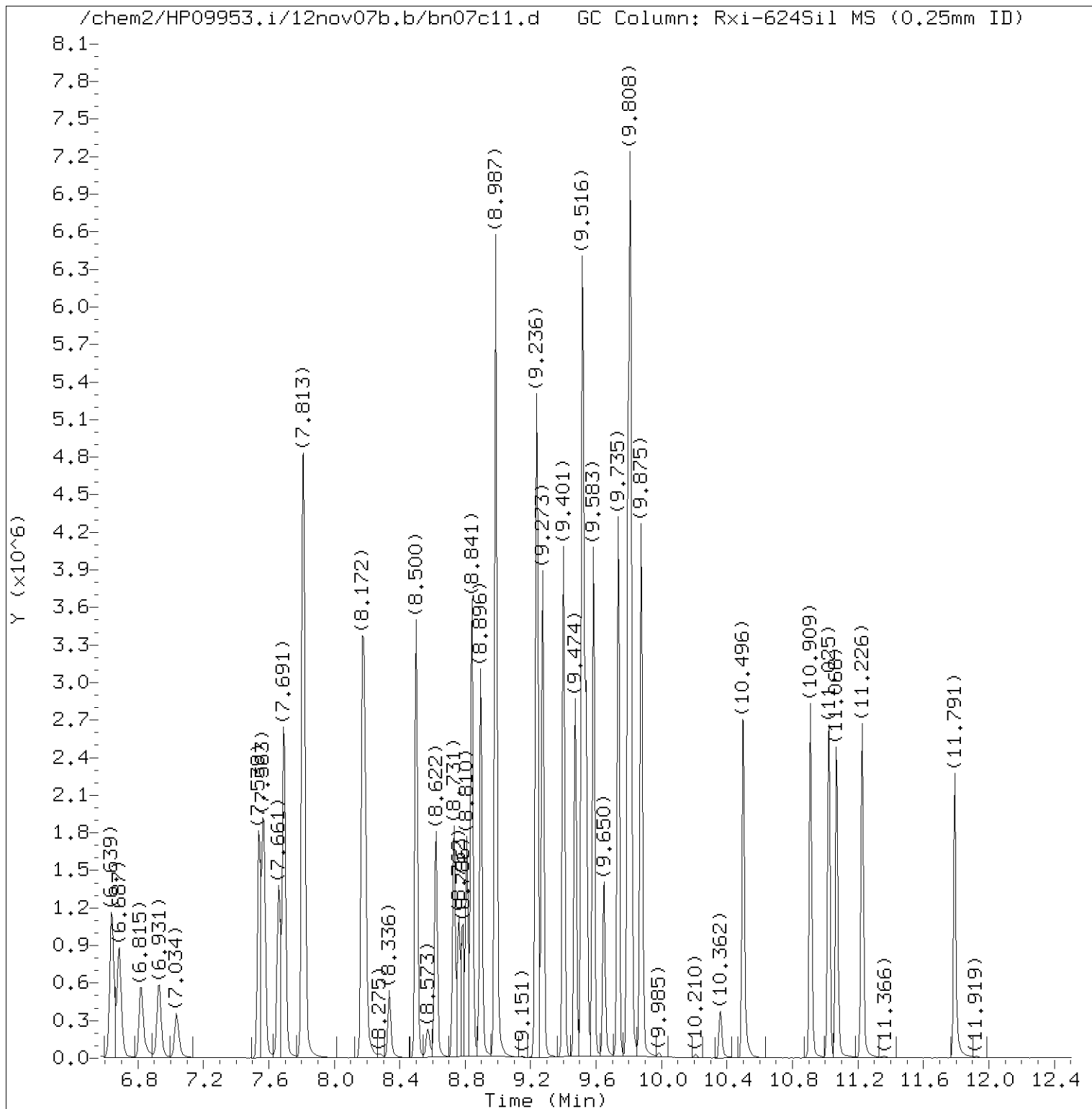
Date, time and analyst ID of latest file update: 07-Nov-2012 22:23 ael02861

Sample Name: VSTD050

Lab Sample ID: VSTD050

Digitally signed by Andrea E. Lando
on 11/07/2012 at 23:20.

Target 3.5 esignature user ID: ael02861



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07c11.d
Injection date and time: 07-NOV-2012 21:58

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m
Calibration date and time: 07-NOV-2012 22:23

Sublist used: 8260S-F

Date, time and analyst ID of latest file update: 07-Nov-2012 22:23 ael02861

Sample Name: VSTD050

Lab Sample ID: VSTD050

Digitally signed by Andrea E. Lando
on 11/07/2012 at 23:20.

Target 3.5 esignature user ID: ael02861

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07c11.d
Injection date and time: 07-NOV-2012 21:58

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 22:23 ael02861

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
2) Dichlorodifluoromethane	(2)	1.084	85	662575	64.957
4) Chloromethane	(2)	1.133	50	590399	58.537
5) Vinyl Chloride	(2)	1.206	62	488563	57.824
9) Bromomethane	(2)	1.376	94	310600	58.643
10) Chloroethane	(2)	1.425	64	258985	58.845
13) Trichlorofluoromethane	(2)	1.589	101	662250	61.613
15) Ethanol	(1)	1.650	45	173881M	2327.206
18) Acrolein	(1)	1.784	56	613629	562.829
19) 1,1-Dichloroethene	(2)	1.857	96	269489	54.754
20) Acetone	(2)	1.881	58	60991	108.756
22) Freon 113	(2)	1.881	101	326842	56.818
24) Methyl Iodide	(2)	1.960	142	546932	53.527
23) 2-Propanol	(1)	1.973	45	138418	271.220
25) Carbon Disulfide	(2)	2.009	76	890545M	54.888
29) Allyl Chloride	(2)	2.088	41	574731	53.699
27) Methyl Acetate	(2)	2.100	43	232375	53.987
31) Methylene Chloride	(2)	2.179	84	316821	55.437
30)*t-Butyl alcohol-d10	(1)	2.210	65	140798	250.000
32) t-Butyl alcohol	(1)	2.265	59	173745M	243.326
33) Acrylonitrile	(2)	2.368	53	120727M	64.365
35) trans-1,2-Dichloroethene	(2)	2.386	96	309178	55.666
34) Methyl Tertiary Butyl Ether	(2)	2.405	73	945422	59.162
38) n-Hexane	(2)	2.605	57	480510	49.723
40) 1,1-Dichloroethane	(2)	2.739	63	655521	53.757
41) di-Isopropyl ether	(2)	2.800	45	1214444	52.355
42) 2-Chloro-1,3-butadiene	(2)	2.818	53	630487	58.972
44) Ethyl t-butyl ether	(2)	3.128	59	1013833	53.435
46) cis-1,2-Dichloroethene	(2)	3.256	96	328351	52.429
48) 2,2-Dichloropropane	(2)	3.268	77	566756	61.079
45) 2-Butanone	(2)	3.281	43	342892	119.566
50) Propionitrile	(1)	3.335	54	214133	226.539
51) Methacrylonitrile	(2)	3.469	67	288655M	139.588
52) Bromochloromethane	(2)	3.475	128	155987	51.819
53) Tetrahydrofuran	(1)	3.518	71	71692	95.927
54) Chloroform	(2)	3.554	83	642009	55.124
55)\$Dibromofluoromethane	(2)	3.706	113	297027	51.155
55)\$Dibromofluoromethane	(2)	3.706	111	305676	51.673
56) 1,1,1-Trichloroethane	(2)	3.731	97	571811	57.534

M = Compound was manually integrated.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

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on 11/07/2012 at 23:20.

Target 3.5 esignature user ID: ael02861

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page 1 of 4

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07c11.d
 Injection date and time: 07-NOV-2012 21:58

Instrument ID: HP09953.i
 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
 Calibration date and time: 07-NOV-2012 22:23
 Date, time and analyst ID of latest file update: 07-Nov-2012 22:23 ael02861

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
57) Cyclohexane	(2)	3.773	56	611869	52.113
57) Cyclohexane	(2)	3.779	84	465868	52.090
57) Cyclohexane	(2)	3.779	69	173372	51.735
58) 1,1-Dichloropropene	(2)	3.877	75	485214	54.404
59) Carbon Tetrachloride	(2)	3.883	117	513175	57.432
61)\$1,2-Dichloroethane-d4	(2)	4.029	102	65048	53.299
61)\$1,2-Dichloroethane-d4	(2)	4.023	65	442543	59.941
61)\$1,2-Dichloroethane-d4	(2)	4.029	104	38692	50.659
60) Isobutyl Alcohol	(1)	4.047	41	164810	627.823
62) Benzene	(2)	4.077	78	1286433	52.410
64) 1,2-Dichloroethane	(2)	4.096	62	558470	60.128
64) 1,2-Dichloroethane	(2)	4.096	98	35226	53.155
65) t-Amyl methyl ether	(2)	4.199	73	863596	55.634
69) n-Heptane	(2)	4.351	43	616919	53.662
67)*Fluorobenzene	(2)	4.351	96	1159587	50.000
70) n-Butanol	(1)	4.710	56	203932	1162.572
72) Trichloroethene	(2)	4.716	95	337978	53.416
73) Methylcyclohexane	(2)	4.905	83	550485	49.365
74) 1,2-Dichloropropane	(2)	4.941	63	360277	52.673
78) Dibromomethane	(2)	5.063	93	200591	54.728
76) Methyl Methacrylate	(2)	5.100	69	191747	54.867
77) 1,4-Dioxane	(1)	5.106	88	37966	557.683
81) Bromodichloromethane	(2)	5.239	83	451525	56.666
82) 2-Nitropropane	(1)	5.483	41	204724M	93.707
83) 2-Chloroethyl Vinyl Ether	(2)	5.574	63	167731	184.412
84) cis-1,3-Dichloropropene	(2)	5.708	75	509561	55.584
85) 4-Methyl-2-pentanone	(2)	5.896	43	761390	118.711
86)\$Toluene-d8	(3)	5.982	98	1158241	50.382
86)\$Toluene-d8	(3)	5.982	100	745419	50.233
87) Toluene	(3)	6.055	92	798522	52.681
47) 1,2-Dichloroethene (Total)	(2)		96	637529	108.095
88) trans-1,3-Dichloropropene	(3)	6.322	75	479117	56.623
89) Ethyl Methacrylate	(3)	6.456	69	368620	57.841
90) 1,1,2-Trichloroethane	(3)	6.511	97	262090	55.101
92) Tetrachloroethene	(3)	6.639	166	365272	54.723
93) 1,3-Dichloropropane	(3)	6.687	76	483689	54.939
95) 2-Hexanone	(3)	6.815	43	509497	112.983
97) Dibromochloromethane	(3)	6.931	129	315585	56.377

M = Compound was manually integrated.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

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 on 11/07/2012 at 23:20.

Target 3.5 esignature user ID: ael02861

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Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07c11.d
Injection date and time: 07-NOV-2012 21:58

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 22:23 ael02861

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
98) 1,2-Dibromoethane	(3)	7.034	107	262511	54.663
99) *Chlorobenzene-d5	(3)	7.539	117	802814	50.000
100) Chlorobenzene	(3)	7.569	112	889084	52.426
101) 1,1,1,2-Tetrachloroethane	(3)	7.661	131	338014	54.832
102) Ethylbenzene	(3)	7.691	91	1590358	55.141
103) m+p-Xylene	(3)	7.813	106	1215447	107.878
104) o-Xylene	(3)	8.172	106	591988	54.018
106) Styrene	(3)	8.190	104	949606	55.098
107) Bromoform	(3)	8.336	173	203768	55.495
108) Isopropylbenzene	(3)	8.500	105	1629759	55.765
111) Cyclohexanone	(1)	8.573	55	81690	449.560
112) \$4-Bromofluorobenzene	(3)	8.622	95	433832	50.347
112) \$4-Bromofluorobenzene	(3)	8.622	174	366527	51.781
114) Bromobenzene	(4)	8.731	156	394512	53.210
113) 1,1,2,2-Tetrachloroethane	(4)	8.762	83	366992	55.343
116) 1,2,3-Trichloropropane	(4)	8.786	110	107773	57.428
115) trans-1,4-Dichloro-2-butene	(4)	8.810	53	317365	154.416
117) n-Propylbenzene	(4)	8.841	91	1949210	44.542
119) 2-Chlorotoluene	(4)	8.896	126	374801	51.393
123) 4-Chlorotoluene	(4)	8.987	126	398301	51.741
122) 1,3,5-Trimethylbenzene	(4)	8.987	105	1456191	55.898
126) tert-Butylbenzene	(4)	9.236	134	321922	54.830
127) Pentachloroethane	(4)	9.242	167	272521	54.114
128) 1,2,4-Trimethylbenzene	(4)	9.273	105	1464106	55.497
129) sec-Butylbenzene	(4)	9.401	105	1831496	55.524
131) 1,3-Dichlorobenzene	(4)	9.474	146	771338	53.228
132) p-Isopropyltoluene	(4)	9.516	119	1629532	56.118
133) *1,4-Dichlorobenzene-d4	(4)	9.522	152	509330	50.000
134) 1,4-Dichlorobenzene	(4)	9.541	146	803275	51.656
135) 1,2,3-Trimethylbenzene	(4)	9.583	105	1480090	54.464
136) Benzyl Chloride	(4)	9.650	126	140531	57.663
137) 1,3-Diethylbenzene	(4)	9.735	119	910480	53.783
138) 1,4-Diethylbenzene	(4)	9.796	119	957370	52.541
139) n-Butylbenzene	(4)	9.808	92	831392	55.258
140) 1,2-Dichlorobenzene	(4)	9.808	146	786409	52.880
141) 1,2-Diethylbenzene	(4)	9.875	119	798359	52.915
144) 1,2-Dibromo-3-chloropropane	(4)	10.356	75	77809	58.230
145) 1,3,5-Trichlorobenzene	(4)	10.502	180	661723	52.750

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 3 of 4

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on 11/07/2012 at 23:20.

Target 3.5 esignature user ID: ael02861

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Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07c11.d
Injection date and time: 07-NOV-2012 21:58

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 22:23 ael02861

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
146) 1,2,4-Trichlorobenzene	(4)	10.909	180	584848	53.858
147) Hexachlorobutadiene	(4)	11.025	225	354522	55.063
148) Naphthalene	(4)	11.068	128	1280002	58.033
149) 1,2,3-Trichlorobenzene	(4)	11.226	180	569994	55.383
105) Xylene (Total)	(3)		106	1807435	161.897
150) 2-Methylnaphthalene	(4)	11.791	142	760629	57.106

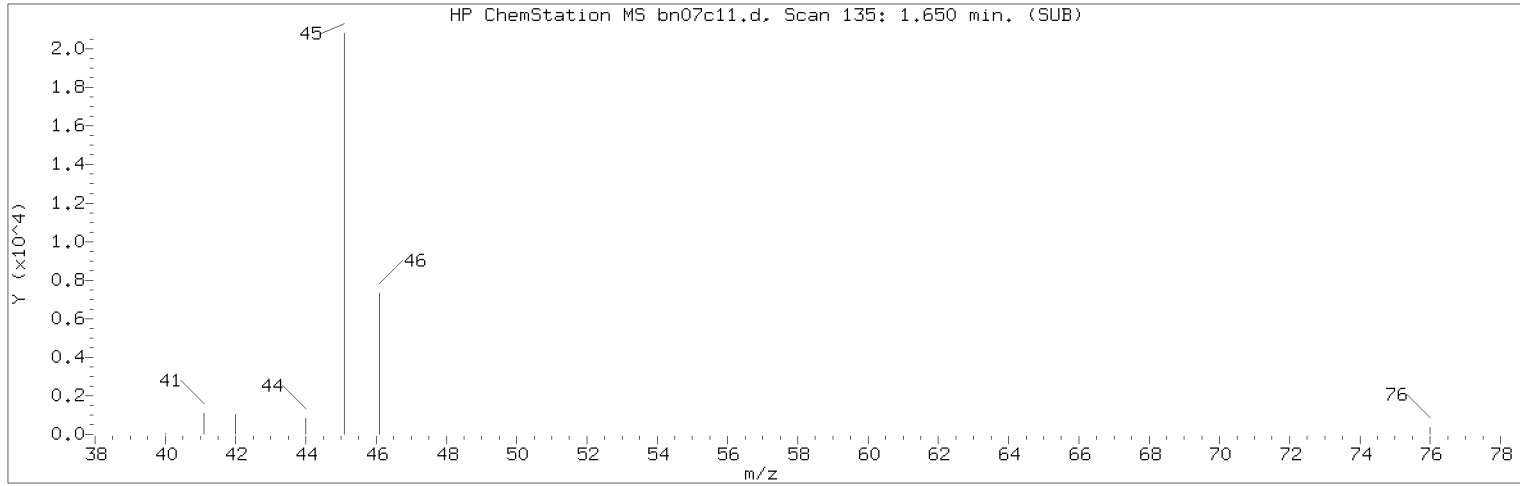
page 4 of 4

Digitally signed by Andrea E. Lando
on 11/07/2012 at 23:20.

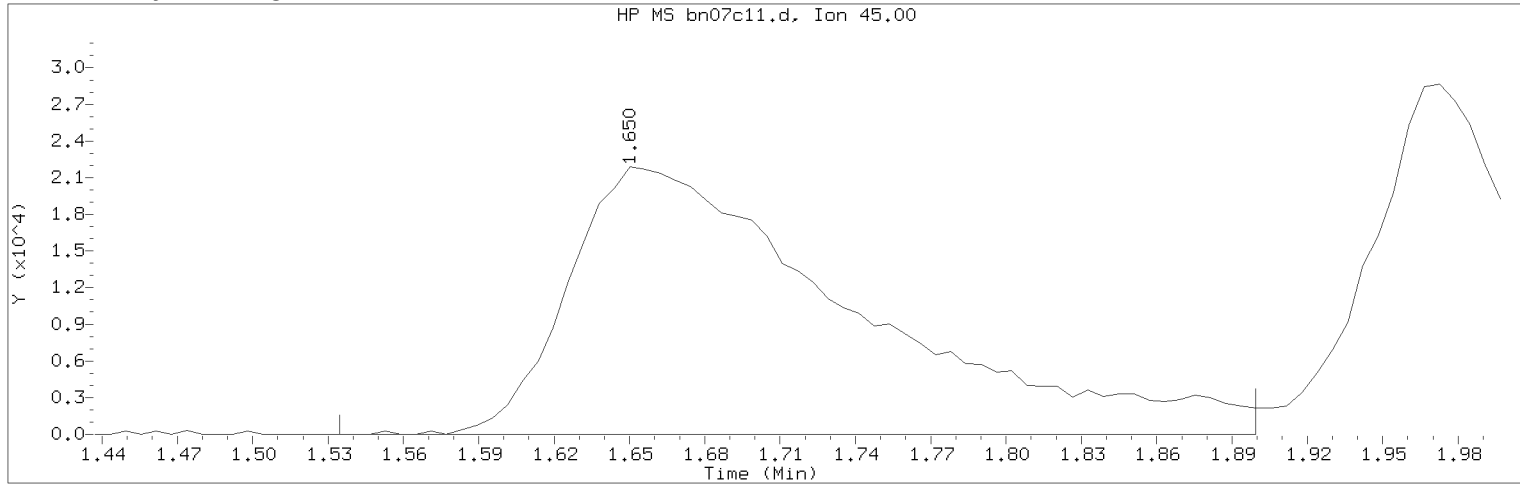
Target 3.5 esignature user ID: ael02861

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Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Instrument ID: HP09953.i

Injection date and time: 07-NOV-2012 21:58

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time: 07-NOV-2012 22:23

Date, time and analyst ID of latest file update: 07-Nov-2012 22:23 ael02861

Sample Name: VSTD050

Lab Sample ID: VSTD050

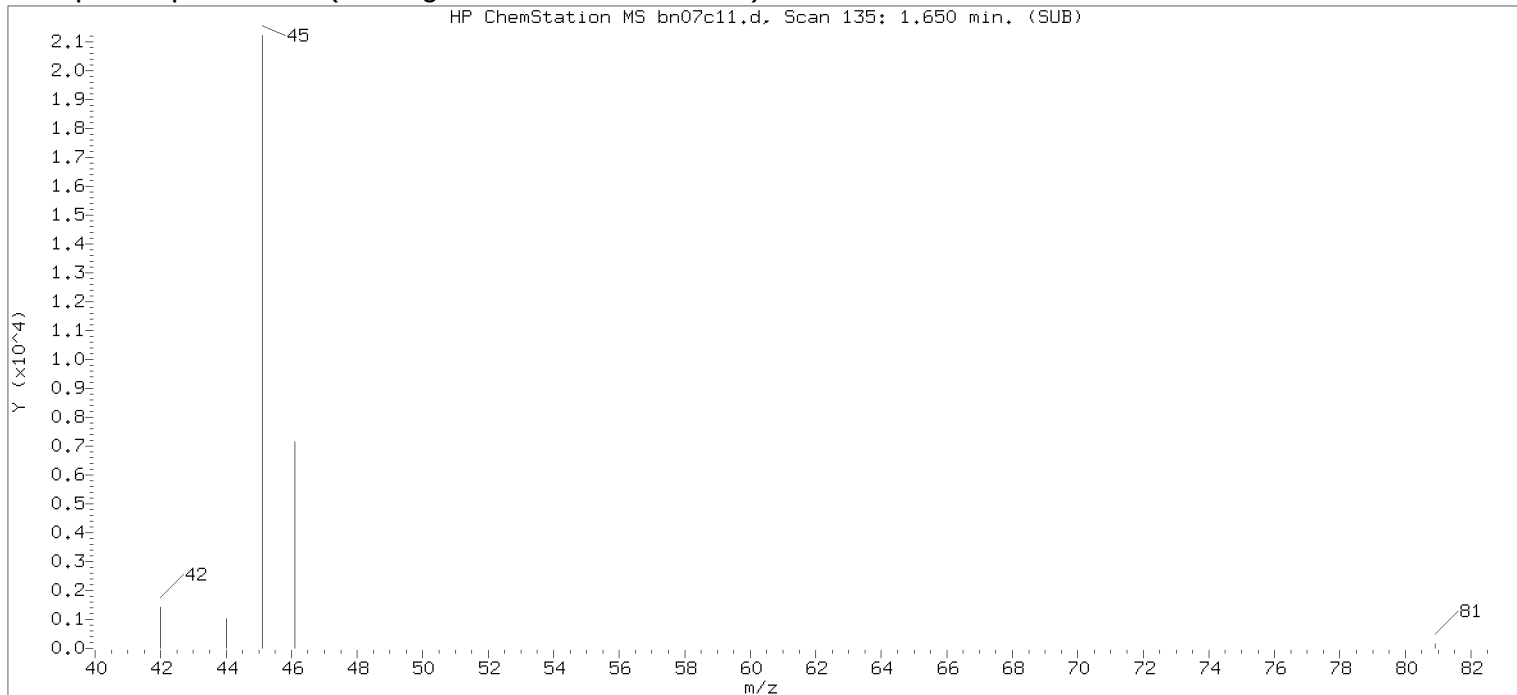
Compound Number	: 15	
Compound Name	: Ethanol	
Scan Number	: 135	
Retention Time (minutes)	: 1.650	
Quant Ion	: 45.00	
Area (flag)	: 173881M	
On-Column Amount (ng)	: 2327.2061	
Integration start scan	: 115	Integration stop scan: 175
Y at integration start	: 0	Y at integration end: 0

Reason for manual integration: improper integration

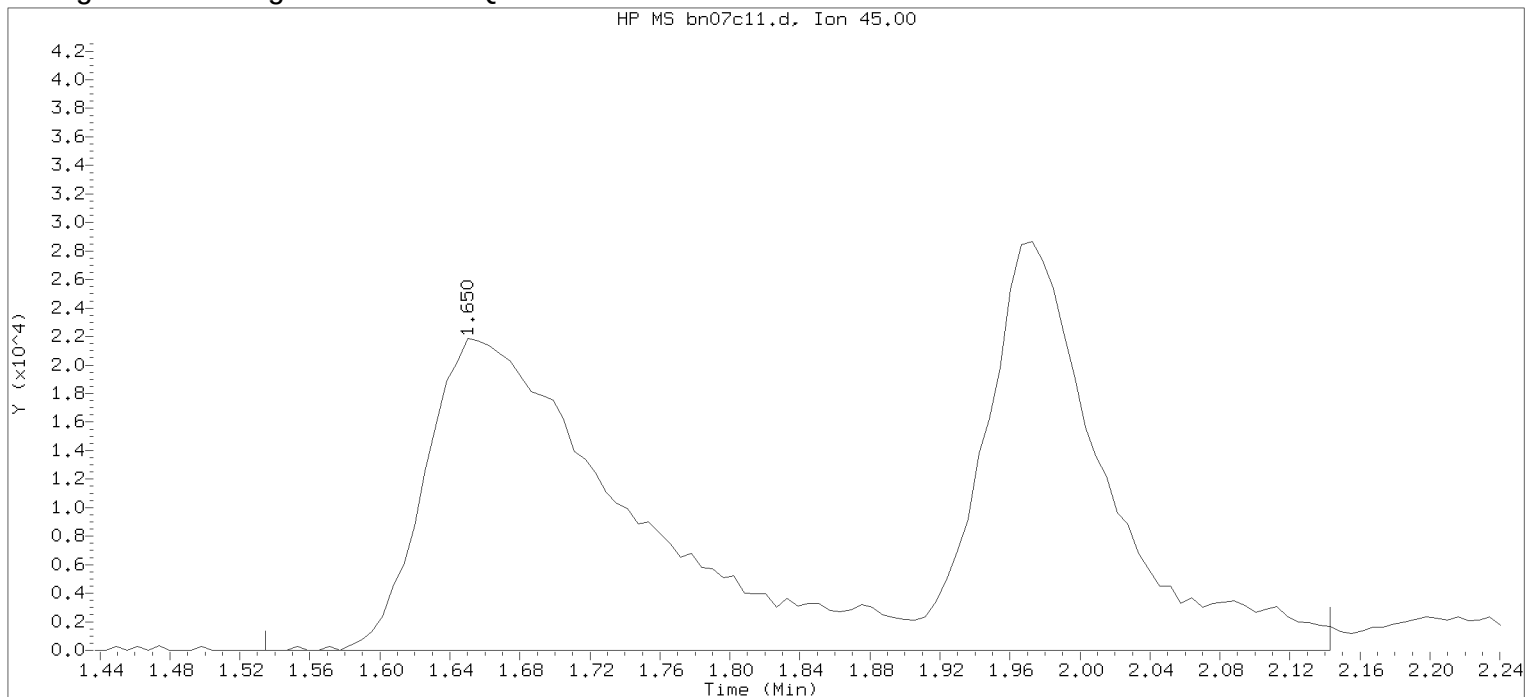
Analyst responsible for change: Digitally signed by Andrea E. Lando
on 11/07/2012 at 23:20.
Target 3.5 esignature user ID: ael02861

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:13.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Instrument ID: HP09953.i

Injection date and time: 07-NOV-2012 21:58

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S

Calibration date and time: 07-NOV-2012 22:15

Date, time and analyst ID of latest file update: 07-Nov-2012 22:15 Automation

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compound Number : 15

Compound Name : Ethanol

Scan Number : 135

Retention Time (minutes): 1.650

Quant Ion : 45.00

Area : 311693

On-column Amount (ng) : 4171.6672

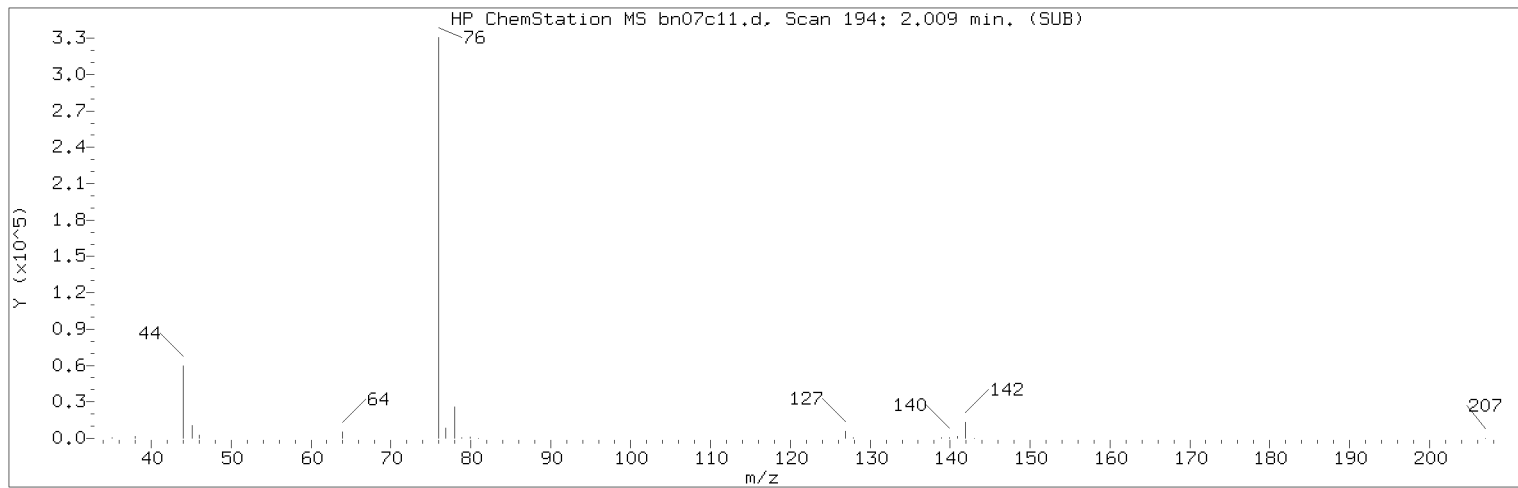
Integration start scan : 115 Integration stop scan: 215

Y at integration start : 0 Y at integration end: 0

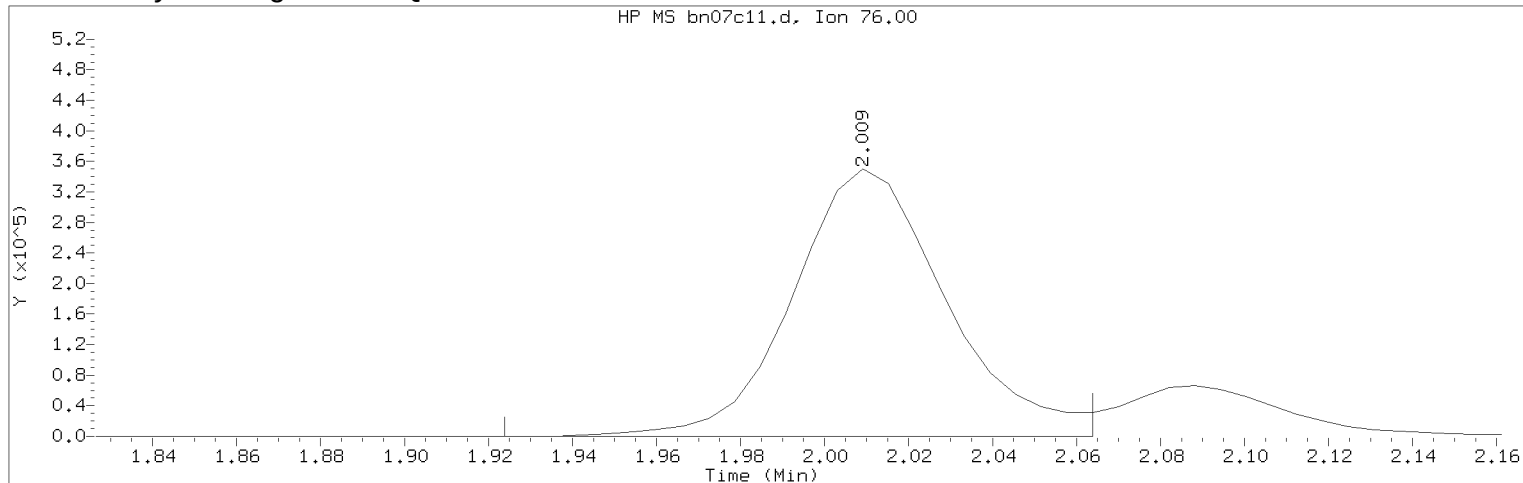
Digitally signed by Andrea E. Lando on 11/07/2012 at 23:20.

Target 3.5 esignature user TAP03 Page 2648 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Instrument ID: HP09953.i

Injection date and time: 07-NOV-2012 21:58

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time: 07-NOV-2012 22:23

Date, time and analyst ID of latest file update: 07-Nov-2012 22:23 ael02861

Sample Name: VSTD050

Lab Sample ID: VSTD050

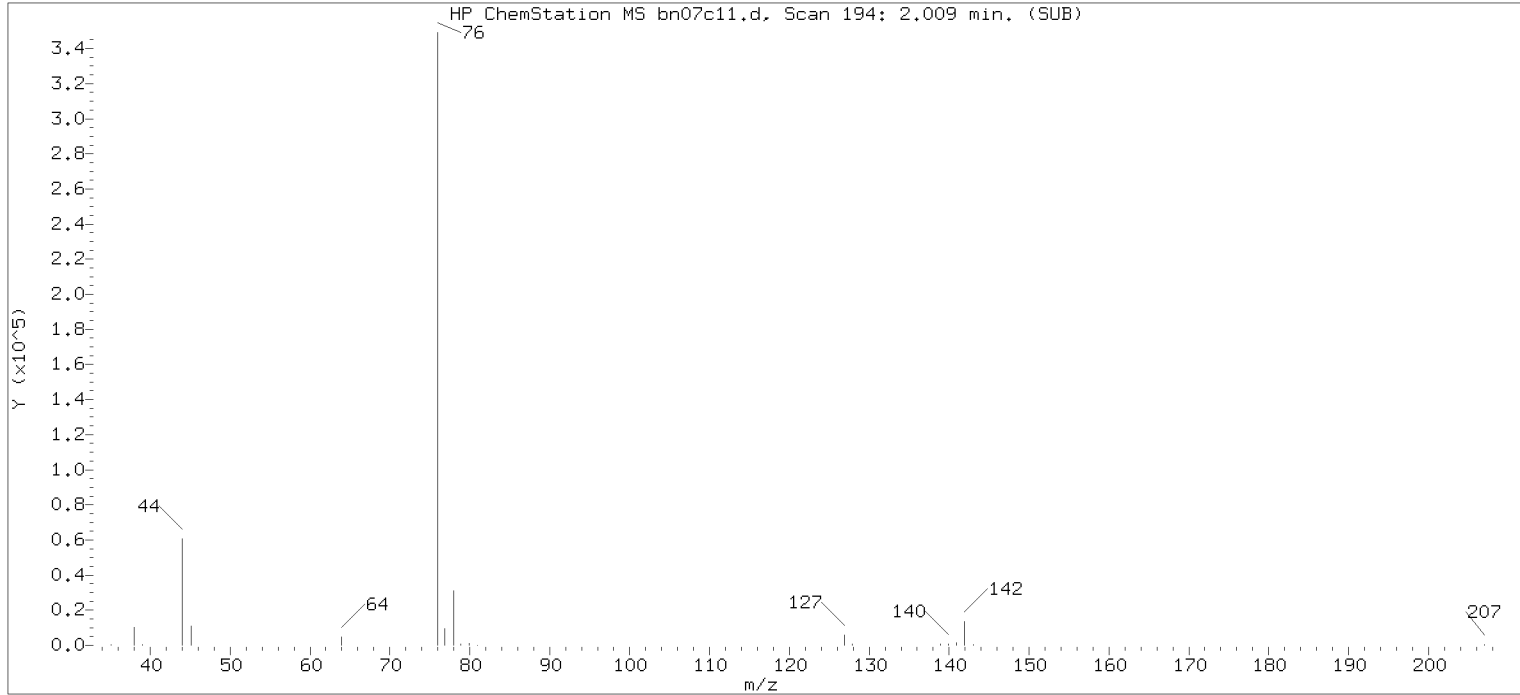
Compound Number	: 25	
Compound Name	: Carbon Disulfide	
Scan Number	: 194	
Retention Time (minutes)	: 2.009	
Quant Ion	: 76.00	
Area (flag)	: 890545M	
On-Column Amount (ng)	: 54.8882	
Integration start scan	: 179	Integration stop scan: 202
Y at integration start	: 0	Y at integration end: 0

Reason for manual integration: improper integration

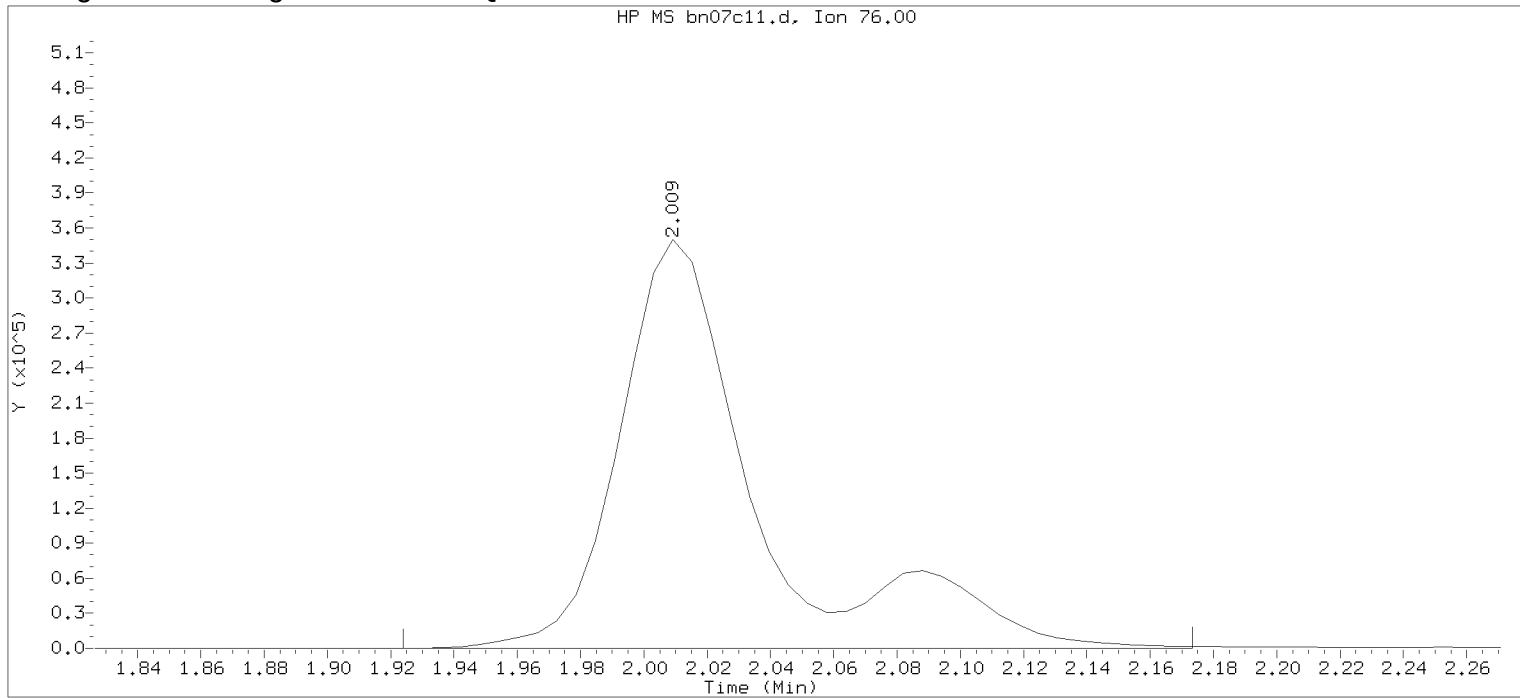
Analyst responsible for change: Digitally signed by Andrea E. Lando
on 11/07/2012 at 23:20.
Target 3.5 esignature user ID: ael02861

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:13.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Instrument ID: HP09953.i

Injection date and time: 07-NOV-2012 21:58

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S

Calibration date and time: 07-NOV-2012 22:15

Date, time and analyst ID of latest file update: 07-Nov-2012 22:15 Automation

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compound Number : 25

Compound Name : Carbon Disulfide

Scan Number : 194

Retention Time (minutes): 2.009

Quant Ion : 76.00

Area : 1061157

On-column Amount (ng) : 65.4038

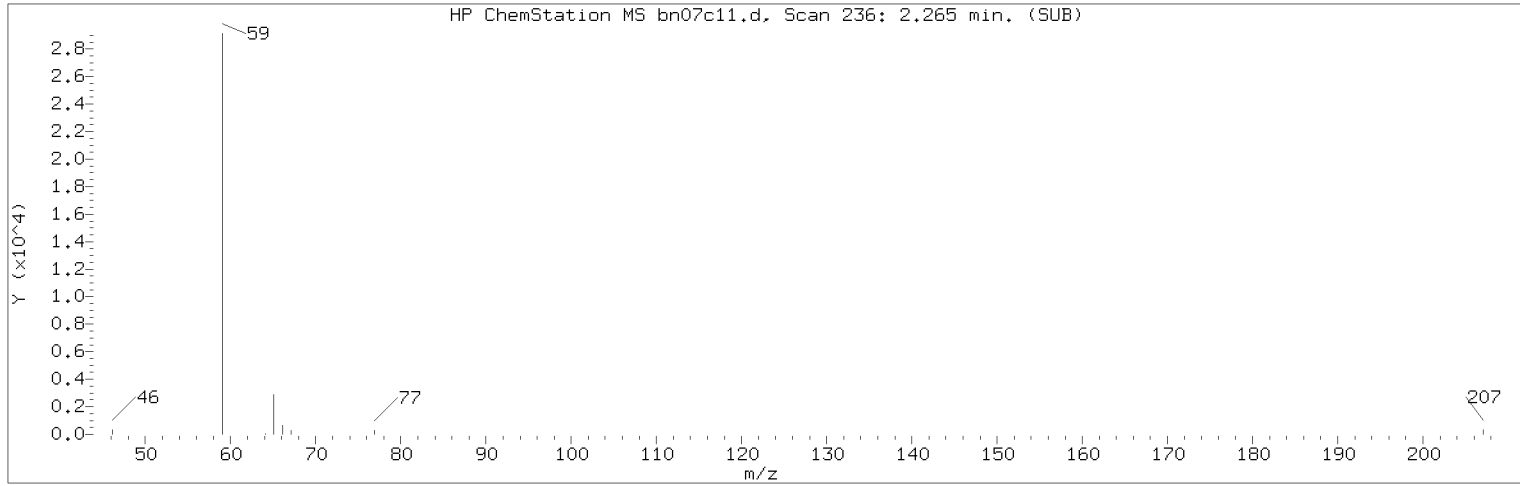
Integration start scan : 179 Integration stop scan: 220

Y at integration start : 0 Y at integration end: 0

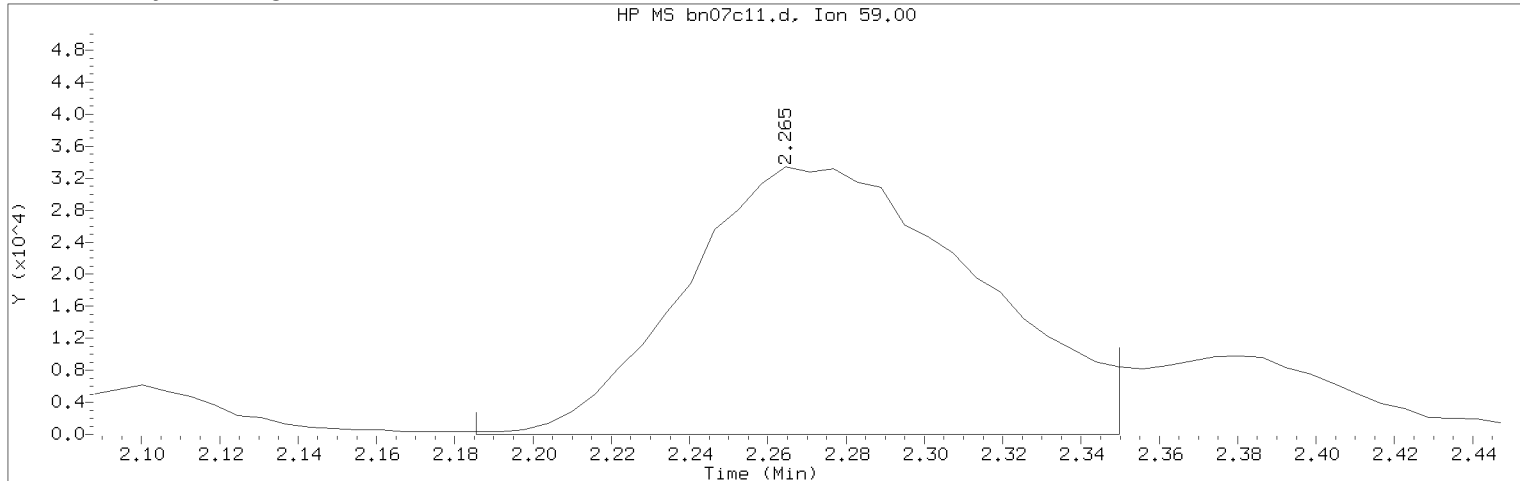
Digitally signed by Andrea E. Lando on 11/07/2012 at 23:20.

Target 3.5 esignature user TAP03 Page 2648 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Instrument ID: HP09953.i

Injection date and time: 07-NOV-2012 21:58

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time: 07-NOV-2012 22:23

Date, time and analyst ID of latest file update: 07-Nov-2012 22:23 ael02861

Sample Name: VSTD050

Lab Sample ID: VSTD050

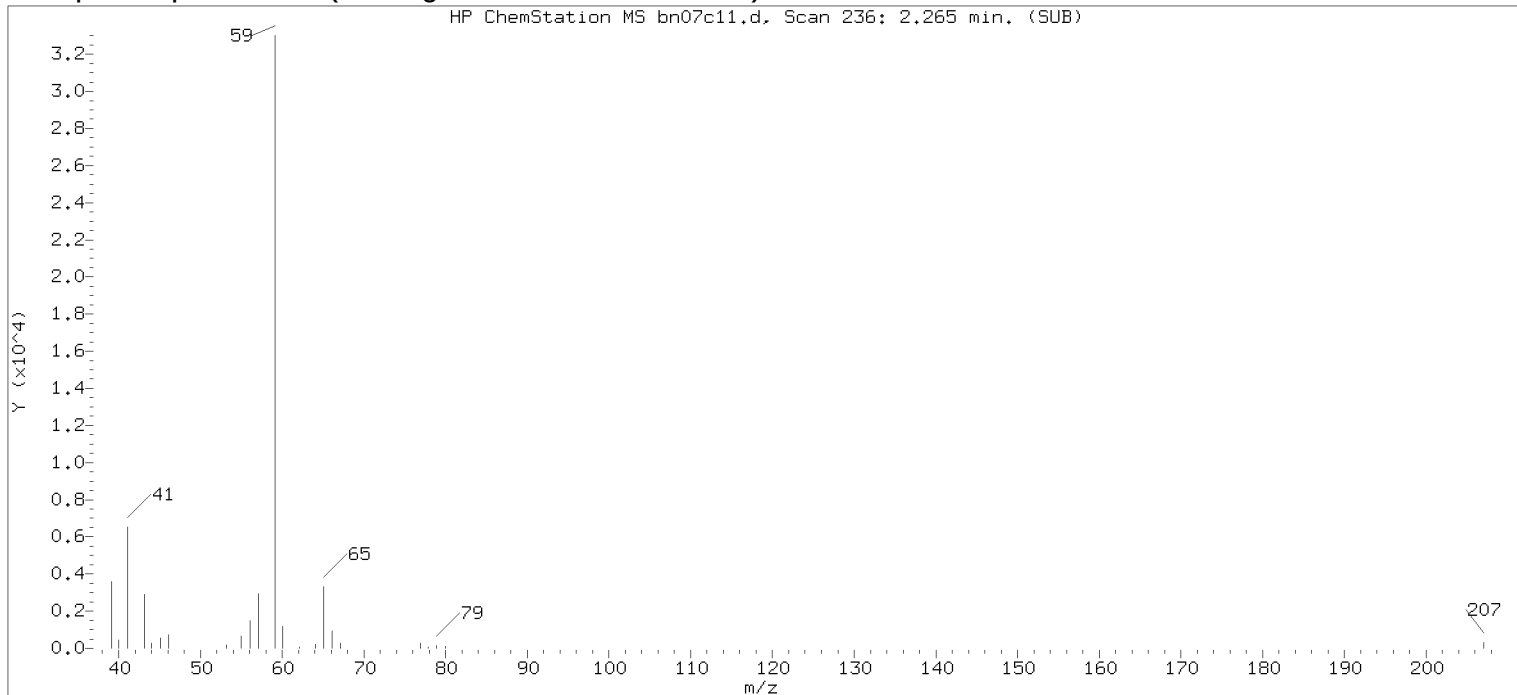
Compound Number	: 32	
Compound Name	: t-Butyl alcohol	
Scan Number	: 236	
Retention Time (minutes)	: 2.265	
Quant Ion	: 59.00	
Area (flag)	: 173745M	
On-Column Amount (ng)	: 243.3256	
Integration start scan	: 222	Integration stop scan: 249
Y at integration start	: 0	Y at integration end: 0

Reason for manual integration: improper integration

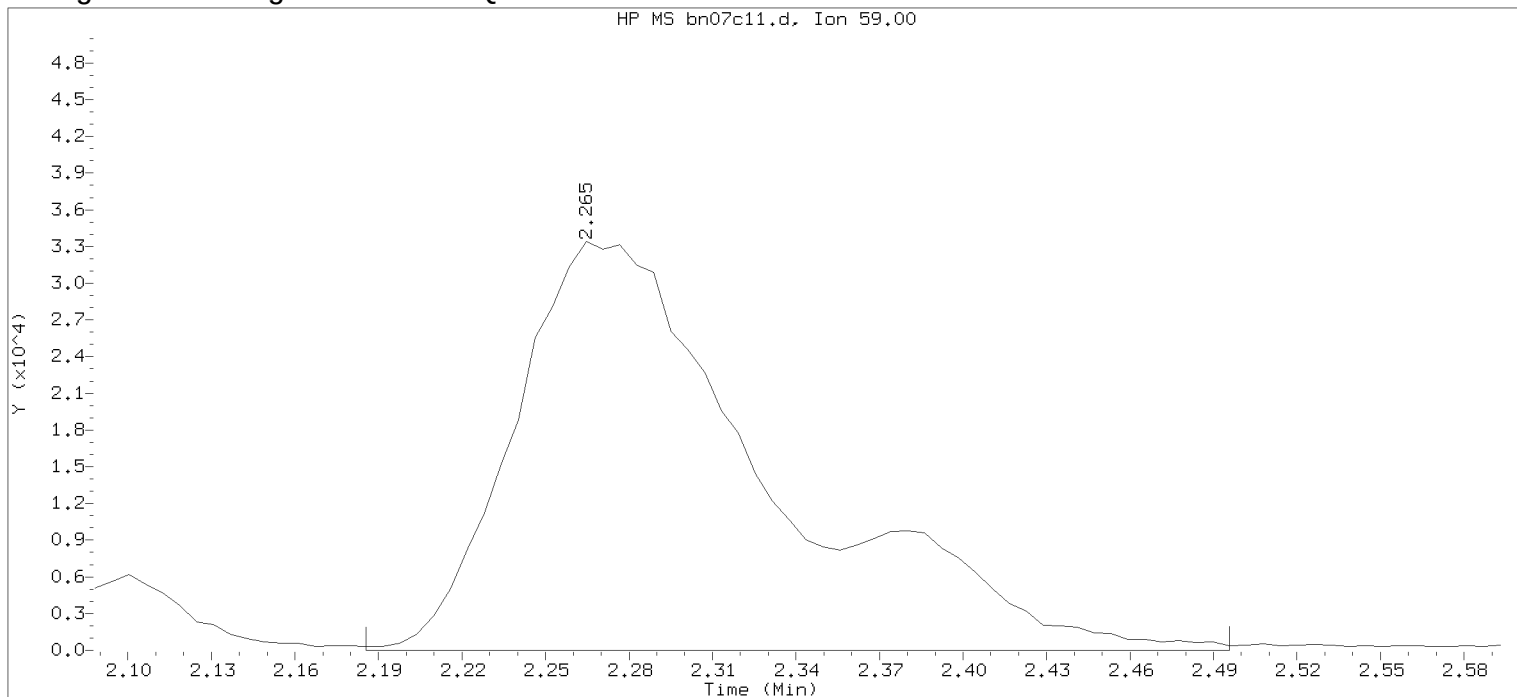
Analyst responsible for change: Digitally signed by Andrea E. Lando
on 11/07/2012 at 23:20.
Target 3.5 esignature user ID: ael02861

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:13.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Instrument ID: HP09953.i

Injection date and time: 07-NOV-2012 21:58

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S

Calibration date and time: 07-NOV-2012 22:15

Date, time and analyst ID of latest file update: 07-Nov-2012 22:15 Automation

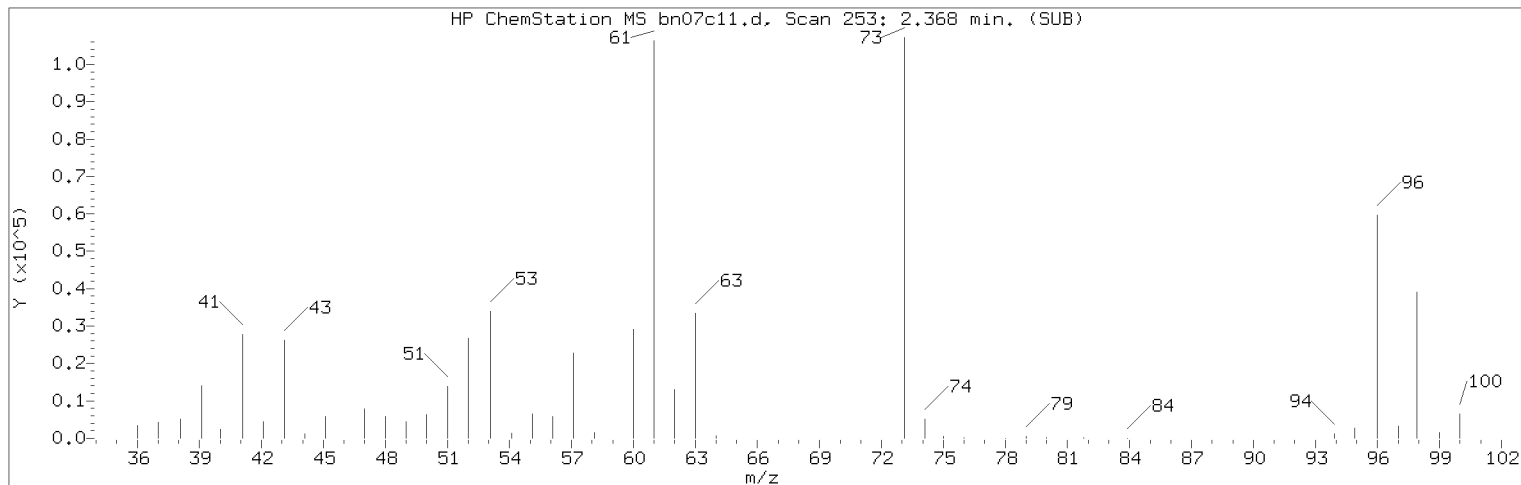
Sample Name: VSTD050

Lab Sample ID: VSTD050

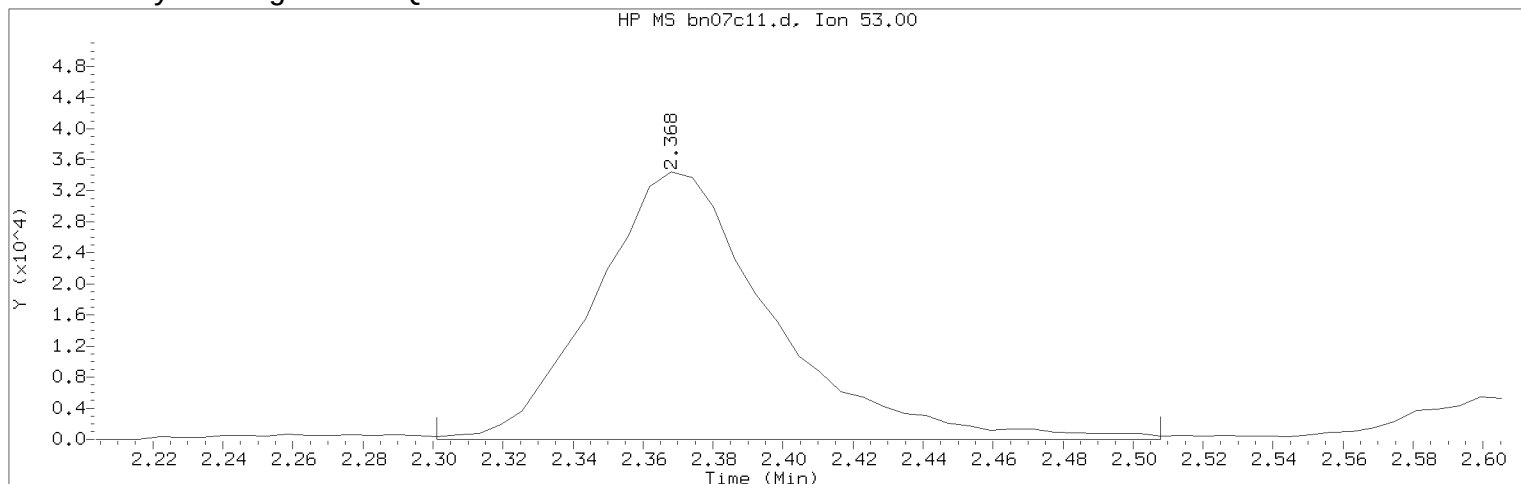
Compound Number	:	32	
Compound Name	:	t-Butyl alcohol	
Scan Number	:	236	
Retention Time (minutes)	:	2.265	
Quant Ion	:	59.00	
Area	:	211138	
On-column Amount (ng)	:	295.6936	
Integration start scan	:	222	Integration stop scan: 273
Y at integration start	:	0	Y at integration end: 0

Digitally signed by Andrea E. Lando on 11/07/2012 at 23:20.
Target 3.5 esignature user TAP03 Page 2663 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Instrument ID: HP09953.i

Injection date and time: 07-NOV-2012 21:58

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time: 07-NOV-2012 22:23

Date, time and analyst ID of latest file update: 07-Nov-2012 22:23 ael02861

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compound Number : 33

Compound Name : Acrylonitrile

Scan Number : 253

Retention Time (minutes): 2.368

Quant Ion : 53.00

Area (flag) : 120727M

On-Column Amount (ng) : 64.3651

Integration start scan : 241

Integration stop scan: 275

Y at integration start : 0

Y at integration end: 0

Reason for manual integration: improper integration

Analyst responsible for change:

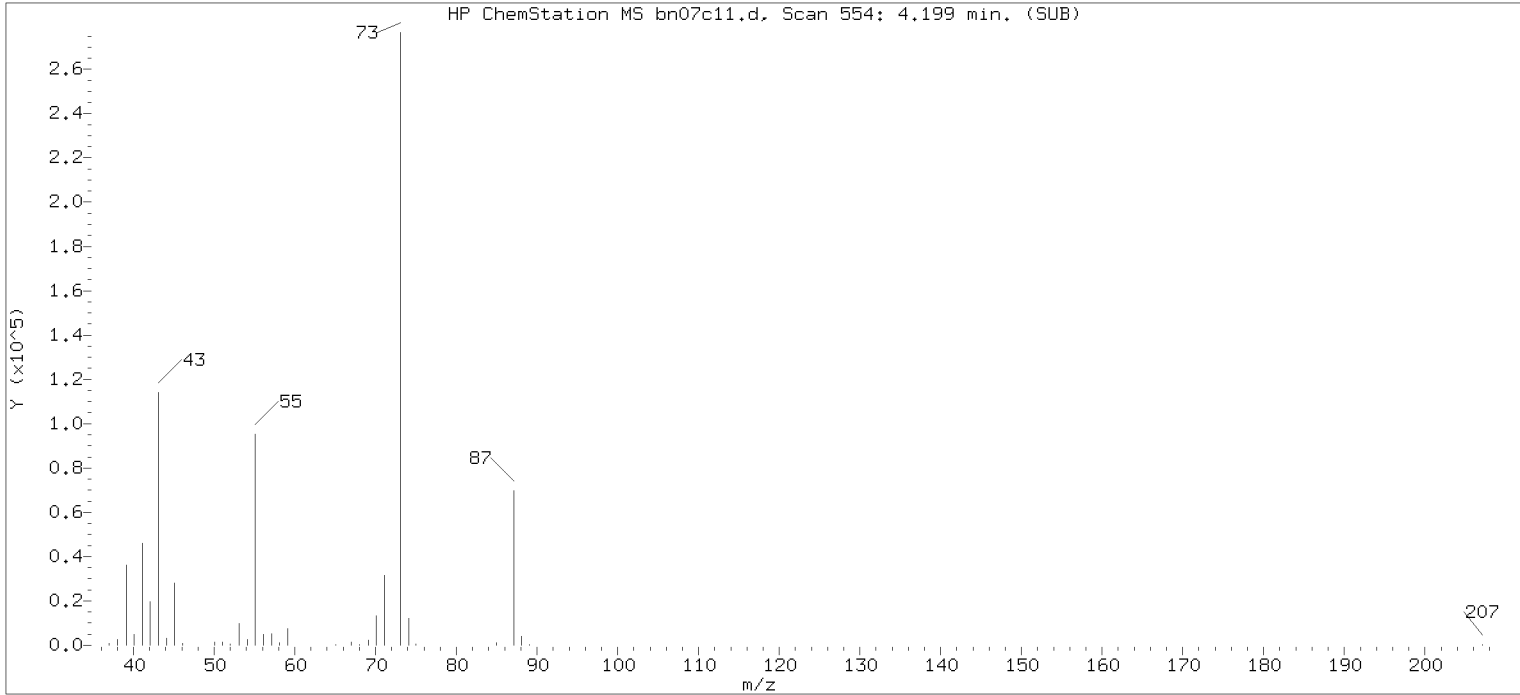
Digitally signed by Andrea E. Lando
on 11/07/2012 at 23:20.

Target 3.5 esignature user ID: ael02861

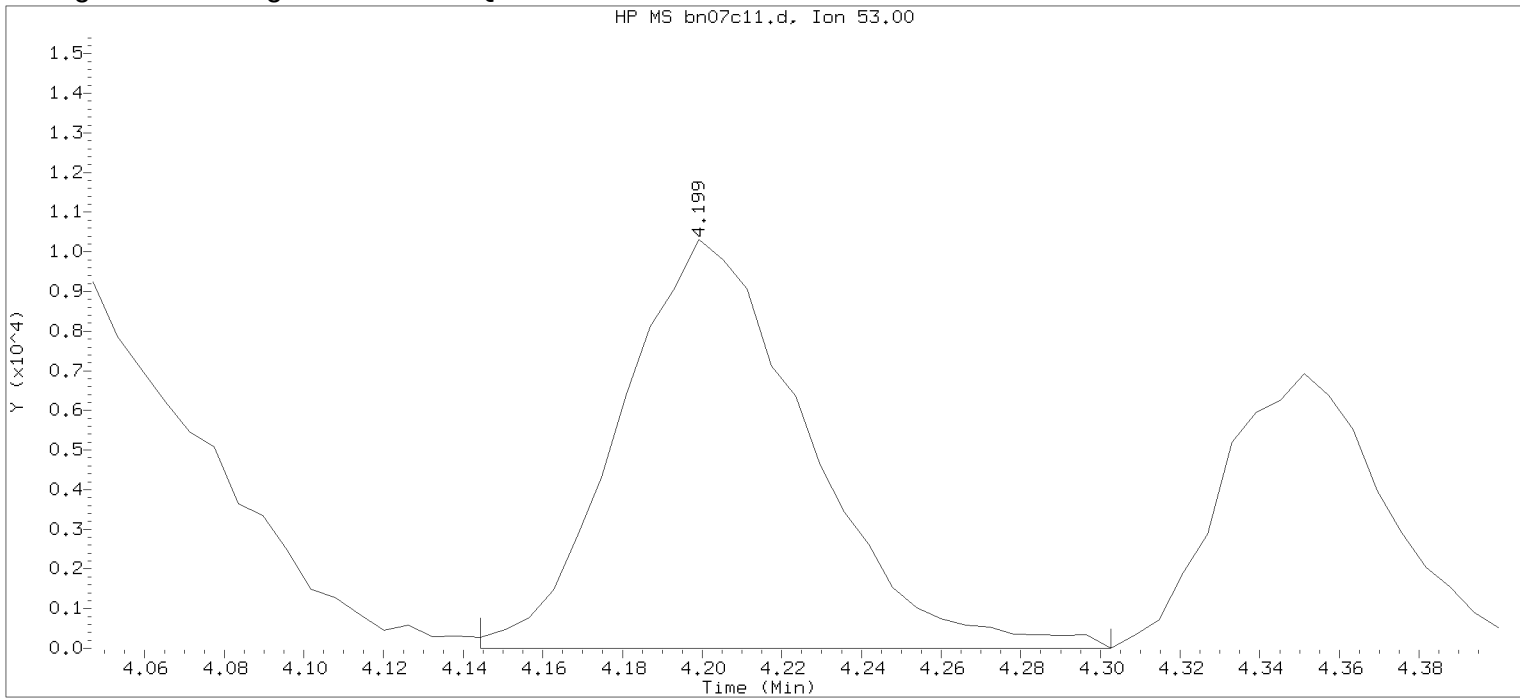
Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:13.

Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Instrument ID: HP09953.i

Injection date and time: 07-NOV-2012 21:58

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S

Calibration date and time: 07-NOV-2012 22:15

Date, time and analyst ID of latest file update: 07-Nov-2012 22:15 Automation

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compound Number : 33

Compound Name : Acrylonitrile

Scan Number : 554

Retention Time (minutes): 4.199

Quant Ion : 53.00

Area : 33849

On-column Amount (ng) : 18.0468

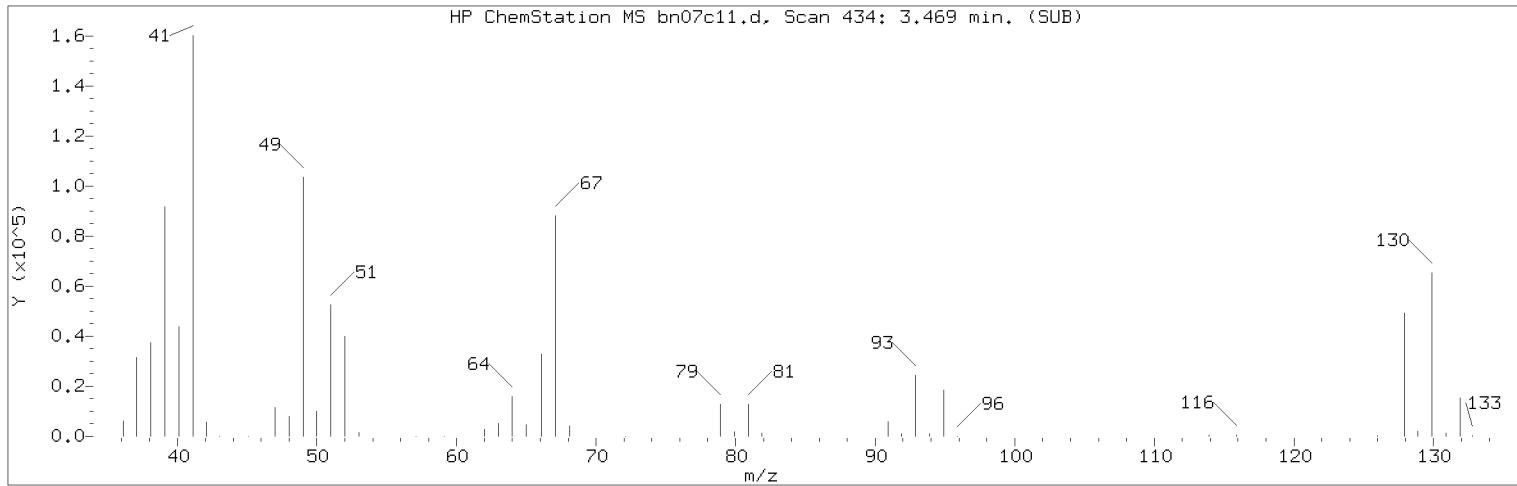
Integration start scan : 544 Integration stop scan: 570

Y at integration start : 0 Y at integration end: 0

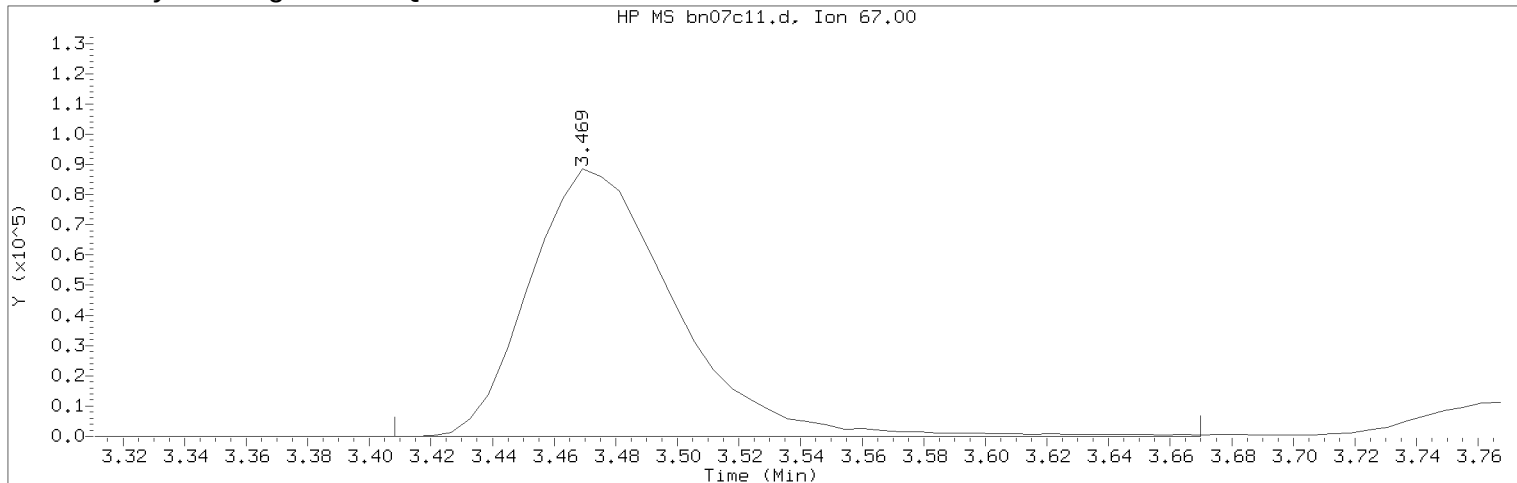
Digitally signed by Andrea E. Lando on 11/07/2012 at 23:20.

Target 3.5 esignature user TAP03 Page 2648 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Instrument ID: HP09953.i

Injection date and time: 07-NOV-2012 21:58

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time: 07-NOV-2012 22:23

Date, time and analyst ID of latest file update: 07-Nov-2012 22:23 ael02861

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compound Number	: 51	
Compound Name	: Methacrylonitrile	
Scan Number	: 434	
Retention Time (minutes)	: 3.469	
Quant Ion	: 67.00	
Area (flag)	: 288655M	
On-Column Amount (ng)	: 139.5884	
Integration start scan	: 423	Integration stop scan: 466
Y at integration start	: 0	Y at integration end: 0

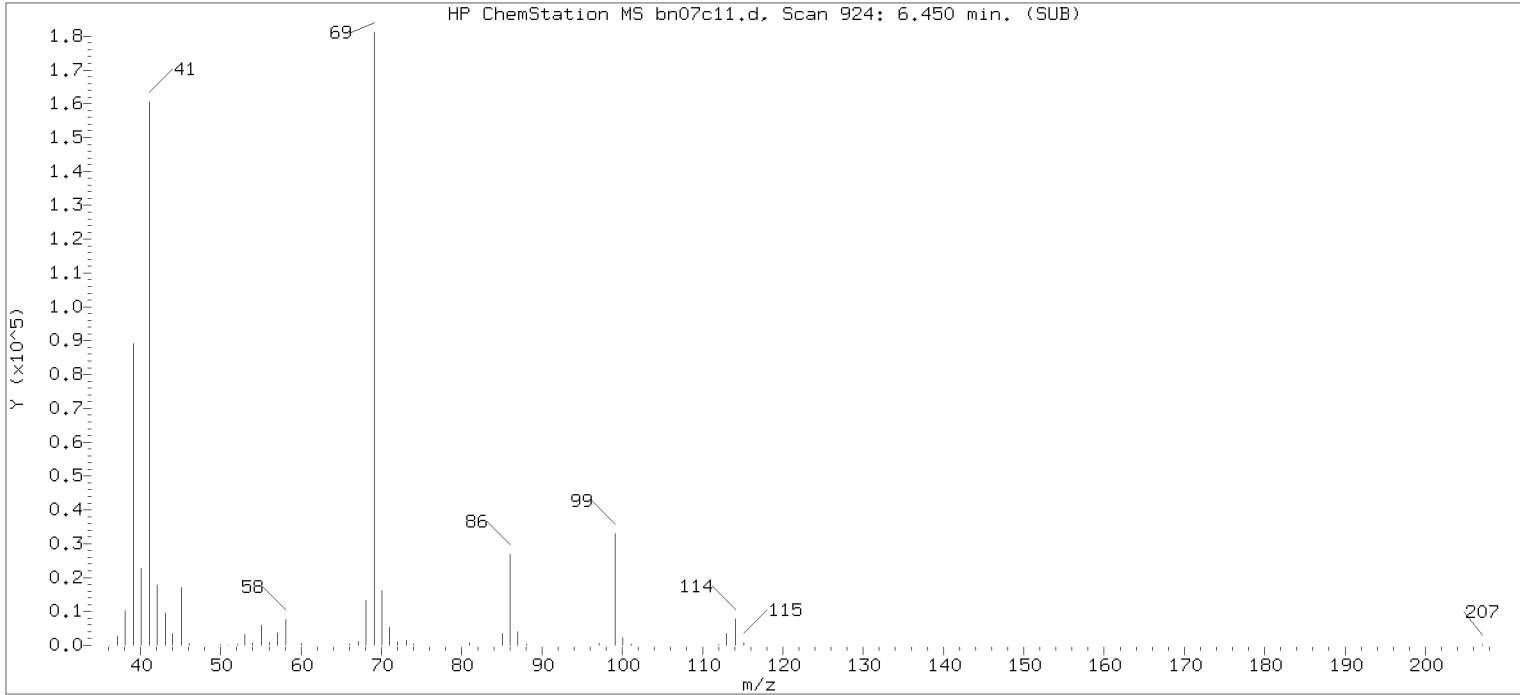
Reason for manual integration: improper integration

Analyst responsible for change:

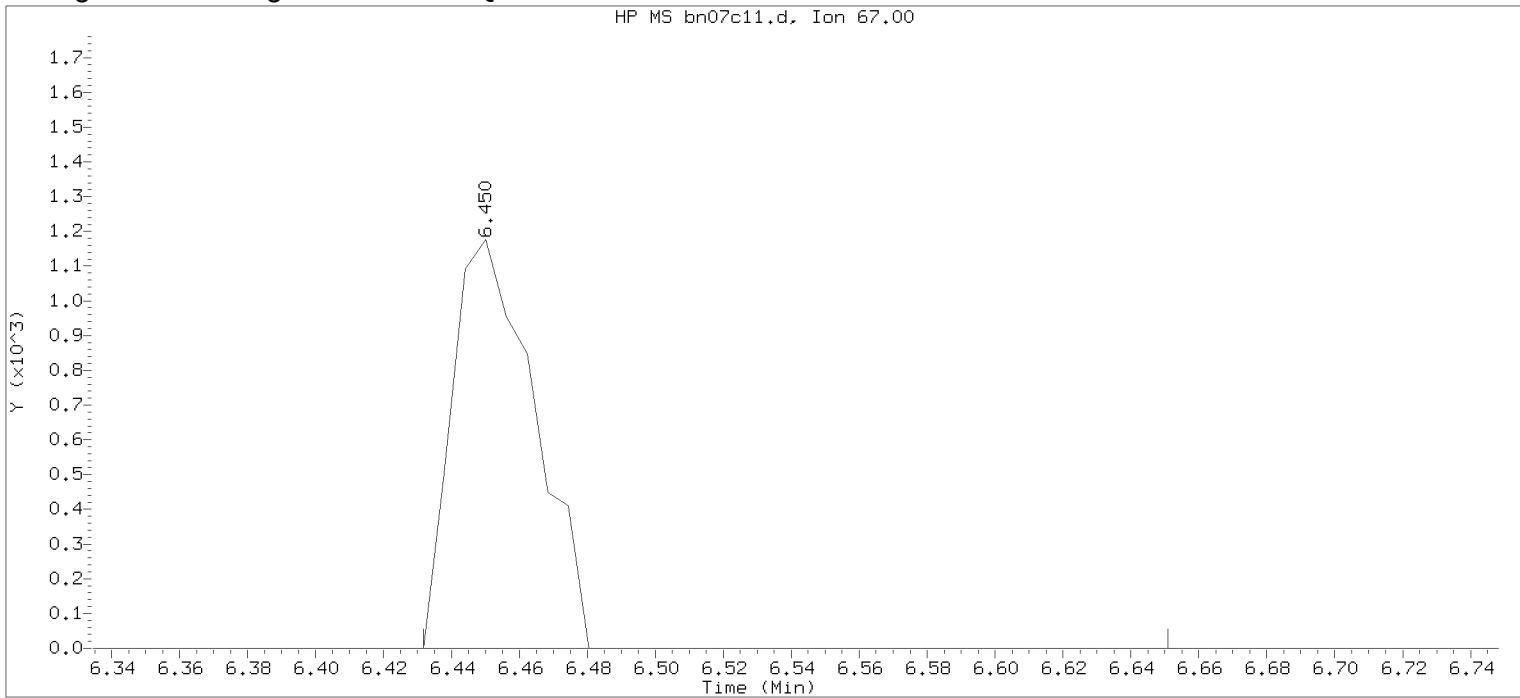
Digitally signed by Andrea E. Lando
on 11/07/2012 at 23:20.
Target 3.5 esignature user ID: ael02861

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:13.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Instrument ID: HP09953.i

Injection date and time: 07-NOV-2012 21:58

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S

Calibration date and time: 07-NOV-2012 22:15

Date, time and analyst ID of latest file update: 07-Nov-2012 22:15 Automation

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compound Number : 51

Compound Name : Methacrylonitrile

Scan Number : 924

Retention Time (minutes): 6.450

Quant Ion : 67.00

Area : 1982

On-column Amount (ng) : 0.9586

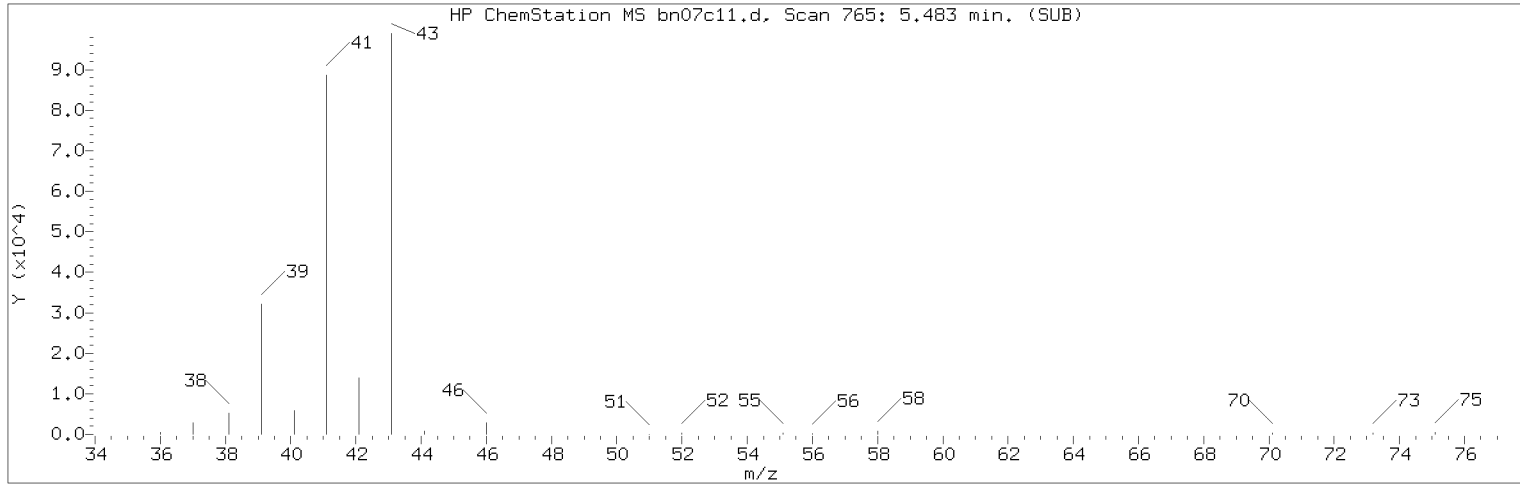
Integration start scan : 920 Integration stop scan: 956

Y at integration start : 0 Y at integration end: 0

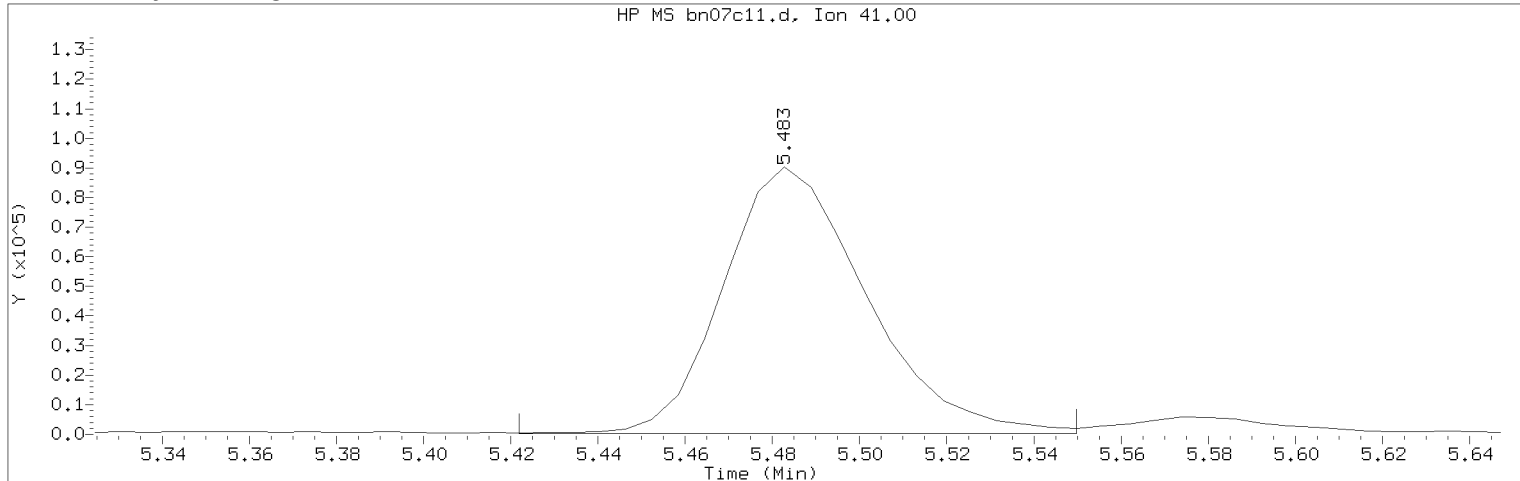
Digitally signed by Andrea E. Lando on 11/07/2012 at 23:20.

Target 3.5 esignature user TAP03 Page 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Instrument ID: HP09953.i

Injection date and time: 07-NOV-2012 21:58

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time: 07-NOV-2012 22:23

Date, time and analyst ID of latest file update: 07-Nov-2012 22:23 ael02861

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compound Number : 82

Compound Name : 2-Nitropropane

Scan Number : 765

Retention Time (minutes): 5.483

Quant Ion : 41.00

Area (flag) : 204724M

On-Column Amount (ng) : 93.7072

Integration start scan : 754

Integration stop scan: 775

Y at integration start : 303

Y at integration end: 303

Reason for manual integration: improper integration

Analyst responsible for change:

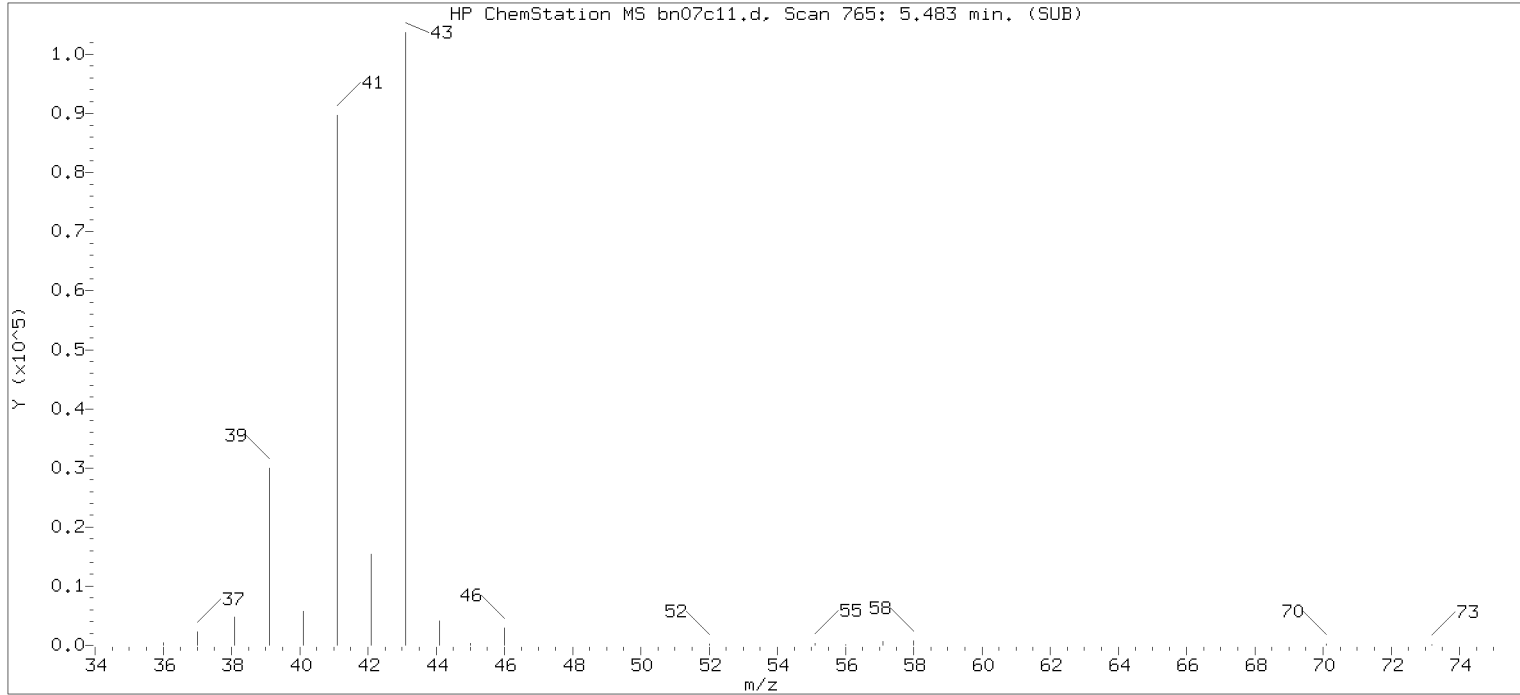
Digitally signed by Andrea E. Lando
on 11/07/2012 at 23:20.

Target 3.5 esignature user ID: ael02861

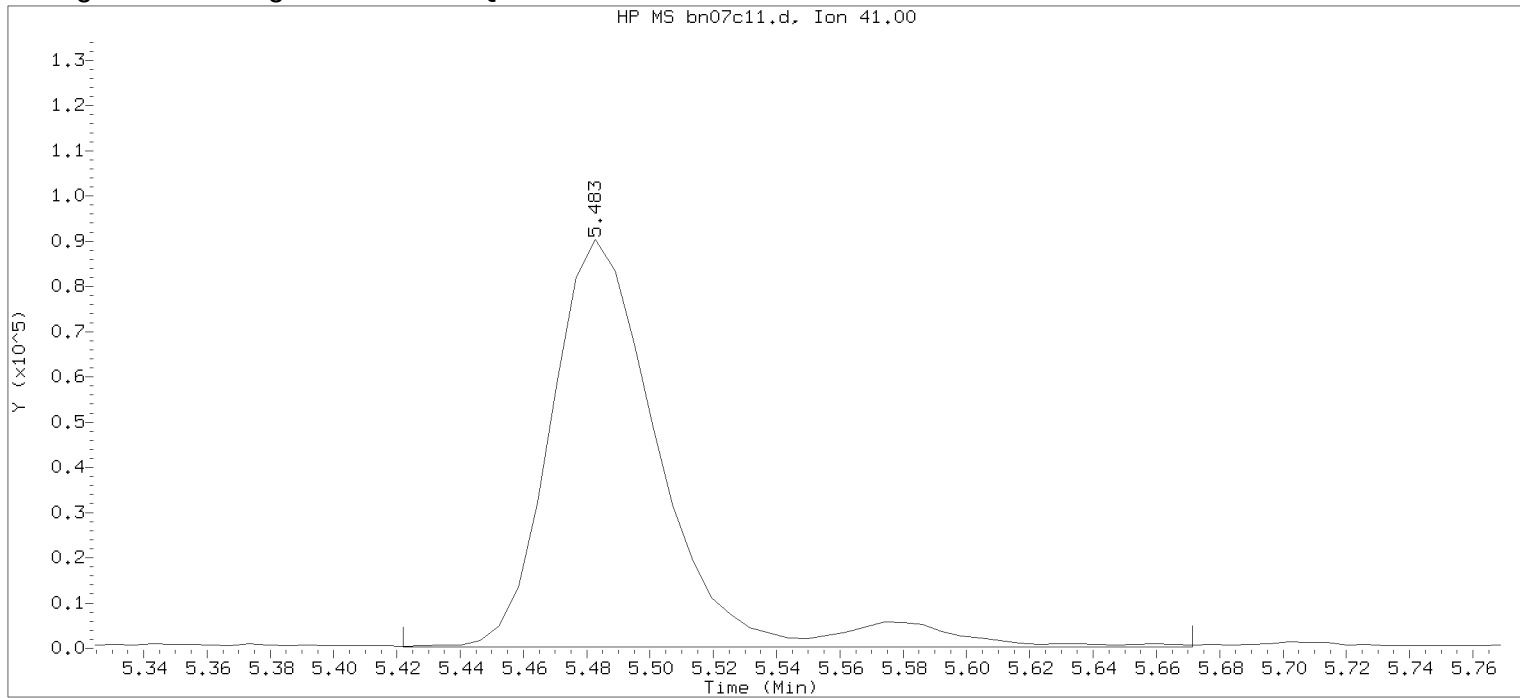
Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:13.

Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Instrument ID: HP09953.i

Injection date and time: 07-NOV-2012 21:58

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S

Calibration date and time: 07-NOV-2012 22:15

Date, time and analyst ID of latest file update: 07-Nov-2012 22:15 Automation

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compound Number : 82

Compound Name : 2-Nitropropane

Scan Number : 765

Retention Time (minutes): 5.483

Quant Ion : 41.00

Area : 219659

On-column Amount (ng) : 100.2945

Integration start scan : 754 Integration stop scan: 795

Y at integration start : 303 Y at integration end: 303

Digitally signed by Andrea E. Lando on 11/07/2012 at 23:20.

Target 3.5 esignature user TAP03 Page 2648 of 2648

Data File: /chem2/HP09953.i/12nov08a,b/bn08t01.d

Page 1

Date : 08-NOV-2012 09:15

Client ID: BFB SEP25-12

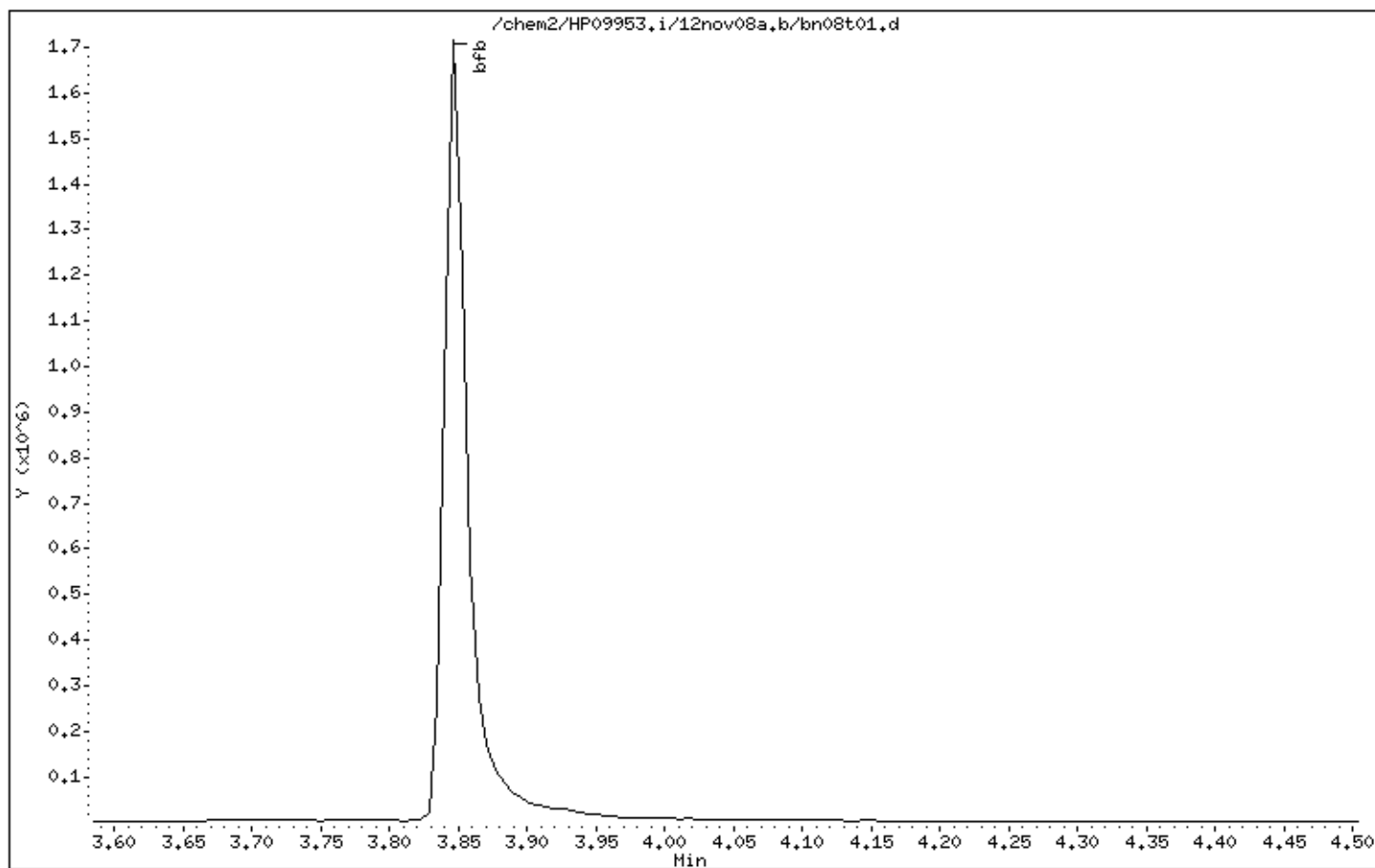
Instrument: HP09953.i

Sample Info: BFB SEP25-12;50 ug BFB;2;3;3;3

Operator: ADS01731

Column phase: DB-624

Column diameter: 0,18



Digitally signed by Angela D. Sneeringer on 11/08/2012 at 09:21.
Target 3.5 esignature user ID: ads01731

Date : 08-NOV-2012 09:15

Client ID: BFB SEP25-12

Instrument: HP09953.i

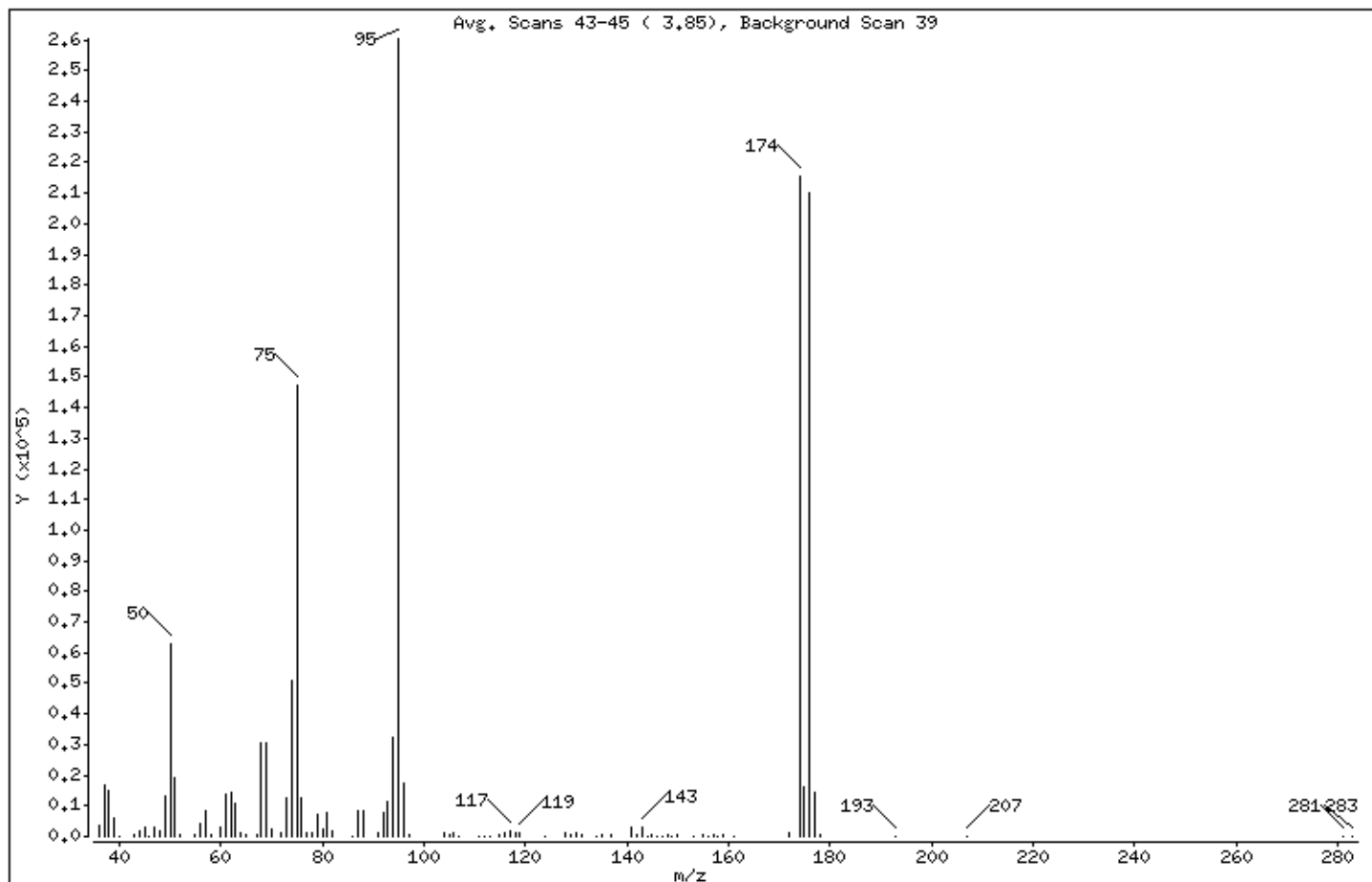
Sample Info: BFB SEP25-12;50 ug BFB;2;3;+;+;

Operator: ADS01731

Column phase: DB-624

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	24.04
75	30.00 - 60.00% of mass 95	56.57
96	5.00 - 9.00% of mass 95	6.58
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	82.86
175	5.00 - 9.00% of mass 174	6.24 (7.53)
176	95.00 - 101.00% of mass 174	80.57 (97.24)
177	5.00 - 9.00% of mass 176	5.49 (6.82)

Digitally signed by Angela D. Sneeringer on 11/08/2012 at 09:21.
Target 3.5 esignature user ID: ads01731

Date : 08-NOV-2012 09:15

Client ID: BFB SEP25-12

Instrument: HP09953.i

Sample Info: BFB SEP25-12;50 ug BFB;2;3;+;+;

Operator: ADS01731

Column phase: DB-624

Column diameter: 0.18

Data File: bn08t01.d

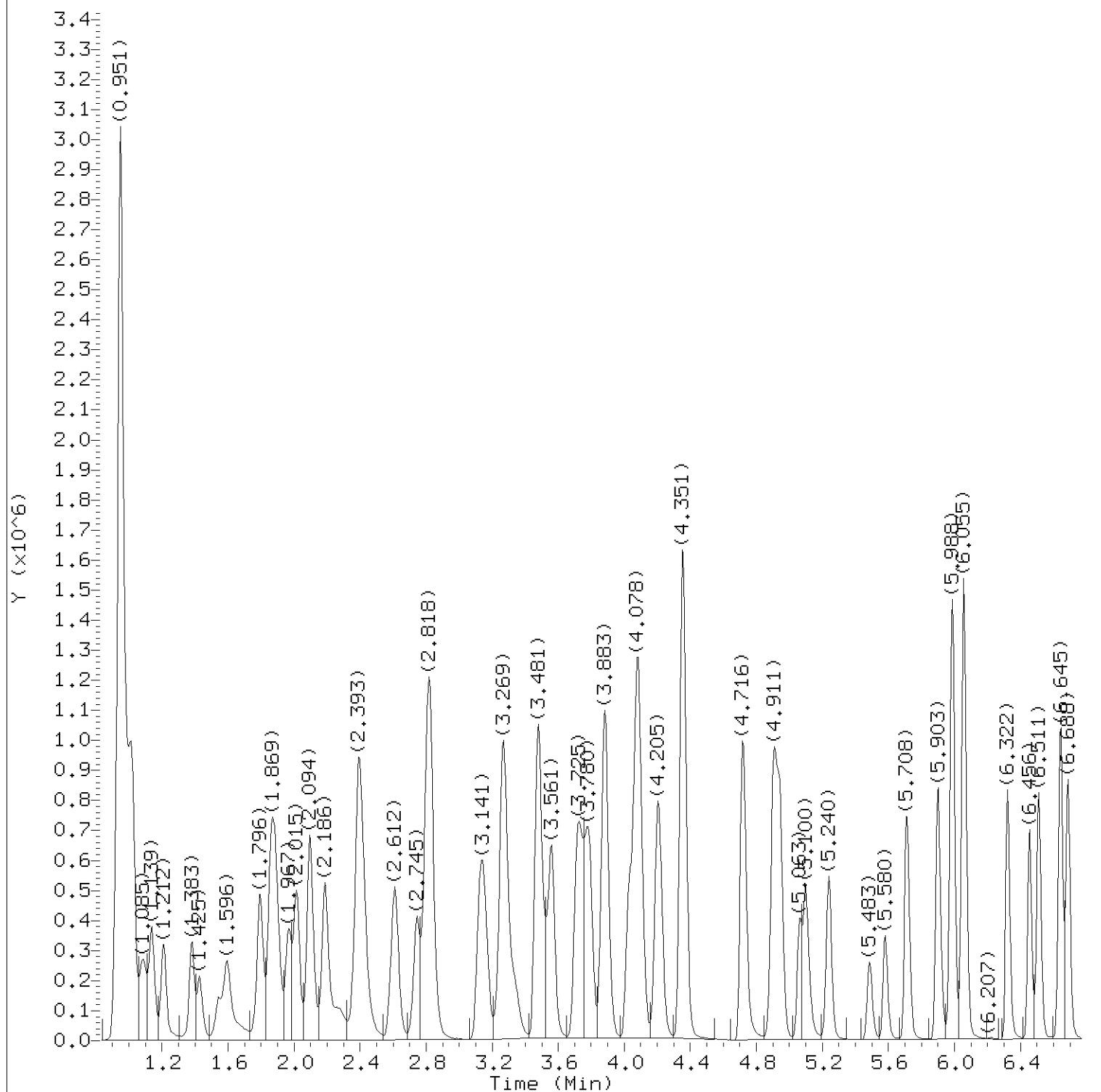
Spectrum: Avg. Scans 43-45 (3.85), Background Scan 39

Location of Maximum: 95.00

Number of points: 97

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3438	67.00	836	104.00	1219	146.00	294
37.00	16888	68.00	30264	105.00	368	147.00	136
38.00	15145	69.00	30336	106.00	1143	148.00	675
39.00	6083	70.00	2209	107.00	136	149.00	90
40.00	241	72.00	1484	111.00	85	150.00	389
43.00	310	73.00	12605	112.00	91	153.00	178
44.00	1631	74.00	50752	113.00	99	155.00	720
45.00	3033	75.00	147264	115.00	332	156.00	182
46.00	86	76.00	12386	116.00	1032	157.00	518
47.00	3268	77.00	1411	117.00	1722	158.00	124
48.00	1820	78.00	1058	118.00	1016	159.00	348
49.00	13294	79.00	7237	119.00	1412	161.00	292
50.00	62600	80.00	2250	124.00	85	172.00	1039
51.00	19232	81.00	7803	128.00	936	174.00	215744
52.00	777	82.00	1600	129.00	455	175.00	16242
55.00	767	86.00	152	130.00	982	176.00	209792
56.00	4382	87.00	8670	131.00	305	177.00	14305
57.00	8384	88.00	8396	134.00	94	178.00	428
58.00	373	91.00	980	135.00	555	193.00	87
60.00	2729	92.00	7936	137.00	551	207.00	48
61.00	13848	93.00	11586	141.00	2735	281.00	213
62.00	14269	94.00	32056	142.00	402	283.00	122
63.00	10551	95.00	260352	143.00	3088		
64.00	1174	96.00	17136	144.00	104		
65.00	836	97.00	537	145.00	307		

Digitally signed by Angela D. Sneeringer on 11/08/2012 at 09:21.
Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08c01.d
Injection date and time: 08-NOV-2012 09:38

Instrument ID: HP09953.i
Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m
Calibration date and time: 08-NOV-2012 09:58

Sublist used: 8260S-F

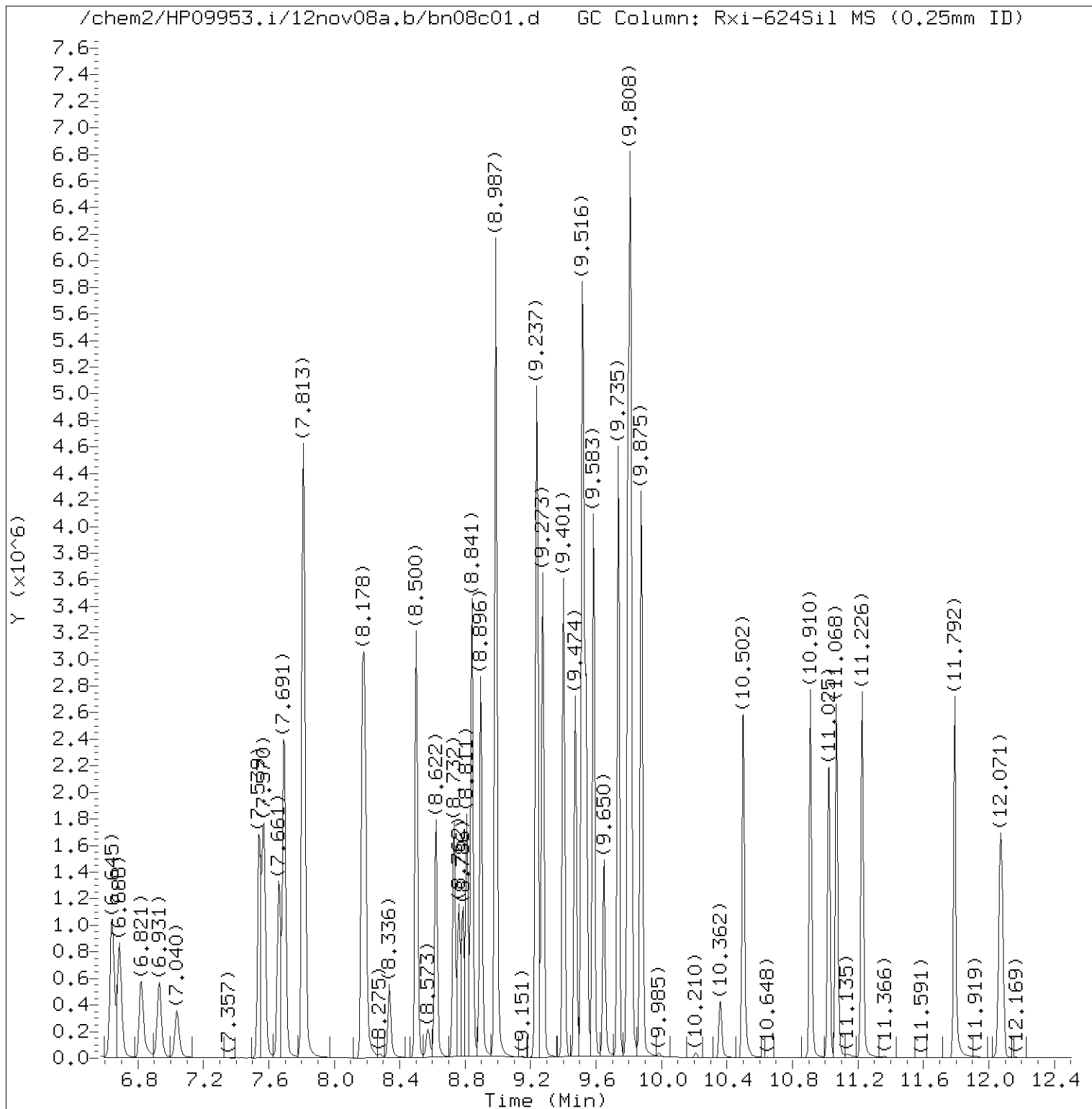
Date, time and analyst ID of latest file update: 08-Nov-2012 10:00 ads01731

Sample Name: VSTD050

Lab Sample ID: VSTD050

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 10:57.

Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08c01.d
Injection date and time: 08-NOV-2012 09:38

Instrument ID: HP09953.i
Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m
Calibration date and time: 08-NOV-2012 09:58

Sublist used: 8260S-F

Date, time and analyst ID of latest file update: 08-Nov-2012 10:00 ads01731

Sample Name: VSTD050

Lab Sample ID: VSTD050

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 10:57.

Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08c01.d
Injection date and time: 08-NOV-2012 09:38

Instrument ID: HP09953.i
Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 08-NOV-2012 09:58
Date, time and analyst ID of latest file update: 08-Nov-2012 10:00 ads01731

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
2) Dichlorodifluoromethane	(2)	1.091	85	468293	48.723
4) Chloromethane	(2)	1.139	50	490324	51.594
5) Vinyl Chloride	(2)	1.212	62	406282	51.032
9) Bromomethane	(2)	1.383	94	268353	53.771
10) Chloroethane	(2)	1.425	64	221741	53.470
13) Trichlorofluoromethane	(2)	1.596	101	516105	50.959
15) Ethanol	(1)	1.669	45	187826	2328.749
18) Acrolein	(1)	1.790	56	577198	490.433
19) 1,1-Dichloroethene	(2)	1.863	96	241871	52.153
20) Acetone	(2)	1.888	58	58321	110.367
22) Freon 113	(2)	1.888	101	273675	50.491
24) Methyl Iodide	(2)	1.967	142	513537	53.338
23) 2-Propanol	(1)	1.979	45	148629	269.785
25) Carbon Disulfide	(2)	2.015	76	805881	52.713
29) Allyl Chloride	(2)	2.094	41	536352	53.184
27) Methyl Acetate	(2)	2.100	43	245369	60.498
31) Methylene Chloride	(2)	2.186	84	291011	54.041
30)*t-Butyl alcohol-d10	(1)	2.222	65	151989	250.000
32) t-Butyl alcohol	(1)	2.277	59	192404M	249.618
33) Acrylonitrile	(2)	2.374	53	107143M	60.623
35) trans-1,2-Dichloroethene	(2)	2.393	96	282337	53.948
34) Methyl Tertiary Butyl Ether	(2)	2.417	73	928347	61.653
38) n-Hexane	(2)	2.612	57	375684	41.258
40) 1,1-Dichloroethane	(2)	2.745	63	606927	52.822
41) di-Isopropyl ether	(2)	2.806	45	1141537	52.228
42) 2-Chloro-1,3-butadiene	(2)	2.824	53	565751	56.159
44) Ethyl t-butyl ether	(2)	3.141	59	956604	53.508
46) cis-1,2-Dichloroethene	(2)	3.262	96	300685	50.953
48) 2,2-Dichloropropane	(2)	3.275	77	512040	58.563
45) 2-Butanone	(2)	3.287	43	330679	122.372
50) Propionitrile	(1)	3.342	54	229919	225.329
51) Methacrylonitrile	(2)	3.475	67	293951M	150.860
52) Bromochloromethane	(2)	3.481	128	152806	53.873
53) Tetrahydrofuran	(1)	3.524	71	70055	86.835
54) Chloroform	(2)	3.561	83	594950	54.214
55)\$Dibromofluoromethane	(2)	3.713	113	287620	52.570
55)\$Dibromofluoromethane	(2)	3.713	111	292809	52.531
56) 1,1,1-Trichloroethane	(2)	3.731	97	524459	56.003

M = Compound was manually integrated.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

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on 11/08/2012 at 10:57.

Target 3.5 esignature user ID: ads01731

TAP03 Page 665 of 2648

page 1 of 4

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08c01.d
 Injection date and time: 08-NOV-2012 09:38

Instrument ID: HP09953.i
 Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 8260S-F
 Calibration date and time: 08-NOV-2012 09:58
 Date, time and analyst ID of latest file update: 08-Nov-2012 10:00 ads01731

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
57) Cyclohexane	(2)	3.786	56	497099	44.932
57) Cyclohexane	(2)	3.786	84	378954	44.968
57) Cyclohexane	(2)	3.786	69	140993	44.651
58) 1,1-Dichloropropene	(2)	3.877	75	435290	51.797
59) Carbon Tetrachloride	(2)	3.889	117	461364	54.797
61)\$1,2-Dichloroethane-d4	(2)	4.029	102	62744	54.561
61)\$1,2-Dichloroethane-d4	(2)	4.029	65	430871	61.936
61)\$1,2-Dichloroethane-d4	(2)	4.023	104	38336	53.268
60) Isobutyl Alcohol	(1)	4.041	41	176489	622.810
62) Benzene	(2)	4.078	78	1177322	50.904
64) 1,2-Dichloroethane	(2)	4.102	62	543133	62.059
64) 1,2-Dichloroethane	(2)	4.102	98	35204	56.376
65) t-Amyl methyl ether	(2)	4.205	73	819535	56.030
69) n-Heptane	(2)	4.351	43	460630	42.523
67)*Fluorobenzene	(2)	4.358	96	1092638	50.000
70) n-Butanol	(1)	4.716	56	216919	1145.556
72) Trichloroethene	(2)	4.716	95	307551	51.586
73) Methylcyclohexane	(2)	4.905	83	451138	42.934
74) 1,2-Dichloropropane	(2)	4.942	63	333925	51.812
78) Dibromomethane	(2)	5.063	93	196401	56.868
77) 1,4-Dioxane	(1)	5.100	88	39264	534.283
76) Methyl Methacrylate	(2)	5.100	69	195884	59.486
81) Bromodichloromethane	(2)	5.240	83	422004	56.206
82) 2-Nitropropane	(1)	5.483	41	212486	90.230
83) 2-Chloroethyl Vinyl Ether	(2)	5.580	63	165020	190.734
84) cis-1,3-Dichloropropene	(2)	5.714	75	475935	55.097
85) 4-Methyl-2-pentanone	(2)	5.903	43	728500	120.534
86)\$Toluene-d8	(3)	5.988	98	1103514	51.042
86)\$Toluene-d8	(3)	5.988	100	700906	50.225
87) Toluene	(3)	6.055	92	726548	50.969
47) 1,2-Dichloroethene (Total)	(2)		96	583022	104.902
88) trans-1,3-Dichloropropene	(3)	6.322	75	458176	57.577
89) Ethyl Methacrylate	(3)	6.456	69	365109	60.919
90) 1,1,2-Trichloroethane	(3)	6.511	97	254164	56.819
92) Tetrachloroethene	(3)	6.645	166	333095	53.063
93) 1,3-Dichloropropane	(3)	6.688	76	465004	56.162
95) 2-Hexanone	(3)	6.821	43	501343	118.248
97) Dibromochloromethane	(3)	6.931	129	304411	57.825

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08c01.d
 Injection date and time: 08-NOV-2012 09:38

Instrument ID: HP09953.i
 Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 8260S-F
 Calibration date and time: 08-NOV-2012 09:58
 Date, time and analyst ID of latest file update: 08-Nov-2012 10:00 ads01731

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
98) 1,2-Dibromoethane	(3)	7.040	107	261192	57.833
99) *Chlorobenzene-d5	(3)	7.539	117	754995	50.000
100) Chlorobenzene	(3)	7.570	112	819865	51.407
101) 1,1,1,2-Tetrachloroethane	(3)	7.661	131	319684	55.143
102) Ethylbenzene	(3)	7.697	91	1458264	53.763
103) m+p-Xylene	(3)	7.813	106	1120337	105.735
104) o-Xylene	(3)	8.172	106	549045	53.273
106) Styrene	(3)	8.190	104	891129	54.980
107) Bromoform	(3)	8.336	173	204598	59.250
108) Isopropylbenzene	(3)	8.500	105	1485963	54.066
111) Cyclohexanone	(1)	8.567	55	71931	381.880
112) \$4-Bromofluorobenzene	(3)	8.622	95	409592	50.544
112) \$4-Bromofluorobenzene	(3)	8.622	174	349437	52.494
114) Bromobenzene	(4)	8.732	156	371556	52.284
113) 1,1,2,2-Tetrachloroethane	(4)	8.762	83	371576	58.461
116) 1,2,3-Trichloropropane	(4)	8.786	110	111374	61.916
115) trans-1,4-Dichloro-2-butene	(4)	8.811	53	338019	171.586
117) n-Propylbenzene	(4)	8.841	91	1785694	42.234
119) 2-Chlorotoluene	(4)	8.896	126	356341	50.978
123) 4-Chlorotoluene	(4)	8.987	126	375039	50.829
122) 1,3,5-Trimethylbenzene	(4)	8.987	105	1334752	53.455
126) tert-Butylbenzene	(4)	9.237	134	290363	51.596
127) Pentachloroethane	(4)	9.243	167	279260	57.853
128) 1,2,4-Trimethylbenzene	(4)	9.273	105	1368015	54.100
129) sec-Butylbenzene	(4)	9.401	105	1631859	51.614
131) 1,3-Dichlorobenzene	(4)	9.474	146	728004	52.413
132) p-Isopropyltoluene	(4)	9.516	119	1476628	53.054
133) *1,4-Dichlorobenzene-d4	(4)	9.522	152	488192	50.000
134) 1,4-Dichlorobenzene	(4)	9.541	146	761582	51.095
135) 1,2,3-Trimethylbenzene	(4)	9.583	105	1511825	58.041
136) Benzyl Chloride	(4)	9.650	126	147559	63.168
137) 1,3-Diethylbenzene	(4)	9.735	119	919764	56.683
138) 1,4-Diethylbenzene	(4)	9.796	119	966238	55.323
139) n-Butylbenzene	(4)	9.808	92	748811	51.924
140) 1,2-Dichlorobenzene	(4)	9.808	146	757587	53.147
141) 1,2-Diethylbenzene	(4)	9.875	119	806317	55.756
144) 1,2-Dibromo-3-chloropropane	(4)	10.356	75	85457	66.722
145) 1,3,5-Trichlorobenzene	(4)	10.502	180	621525	51.691

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 3 of 4

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Target 3.5 esignature user ID: ads01731

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Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08c01.d

Instrument ID: HP09953.i

Injection date and time: 08-NOV-2012 09:38

Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time: 08-NOV-2012 09:58

Date, time and analyst ID of latest file update: 08-Nov-2012 10:00 ads01731

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
146) 1,2,4-Trichlorobenzene	(4)	10.910	180	566529	54.430
147) Hexachlorobutadiene	(4)	11.025	225	289981	46.989
148) Naphthalene	(4)	11.068	128	1358465	64.257
149) 1,2,3-Trichlorobenzene	(4)	11.226	180	564692	57.244
105) Xylene (Total)	(3)		106	1669382	159.008
150) 2-Methylnaphthalene	(4)	11.792	142	854844	66.808

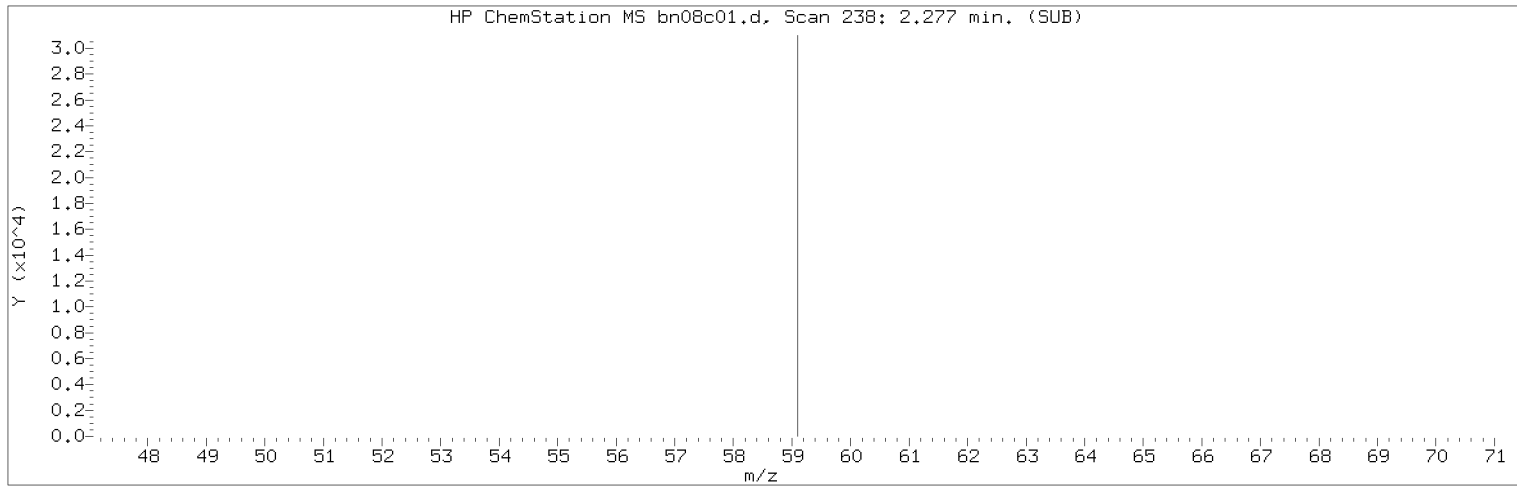
page 4 of 4

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 10:57.

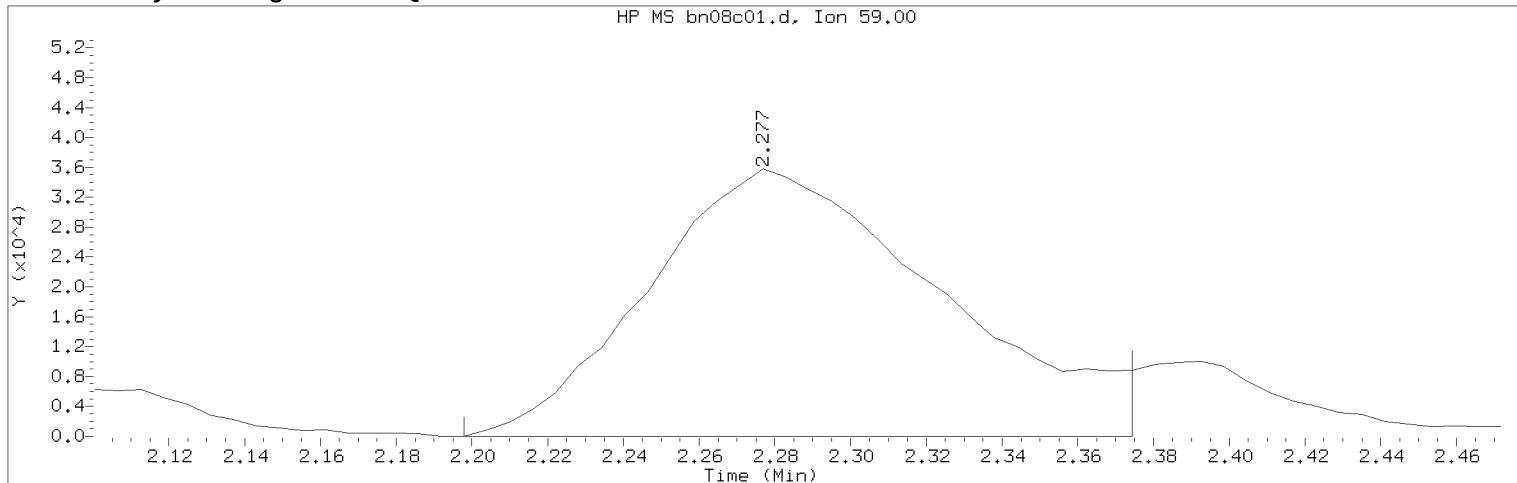
Target 3.5 esignature user ID: ads01731

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Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov08a.b/bn08c01.d

Instrument ID: HP09953.i

Injection date and time: 08-NOV-2012 09:38

Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time: 08-NOV-2012 09:58

Date, time and analyst ID of latest file update: 08-Nov-2012 10:00 ads01731

Sample Name: VSTD050

Lab Sample ID: VSTD050

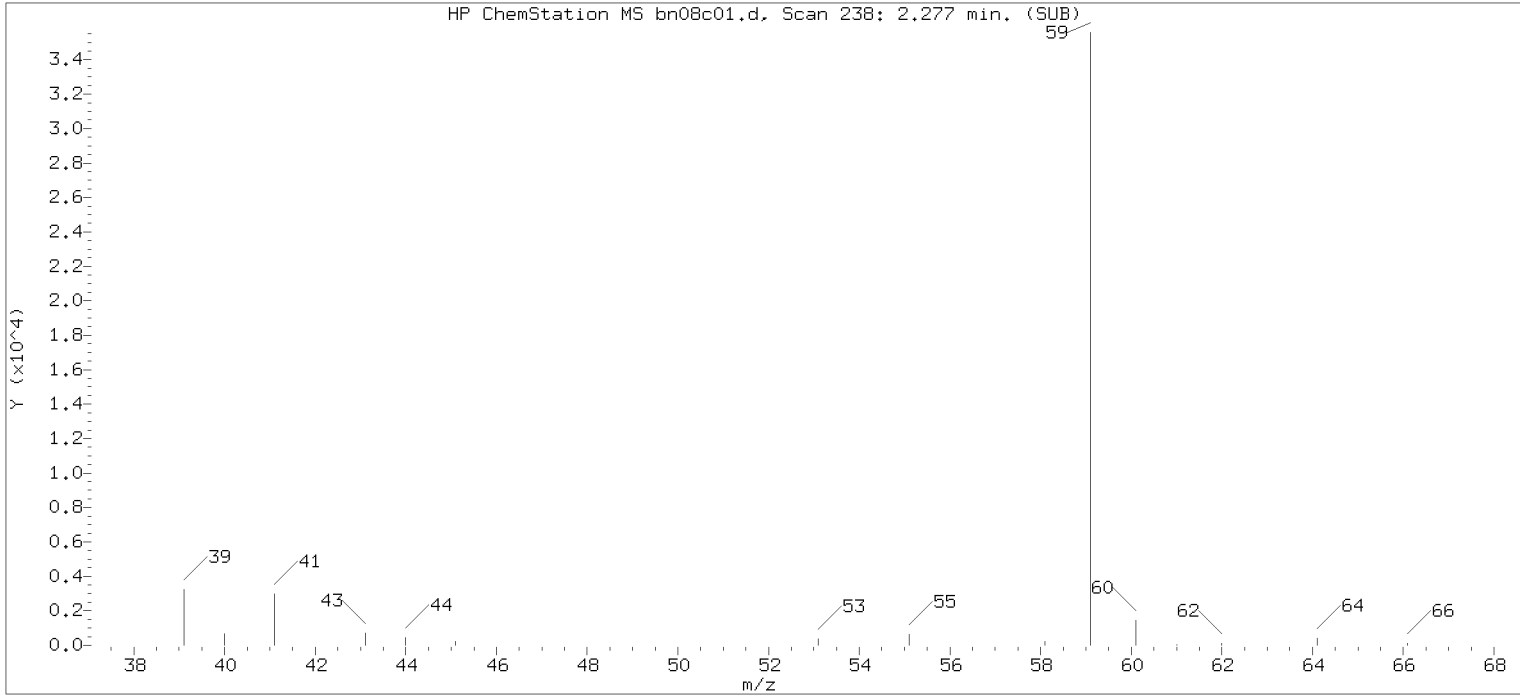
Compound Number	: 32	
Compound Name	: t-Butyl alcohol	
Scan Number	: 238	
Retention Time (minutes)	: 2.277	
Quant Ion	: 59.00	
Area (flag)	: 192404M	
On-Column Amount (ng)	: 249.6180	
Integration start scan	: 224	Integration stop scan: 253
Y at integration start	: 0	Y at integration end: 0

Reason for manual integration: improper integration

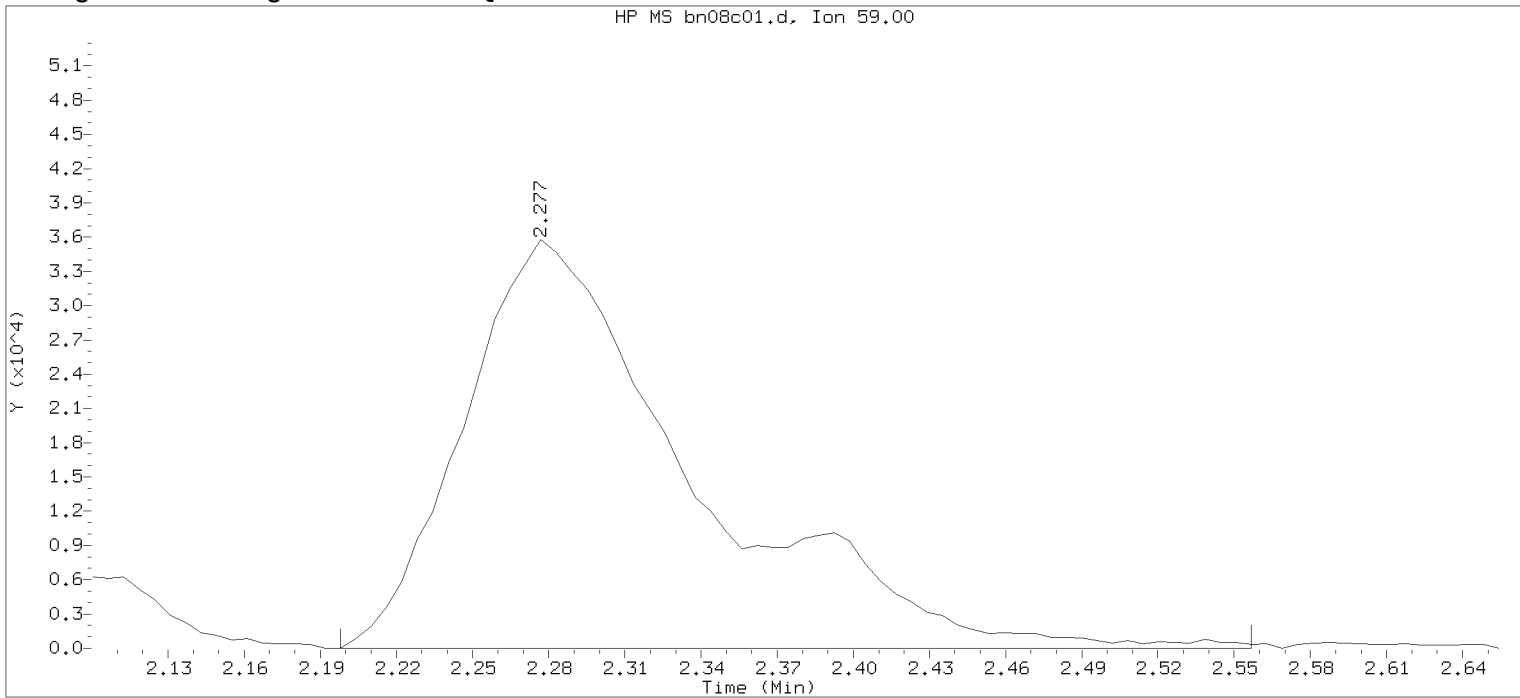
Analyst responsible for change: Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 10:57.
Target 3.5 esignature user ID: ads01731

Secondary review performed and digitally signed by Christine M. Dulaney on 11/08/2012 at 16:03.
Parallax ID: cmd00448

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov08a.b/bn08c01.d

Instrument ID: HP09953.i

Injection date and time: 08-NOV-2012 09:38

Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m

Sublist used: 8260S

Calibration date and time: 08-NOV-2012 09:55

Date, time and analyst ID of latest file update: 08-Nov-2012 09:55 Automation

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compound Number : 32

Compound Name : t-Butyl alcohol

Scan Number : 238

Retention Time (minutes): 2.277

Quant Ion : 59.00

Area : 223186

On-column Amount (ng) : 289.5515

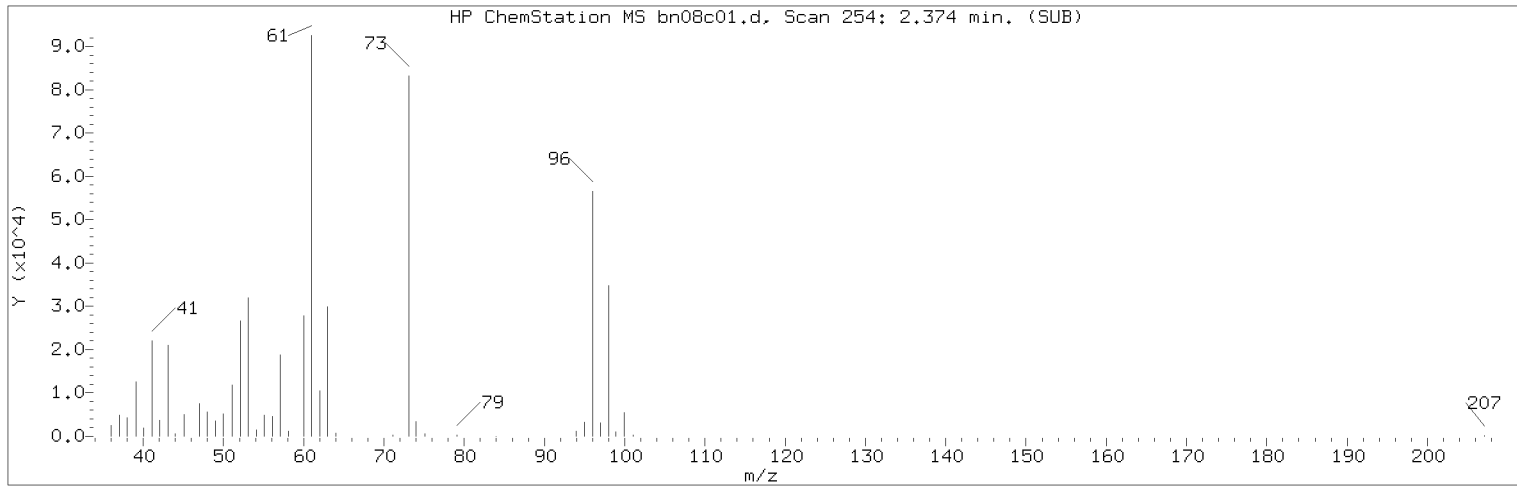
Integration start scan : 224 Integration stop scan: 283

Y at integration start : 0 Y at integration end: 0

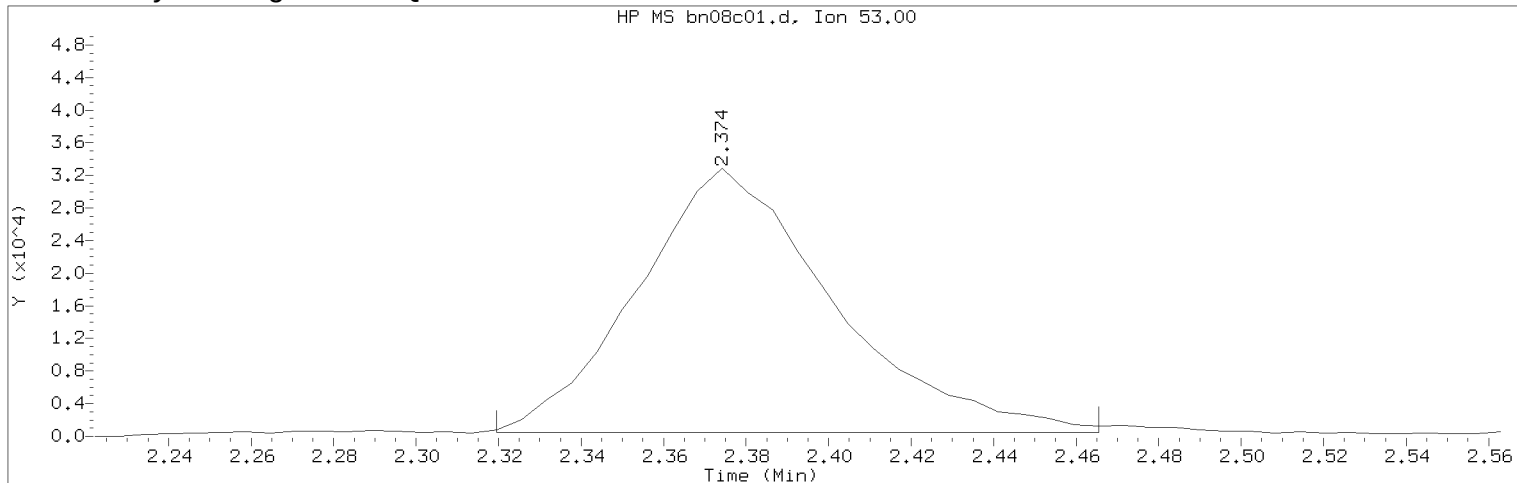
Digitally signed by Angela D. Sneeringer on 11/08/2012 at 10:57.

Target 3.5 esignature user TAP03 Page 1731 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov08a.b/bn08c01.d

Instrument ID: HP09953.i

Injection date and time: 08-NOV-2012 09:38

Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time: 08-NOV-2012 09:58

Date, time and analyst ID of latest file update: 08-Nov-2012 10:00 ads01731

Sample Name: VSTD050

Lab Sample ID: VSTD050

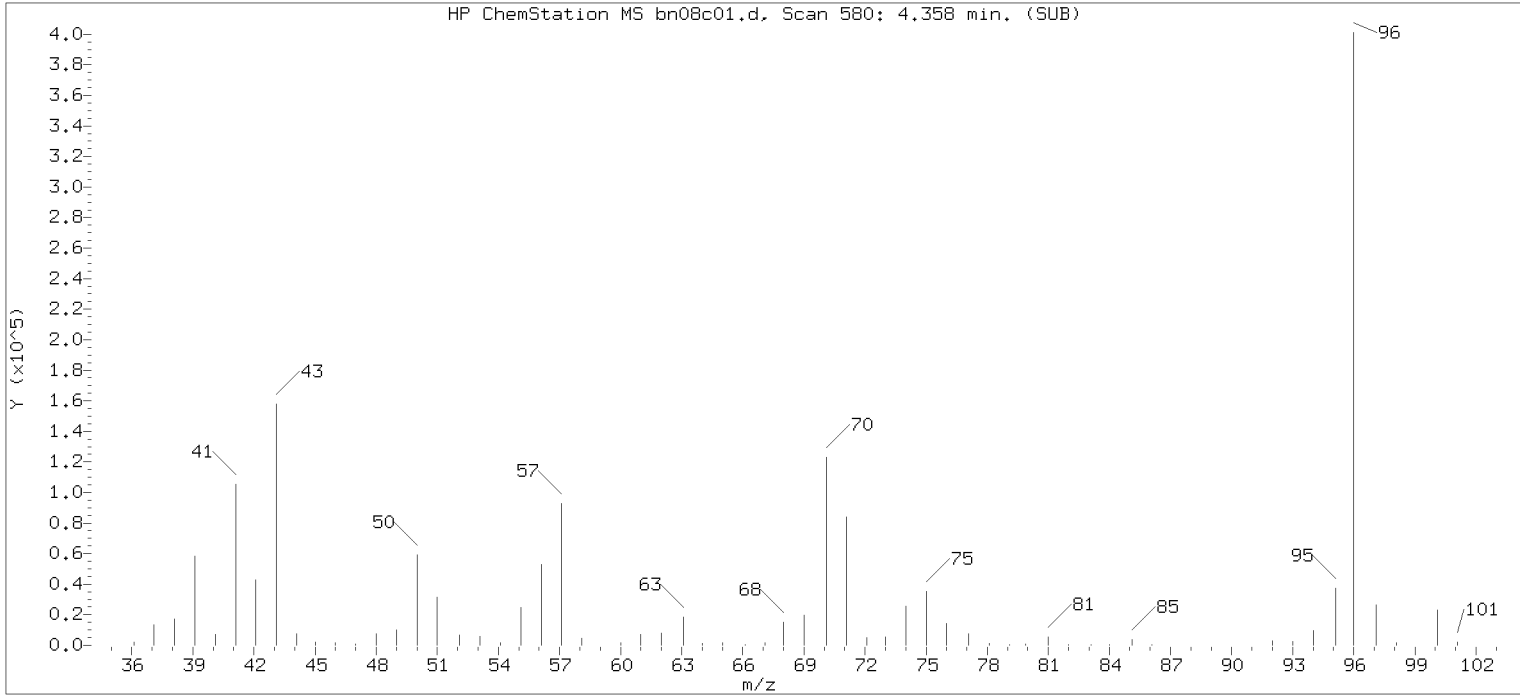
Compound Number	: 33	
Compound Name	: Acrylonitrile	
Scan Number	: 254	
Retention Time (minutes)	: 2.374	
Quant Ion	: 53.00	
Area (flag)	: 107143M	
On-Column Amount (ng)	: 60.6234	
Integration start scan	: 244	Integration stop scan: 268
Y at integration start	: 482	Y at integration end: 482

Reason for manual integration: improper integration

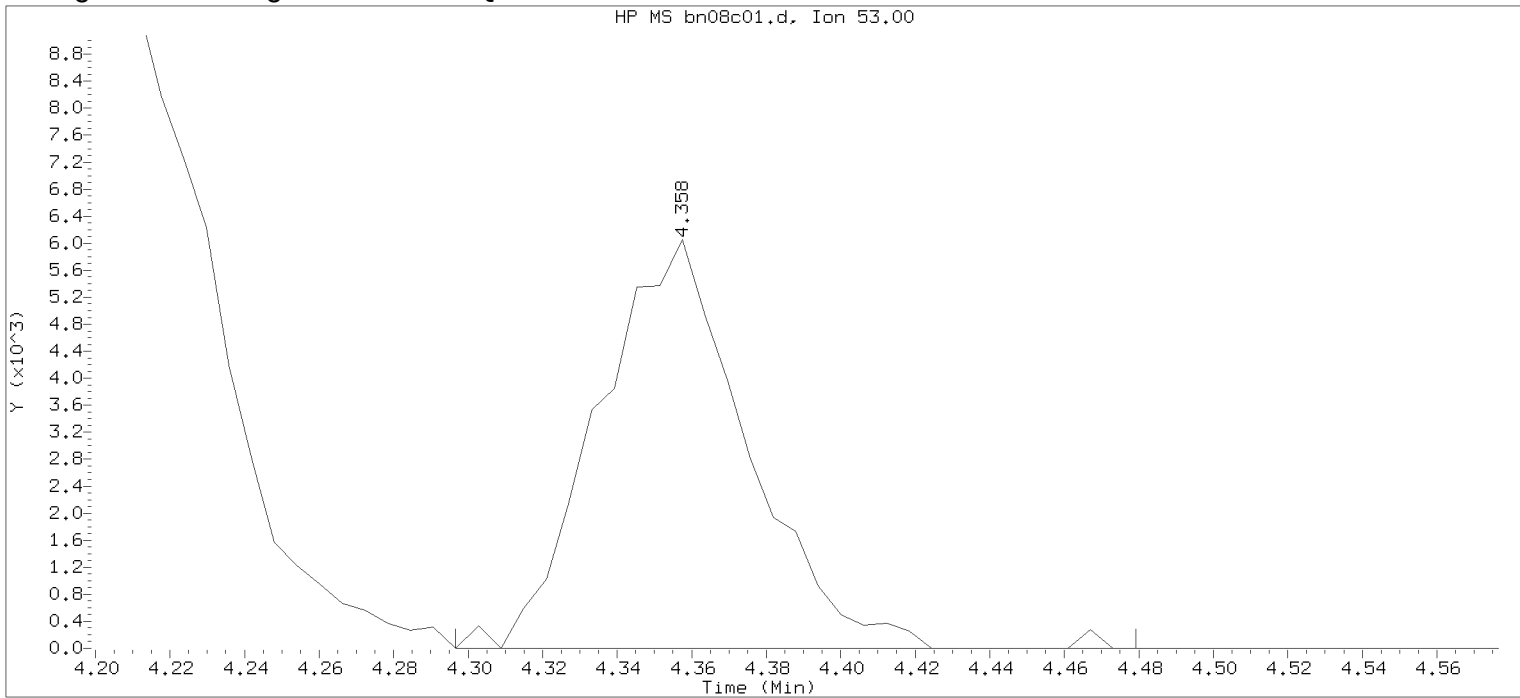
Analyst responsible for change: Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 10:57.
Target 3.5 esignature user ID: ads01731

Secondary review performed and digitally signed by Christine M. Dulaney on 11/08/2012 at 16:03.
Parallax ID: cmd00448

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov08a.b/bn08c01.d

Instrument ID: HP09953.i

Injection date and time: 08-NOV-2012 09:38

Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m

Sublist used: 8260S

Calibration date and time: 08-NOV-2012 09:55

Date, time and analyst ID of latest file update: 08-Nov-2012 09:55 Automation

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compound Number : 33

Compound Name : Acrylonitrile

Scan Number : 580

Retention Time (minutes): 4.358

Quant Ion : 53.00

Area : 16897

On-column Amount (ng) : 9.5608

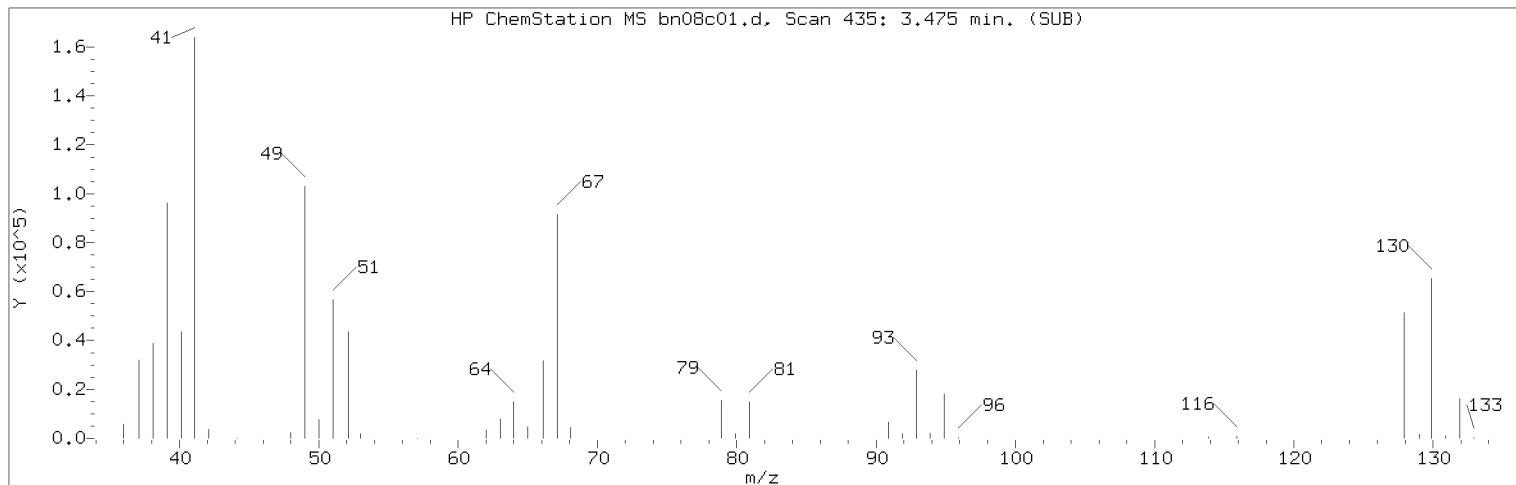
Integration start scan : 569 Integration stop scan: 599

Y at integration start : 0 Y at integration end: 0

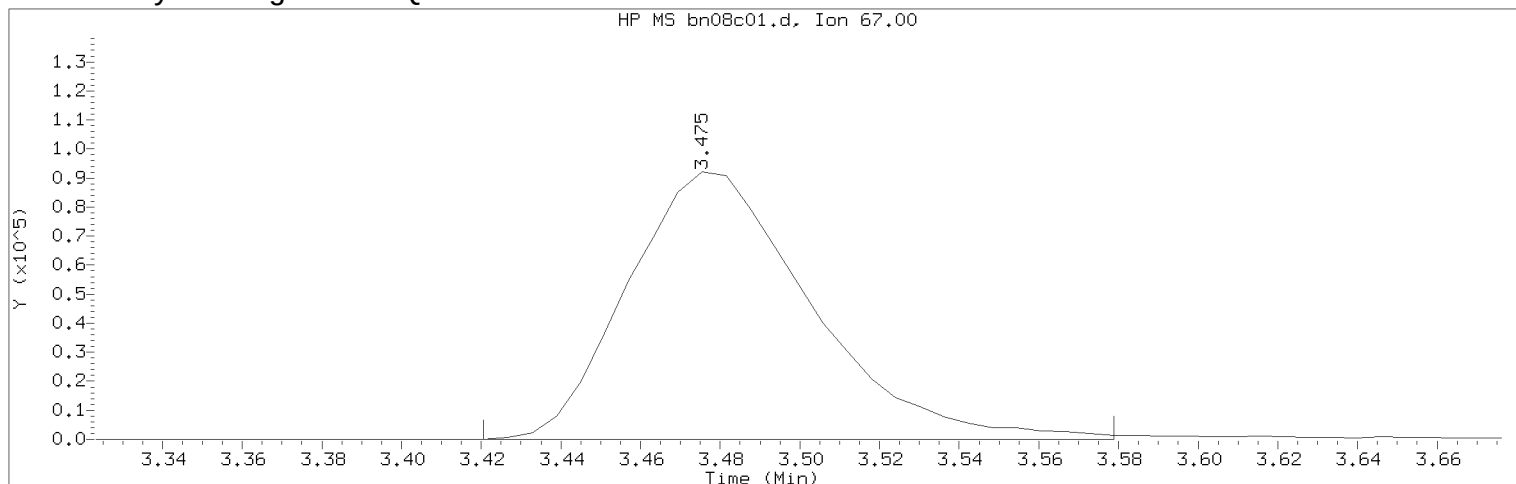
Digitally signed by Angela D. Sneeringer on 11/08/2012 at 10:57.

Target 3.5 esignature user TAP03 Page 16721 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov08a.b/bn08c01.d

Instrument ID: HP09953.i

Injection date and time: 08-NOV-2012 09:38

Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time: 08-NOV-2012 09:58

Date, time and analyst ID of latest file update: 08-Nov-2012 10:00 ads01731

Sample Name: VSTD050

Lab Sample ID: VSTD050

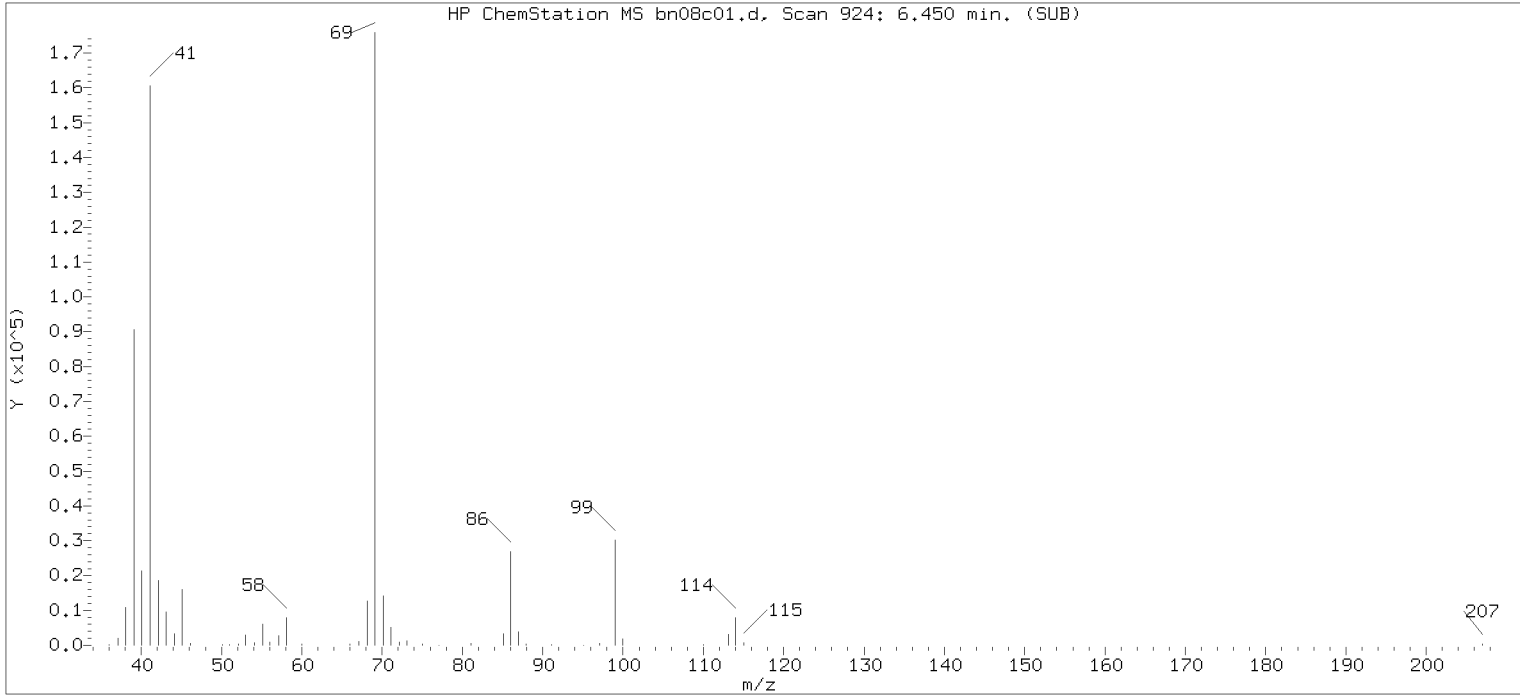
Compound Number : 51
Compound Name : Methacrylonitrile
Scan Number : 435
Retention Time (minutes): 3.475
Quant Ion : 67.00
Area (flag) : 293951M
On-Column Amount (ng) : 150.8598
Integration start scan : 425 Integration stop scan: 451
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

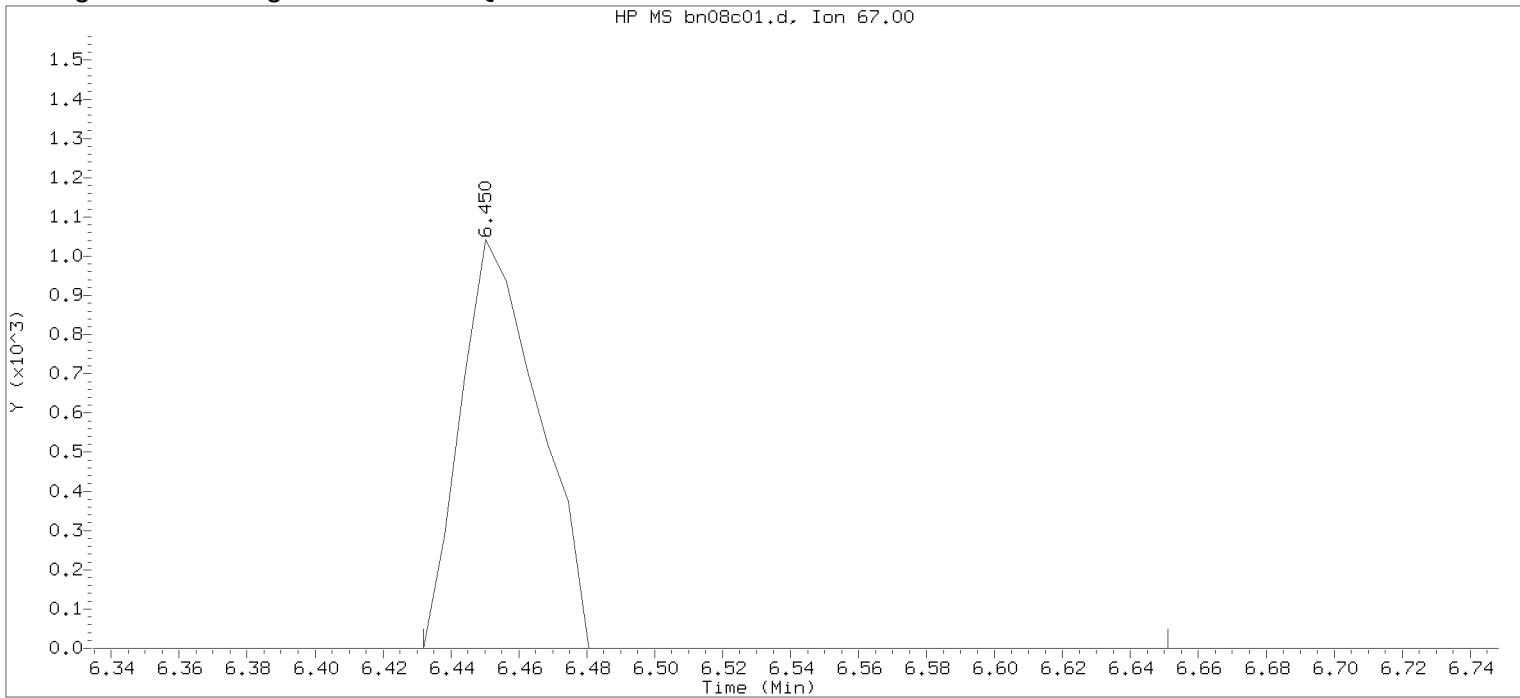
Analyst responsible for change: Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 10:57.
Target 3.5 esignature user ID: ads01731

Secondary review performed and digitally signed by Christine M. Dulaney on 11/08/2012 at 16:03.
Parallax ID: cmd00448

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov08a.b/bn08c01.d

Instrument ID: HP09953.i

Injection date and time: 08-NOV-2012 09:38

Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m

Sublist used: 8260S

Calibration date and time: 08-NOV-2012 09:55

Date, time and analyst ID of latest file update: 08-Nov-2012 09:55 Automation

Sample Name: VSTD050

Lab Sample ID: VSTD050

Compound Number : 51

Compound Name : Methacrylonitrile

Scan Number : 924

Retention Time (minutes): 6.450

Quant Ion : 67.00

Area : 1668

On-column Amount (ng) : 0.8565

Integration start scan : 920 Integration stop scan: 956

Y at integration start : 0 Y at integration end: 0

Digitally signed by Angela D. Sneeringer on 11/08/2012 at 10:57.

Target 3.5 esignature user TAP03 Page 1731 of 2648

Raw QC Data

Volatiles by GC/MS

VBLKA25

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLKA25

Data file: /chem2/HP09685.i/12nov08a.b/an08b01.d
Data file Sample Info. Line: VBLKA25;VBLKA25;2;3;;;;;
Date, time and analyst ID of latest file update: 08-Nov-2012 01:51 sas00403

Injection date and time: 08-NOV-2012 01:17
Instrument ID: HP09685.i Batch: A123131AA

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C
Calibration date and time (Last Method Edit): 08-NOV-2012 00:53
Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	4.183(-0.006)	428	65	119127 (-1)	250.00	
67) Fluorobenzene	7.687(0.000)	1004	96	1198502 (-4)	50.00	
99) Chlorobenzene-d5	11.179(0.000)	1578	117	868909 (-4)	50.00	
133) 1,4-Dichlorobenzene-d4	13.071(0.000)	1889	152	480612 (-6)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	6.793(-0.001)	113	268887	46.950	94%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	7.255(0.000)	102	65320	49.253	99%		54 - 135
86) Toluene-d8	(3)	9.713(0.000)	98	1131055	48.676	97%		52 - 141
112) 4-Bromofluorobenzene	(3)	12.189(0.000)	95	408803	47.004	94%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit LOQ (in sample)
2) Dichlorodifluoromethane	(2)			Not Detected					2 5
4) Chloromethane	(2)			Not Detected					2 5
5) Vinyl Chloride	(2)			Not Detected					1 5
9) Bromomethane	(2)			Not Detected					2 5
10) Chloroethane	(2)			Not Detected					2 5
13) Trichlorofluoromethane	(2)			Not Detected					2 5
15) Ethanol	(1)			Not Detected					100 500
18) Acrolein	(1)			Not Detected					20 100
19) 1,1-Dichloroethene	(2)			Not Detected					1 5
20) Acetone	(2)			Not Detected					7 20
22) Freon 113	(2)			Not Detected					2 10
23) 2-Propanol	(1)			Not Detected					60 100
24) Methyl Iodide	(2)			Not Detected					3 5
25) Carbon Disulfide	(2)			Not Detected					1 5
27) Methyl Acetate	(2)			Not Detected					2 5
29) Allyl Chloride	(2)			Not Detected					1 5
31) Methylene Chloride	(2)			Not Detected					2 5
32) t-Butyl alcohol	(1)			Not Detected					20 100
33) Acrylonitrile	(2)			Not Detected					4 20
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5 5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1 5
38) n-Hexane	(2)			Not Detected					1 5
40) 1,1-Dichloroethane	(2)			Not Detected					1 5
41) di-Isopropyl ether	(2)			Not Detected					1 5
42) 2-Chloro-1,3-butadiene	(2)			Not Detected					1 5
44) Ethyl t-butyl ether	(2)			Not Detected					1 5
45) 2-Butanone	(2)			Not Detected					4 10
46) cis-1,2-Dichloroethene	(2)			Not Detected					1 5
47) 1,2-Dichloroethene (Total)	(2)			Not Detected					1 5
48) 2,2-Dichloropropane	(2)			Not Detected					1 5

VBLKA25

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLKA25

Data file: /chem2/HP09685.i/12nov08a.b/an08b01.d

Injection date and time: 08-NOV-2012 01:17

Data file Sample Info. Line: VBLKA25;VBLKA25;2;3;;;;;

Instrument ID: HP09685.i Batch: A123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 01:51 sas00403

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C

Calibration date and time (Last Method Edit): 08-NOV-2012 00:53

Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
50) Propionitrile	(1)			Not Detected					30	100
51) Methacrylonitrile	(2)			Not Detected					5	50
52) Bromochloromethane	(2)			Not Detected					1	5
53) Tetrahydrofuran	(1)			Not Detected					4	5
54) Chloroform	(2)			Not Detected					1	5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1	5
57) Cyclohexane	(2)			Not Detected					1	5
58) 1,1-Dichloropropene	(2)			Not Detected					1	5
59) Carbon Tetrachloride	(2)			Not Detected					1	5
60) Isobutyl Alcohol	(1)			Not Detected					100	250
62) Benzene	(2)			Not Detected					0.5	5
64) 1,2-Dichloroethane	(2)			Not Detected					1	5
65) t-Amyl methyl ether	(2)			Not Detected					1	5
69) n-Heptane	(2)			Not Detected					3	5
70) n-Butanol	(1)			Not Detected					110	250
72) Trichloroethene	(2)			Not Detected					1	5
73) Methylcyclohexane	(2)			Not Detected					1	5
74) 1,2-Dichloropropane	(2)			Not Detected					1	5
76) Methyl Methacrylate	(2)			Not Detected					1	5
77) 1,4-Dioxane	(1)			Not Detected					70	250
78) Dibromomethane	(2)			Not Detected					1	5
81) Bromodichloromethane	(2)			Not Detected					1	5
82) 2-Nitropropane	(1)			Not Detected					3	10
84) cis-1,3-Dichloropropene	(2)			Not Detected					1	5
85) 4-Methyl-2-pentanone	(2)			Not Detected					3	10
87) Toluene	(3)			Not Detected					1	5
88) trans-1,3-Dichloropropene	(3)			Not Detected					1	5
89) Ethyl Methacrylate	(3)			Not Detected					1	5
90) 1,1,2-Trichloroethane	(3)			Not Detected					1	5
92) Tetrachloroethene	(3)			Not Detected					1	5
93) 1,3-Dichloropropane	(3)			Not Detected					1	5
95) 2-Hexanone	(3)			Not Detected					3	10
97) Dibromochloromethane	(3)			Not Detected					1	5
98) 1,2-Dibromoethane	(3)			Not Detected					1	5
100) Chlorobenzene	(3)			Not Detected					1	5
101) 1,1,1,2-Tetrachloroethane	(3)			Not Detected					1	5
102) Ethylbenzene	(3)			Not Detected					1	5
103) m+p-Xylene	(3)			Not Detected					1	5
104) o-Xylene	(3)			Not Detected					1	5
105) Xylene (Total)	(3)			Not Detected					1	5
106) Styrene	(3)			Not Detected					1	5
107) Bromoform	(3)			Not Detected					1	5
108) Isopropylbenzene	(3)			Not Detected					1	5
111) Cyclohexanone	(1)			Not Detected					25	250
113) 1,1,2,2-Tetrachloroethane	(4)			Not Detected					1	5
114) Bromobenzene	(4)			Not Detected					1	5
115) trans-1,4-Dichloro-2-butene	(4)			Not Detected					10	50
116) 1,2,3-Trichloropropane	(4)			Not Detected					1	5
117) n-Propylbenzene	(4)			Not Detected					1	5
119) 2-Chlorotoluene	(4)			Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1	5
123) 4-Chlorotoluene	(4)			Not Detected					1	5
126) tert-Butylbenzene	(4)			Not Detected					1	5

VBLKA25

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLKA25

Data file: /chem2/HP09685.i/12nov08a.b/an08b01.d

Injection date and time: 08-NOV-2012 01:17

Data file Sample Info. Line: VBLKA25;VBLKA25;2;3;;;;;

Instrument ID: HP09685.i Batch: A123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 01:51 sas00403

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C

Calibration date and time (Last Method Edit): 08-NOV-2012 00:53

Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.00

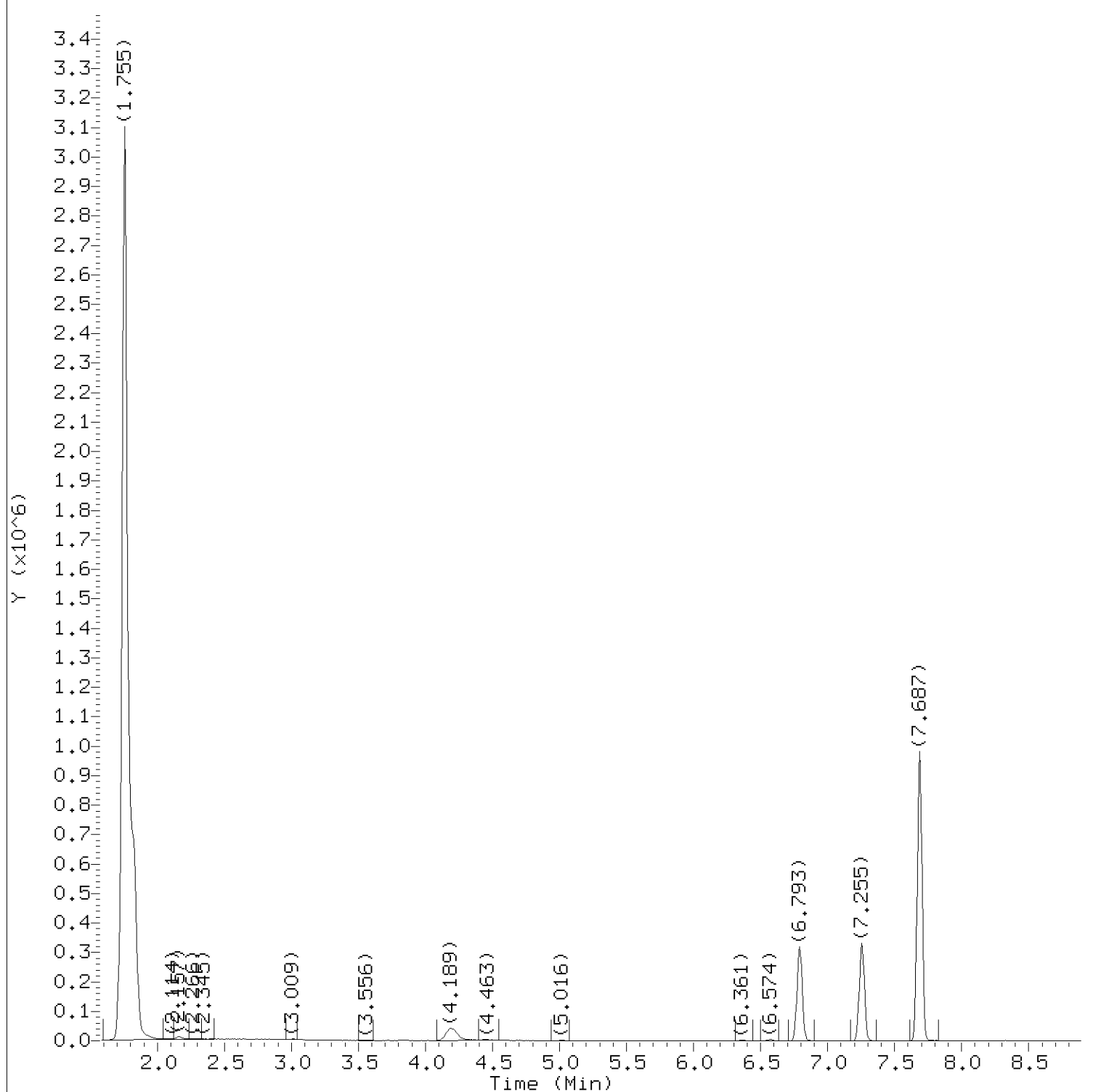
Volume Purged (Vt): 5 ml

Sample Weight (Ws): 5 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
127) Pentachloroethane	(4)			Not Detected					1	5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1	5
129) sec-Butylbenzene	(4)			Not Detected					1	5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1	5
132) p-Isopropyltoluene	(4)			Not Detected					1	5
134) 1,4-Dichlorobenzene	(4)			Not Detected					1	5
135) 1,2,3-Trimethylbenzene	(4)			Not Detected					1	5
136) Benzyl Chloride	(4)			Not Detected					1	4
137) 1,3-Diethylbenzene	(4)			Not Detected					1	5
138) 1,4-Diethylbenzene	(4)			Not Detected					1	5
139) n-Butylbenzene	(4)			Not Detected					1	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					1	5
141) 1,2-Diethylbenzene	(4)			Not Detected					1	5
144) 1,2-Dibromo-3-chloropropane	(4)			Not Detected					2	5
145) 1,3,5-Trichlorobenzene	(4)			Not Detected					1	5
146) 1,2,4-Trichlorobenzene	(4)			Not Detected					1	5
147) Hexachlorobutadiene	(4)			Not Detected					2	5
148) Naphthalene	(4)			Not Detected					1	5
149) 1,2,3-Trichlorobenzene	(4)			Not Detected					1	5
150) 2-Methylnaphthalene	(4)			Not Detected					2	5

Total number of targets = 103

Digitally signed by Stephanie A. Selis on 11/08/2012 at 06:17. Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08b01.d
Injection date and time: 08-NOV-2012 01:17

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m
Calibration date and time: 08-NOV-2012 00:53

Sublist used: 8260S-F2C

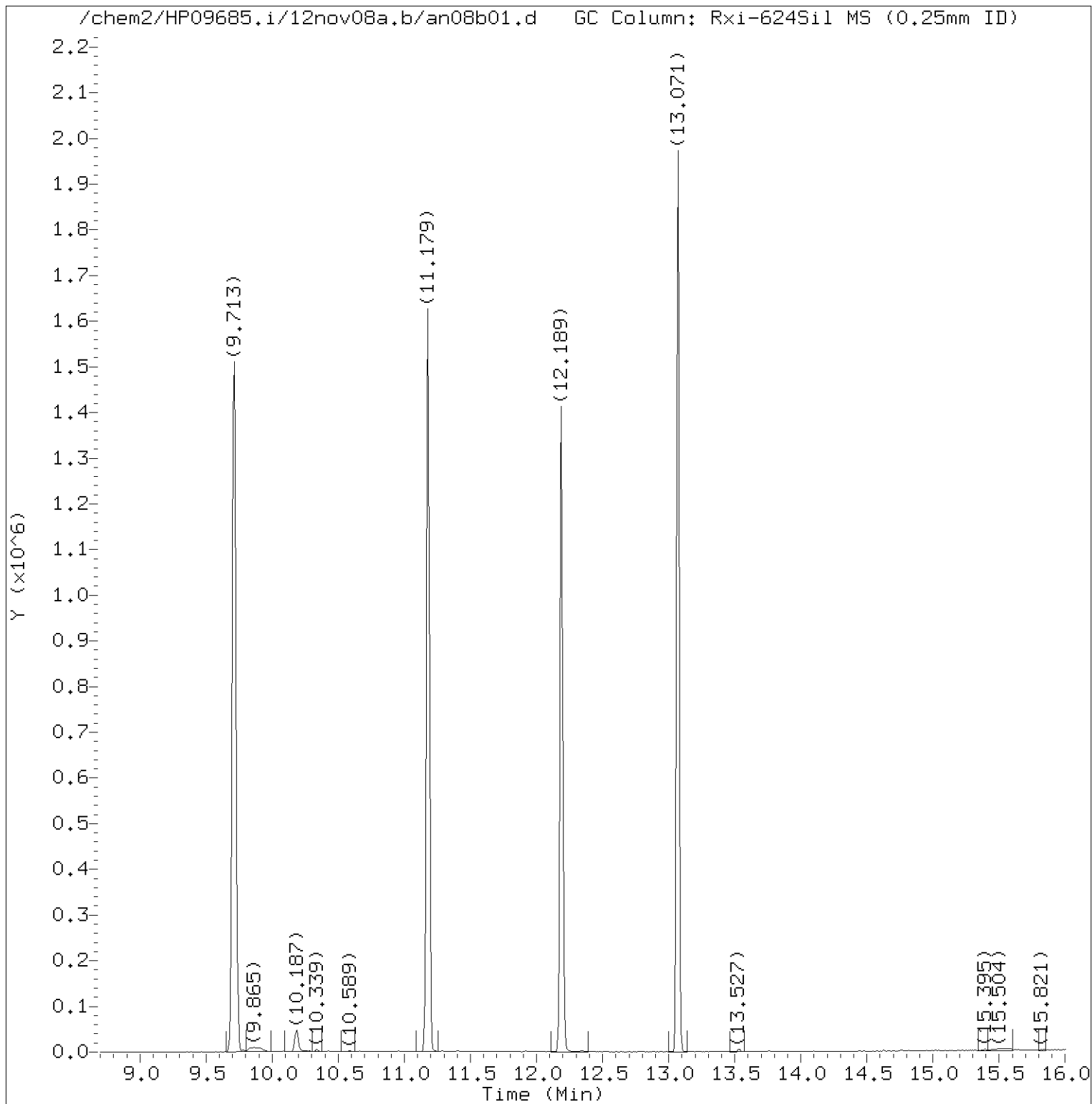
Date, time and analyst ID of latest file update: 08-Nov-2012 01:51 sas00403

Sample Name: VBLKA25

Lab Sample ID: VBLKA25

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:17.

Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08b01.d
Injection date and time: 08-NOV-2012 01:17

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m
Calibration date and time: 08-NOV-2012 00:53

Sublist used: 8260S-F2C

Date, time and analyst ID of latest file update: 08-Nov-2012 01:51 sas00403

Sample Name: VBLKA25

Lab Sample ID: VBLKA25

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:17.

Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08b01.d
Injection date and time: 08-NOV-2012 01:17

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 01:51 sas00403

Sample Name: VBLKA25

Lab Sample ID: VBLKA25

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
30)*t-Butyl alcohol-d10	(1)	4.183	65	119127	250.000
55)\$Dibromofluoromethane	(2)	6.793	113	268887	46.950
61)\$1,2-Dichloroethane-d4	(2)	7.255	102	65320	49.253
67)*Fluorobenzene	(2)	7.687	96	1198502	50.000
86)\$Toluene-d8	(3)	9.713	98	1131055	48.676
99)*Chlorobenzene-d5	(3)	11.179	117	868909	50.000
112)\$4-Bromofluorobenzene	(3)	12.189	95	408803	47.004
133)*1,4-Dichlorobenzene-d4	(4)	13.071	152	480612	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:17.

Target 3.5 esignature user ID: sas00403

TAP03 Page 681 of 2648

Data file: /chem2/HP09953.i/12nov07b.b/bn07b10a.d
Data file Sample Info. Line: VLKB84;VLKB84;2;3;;;;;
Date, time and analyst ID of latest file update: 07-Nov-2012 23:15 ael02861

Injection date and time: 07-NOV-2012 22:21
Instrument ID: HP09953.i Batch: B123122AA

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time (Last Method Edit): 07-NOV-2012 22:23
Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	2.210(0.000)	227	65	122800 (-13)	250.00	
67) Fluorobenzene	4.351(0.000)	579	96	1111250 (-4)	50.00	
99) Chlorobenzene-d5	7.545(-0.006)	1104	117	753229 (-6)	50.00	
133) 1,4-Dichlorobenzene-d4	9.522(0.000)	1429	152	421969 (-17)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.713(-0.001)	113	292119	52.498	105%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.029(0.000)	102	58812	50.286	101%		54 - 135
86) Toluene-d8	(3)	5.988(0.000)	98	1056237	48.970	98%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622(0.001)	95	368758	45.612	91%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(2)			Not Detected					2	5
4) Chloromethane	(2)			Not Detected					2	5
5) Vinyl Chloride	(2)			Not Detected					1	5
9) Bromomethane	(2)			Not Detected					2	5
10) Chloroethane	(2)			Not Detected					2	5
13) Trichlorofluoromethane	(2)			Not Detected					2	5
15) Ethanol	(1)			Not Detected					100	500
18) Acrolein	(1)			Not Detected					20	100
19) 1,1-Dichloroethene	(2)			Not Detected					1	5
20) Acetone	(2)			Not Detected					7	20
22) Freon 113	(2)			Not Detected					2	10
23) 2-Propanol	(1)			Not Detected					60	100
24) Methyl Iodide	(2)			Not Detected					3	5
25) Carbon Disulfide	(2)			Not Detected					1	5
27) Methyl Acetate	(2)			Not Detected					2	5
29) Allyl Chloride	(2)			Not Detected					1	5
31) Methylene Chloride	(2)	2.192(-0.002)	84	12853	2.347	2.35		J	2	5
32) t-Butyl alcohol	(1)			Not Detected					20	100
33) Acrylonitrile	(2)			Not Detected					4	20
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5	5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1	5
38) n-Hexane	(2)			Not Detected					1	5
40) 1,1-Dichloroethane	(2)			Not Detected					1	5
41) di-Isopropyl ether	(2)			Not Detected					1	5
42) 2-Chloro-1,3-butadiene	(2)			Not Detected					1	5
44) Ethyl t-butyl ether	(2)			Not Detected					1	5
45) 2-Butanone	(2)			Not Detected					4	10
46) cis-1,2-Dichloroethene	(2)			Not Detected					1	5
47) 1,2-Dichloroethene (Total)	(2)			Not Detected					1	5
48) 2,2-Dichloropropane	(2)			Not Detected					1	5

VBLKB84

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLKB84

Data file: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Injection date and time: 07-NOV-2012 22:21

Data file Sample Info. Line: VBLKB84;VBLKB84;2;3;;;;;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 07-Nov-2012 23:15 ael02861

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
50) Propionitrile	(1)			Not Detected					30	100
51) Methacrylonitrile	(2)			Not Detected					5	50
52) Bromochloromethane	(2)			Not Detected					1	5
53) Tetrahydrofuran	(1)			Not Detected					4	5
54) Chloroform	(2)			Not Detected					1	5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1	5
57) Cyclohexane	(2)			Not Detected					1	5
58) 1,1-Dichloropropene	(2)			Not Detected					1	5
59) Carbon Tetrachloride	(2)			Not Detected					1	5
60) Isobutyl Alcohol	(1)			Not Detected					100	250
62) Benzene	(2)			Not Detected					0.5	5
64) 1,2-Dichloroethane	(2)			Not Detected					1	5
65) t-Amyl methyl ether	(2)			Not Detected					1	5
69) n-Heptane	(2)			Not Detected					3	5
70) n-Butanol	(1)			Not Detected					110	250
72) Trichloroethene	(2)			Not Detected					1	5
73) Methylcyclohexane	(2)			Not Detected					1	5
74) 1,2-Dichloropropane	(2)			Not Detected					1	5
76) Methyl Methacrylate	(2)			Not Detected					1	5
77) 1,4-Dioxane	(1)			Not Detected					70	250
78) Dibromomethane	(2)			Not Detected					1	5
81) Bromodichloromethane	(2)			Not Detected					1	5
82) 2-Nitropropane	(1)			Not Detected					3	10
83) 2-Chloroethyl Vinyl Ether	(2)			Not Detected					2	10
84) cis-1,3-Dichloropropene	(2)			Not Detected					1	5
85) 4-Methyl-2-pentanone	(2)			Not Detected					3	10
87) Toluene	(3)			Not Detected					1	5
88) trans-1,3-Dichloropropene	(3)			Not Detected					1	5
89) Ethyl Methacrylate	(3)			Not Detected					1	5
90) 1,1,2-Trichloroethane	(3)			Not Detected					1	5
92) Tetrachloroethene	(3)			Not Detected					1	5
93) 1,3-Dichloropropane	(3)			Not Detected					1	5
95) 2-Hexanone	(3)			Not Detected					3	10
97) Dibromochloromethane	(3)			Not Detected					1	5
98) 1,2-Dibromoethane	(3)			Not Detected					1	5
100) Chlorobenzene	(3)			Not Detected					1	5
101) 1,1,1,2-Tetrachloroethane	(3)			Not Detected					1	5
102) Ethylbenzene	(3)			Not Detected					1	5
103) m+p-Xylene	(3)			Not Detected					1	5
104) o-Xylene	(3)			Not Detected					1	5
105) Xylene (Total)	(3)			Not Detected					1	5
106) Styrene	(3)			Not Detected					1	5
107) Bromoform	(3)			Not Detected					1	5
108) Isopropylbenzene	(3)			Not Detected					1	5
111) Cyclohexanone	(1)			Not Detected					25	250
113) 1,1,2,2-Tetrachloroethane	(4)			Not Detected					1	5
114) Bromobenzene	(4)			Not Detected					1	5
115) trans-1,4-Dichloro-2-butene	(4)			Not Detected					10	50
116) 1,2,3-Trichloropropane	(4)			Not Detected					1	5
117) n-Propylbenzene	(4)			Not Detected					1	5
119) 2-Chlorotoluene	(4)			Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1	5
123) 4-Chlorotoluene	(4)			Not Detected					1	5

VBLKB84

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLKB84

Data file: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Injection date and time: 07-NOV-2012 22:21

Data file Sample Info. Line: VBLKB84;VBLKB84;2;3;;;;;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 07-Nov-2012 23:15 ael02861

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.00

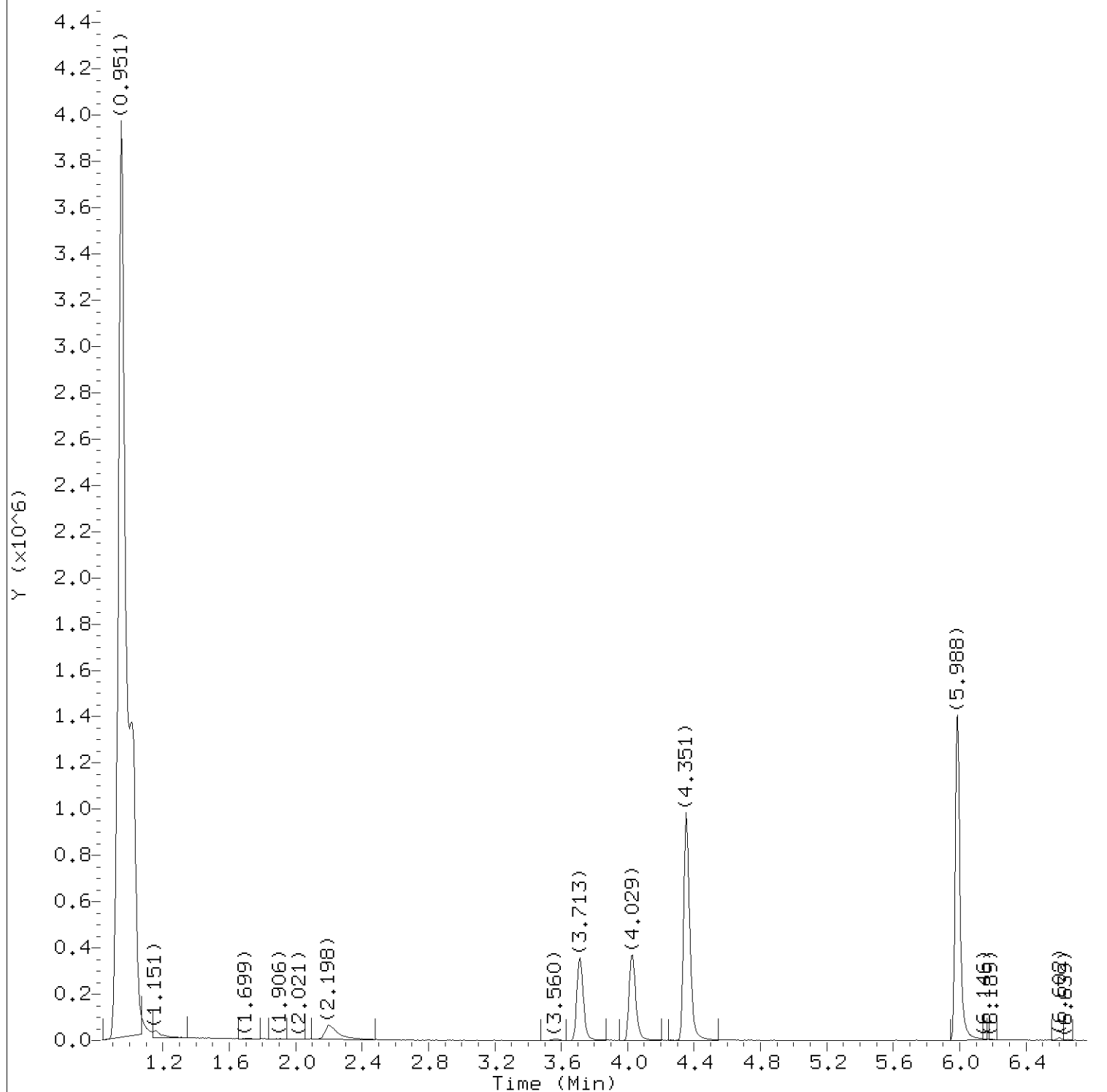
Volume Purged (Vt): 5 ml

Sample Weight (Ws): 5 g

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
126) tert-Butylbenzene	(4)				Not Detected					1	5
127) Pentachloroethane	(4)				Not Detected					1	5
128) 1,2,4-Trimethylbenzene	(4)				Not Detected					1	5
129) sec-Butylbenzene	(4)				Not Detected					1	5
131) 1,3-Dichlorobenzene	(4)				Not Detected					1	5
132) p-Isopropyltoluene	(4)				Not Detected					1	5
134) 1,4-Dichlorobenzene	(4)				Not Detected					1	5
135) 1,2,3-Trimethylbenzene	(4)				Not Detected					1	5
136) Benzyl Chloride	(4)				Not Detected					1	4
137) 1,3-Diethylbenzene	(4)				Not Detected					1	5
138) 1,4-Diethylbenzene	(4)				Not Detected					1	5
139) n-Butylbenzene	(4)				Not Detected					1	5
140) 1,2-Dichlorobenzene	(4)				Not Detected					1	5
141) 1,2-Diethylbenzene	(4)				Not Detected					1	5
144) 1,2-Dibromo-3-chloropropane	(4)				Not Detected					2	5
145) 1,3,5-Trichlorobenzene	(4)				Not Detected					1	5
146) 1,2,4-Trichlorobenzene	(4)				Not Detected					1	5
147) Hexachlorobutadiene	(4)				Not Detected					2	5
148) Naphthalene	(4)				Not Detected					1	5
149) 1,2,3-Trichlorobenzene	(4)				Not Detected					1	5
150) 2-Methylnaphthalene	(4)				Not Detected					2	5

Total number of targets = 104

Digitally signed by Andrea E. Lando on 11/07/2012 at 23:19. Target 3.5 esignature user ID: ael02861



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07b10a.d
Injection date and time: 07-NOV-2012 22:21

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m
Calibration date and time: 07-NOV-2012 22:23

Sublist used: 8260S-F

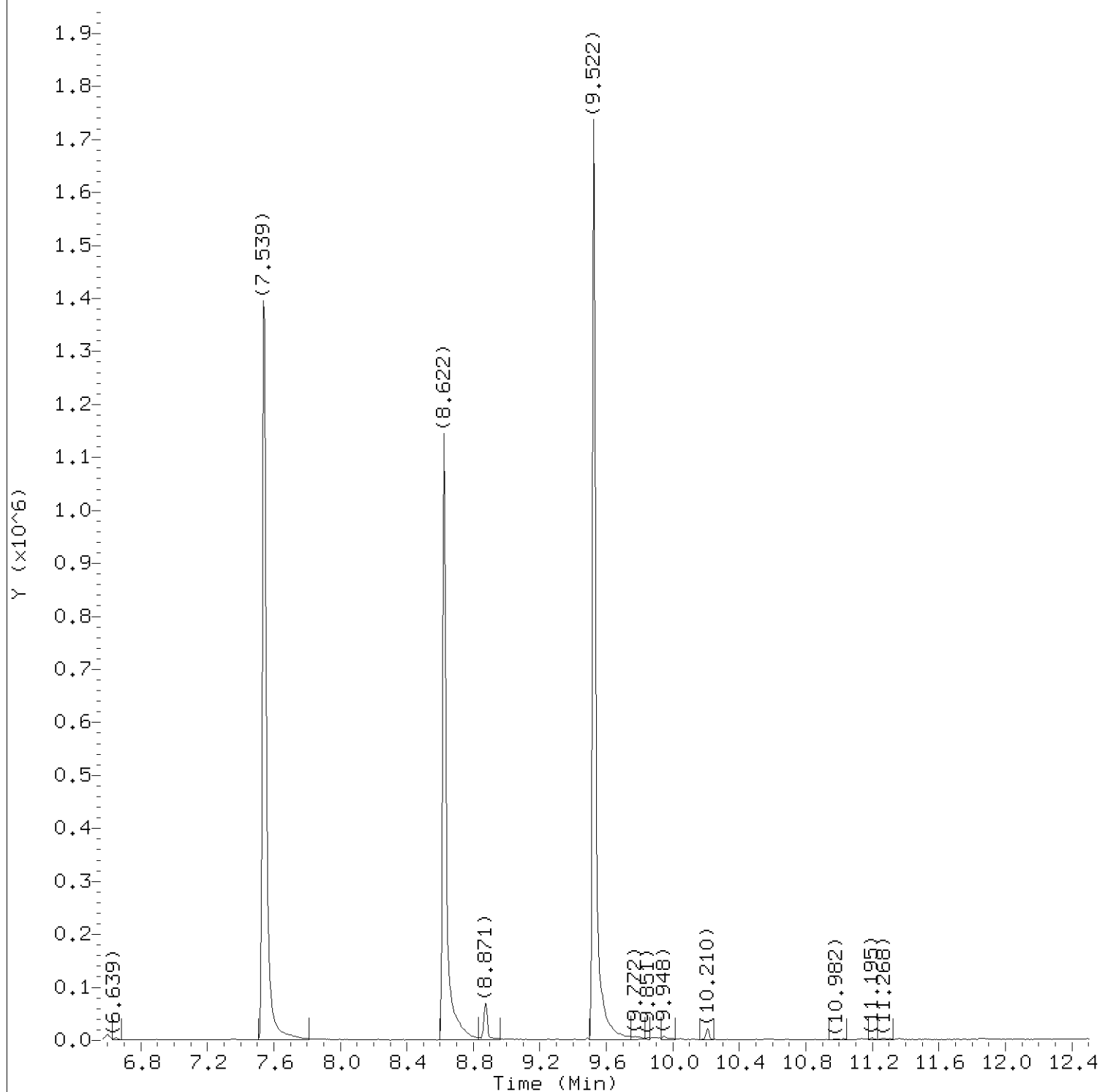
Date, time and analyst ID of latest file update: 07-Nov-2012 23:15 ael02861

Sample Name: VBLKB84

Lab Sample ID: VBLKB84

Digitally signed by Andrea E. Lando
on 11/07/2012 at 23:19.

Target 3.5 esignature user ID: ael02861



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07b10a.d
Injection date and time: 07-NOV-2012 22:21

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m
Calibration date and time: 07-NOV-2012 22:23

Sublist used: 8260S-F

Date, time and analyst ID of latest file update: 07-Nov-2012 23:15 ael02861

Sample Name: VBLKB84

Lab Sample ID: VBLKB84

Digitally signed by Andrea E. Lando
on 11/07/2012 at 23:19.

Target 3.5 esignature user ID: ael02861

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Instrument ID: HP09953.i

Injection date and time: 07-NOV-2012 22:21

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time: 07-NOV-2012 22:23

Date, time and analyst ID of latest file update: 07-Nov-2012 23:15 ael02861

Sample Name: VBLKB84

Lab Sample ID: VBLKB84

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
31) Methylene Chloride	(2)	2.192	84	12853	2.347
30)*t-Butyl alcohol-d10	(1)	2.210	65	122800	250.000
55)\$Dibromofluoromethane	(2)	3.713	113	292119	52.498
61)\$1,2-Dichloroethane-d4	(2)	4.029	102	58812	50.286
67)*Fluorobenzene	(2)	4.351	96	1111250	50.000
86)\$Toluene-d8	(3)	5.988	98	1056237	48.970
99)*Chlorobenzene-d5	(3)	7.545	117	753229	50.000
112)\$4-Bromofluorobenzene	(3)	8.622	95	368758	45.612
133)*1,4-Dichlorobenzene-d4	(4)	9.522	152	421969	50.000

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 1

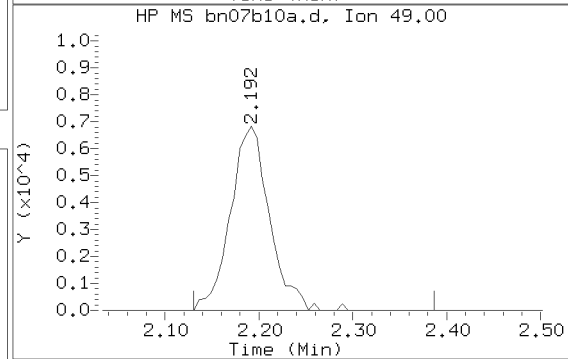
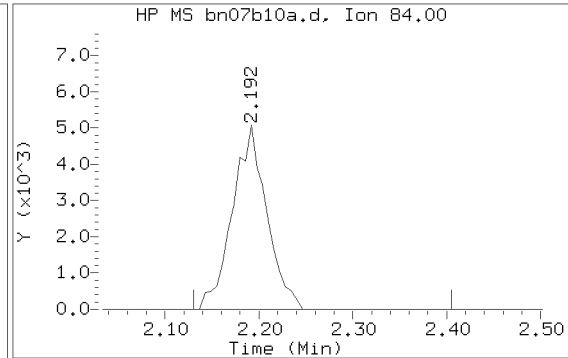
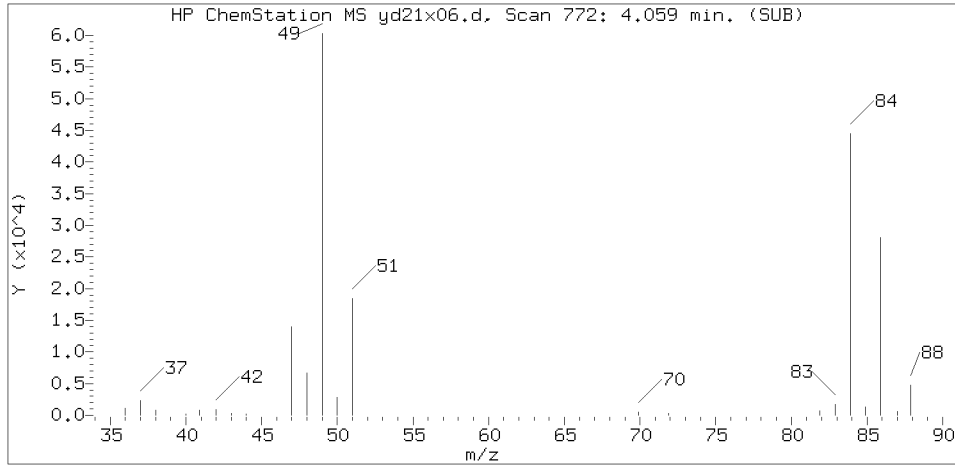
Digitally signed by Andrea E. Lando

on 11/07/2012 at 23:19.

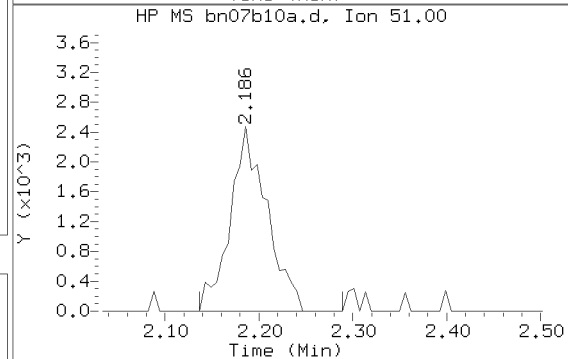
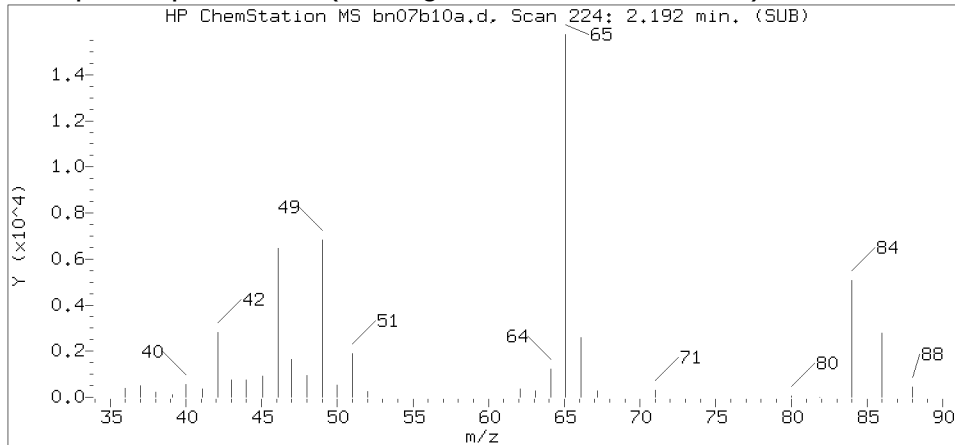
Target 3.5 esignature user ID: ael02861

TAP03 Page 687 of 2648

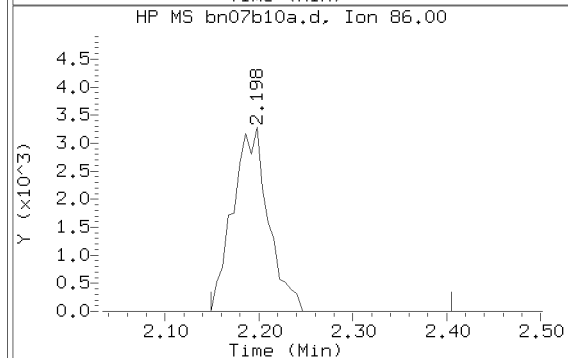
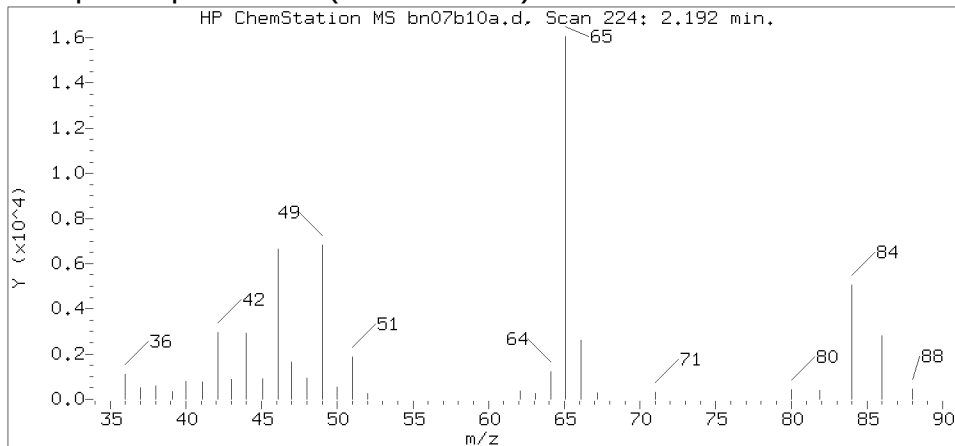
Reference Standard Spectrum for Methylene Chloride



Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)



Data File: /chem2/HP09953.i/12nov07b.b/bn07b10a.d
Injection date and time: 07-NOV-2012 22:21

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 23:15 ael02861

Sublist used: 8260S-F

Sample Name: VBLKB84

Lab Sample ID: VBLKB84

Compound Number : 31
Compound Name : Methylene Chloride
Scan Number : 224
Retention Time (minutes): 2.192
Relative Retention Time : -0.00281
Quant Ion : 84.00
Area (flag) : 12853
On-Column Amount (ng) : 2.3469

Digitally signed by Andrea E. Lando on 11/07/2012 at 23:19.
Target 3.5 esignature user ID: ael02861

VBLKB85

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLKB85

Data file: /chem2/HP09953.i/12nov08a.b/bn08b01.d
Data file Sample Info. Line: VBLKB85;VBLKB85;2;3;;;;;
Date, time and analyst ID of latest file update: 08-Nov-2012 11:28 ads01731

Injection date and time: 08-NOV-2012 10:24
Instrument ID: HP09953.i Batch: B123131AA

Blank Data file reference: /chem2/HP09953.i/12nov08a.b/bn08b01.d

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 8260S-F+SM
Calibration date and time (Last Method Edit): 08-NOV-2012 11:27
Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov08a.b/bn08c01.d

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	2.210(0.012)	227	65	127562 (-16)	250.00	
67) Fluorobenzene	4.351(0.006)	579	96	1040500 (-5)	50.00	
99) Chlorobenzene-d5	7.539(0.000)	1103	117	701746 (-7)	50.00	
133) 1,4-Dichlorobenzene-d4	9.529(-0.006)	1430	152	391796 (-20)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.707(0.000)	113	275733	52.922	106%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.023(0.000)	102	57560	52.562	105%		54 - 135
86) Toluene-d8	(3)	5.982(0.001)	98	990542	49.293	99%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622(0.000)	95	340728	45.237	90%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(2)			Not Detected					2	5
4) Chloromethane	(2)			Not Detected					2	5
5) Vinyl Chloride	(2)			Not Detected					1	5
9) Bromomethane	(2)			Not Detected					2	5
10) Chloroethane	(2)			Not Detected					2	5
13) Trichlorofluoromethane	(2)			Not Detected					2	5
15) Ethanol	(1)			Not Detected					100	500
16) Ethyl Ether	(2)			Not Detected					1	5
18) Acrolein	(1)			Not Detected					20	100
19) 1,1-Dichloroethene	(2)			Not Detected					1	5
20) Acetone	(2)			Not Detected					7	20
22) Freon 113	(2)			Not Detected					2	10
23) 2-Propanol	(1)			Not Detected					60	100
24) Methyl Iodide	(2)			Not Detected					3	5
25) Carbon Disulfide	(2)			Not Detected					1	5
26) Acetonitrile	(1)			Not Detected					25	100
27) Methyl Acetate	(2)			Not Detected					2	5
29) Allyl Chloride	(2)			Not Detected					1	5
31) Methylene Chloride	(2)			Not Detected					2	5
32) t-Butyl alcohol	(1)			Not Detected					20	100
33) Acrylonitrile	(2)			Not Detected					4	20
34) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.5	5
35) trans-1,2-Dichloroethene	(2)			Not Detected					1	5
38) n-Hexane	(2)			Not Detected					1	5
39) Vinyl Acetate	(2)			Not Detected					2	10
40) 1,1-Dichloroethane	(2)			Not Detected					1	5
41) di-Isopropyl ether	(2)			Not Detected					1	5
42) 2-Chloro-1,3-butadiene	(2)			Not Detected					1	5
44) Ethyl t-butyl ether	(2)			Not Detected					1	5
45) 2-Butanone	(2)			Not Detected					4	10

VBLKB85

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLKB85

Data file: /chem2/HP09953.i/12nov08a.b/bn08b01.d

Injection date and time: 08-NOV-2012 10:24

Data file Sample Info. Line: VBLKB85;VBLKB85;2;3;;;;;

Instrument ID: HP09953.i Batch: B123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 11:28 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov08a.b/bn08b01.d

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 8260S-F+SM

Calibration date and time (Last Method Edit): 08-NOV-2012 11:27

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov08a.b/bn08c01.d

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml

Sample Weight (Ws): 5 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
46) cis-1,2-Dichloroethene	(2)			Not Detected					1	5
47) 1,2-Dichloroethene (Total)	(2)			Not Detected					1	5
48) 2,2-Dichloropropane	(2)			Not Detected					1	5
49) Ethyl Acetate	(2)			Not Detected					1	5
50) Propionitrile	(1)			Not Detected					30	100
51) Methacrylonitrile	(2)			Not Detected					5	50
52) Bromochloromethane	(2)			Not Detected					1	5
53) Tetrahydrofuran	(1)			Not Detected					4	5
54) Chloroform	(2)			Not Detected					1	5
56) 1,1,1-Trichloroethane	(2)			Not Detected					1	5
57) Cyclohexane	(2)			Not Detected					1	5
58) 1,1-Dichloropropene	(2)			Not Detected					1	5
59) Carbon Tetrachloride	(2)			Not Detected					1	5
60) Isobutyl Alcohol	(1)			Not Detected					100	250
62) Benzene	(2)			Not Detected					0.5	5
63) Isopropyl acetate	(2)			Not Detected					1	5
64) 1,2-Dichloroethane	(2)			Not Detected					1	5
65) t-Amyl methyl ether	(2)			Not Detected					1	5
69) n-Heptane	(2)			Not Detected					3	5
70) n-Butanol	(1)			Not Detected					110	250
72) Trichloroethene	(2)			Not Detected					1	5
73) Methylcyclohexane	(2)			Not Detected					1	5
74) 1,2-Dichloropropane	(2)			Not Detected					1	5
76) Methyl Methacrylate	(2)			Not Detected					1	5
77) 1,4-Dioxane	(1)			Not Detected					70	250
78) Dibromomethane	(2)			Not Detected					1	5
79) n-Propyl acetate	(2)			Not Detected					2	5
81) Bromodichloromethane	(2)			Not Detected					1	5
82) 2-Nitropropane	(1)			Not Detected					3	10
83) 2-Chloroethyl Vinyl Ether	(2)			Not Detected					2	10
84) cis-1,3-Dichloropropene	(2)			Not Detected					1	5
85) 4-Methyl-2-pentanone	(2)			Not Detected					3	10
87) Toluene	(3)			Not Detected					1	5
88) trans-1,3-Dichloropropene	(3)			Not Detected					1	5
89) Ethyl Methacrylate	(3)			Not Detected					1	5
90) 1,1,2-Trichloroethane	(3)			Not Detected					1	5
92) Tetrachloroethene	(3)			Not Detected					1	5
93) 1,3-Dichloropropane	(3)			Not Detected					1	5
95) 2-Hexanone	(3)			Not Detected					3	10
96) Butyl acetate	(3)			Not Detected					2	10
97) Dibromochloromethane	(3)			Not Detected					1	5
98) 1,2-Dibromoethane	(3)			Not Detected					1	5
100) Chlorobenzene	(3)			Not Detected					1	5
101) 1,1,1,2-Tetrachloroethane	(3)			Not Detected					1	5
102) Ethylbenzene	(3)			Not Detected					1	5
103) m+p-Xylene	(3)			Not Detected					1	5
104) o-Xylene	(3)			Not Detected					1	5
105) Xylene (Total)	(3)			Not Detected					1	5
106) Styrene	(3)			Not Detected					1	5
107) Bromoform	(3)			Not Detected					1	5
108) Isopropylbenzene	(3)			Not Detected					1	5
111) Cyclohexanone	(1)			Not Detected					25	250
113) 1,1,2,2-Tetrachloroethane	(4)			Not Detected					1	5

Data file: /chem2/HP09953.i/12nov08a.b/bn08b01.d

Injection date and time: 08-NOV-2012 10:24

Data file Sample Info. Line: VBLKB85;VBLKB85;2;3;;;;;

Instrument ID: HP09953.i Batch: B123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 11:28 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov08a.b/bn08b01.d

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m

Sublist used: 8260S-F+SM

Calibration date and time (Last Method Edit): 08-NOV-2012 11:27

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov08a.b/bn08c01.d

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

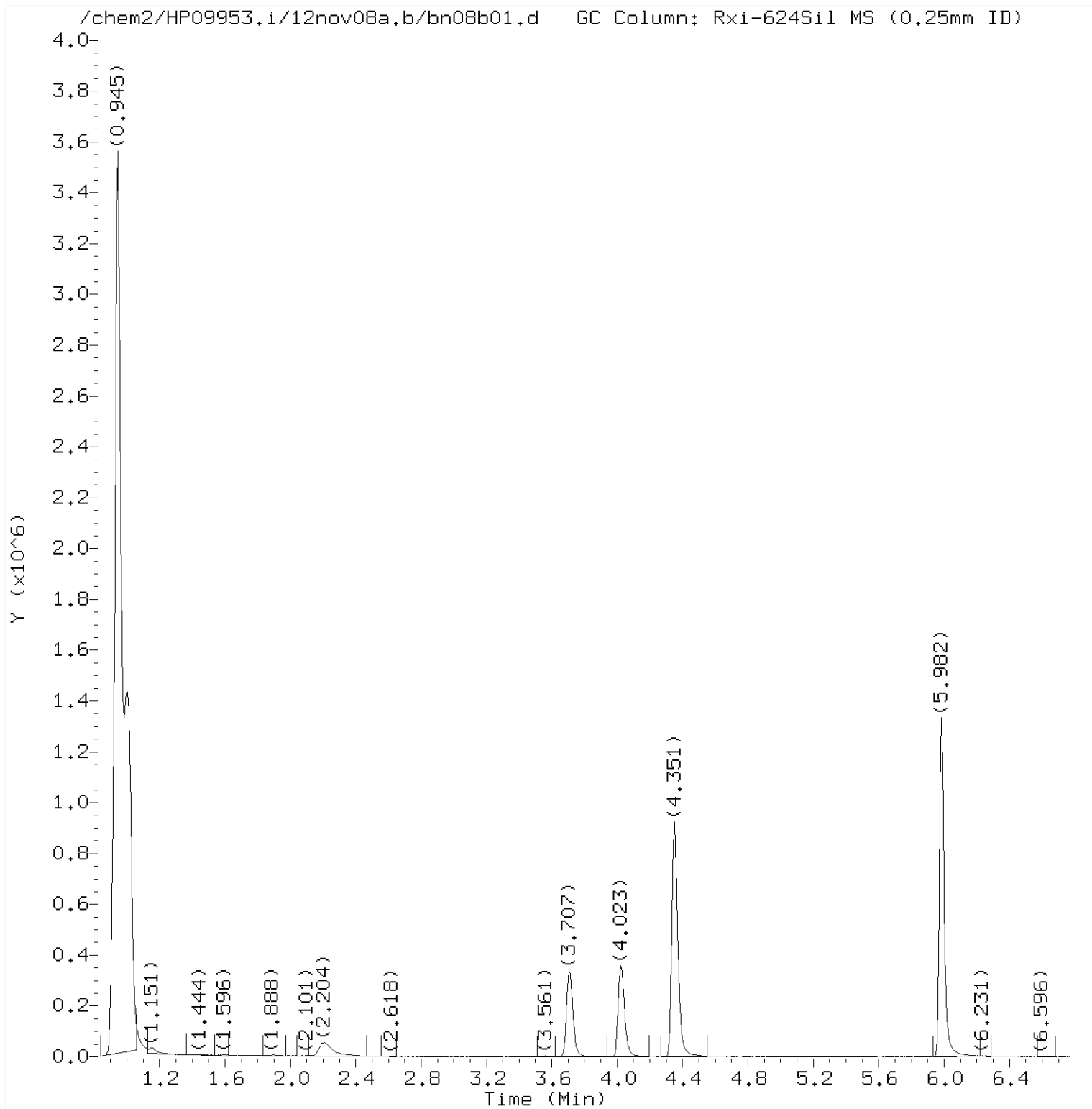
Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
=====										
114) Bromobenzene	(4)			Not Detected					1	5
115) trans-1,4-Dichloro-2-butene	(4)			Not Detected					10	50
116) 1,2,3-Trichloropropane	(4)			Not Detected					1	5
117) n-Propylbenzene	(4)			Not Detected					1	5
119) 2-Chlorotoluene	(4)			Not Detected					1	5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					1	5
123) 4-Chlorotoluene	(4)			Not Detected					1	5
126) tert-Butylbenzene	(4)			Not Detected					1	5
127) Pentachloroethane	(4)			Not Detected					1	5
128) 1,2,4-Trimethylbenzene	(4)			Not Detected					1	5
129) sec-Butylbenzene	(4)			Not Detected					1	5
131) 1,3-Dichlorobenzene	(4)			Not Detected					1	5
132) p-Isopropyltoluene	(4)			Not Detected					1	5
134) 1,4-Dichlorobenzene	(4)			Not Detected					1	5
135) 1,2,3-Trimethylbenzene	(4)			Not Detected					1	5
136) Benzyl Chloride	(4)			Not Detected					1	4
137) 1,3-Diethylbenzene	(4)			Not Detected					1	5
138) 1,4-Diethylbenzene	(4)			Not Detected					1	5
139) n-Butylbenzene	(4)			Not Detected					1	5
140) 1,2-Dichlorobenzene	(4)			Not Detected					1	5
141) 1,2-Diethylbenzene	(4)			Not Detected					1	5
144) 1,2-Dibromo-3-chloropropane	(4)			Not Detected					2	5
145) 1,3,5-Trichlorobenzene	(4)			Not Detected					1	5
146) 1,2,4-Trichlorobenzene	(4)			Not Detected					1	5
147) Hexachlorobutadiene	(4)			Not Detected					2	5
148) Naphthalene	(4)			Not Detected					1	5
149) 1,2,3-Trichlorobenzene	(4)			Not Detected					1	5
150) 2-Methylnaphthalene	(4)			Not Detected					2	5

Total number of targets = 111

Digitally signed by Angela D. Sneeringer on 11/08/2012 at 11:35. Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08b01.d
Injection date and time: 08-NOV-2012 10:24

Instrument ID: HP09953.i
Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m
Calibration date and time: 08-NOV-2012 11:27

Sublist used: 8260S-F+SM

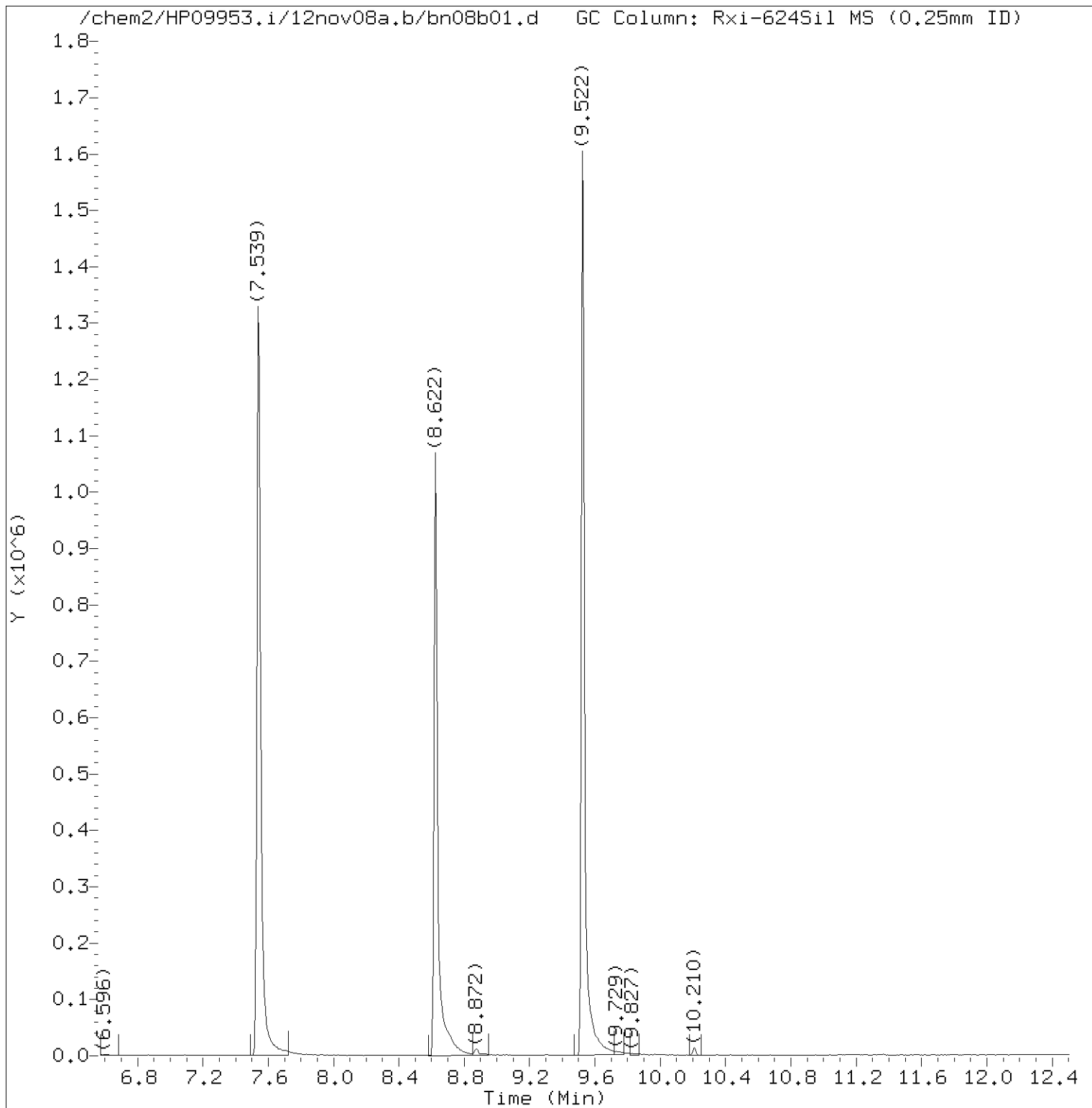
Date, time and analyst ID of latest file update: 08-Nov-2012 11:28 ads01731

Sample Name: VBLKB85

Lab Sample ID: VBLKB85

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 11:35.

Target 3.5 esignature user ID: ads01731



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08b01.d
Injection date and time: 08-NOV-2012 10:24

Instrument ID: HP09953.i
Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m
Calibration date and time: 08-NOV-2012 11:27

Sublist used: 8260S-F+SM

Date, time and analyst ID of latest file update: 08-Nov-2012 11:28 ads01731

Sample Name: VBLKB85

Lab Sample ID: VBLKB85

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 11:35.

Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08b01.d
Injection date and time: 08-NOV-2012 10:24

Instrument ID: HP09953.i
Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 8260S-F+SM
Calibration date and time: 08-NOV-2012 11:27
Date, time and analyst ID of latest file update: 08-Nov-2012 11:28 ads01731

Sample Name: VBLKB85

Lab Sample ID: VBLKB85

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
30)*t-Butyl alcohol-d10	(1)	2.210	65	127562	250.000
55)\$Dibromofluoromethane	(2)	3.707	113	275733	52.922
61)\$1,2-Dichloroethane-d4	(2)	4.023	102	57560	52.562
67)*Fluorobenzene	(2)	4.351	96	1040500	50.000
86)\$Toluene-d8	(3)	5.982	98	990542	49.293
99)*Chlorobenzene-d5	(3)	7.539	117	701746	50.000
112)\$4-Bromofluorobenzene	(3)	8.622	95	340728	45.237
133)*1,4-Dichlorobenzene-d4	(4)	9.529	152	391796	50.000

* = Compound is an internal standard.
\$ = Compound is a surrogate standard.

page 1 of 1

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 11:35.

Target 3.5 esignature user ID: ads01731

TAP03 Page 694 of 2648

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST9MS

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 6850733

Sample wt/vol: 5.09 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07s50.d

Level: (low/med) LOW Date Received: 11/07/12

Moisture: not dec. 3 Date Analyzed: 11/08/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-01-4-----	Vinyl Chloride	0.017	
75-69-4-----	Trichlorofluoromethane	0.021	
75-35-4-----	1,1-Dichloroethene	0.020	
67-64-1-----	Acetone	0.200	
75-09-2-----	Methylene Chloride	0.020	B
1634-04-4-----	Methyl Tertiary Butyl Ether	0.020	
156-60-5-----	trans-1,2-Dichloroethene	0.020	
75-34-3-----	1,1-Dichloroethane	0.020	
78-93-3-----	2-Butanone	0.170	
156-59-2-----	cis-1,2-Dichloroethene	0.019	
67-66-3-----	Chloroform	0.019	
71-55-6-----	1,1,1-Trichloroethane	0.022	
56-23-5-----	Carbon Tetrachloride	0.020	
71-43-2-----	Benzene	0.019	
107-06-2-----	1,2-Dichloroethane	0.021	
79-01-6-----	Trichloroethene	0.022	
123-91-1-----	1,4-Dioxane	0.390	
108-88-3-----	Toluene	0.019	
127-18-4-----	Tetrachloroethene	0.031	
108-90-7-----	Chlorobenzene	0.018	
100-41-4-----	Ethylbenzene	0.018	
1330-20-7-----	Xylene (Total)	0.054	
103-65-1-----	n-Propylbenzene	0.016	
108-67-8-----	1,3,5-Trimethylbenzene	0.019	
98-06-6-----	tert-Butylbenzene	0.017	
95-63-6-----	1,2,4-Trimethylbenzene	0.019	
135-98-8-----	sec-Butylbenzene	0.019	
541-73-1-----	1,3-Dichlorobenzene	0.018	
106-46-7-----	1,4-Dichlorobenzene	0.018	
104-51-8-----	n-Butylbenzene	0.018	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CNST9MS

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850733

Sample wt/vol: 5.09 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07s50.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 3

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

95-50-1-----	1,2-Dichlorobenzene	0.018	
--------------	---------------------	-------	--

CNST9MS

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850733MS

Data file: /chem2/HP09953.i/12nov07b.b/bn07s50.d

Injection date and time: 08-NOV-2012 01:45

Data file Sample Info. Line: CNST9MS;6850733MS;2;3;MS;TAP03;;;bn07b10a; Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 08-Nov-2012 05:28 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150A Matrix: SOIL Level: Low

On-Column Amount units: ng

In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 0.98

Volume Purged (Vt): 5 ml

Sample Weight (Ws): 5.09 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	2.210(0.000)	227	65	118161 (-16)	250.00	
67) Fluorobenzene	4.351(0.000)	579	96	1120831 (-3)	50.00	
99) Chlorobenzene-d5	7.539(0.000)	1103	117	753651 (-6)	50.00	
133) 1,4-Dichlorobenzene-d4	9.522(0.000)	1429	152	463130 (-9)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.713(-0.001)	113	287670	51.256	103%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.029(0.000)	102	60314	51.129	102%		54 - 135
86) Toluene-d8	(3)	5.982(0.000)	98	1112785	51.562	103%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622(0.000)	95	405793	50.165	100%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit LOQ (in sample)
5) Vinyl Chloride	(2)	1.200(0.001)	62	135515	16.594	16.30			1 5
13) Trichlorofluoromethane	(2)	1.589(-0.000)	101	212336	20.438	20.08			2 5
19) 1,1-Dichloroethene	(2)	1.863(-0.001)	96	93995	19.758	19.41			1 5
20) Acetone	(2)	1.888(-0.001)	58	106339	196.175	192.71			7 20
31) Methylene Chloride	(2)	2.186(-0.001)	84	111378	20.163	19.81	2.347	B	2 5
34) Methyl Tertiary Butyl Ether	(2)	2.405(-0.000)	73	300663	19.465	19.12			0.5 5
35) trans-1,2-Dichloroethene	(2)	2.392(-0.001)	96	103873	19.348	19.01			1 5
40) 1,1-Dichloroethane	(2)	2.745(-0.001)	63	227043	19.263	18.92			1 5
45) 2-Butanone	(2)	3.281(-0.000)	43	468895	169.156	166.17			4 10
46) cis-1,2-Dichloroethene	(2)	3.262(-0.001)	96	112334	18.557	18.23			1 5
54) Chloroform	(2)	3.560(-0.001)	83	211995	18.832	18.50			1 5
56) 1,1,1-Trichloroethane	(2)	3.731(-0.000)	97	204495	21.287	20.91			1 5
59) Carbon Tetrachloride	(2)	3.883(-0.000)	117	171256	19.829	19.48			1 5
62) Benzene	(2)	4.078(-0.000)	78	438361	18.477	18.15			0.5 5
64) 1,2-Dichloroethane	(2)	4.102(-0.001)	62	186522	20.776	20.41			1 5
72) Trichloroethene	(2)	4.716(0.000)	95	132119	21.603	21.22			1 5
77) 1,4-Dioxane	(1)	5.106(0.000)	88	21825	382.005	375.25			69 250
87) Toluene	(3)	6.055(-0.000)	92	262339	18.436	18.11			1 5
92) Tetrachloroethene	(3)	6.639(-0.000)	166	193827	30.932	30.39			1 5
100) Chlorobenzene	(3)	7.570(0.000)	112	288372	18.114	17.79			1 5
102) Ethylbenzene	(3)	7.697(-0.000)	91	494491	18.263	17.94			1 5
103) m+p-Xylene	(3)	7.813(0.000)	106	386748	36.565	35.92			1 5
104) o-Xylene	(3)	8.172(0.000)	106	177301	17.234	16.93			1 5
105) Xylene (Total)	(3)		106	564049	53.799	52.85			1 5
117) n-Propylbenzene	(4)	8.841(-0.000)	91	628530	16.218	15.93			1 5
122) 1,3,5-Trimethylbenzene	(4)	8.987(-0.000)	105	447869	18.907	18.57			1 5
126) tert-Butylbenzene	(4)	9.236(-0.000)	134	88386	16.556	16.26			1 5
128) 1,2,4-Trimethylbenzene	(4)	9.273(-0.000)	105	442655	18.453	18.13			1 5
129) sec-Butylbenzene	(4)	9.401(-0.000)	105	554732	18.495	18.17			1 5
131) 1,3-Dichlorobenzene	(4)	9.474(-0.000)	146	238938	18.133	17.81			1 5

B = Compound detected in referenced method blank.

CNST9MS

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850733MS

Data file: /chem2/HP09953.i/12nov07b.b/bn07s50.d Injection date and time: 08-NOV-2012 01:45
Data file Sample Info. Line: CNST9MS;6850733MS;2;3;MS;TAP03;;;bn07b10a; Instrument ID: HP09953.i Batch: B123122AA
Date, time and analyst ID of latest file update: 08-Nov-2012 05:28 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time (Last Method Edit): 07-NOV-2012 22:23
Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: 150A Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 0.98

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5.09 g

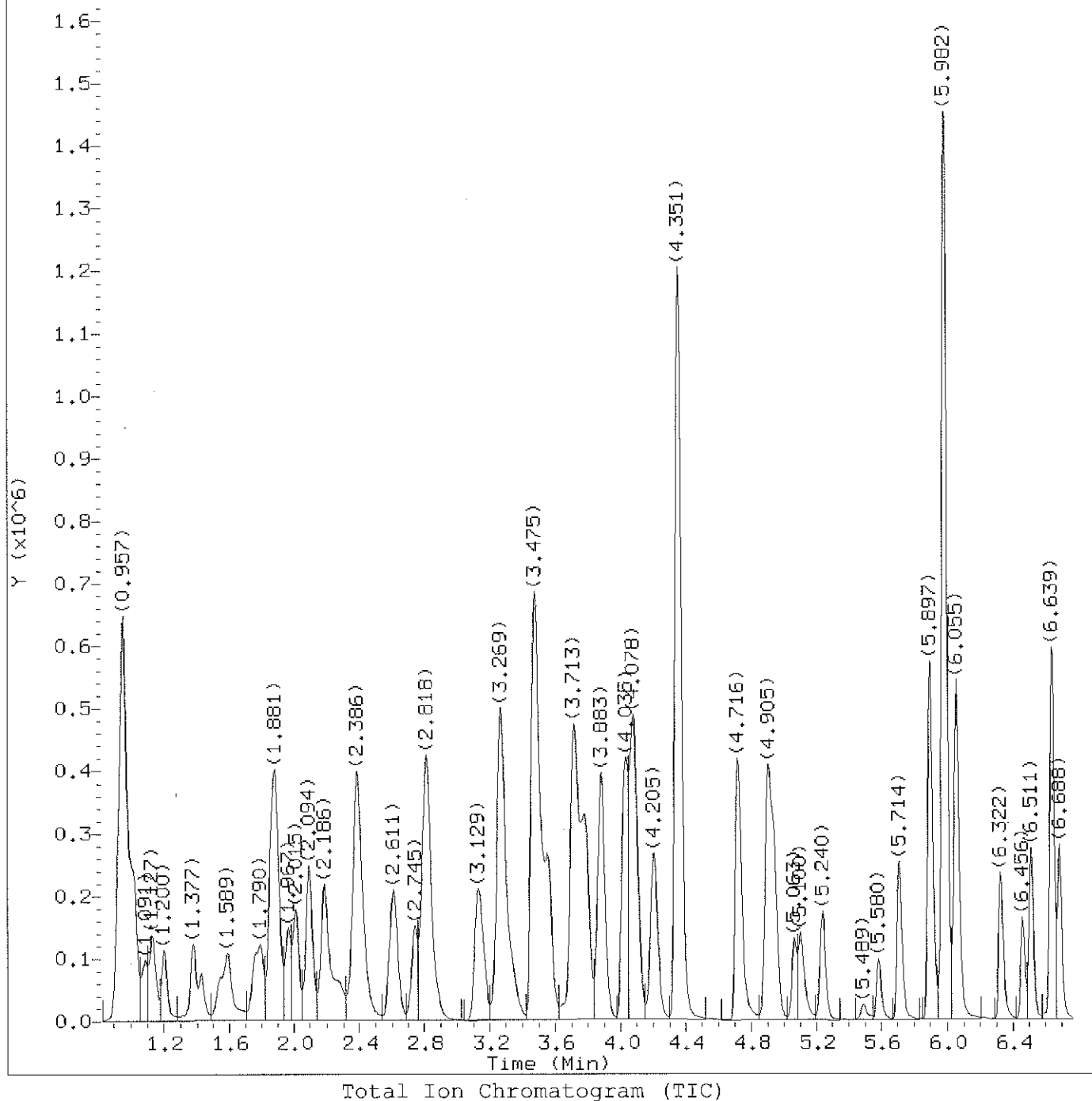
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
134) 1,4-Dichlorobenzene	(4)	9.541(0.000)	146	252969	17.890	17.57		1	5	
139) n-Butylbenzene	(4)	9.814(-0.000)	92	246331M	18.005	17.69		1	5	
140) 1,2-Dichlorobenzene	(4)	9.808(0.000)	146	239109	17.682	17.37		1	5	

M = Compound was manually integrated.

Total number of targets = 33

Digitally signed by Stephanie A. Selis on 11/08/2012 at 05:34. Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14. Parallax ID: ahu01800



Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s50.d
Injection date and time: 08-NOV-2012 01:45

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 05:28 sas00403

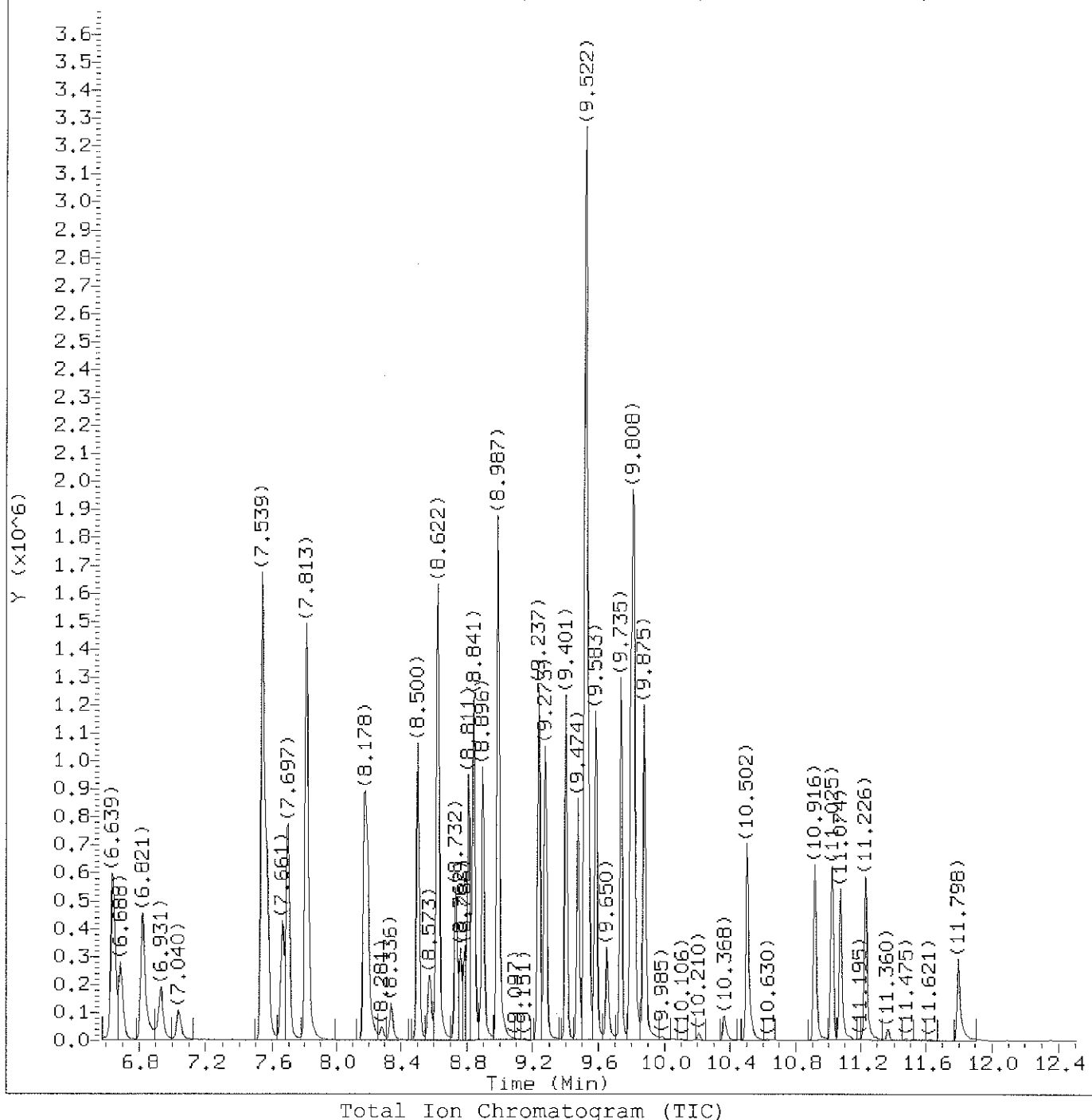
Sublist used: 10261

Sample Name: CNST9MS

Lab Sample ID: 6850733MS

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:34.

Target 3.5 esignature user ID: sas00403



Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s50.d
Injection date and time: 08-NOV-2012 01:45

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 05:28 sas00403

Sample Name: CNST9MS

Lab Sample ID: 6850733MS

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:34.

Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s50.d
Injection date and time: 08-NOV-2012 01:45

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 05:28 sas00403

Sample Name: CNST9MS

Lab Sample ID: 6850733MS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
5) Vinyl Chloride	(2)	1.200	62	135515	16.594
13) Trichlorofluoromethane	(2)	1.589	101	212336	20.438
19) 1,1-Dichloroethene	(2)	1.863	96	93995	19.758
20) Acetone	(2)	1.888	58	106339	196.175
31) Methylene Chloride	(2)	2.186	84	111378	20.163
30)*t-Butyl Alcohol-d10	(1)	2.210	65	118161	250.000
35) trans-1,2-Dichloroethene	(2)	2.393	96	103873	19.348
34) Methyl Tertiary Butyl Ether	(2)	2.405	73	300663	19.465
40) 1,1-Dichloroethane	(2)	2.745	63	227043	19.263
46) cis-1,2-Dichloroethene	(2)	3.262	96	112334	18.557
45) 2-Butanone	(2)	3.281	43	468895	169.156
54) Chloroform	(2)	3.561	83	211995	18.832
55)\$Dibromofluoromethane	(2)	3.713	113	287670	51.256
56) 1,1,1-Trichloroethane	(2)	3.731	97	204495	21.287
59) Carbon Tetrachloride	(2)	3.883	117	171256	19.829
61)\$1,2-Dichloroethane-d4	(2)	4.029	102	60314	51.129
62) Benzene	(2)	4.078	78	438361	18.477
64) 1,2-Dichloroethane	(2)	4.102	62	186522	20.776
67)*Fluorobenzene	(2)	4.351	96	1120831	50.000
72) Trichloroethene	(2)	4.716	95	132119	21.603
77) 1,4-Dioxane	(1)	5.106	88	21825	382.005
86)\$Toluene-d8	(3)	5.982	98	1112785	51.562
87) Toluene	(3)	6.055	92	262339	18.436
92) Tetrachloroethene	(3)	6.639	166	193827	30.932
99)*Chlorobenzene-d5	(3)	7.539	117	753651	50.000
100) Chlorobenzene	(3)	7.570	112	288372	18.114
102) Ethylbenzene	(3)	7.697	91	494491	18.263
103) m+p-Xylene	(3)	7.813	106	386748	36.565
104) o-Xylene	(3)	8.172	106	177301	17.234
112)\$4-Bromofluorobenzene	(3)	8.622	95	405793	50.165
117) n-Propylbenzene	(4)	8.841	91	628530	16.218
122) 1,3,5-Trimethylbenzene	(4)	8.987	105	447869	18.907
126) tert-Butylbenzene	(4)	9.237	134	88386	16.556
128) 1,2,4-Trimethylbenzene	(4)	9.273	105	442655	18.453
129) sec-Butylbenzene	(4)	9.401	105	554732	18.495
131) 1,3-Dichlorobenzene	(4)	9.474	146	238938	18.133
133)*1,4-Dichlorobenzene-d4	(4)	9.522	152	463130	50.000
134) 1,4-Dichlorobenzene	(4)	9.541	146	252969	17.890

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 2

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:34.
Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07s50.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 01:45 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 05:28 sas00403

Sample Name: CNST9MS Lab Sample ID: 6850733MS

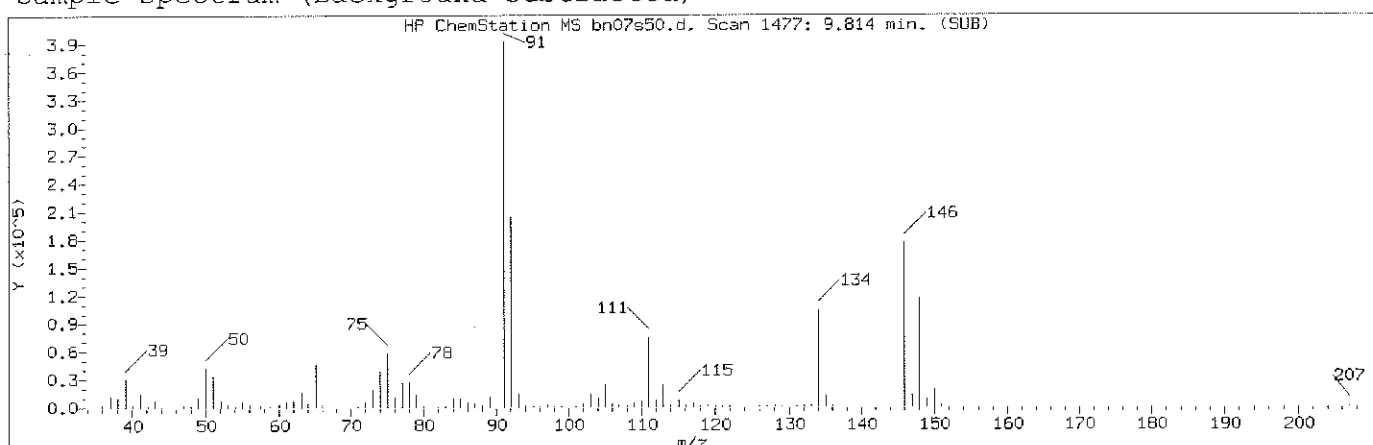
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
140) 1,2-Dichlorobenzene	(4)	9.808	146	239109	17.682
139) n-Butylbenzene	(4)	9.814	92	246331M	18.005
105) Xylene (Total)	(3)		106	564049	53.799

M = Compound was manually integrated.

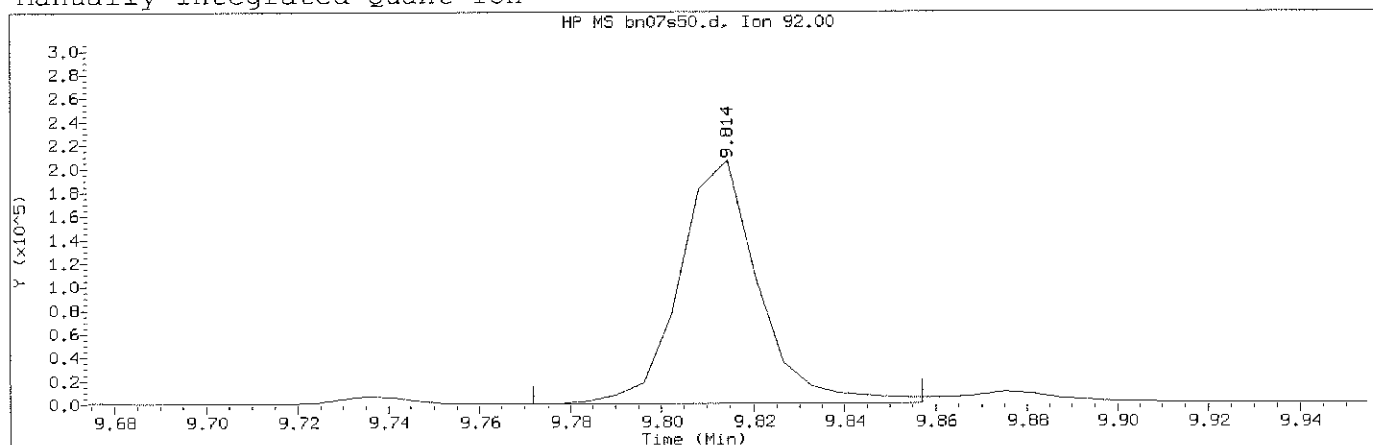
page 2 of 2

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:34.
Target 3.5 esignature user ID: sas00403

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07s50.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 01:45 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 05:28 sas00403

Sample Name: CNST9MS Lab Sample ID: 6850733MS

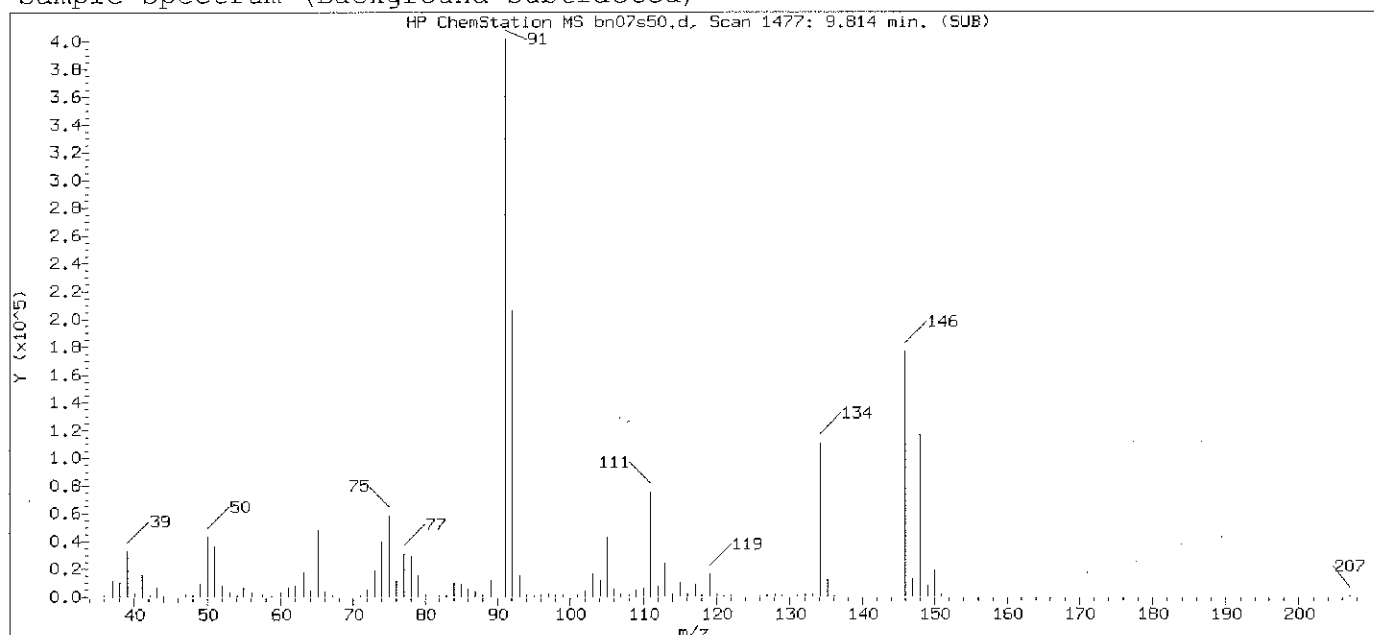
Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1477
Retention Time (minutes): 9.814
Quant Ion : 92.00
Area (flag) : 246331M
On-Column Amount (ng) : 18.0055
Integration start scan : 1469 Integration stop scan: 1483
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

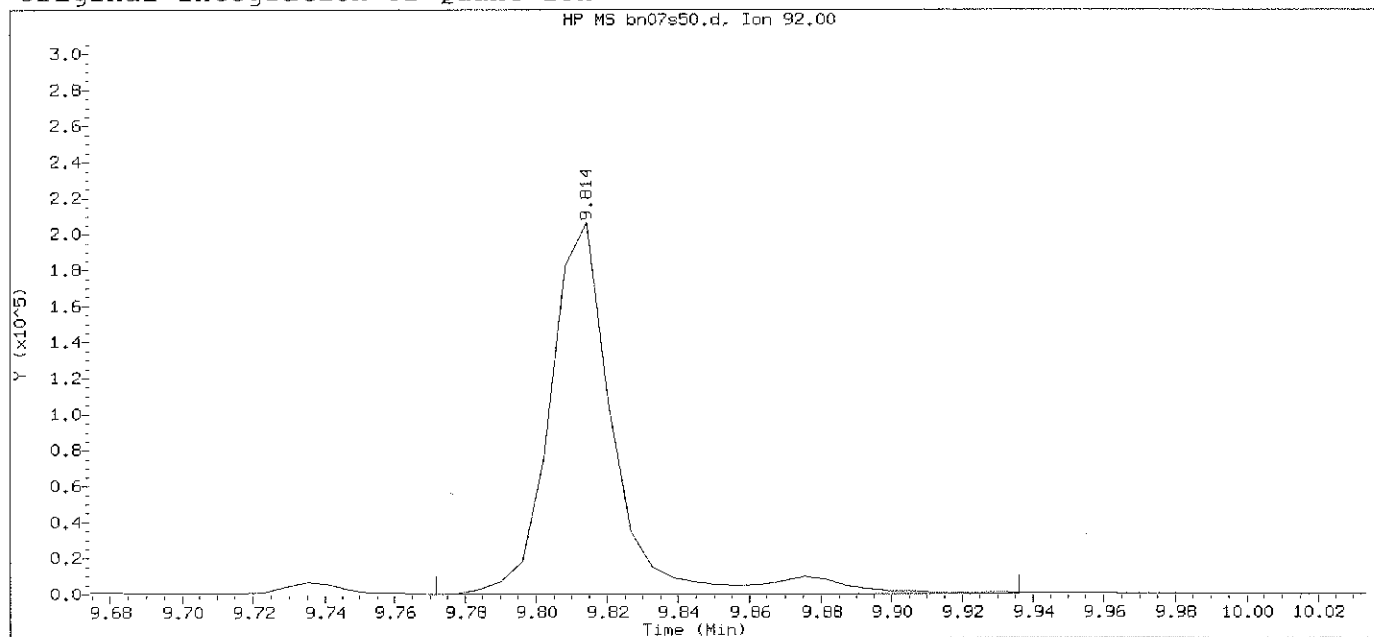
Analyst responsible for change: Digitally signed by Stephanie A. Selis
on 11/08/2012 at 05:34.
Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07s50.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 01:45 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 10261
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 08-Nov-2012 02:01 Automation

Sample Name: CNST9MS Lab Sample ID: 6850733MS

Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1477
Retention Time (minutes): 9.814
Quant Ion : 92.00
Area : 262723
On-column Amount (ng) : 19.2037
Integration start scan : 1469 Integration stop scan: 1496
Y at integration start : 0 Y at integration end: 0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS7MS

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850762

Sample wt/vol: 4.77 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s21.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-71-8	Dichlorodifluoromethane	0.026	
74-87-3	Chloromethane	0.025	
75-01-4	Vinyl Chloride	0.025	
74-83-9	Bromomethane	0.025	
75-00-3	Chloroethane	0.025	
75-69-4	Trichlorofluoromethane	0.028	
64-17-5	Ethanol	2.000	
107-02-8	Acrolein	0.130	U
75-35-4	1,1-Dichloroethene	0.029	
67-64-1	Acetone	0.410	
76-13-1	Freon 113	0.028	
67-63-0	2-Propanol	0.170	
74-88-4	Methyl Iodide	0.025	
75-15-0	Carbon Disulfide	0.026	
79-20-9	Methyl Acetate	0.020	
107-05-1	Allyl Chloride	0.027	
75-09-2	Methylene Chloride	0.026	
75-65-0	t-Butyl alcohol	0.350	
107-13-1	Acrylonitrile	0.089	
1634-04-4	Methyl Tertiary Butyl Ether	0.022	
156-60-5	trans-1,2-Dichloroethene	0.027	
110-54-3	n-Hexane	0.021	
75-34-3	1,1-Dichloroethane	0.025	
108-20-3	di-Isopropyl ether	0.021	
126-99-8	2-Chloro-1,3-butadiene	0.025	
637-92-3	Ethyl t-butyl ether	0.022	
78-93-3	2-Butanone	0.210	
156-59-2	cis-1,2-Dichloroethene	0.026	
540-59-0	1,2-Dichloroethene (Total)	0.053	
594-20-7	2,2-Dichloropropane	0.027	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS7MS

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850762

Sample wt/vol: 4.77 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s21.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(mg/L or mg/Kg) mg/Kg	Q
107-12-0	Propionitrile	0.220	
126-98-7	Methacrylonitrile	0.130	
74-97-5	Bromochloromethane	0.027	
109-99-9	Tetrahydrofuran	0.160	
67-66-3	Chloroform	0.024	
71-55-6	1,1,1-Trichloroethane	0.025	
110-82-7	Cyclohexane	0.023	
563-58-6	1,1-Dichloropropene	0.025	
56-23-5	Carbon Tetrachloride	0.026	
78-83-1	Isobutyl Alcohol	0.750	
71-43-2	Benzene	0.026	
107-06-2	1,2-Dichloroethane	0.023	
994-05-8	t-Amyl methyl ether	0.021	
142-82-5	n-Heptane	0.015	
71-36-3	n-Butanol	1.400	
79-01-6	Trichloroethene	0.026	
108-87-2	Methylcyclohexane	0.026	
78-87-5	1,2-Dichloropropane	0.023	
80-62-6	Methyl Methacrylate	0.029	
123-91-1	1,4-Dioxane	1.000	
74-95-3	Dibromomethane	0.023	
75-27-4	Bromodichloromethane	0.023	
79-46-9	2-Nitropropane	0.025	
10061-01-5	cis-1,3-Dichloropropene	0.022	
108-10-1	4-Methyl-2-pentanone	0.091	
108-88-3	Toluene	0.028	
10061-02-6	trans-1,3-Dichloropropene	0.022	
97-63-2	Ethyl Methacrylate	0.005	J
79-00-5	1,1,2-Trichloroethane	0.025	
127-18-4	Tetrachloroethene	0.028	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS7MS

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850762

Sample wt/vol: 4.77 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s21.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

142-28-9-----	1,3-Dichloropropane	0.024	
591-78-6-----	2-Hexanone	0.120	
124-48-1-----	Dibromochloromethane	0.024	
106-93-4-----	1,2-Dibromoethane	0.024	
108-90-7-----	Chlorobenzene	0.026	
630-20-6-----	1,1,1,2-Tetrachloroethane	0.025	
100-41-4-----	Ethylbenzene	0.026	
179601-23-1----	m+p-Xylene	0.052	
95-47-6-----	o-Xylene	0.025	
1330-20-7-----	Xylene (Total)	0.077	
100-42-5-----	Styrene	0.023	
75-25-2-----	Bromoform	0.020	
98-82-8-----	Isopropylbenzene	0.024	
108-94-1-----	Cyclohexanone	0.800	
79-34-5-----	1,1,2,2-Tetrachloroethane	0.027	
108-86-1-----	Bromobenzene	0.030	
110-57-6-----	trans-1,4-Dichloro-2-butene	0.110	
96-18-4-----	1,2,3-Trichloropropane	0.029	
103-65-1-----	n-Propylbenzene	0.031	
95-49-8-----	2-Chlorotoluene	0.030	
108-67-8-----	1,3,5-Trimethylbenzene	0.030	
106-43-4-----	4-Chlorotoluene	0.029	
98-06-6-----	tert-Butylbenzene	0.028	
76-01-7-----	Pentachloroethane	0.027	
95-63-6-----	1,2,4-Trimethylbenzene	0.028	
135-98-8-----	sec-Butylbenzene	0.027	
541-73-1-----	1,3-Dichlorobenzene	0.025	
99-87-6-----	p-Isopropyltoluene	0.026	
106-46-7-----	1,4-Dichlorobenzene	0.024	
526-73-8-----	1,2,3-Trimethylbenzene	0.028	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

OCTS7MS

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: 6850762

Sample wt/vol: 4.77 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08s21.d

Level: (low/med) LOW

Date Received: 11/07/12

Moisture: not dec. 22

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(mg/L or mg/Kg) mg/Kg

Q

100-44-7-----	Benzyl Chloride	0.020	
141-93-5-----	1,3-Diethylbenzene	0.027	
105-05-5-----	1,4-Diethylbenzene	0.026	
104-51-8-----	n-Butylbenzene	0.023	
95-50-1-----	1,2-Dichlorobenzene	0.023	
135-01-3-----	1,2-Diethylbenzene	0.026	
96-12-8-----	1,2-Dibromo-3-chloropropane	0.020	
108-70-3-----	1,3,5-Trichlorobenzene	0.017	
120-82-1-----	1,2,4-Trichlorobenzene	0.013	
87-68-3-----	Hexachlorobutadiene	0.015	
91-20-3-----	Naphthalene	0.012	
87-61-6-----	1,2,3-Trichlorobenzene	0.011	
91-57-6-----	2-Methylnaphthalene	0.006	J
25340-17-4-----	Diethylbenzene (total)	0.079	

OCTS7MS

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850762MS

Data file: /chem2/HP09685.i/12nov08a.b/an08s21.d

Injection date and time: 08-NOV-2012 06:14

Data file Sample Info. Line: OCTS7MS;6850762MS;2;3;MS;TAP03;;;an08b01; Instrument ID: HP09685.i Batch: A123131AA
Date, time and analyst ID of latest file update: 08-Nov-2012 09:10 cbs01947

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261

Calibration date and time (Last Method Edit): 08-NOV-2012 00:53

Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: 150B Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.05

Volume Purged (Vt): 5 ml Sample Weight (Ws): 4.77 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl Alcohol-d10	4.189(-0.012)	429	65	90347 (-25)	250.00	
67) Fluorobenzene	7.687(0.000)	1004	96	1086098 (-13)	50.00	
99) Chlorobenzene-d5	11.179(0.000)	1578	117	716969 (-20)	50.00	
133) 1,4-Dichlorobenzene-d4	13.071(0.000)	1889	152	312433 (-39)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	6.793(-0.001)	113	251398M	48.439	97%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	7.255(0.000)	102	58272M	48.486	97%		54 - 135
86) Toluene-d8	(3)	9.713(0.000)	98	1025575	53.490	107%		52 - 141
112) 4-Bromofluorobenzene	(3)	12.189(0.000)	95	315777	44.002	88%		50 - 131

M = Surrogate Standard was manually integrated.

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Reporting Limit LOQ (in sample)
5) Vinyl Chloride	(2)	2.254(-0.001)	62	160262	18.848	19.76		1 5
13) Trichlorofluoromethane	(2)	2.978(-0.000)	101	208234	20.477	21.46		2 5
19) 1,1-Dichloroethene	(2)	3.526(-0.000)	96	113852	21.583	22.62		1 5
20) Acetone	(2)	3.556(-0.001)	58	212660	301.500	316.04		7 21
31) Methylene Chloride	(2)	4.183(-0.000)	84	124633	19.076	20.00		2 5
34) Methyl Tertiary Butyl Ether	(2)	4.584(-0.000)	73	307336	16.723	17.53		0.5 5
35) trans-1,2-Dichloroethene	(2)	4.602(-0.000)	96	120292	20.091	21.06		1 5
40) 1,1-Dichloroethane	(2)	5.260(-0.000)	63	222585	18.865	19.77		1 5
45) 2-Butanone	(2)	6.056(-0.000)	43	519813	157.707	165.31		4 10
46) cis-1,2-Dichloroethene	(2)	6.087(-0.000)	96	126501	19.582	20.53		1 5
54) Chloroform	(2)	6.574(-0.000)	83	203814	17.928	18.79		1 5
56) 1,1,1-Trichloroethane	(2)	6.805(-0.000)	97	192636	18.655	19.55		1 5
59) Carbon Tetrachloride	(2)	7.018(-0.000)	117	157098	19.211	20.14		1 5
62) Benzene	(2)	7.279(-0.000)	78	483008	19.246	20.17		0.5 5
64) 1,2-Dichloroethane	(2)	7.358(-0.000)	62	155186	17.356	18.19		1 5
72) Trichloroethene	(2)	8.168(-0.000)	95	122113	19.321	20.25		1 5
77) 1,4-Dioxane	(1)	8.599(0.005)	88	33873	768.970	806.05		73 260
87) Toluene	(3)	9.792(-0.000)	92	293021	21.006	22.02		1 5
92) Tetrachloroethene	(3)	10.339(-0.000)	166	131370	20.498	21.49		1 5
100) Chlorobenzene	(3)	11.203(0.000)	112	299012	19.006	19.92		1 5
102) Ethylbenzene	(3)	11.294(-0.000)	91	517184	19.521	20.46		1 5
103) m,p-Xylene	(3)	11.404(0.000)	106	398113	38.711	40.58		1 5
104) o-Xylene	(3)	11.738(0.000)	106	183025	18.483	19.37		1 5
105) Xylene (Total)	(3)		106	581138	57.194	59.95		1 5
117) n-Propylbenzene	(4)	12.371(-0.000)	91	542571	23.325	24.45		1 5
122) 1,3,5-Trimethylbenzene	(4)	12.505(-0.000)	105	369170	22.121	23.19		1 5
126) tert-Butylbenzene	(4)	12.748(-0.000)	134	77221M	21.190	22.21		1 5
128) 1,2,4-Trimethylbenzene	(4)	12.791(-0.000)	105	367376	21.082	22.10		1 5
129) sec-Butylbenzene	(4)	12.913(-0.000)	105	423974	20.257	21.23		1 5

M = Compound was manually integrated.

OCTS7MS

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

6850762MS

Data file: /chem2/HP09685.i/12nov08a.b/an08s21.d

Injection date and time: 08-NOV-2012 06:14

Data file Sample Info. Line: OCTS7MS;6850762MS;2;3;MS;TAP03;;;an08b01; Instrument ID: HP09685.i Batch: A123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 09:10 cbs01947

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m

Sublist used: 10261

Calibration date and time (Last Method Edit): 08-NOV-2012 00:53

Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: 150B

Matrix: SOIL

Level: Low

On-Column Amount units: ng

In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.05

Volume Purged (Vt): 5 ml

Sample Weight (Ws): 4.77 g

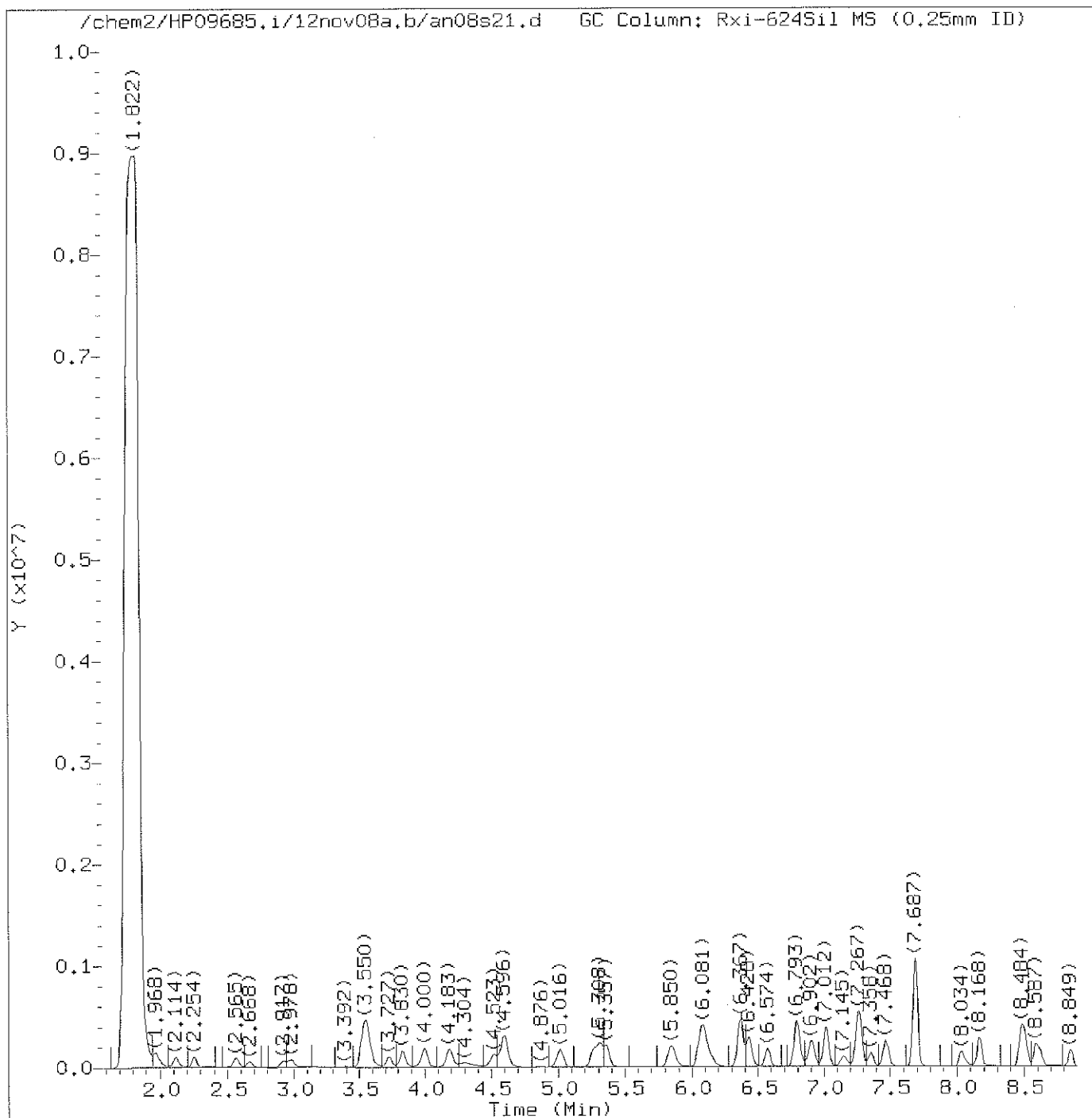
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
131) 1,3-Dichlorobenzene	(4)	13.010(-0.000)	146	188764	18.642	19.54		1	5	
134) 1,4-Dichlorobenzene	(4)	13.089(0.000)	146	186208	17.998	18.87		1	5	
139) n-Butylbenzene	(4)	13.314(-0.000)	92	163776M	17.160	17.99		1	5	
140) 1,2-Dichlorobenzene	(4)	13.345(-0.000)	146	163768	17.080	17.90		1	5	

M = Compound was manually integrated.

Total number of targets = 33

Digitally signed by Chelsea B. Stong on 11/08/2012 at 09:12. Target 3.5 signature user ID: cbs01947

Secondary review performed and digitally signed by Abraham H. Oysal on 11/08/2012 at 10:59. Parallax ID: ahu01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08s21.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 06:14 Analyst ID: SAS00403

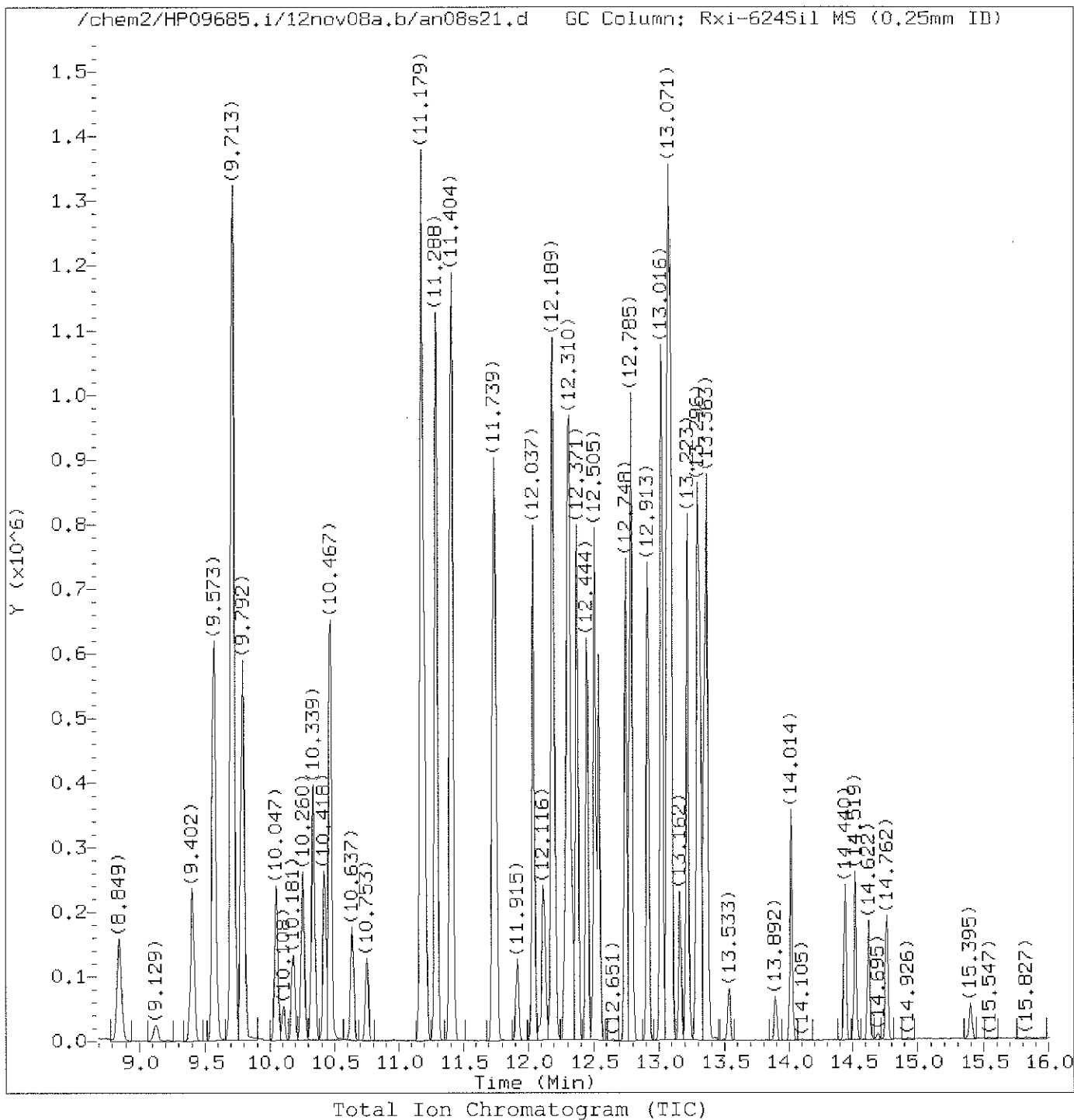
Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 09:10 cbs01947

Sample Name: OCTS7MS

Lab Sample ID: 6850762MS

Digitally signed by Chelsea B. Stong
on 11/08/2012 at 09:12.

Target 3.5 esignature user ID: cbs01947



Target Revision 3.5

Data File: /chem2/HP09685.1/12nov08a.b/an08s21.d Instrument ID: HP09685.1
Injection date and time: 08-NOV-2012 06:14 Analyst ID: SAS00403

Method used: /chem2/HP09685.1/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 09:10 cbs01947

Sample Name: OCTS7MS

Lab Sample ID: 6850762MS

Digitally signed by Chelsea B. Stong
on 11/08/2012 at 09:12.

Target 3.5 esignature user ID: cbs01947

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08s21.d
 Injection date and time: 08-NOV-2012 06:14

Instrument ID: HP09685.i
 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
 Calibration date and time: 08-NOV-2012 00:53
 Date, time and analyst ID of latest file update: 08-Nov-2012 09:10 cbs01947

Sample Name: OCTS7MS

Lab Sample ID: 6850762MS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
5) Vinyl Chloride	(2)	2.254	62	160262	18.848
13) Trichlorofluoromethane	(2)	2.978	101	208234	20.477
19) 1,1-Dichloroethene	(2)	3.526	96	113852	21.583
20) Acetone	(2)	3.556	58	212660	301.500
31) Methylene Chloride	(2)	4.183	84	124633	19.076
30)*t-Butyl Alcohol-d10	(1)	4.189	65	90347	250.000
34) Methyl Tertiary Butyl Ether	(2)	4.584	73	307336	16.723
35) trans-1,2-Dichloroethene	(2)	4.603	96	120292	20.091
40) 1,1-Dichloroethane	(2)	5.260	63	222585	18.865
45) 2-Butanone	(2)	6.057	43	519813	157.707
46) cis-1,2-Dichloroethene	(2)	6.087	96	126501	19.582
54) Chloroform	(2)	6.574	83	203814	17.928
55)\$Dibromofluoromethane	(2)	6.793	113	251398M	48.439
56) 1,1,1-Trichloroethane	(2)	6.805	97	192636	18.655
59) Carbon Tetrachloride	(2)	7.018	117	157098	19.211
61)\$1,2-Dichloroethane-d4	(2)	7.255	102	58272M	48.486
62) Benzene	(2)	7.279	78	483008	19.246
64) 1,2-Dichloroethane	(2)	7.358	62	155186	17.356
67)*Fluorobenzene	(2)	7.687	96	1086098	50.000
72) Trichloroethene	(2)	8.168	95	122113	19.321
77) 1,4-Dioxane	(1)	8.599	88	33873	768.970
86)\$Toluene-d8	(3)	9.713	98	1025575	53.490
87) Toluene	(3)	9.792	92	293021	21.006
92) Tetrachloroethene	(3)	10.339	166	131370	20.498
99)*Chlorobenzene-d5	(3)	11.179	117	716969	50.000
100) Chlorobenzene	(3)	11.203	112	299012	19.006
102) Ethylbenzene	(3)	11.294	91	517184	19.521
103) m+p-Xylene	(3)	11.404	106	398113	38.711
104) o-Xylene	(3)	11.739	106	183025	18.483
105) Xylene (Total)	(3)		106	581138	57.194
112)\$4-Bromofluorobenzene	(3)	12.189	95	315777	44.002
117) n-Propylbenzene	(4)	12.371	91	542571	23.325
122) 1,3,5-Trimethylbenzene	(4)	12.505	105	369170	22.121
126) tert-Butylbenzene	(4)	12.748	134	77221M	21.190
128) 1,2,4-Trimethylbenzene	(4)	12.791	105	367376	21.082
129) sec-Butylbenzene	(4)	12.913	105	423974	20.257
131) 1,3-Dichlorobenzene	(4)	13.010	146	188764	18.642
133)*1,4-Dichlorobenzene-d4	(4)	13.071	152	312433	50.000

M = Compound was manually integrated.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 2

Digitally signed by Chelsea B. Stong
 on 11/08/2012 at 09:12.
 Target 3.5 esignature user ID: cbs01947

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08s21.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 06:14 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 09:10 cbs01947

Sample Name: OCTS7MS

Lab Sample ID: 6850762MS

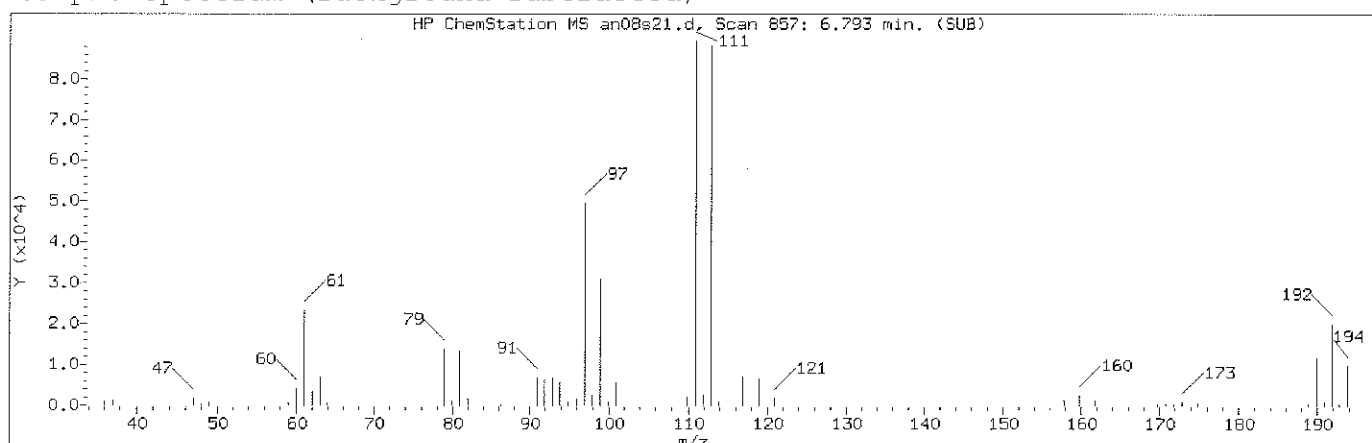
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,4-Dichlorobenzene	(4)	13.089	146	186208	17.998
139) n-Butylbenzene	(4)	13.314	92	163776M	17.160
140) 1,2-Dichlorobenzene	(4)	13.345	146	163768	17.080

M = Compound was manually integrated.

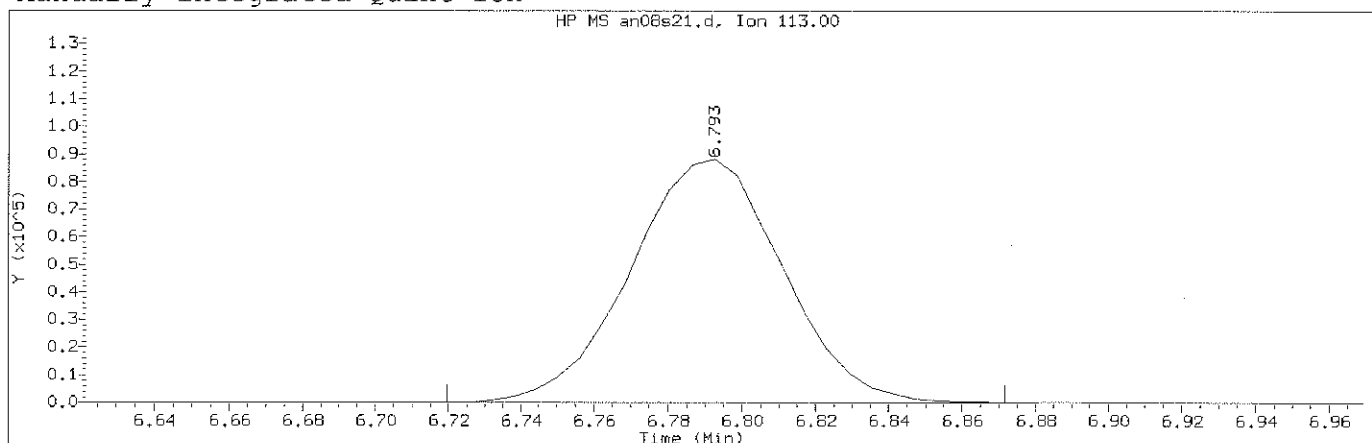
page 2 of 2

Digitally signed by Chelsea B. Stong
on 11/08/2012 at 09:12.
Target 3.5 esignature user ID: cbs01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12nov08a.b/an08s21.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 06:14 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 09:10 cbs01947

Sample Name: OCTS7MS Lab Sample ID: 6850762MS

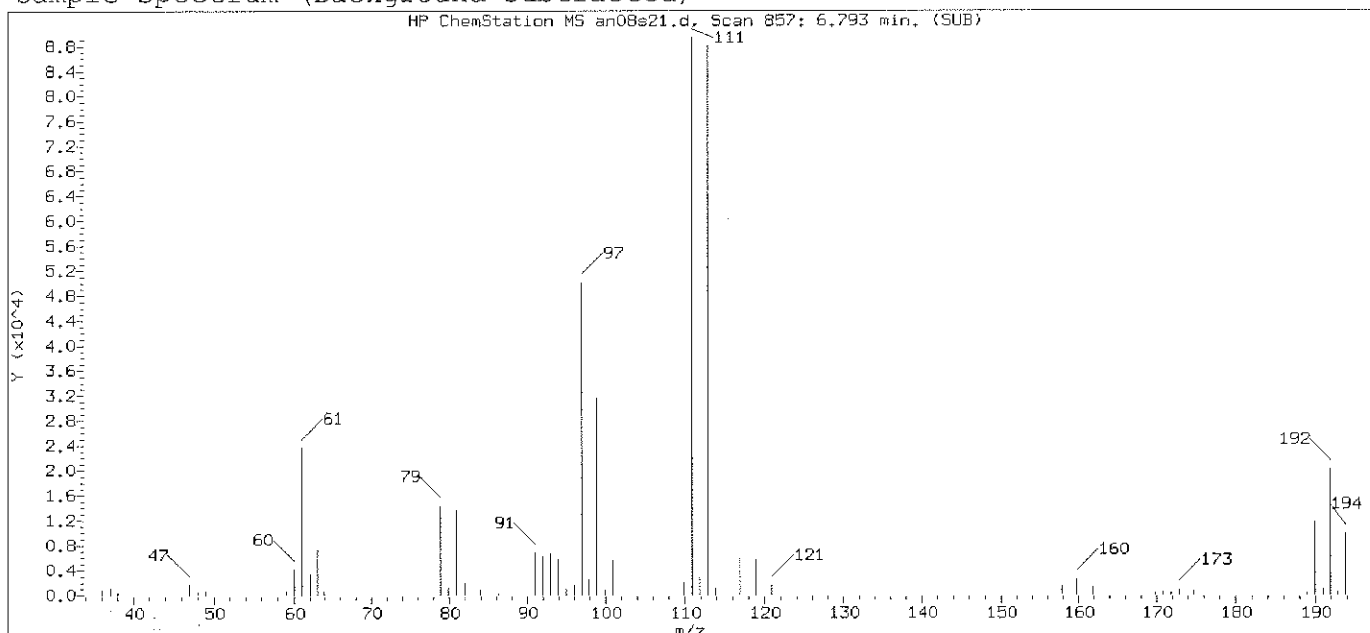
Compound Number : 55
Compound Name : Dibromofluoromethane
Scan Number : 857
Retention Time (minutes): 6.793
Quant Ion : 113.00
Area (flag) : 251398M
On-Column Amount (ng) : 48.4393
Integration start scan : 844 Integration stop scan: 869
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

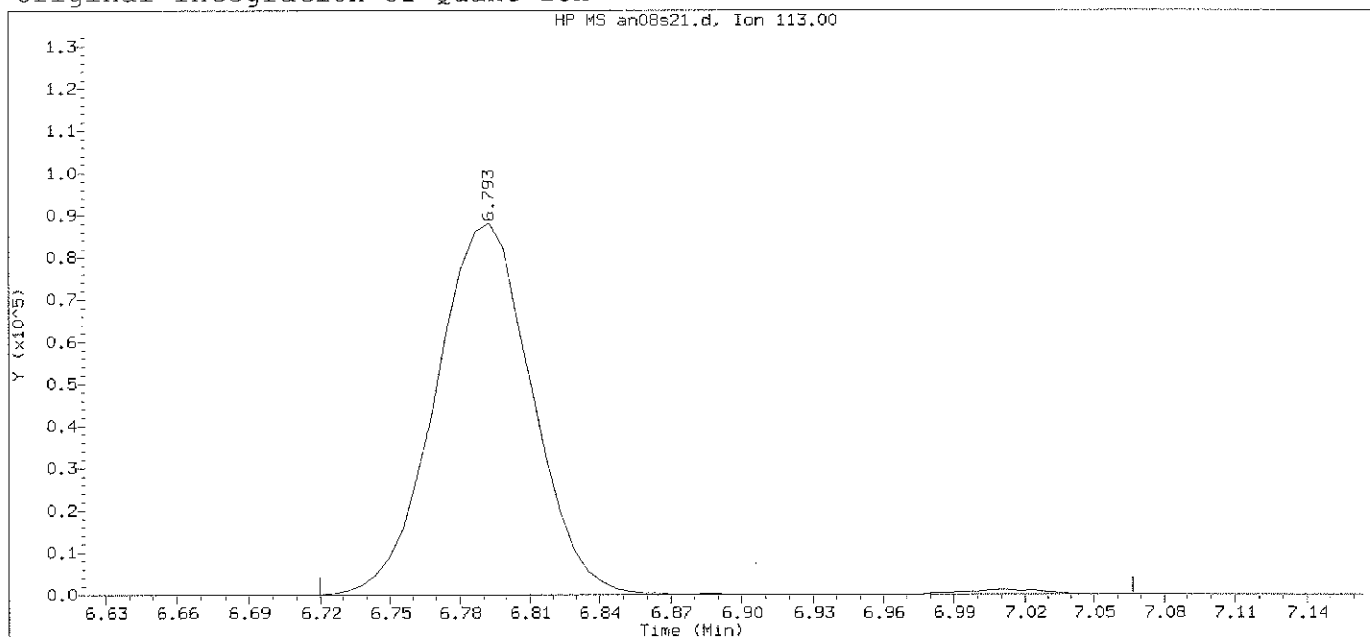
Analyst responsible for change: Digitally signed by Chelsea B. Stong
on 11/08/2012 at 09:12.
Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:59.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12nov08a.b/an08s21.d Instrument ID: HP09685.i
 Injection date and time: 08-NOV-2012 06:14 Analyst ID: SAS00403

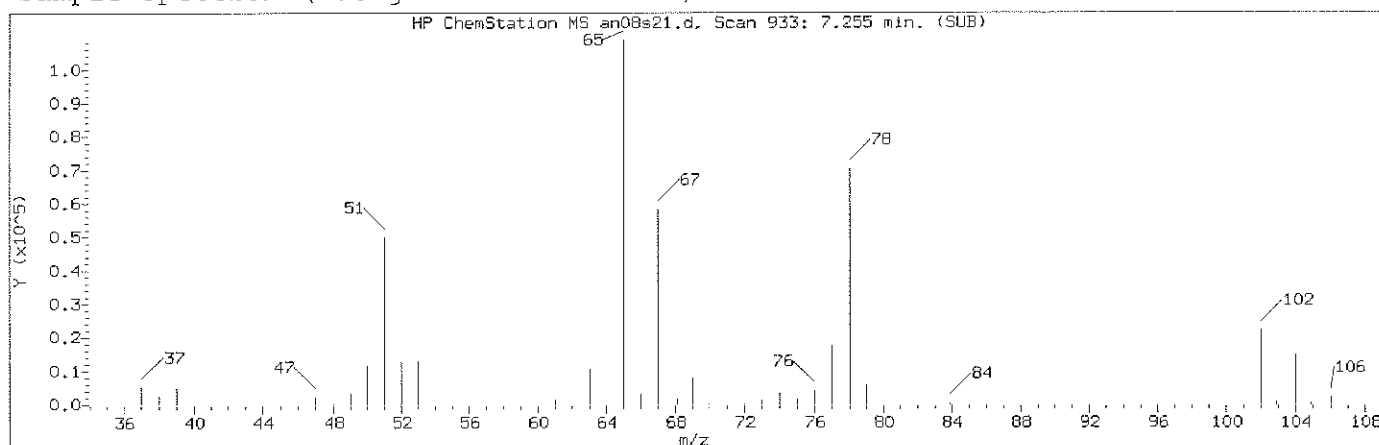
Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
 Calibration date and time: 08-NOV-2012 00:53
 Date, time and analyst ID of latest file update: 08-Nov-2012 06:33 Automation

Sample Name: OCTS7MS Lab Sample ID: 6850762MS

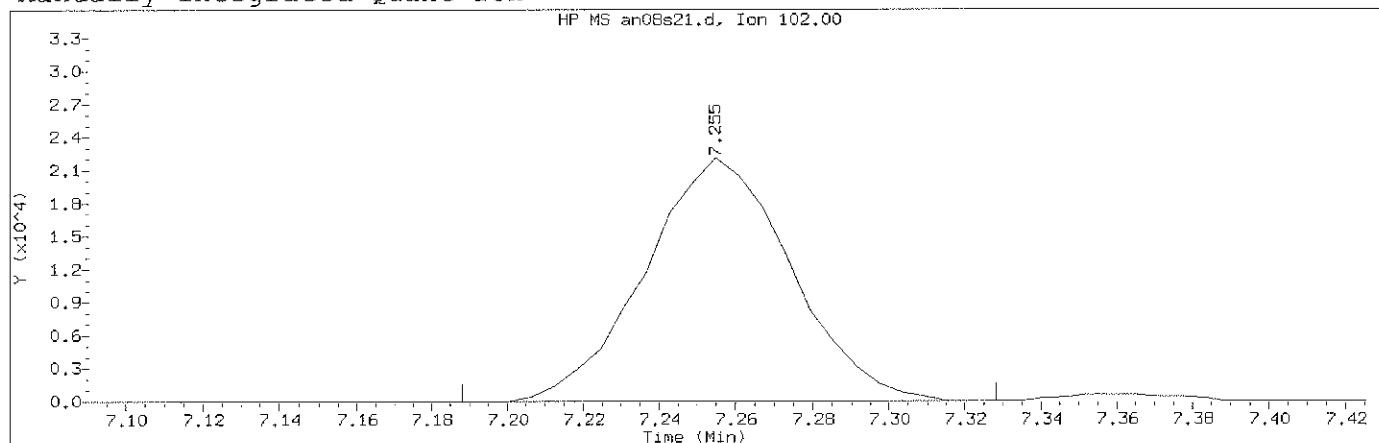
Compound Number : 55
 Compound Name : Dibromofluoromethane
 Scan Number : 857
 Retention Time (minutes): 6.793
 Quant Ion : 113.00
 Area : 254142
 On-column Amount (ng) : 48.9679
 Integration start scan : 844 Integration stop scan: 901
 Y at integration start : 0 Y at integration end: 0

Digitally signed by Chelsea B. Stong on 11/08/2012 at 09:12.
 Target 3.5 esignature user TAP03 Page 716 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12nov08a.b/an08s21.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 06:14 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 09:10 cbs01947

Sample Name: OCTS7MS Lab Sample ID: 6850762MS

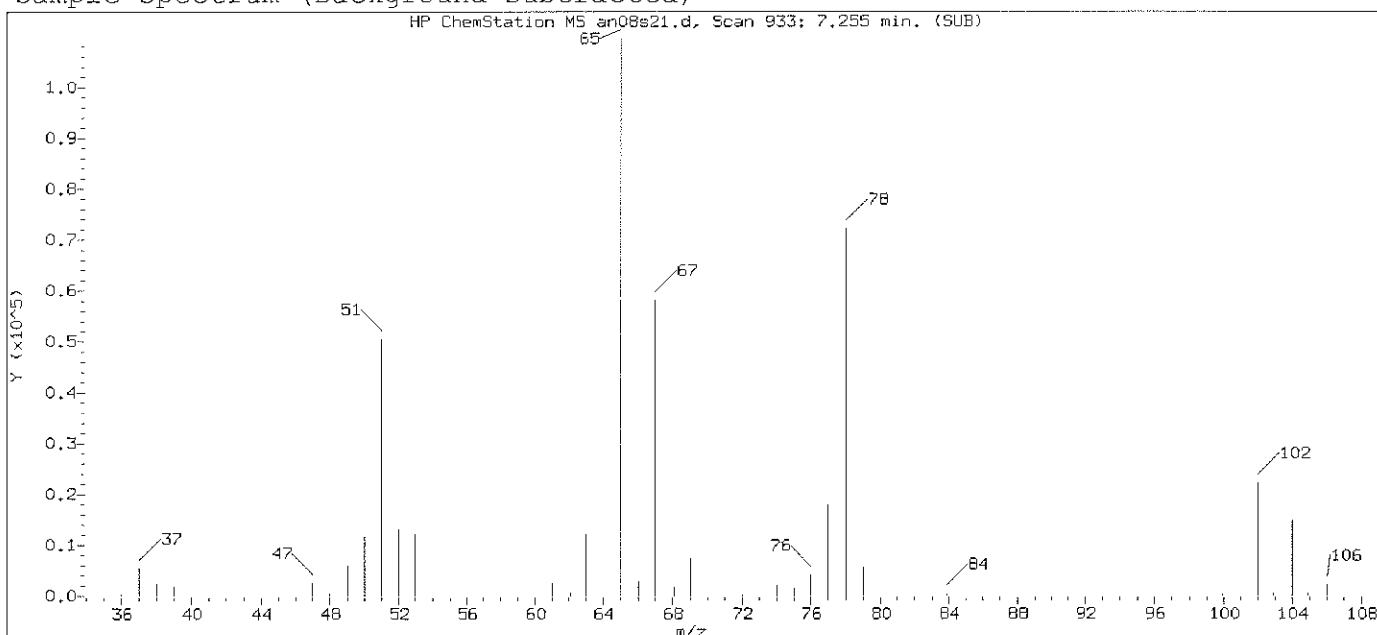
Compound Number : 61
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 933
Retention Time (minutes): 7.255
Quant Ion : 102.00
Area (flag) : 58272M
On-Column Amount (ng) : 48.4862
Integration start scan : 921 Integration stop scan: 944
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

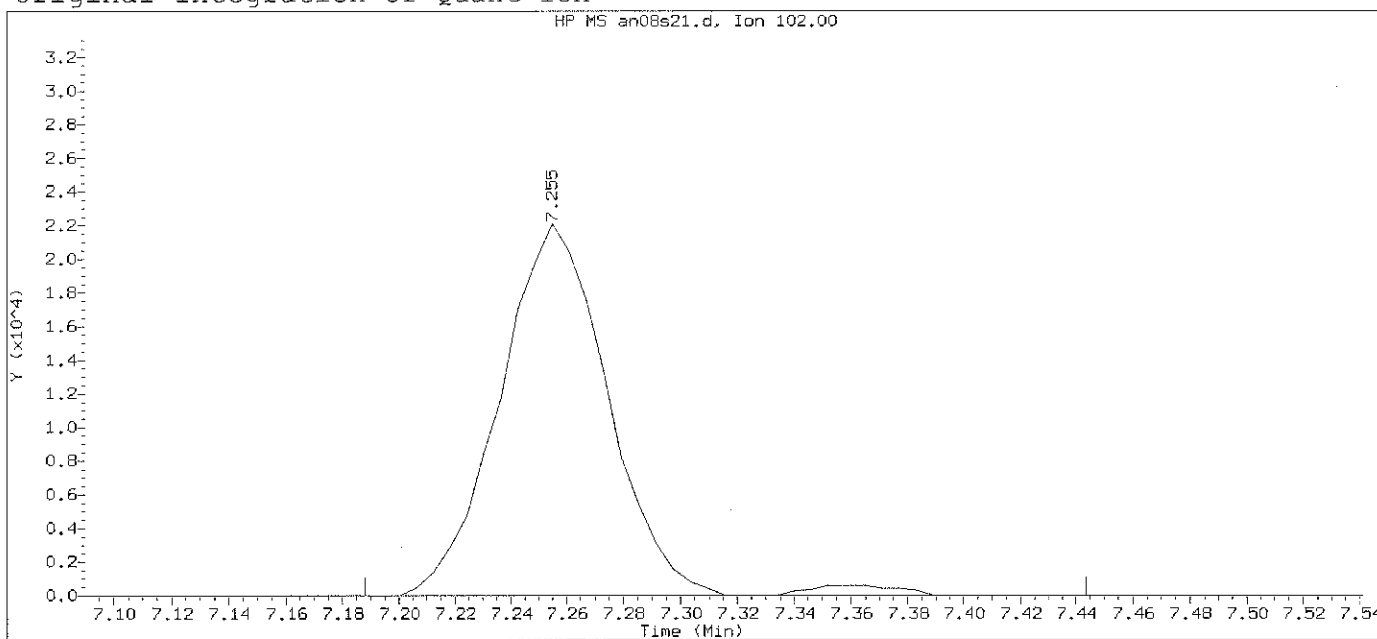
Analyst responsible for change: Digitally signed by Chelsea B. Stong
on 11/08/2012 at 09:12.
Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:59.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12nov08a.b/an08s21.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 06:14 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 06:33 Automation

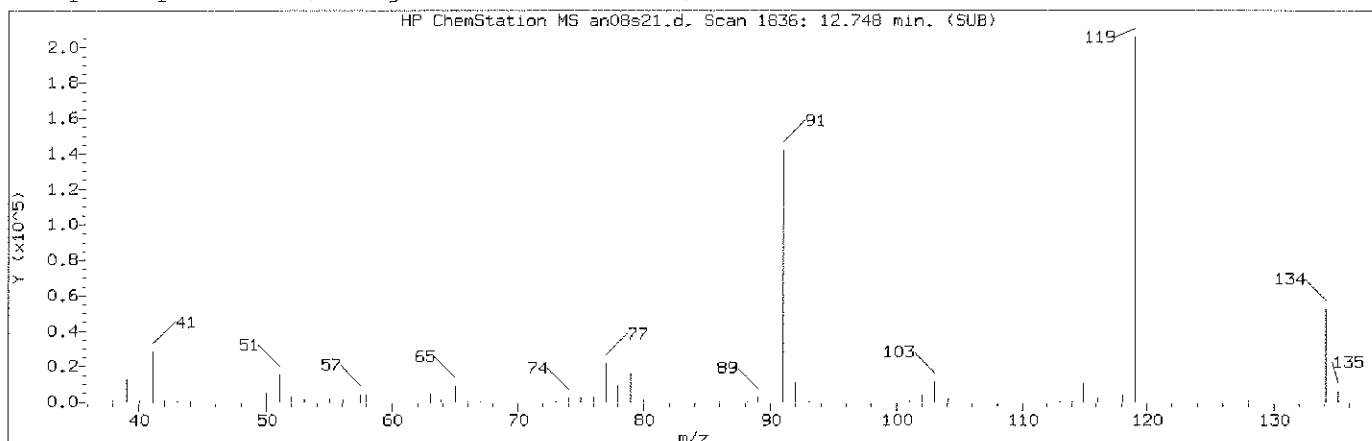
Sample Name: OCTS7MS

Lab Sample ID: 6850762MS

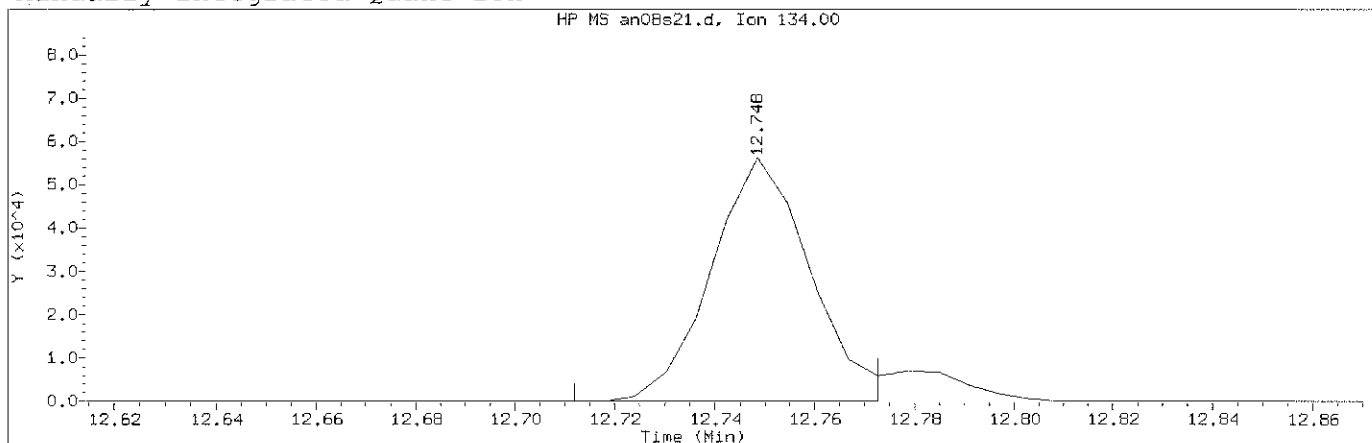
Compound Number : 61
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 933
Retention Time (minutes): 7.255
Quant Ion : 102.00
Area : 59558
On-column Amount (ng) : 49.5565
Integration start scan : 921 Integration stop scan: 963
Y at integration start : 0 Y at integration end: 0

Digitally signed by Chelsea B. Stong on 11/08/2012 at 09:12.
Target 3.5 esignature user TAP03 Page 718 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12nov08a.b/an08s21.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 06:14 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 09:10 cbs01947

Sample Name: OCTS7MS Lab Sample ID: 6850762MS

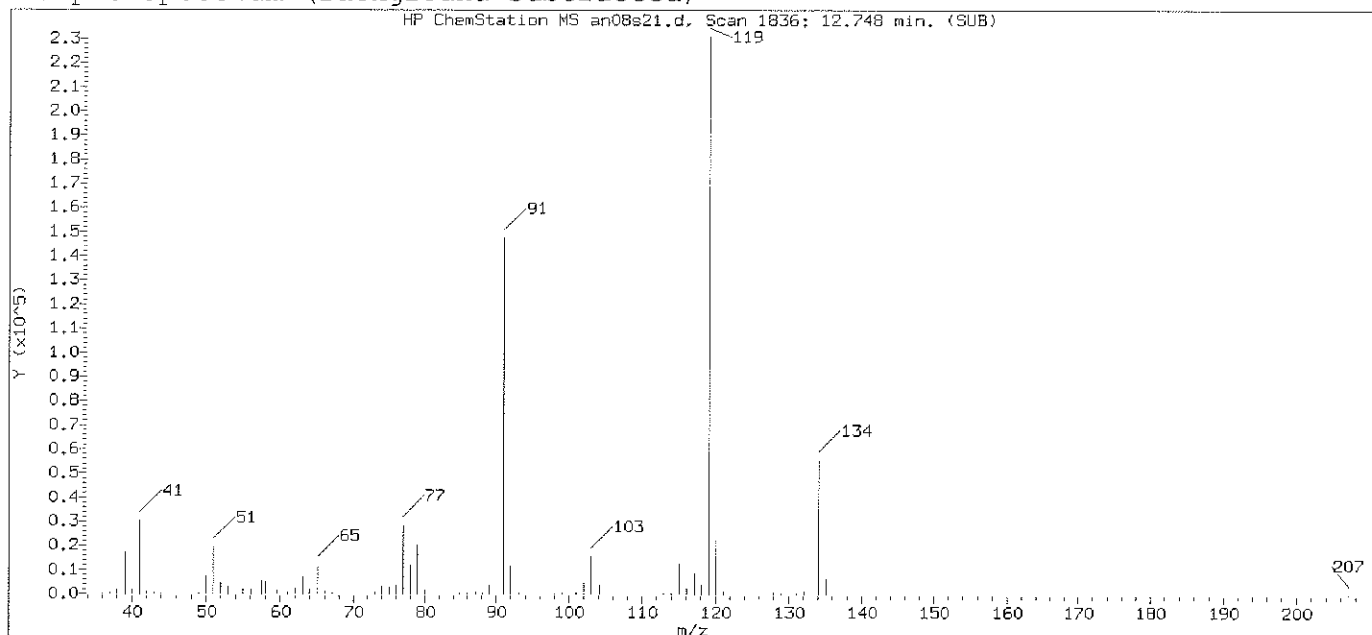
Compound Number : 126
Compound Name : tert-Butylbenzene
Scan Number : 1836
Retention Time (minutes): 12.748
Quant Ion : 134.00
Area (flag) : 77221M
On-Column Amount (ng) : 21.1904
Integration start scan : 1829 Integration stop scan: 1839
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

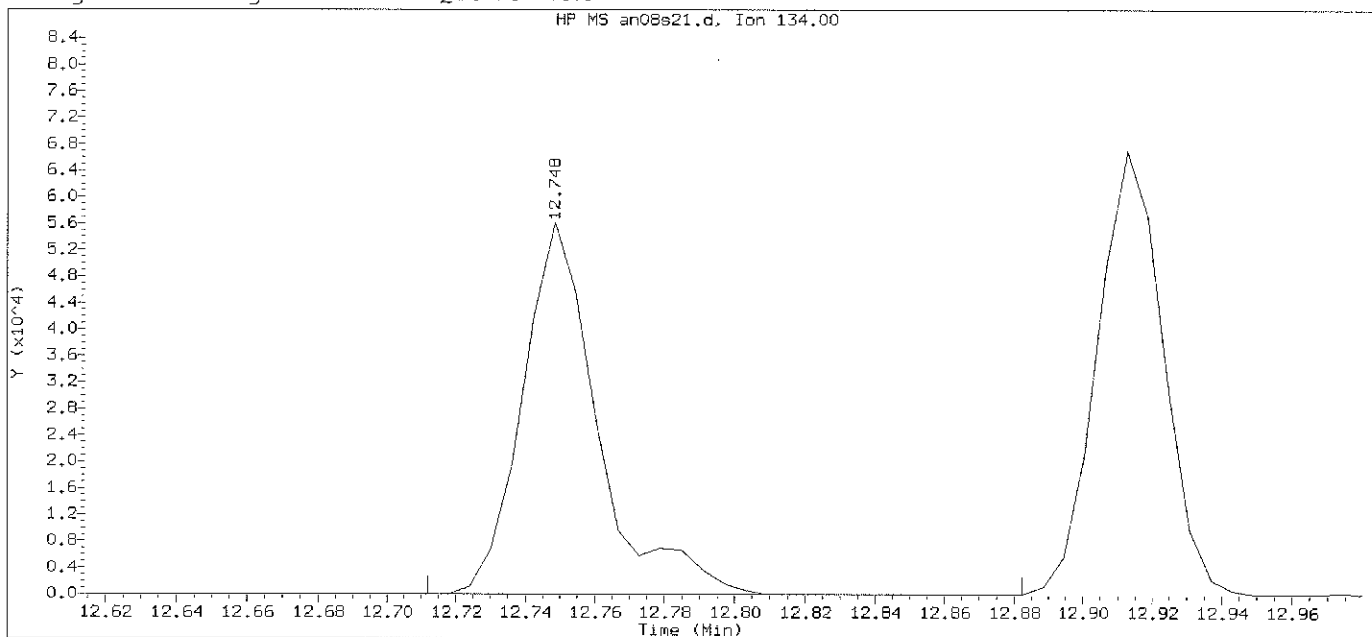
Analyst responsible for change: Digitally signed by Chelsea B. Stong
on 11/08/2012 at 09:12.
Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:59.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



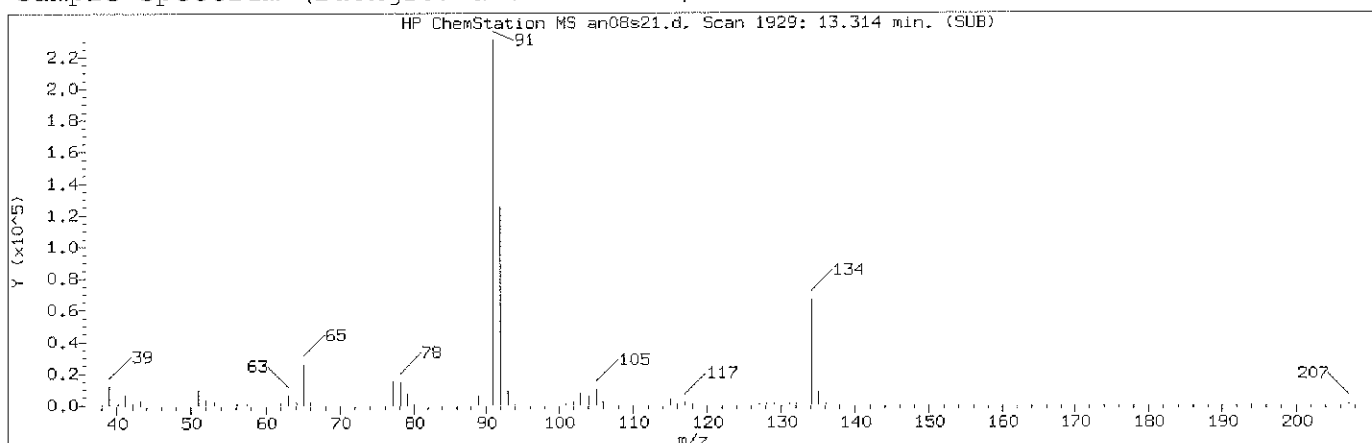
Data File: /chem2/HP09685.i/12nov08a.b/an08s21.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 06:14 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 06:33 Automation

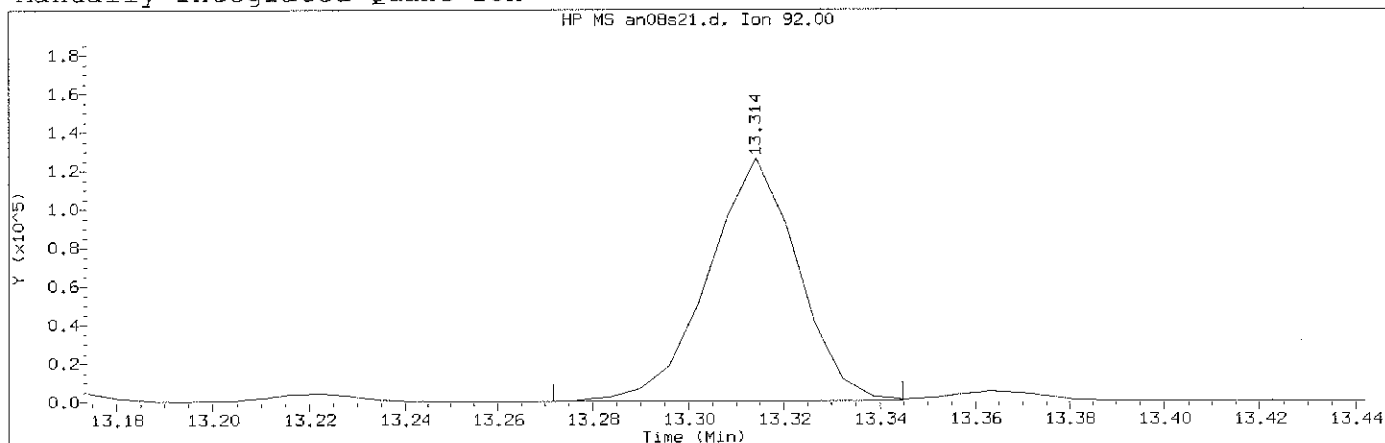
Sample Name: OCTS7MS Lab Sample ID: 6850762MS

Compound Number : 126
Compound Name : tert-Butylbenzene
Scan Number : 1836
Retention Time (minutes): 12.748
Quant Ion : 134.00
Area : 84313
On-column Amount (ng) : 23.1364
Integration start scan : 1829 Integration stop scan: 1857
Y at integration start : 0 Y at integration end: 0

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12nov08a.b/an08s21.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 06:14 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 10261
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 09:10 cbs01947

Sample Name: OCTS7MS Lab Sample ID: 6850762MS

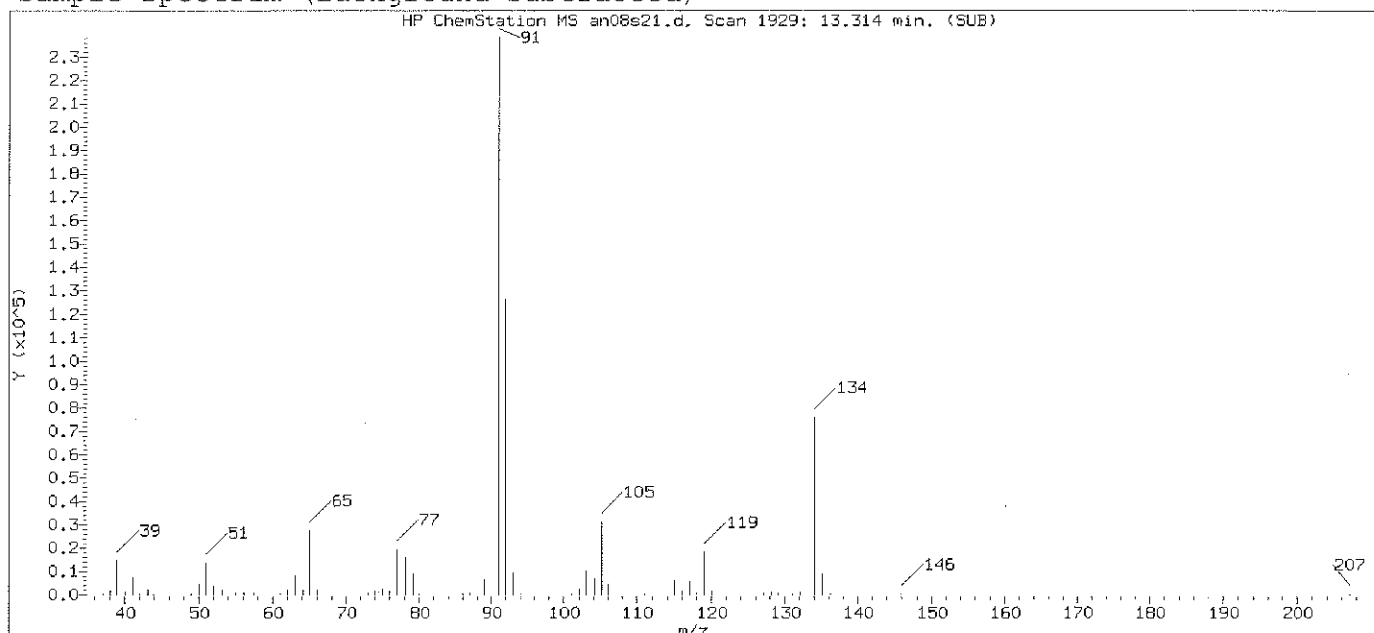
Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1929
Retention Time (minutes): 13.314
Quant Ion : 92.00
Area (flag) : 163776M
On-Column Amount (ng) : 17.1596
Integration start scan : 1921 Integration stop scan: 1933
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

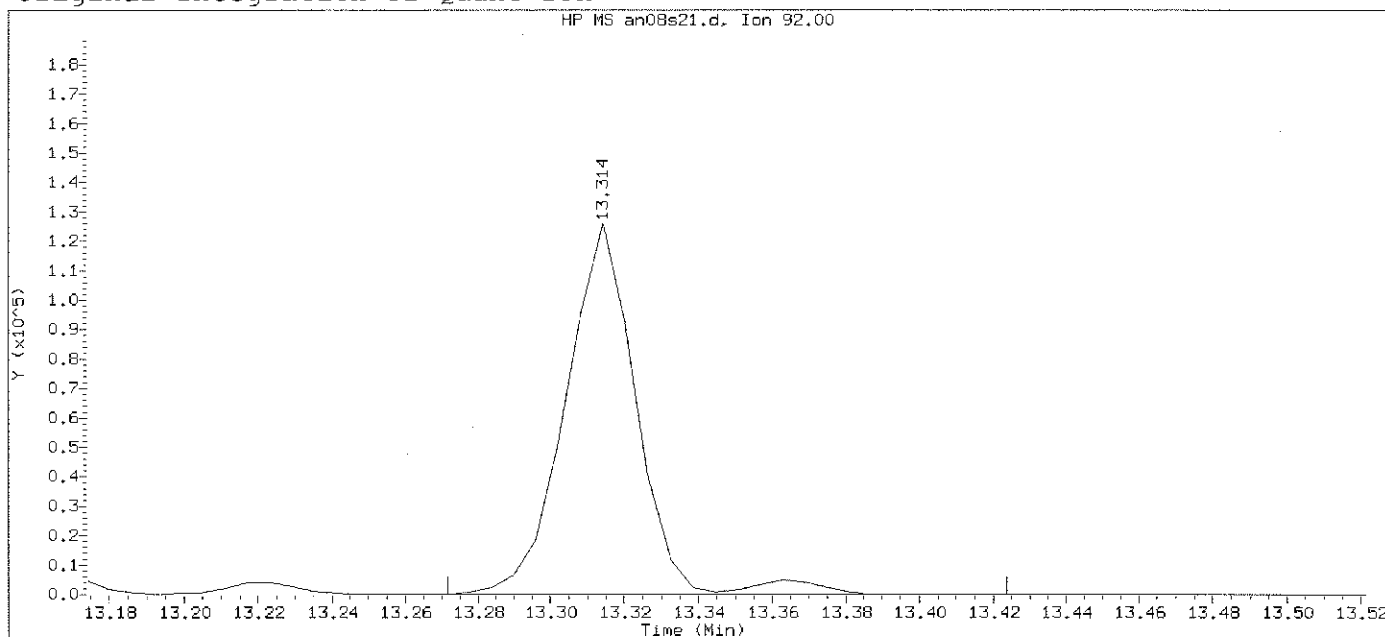
Analyst responsible for change: Digitally signed by Chelsea B. Stong
on 11/08/2012 at 09:12.
Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:59.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12nov08a.b/an08s21.d

Instrument ID: HP09685.i

Injection date and time: 08-NOV-2012 06:14

Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m

Sublist used: 10261

Calibration date and time: 08-NOV-2012 00:53

Date, time and analyst ID of latest file update: 08-Nov-2012 06:33 Automation

Sample Name: OCTS7MS

Lab Sample ID: 6850762MS

Compound Number	: 139	
Compound Name	: n-Butylbenzene	
Scan Number	: 1929	
Retention Time (minutes)	: 13.314	
Quant Ion	: 92.00	
Area	: 169982	
On-column Amount (ng)	: 17.8098	
Integration start scan	: 1921	Integration stop scan: 1946
Y at integration start	: 0	Y at integration end: 0

Digitally signed by Chelsea B. Stong on 11/08/2012 at 09:12.

Target 3.5 esignature user TAP03 Page 722 of 2648

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSA25

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCSA25

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08101.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(mg/L or mg/Kg) mg/Kg

Q

75-71-8-----	Dichlorodifluoromethane	0.011	
74-87-3-----	Chloromethane	0.015	
75-01-4-----	Vinyl Chloride	0.015	
74-83-9-----	Bromomethane	0.016	
75-00-3-----	Chloroethane	0.016	
75-69-4-----	Trichlorofluoromethane	0.015	
64-17-5-----	Ethanol	0.890	
107-02-8-----	Acrolein	0.150	
75-35-4-----	1,1-Dichloroethene	0.018	
67-64-1-----	Acetone	0.220	
76-13-1-----	Freon 113	0.015	
67-63-0-----	2-Propanol	0.130	
74-88-4-----	Methyl Iodide	0.018	
75-15-0-----	Carbon Disulfide	0.016	
79-20-9-----	Methyl Acetate	0.018	
107-05-1-----	Allyl Chloride	0.018	
75-09-2-----	Methylene Chloride	0.019	
75-65-0-----	t-Butyl alcohol	0.210	
107-13-1-----	Acrylonitrile	0.075	
1634-04-4-----	Methyl Tertiary Butyl Ether	0.017	
156-60-5-----	trans-1,2-Dichloroethene	0.018	
110-54-3-----	n-Hexane	0.013	
75-34-3-----	1,1-Dichloroethane	0.018	
108-20-3-----	di-Isopropyl ether	0.016	
126-99-8-----	2-Chloro-1,3-butadiene	0.017	
637-92-3-----	Ethyl t-butyl ether	0.017	
78-93-3-----	2-Butanone	0.150	
156-59-2-----	cis-1,2-Dichloroethene	0.019	
540-59-0-----	1,2-Dichloroethene (Total)	0.038	
594-20-7-----	2,2-Dichloropropane	0.018	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSA25

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCSA25

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08101.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(mg/L or mg/Kg) mg/Kg

Q

107-12-0-----	Propionitrile	0.150	
126-98-7-----	Methacrylonitrile	0.130	
74-97-5-----	Bromochloromethane	0.020	
109-99-9-----	Tetrahydrofuran	0.100	
67-66-3-----	Chloroform	0.018	
71-55-6-----	1,1,1-Trichloroethane	0.017	
110-82-7-----	Cyclohexane	0.014	
563-58-6-----	1,1-Dichloropropene	0.017	
56-23-5-----	Carbon Tetrachloride	0.017	
78-83-1-----	Isobutyl Alcohol	0.440	
71-43-2-----	Benzene	0.018	
107-06-2-----	1,2-Dichloroethane	0.017	
994-05-8-----	t-Amyl methyl ether	0.017	
142-82-5-----	n-Heptane	0.013	
71-36-3-----	n-Butanol	0.880	
79-01-6-----	Trichloroethene	0.019	
108-87-2-----	Methylcyclohexane	0.017	
78-87-5-----	1,2-Dichloropropane	0.018	
80-62-6-----	Methyl Methacrylate	0.016	
123-91-1-----	1,4-Dioxane	0.500	
74-95-3-----	Dibromomethane	0.018	
75-27-4-----	Bromodichloromethane	0.018	
79-46-9-----	2-Nitropropane	0.016	
10061-01-5-----	cis-1,3-Dichloropropene	0.019	
108-10-1-----	4-Methyl-2-pentanone	0.075	
108-88-3-----	Toluene	0.019	
10061-02-6-----	trans-1,3-Dichloropropene	0.018	
97-63-2-----	Ethyl Methacrylate	0.017	
79-00-5-----	1,1,2-Trichloroethane	0.019	
127-18-4-----	Tetrachloroethene	0.019	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSA25

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCSA25

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08101.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

142-28-9	1,3-Dichloropropane	0.018	
591-78-6	2-Hexanone	0.085	
124-48-1	Dibromochloromethane	0.019	
106-93-4	1,2-Dibromoethane	0.018	
108-90-7	Chlorobenzene	0.019	
630-20-6	1,1,1,2-Tetrachloroethane	0.019	
100-41-4	Ethylbenzene	0.019	
179601-23-1	m+p-Xylene	0.039	
95-47-6	o-Xylene	0.019	
1330-20-7	Xylene (Total)	0.058	
100-42-5	Styrene	0.019	
75-25-2	Bromoform	0.018	
98-82-8	Isopropylbenzene	0.019	
108-94-1	Cyclohexanone	0.550	
79-34-5	1,1,2,2-Tetrachloroethane	0.019	
108-86-1	Bromobenzene	0.020	
110-57-6	trans-1,4-Dichloro-2-butene	0.090	
96-18-4	1,2,3-Trichloropropane	0.018	
103-65-1	n-Propylbenzene	0.020	
95-49-8	2-Chlorotoluene	0.020	
108-67-8	1,3,5-Trimethylbenzene	0.020	
106-43-4	4-Chlorotoluene	0.020	
98-06-6	tert-Butylbenzene	0.021	
76-01-7	Pentachloroethane	0.017	
95-63-6	1,2,4-Trimethylbenzene	0.020	
135-98-8	sec-Butylbenzene	0.020	
541-73-1	1,3-Dichlorobenzene	0.020	
99-87-6	p-Isopropyltoluene	0.020	
106-46-7	1,4-Dichlorobenzene	0.019	
526-73-8	1,2,3-Trimethylbenzene	0.019	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSA25

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCSA25

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08101.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

100-44-7	Benzyl Chloride	0.018	
141-93-5	1,3-Diethylbenzene	0.018	
105-05-5	1,4-Diethylbenzene	0.018	
104-51-8	n-Butylbenzene	0.019	
95-50-1	1,2-Dichlorobenzene	0.019	
135-01-3	1,2-Diethylbenzene	0.018	
96-12-8	1,2-Dibromo-3-chloropropane	0.016	
108-70-3	1,3,5-Trichlorobenzene	0.019	
120-82-1	1,2,4-Trichlorobenzene	0.020	
87-68-3	Hexachlorobutadiene	0.020	
91-20-3	Naphthalene	0.021	
87-61-6	1,2,3-Trichlorobenzene	0.020	
91-57-6	2-Methylnaphthalene	0.018	
25340-17-4	Diethylbenzene (total)	0.055	

LCSA25

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCSA25

Data file: /chem2/HP09685.i/12nov08a.b/an08101.d

Injection date and time: 08-NOV-2012 01:39

Data file Sample Info. Line: LCSA25;LCSA25;2;3;LCS;;;an08b01;

Instrument ID: HP09685.i Batch: A123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 02:21 sas00403

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C

Calibration date and time (Last Method Edit): 08-NOV-2012 00:53

Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	4.170(0.006)	426	65	123756 (3)	250.00	
67) Fluorobenzene	7.687(0.000)	1004	96	1195194 (-4)	50.00	
99) Chlorobenzene-d5	11.179(0.000)	1578	117	860415 (-5)	50.00	
133) 1,4-Dichlorobenzene-d4	13.071(0.000)	1889	152	492672 (-4)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	6.786(0.000)	113	269360	47.163	94%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	7.255(0.000)	102	64239	48.572	97%		54 - 135
86) Toluene-d8	(3)	9.713(0.000)	98	1147518	49.872	100%		52 - 141
112) 4-Bromofluorobenzene	(3)	12.189(0.000)	95	424144	49.249	98%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(2)	1.968(0.000)	85	122433	11.215	11.21			2	5
4) Chloromethane	(2)	2.096(0.001)	50	141513	14.567	14.57			2	5
5) Vinyl Chloride	(2)	2.230(0.001)	62	137093	14.651	14.65			1	5
9) Bromomethane	(2)	2.546(0.002)	94	96175	16.386	16.39			2	5
10) Chloroethane	(2)	2.662(0.000)	64	79309	15.784	15.78			2	5
13) Trichlorofluoromethane	(2)	2.966(0.001)	101	165183	14.761	14.76			2	5
15) Ethanol	(1)	3.063(0.003)	45	55257	890.652	890.65			100	500
18) Acrolein	(1)	3.386(0.001)	56	174987	147.398	147.40			20	100
19) 1,1-Dichloroethene	(2)	3.520(0.000)	96	103910	17.900	17.90			1	5
20) Acetone	(2)	3.550(0.000)	58	167484	215.777	215.78			7	20
22) Freon 113	(2)	3.556(0.000)	101	97402	15.210	15.21			2	10
23) 2-Propanol	(1)	3.702(0.001)	45	55871	128.651	128.65			60	100
24) Methyl Iodide	(2)	3.720(0.000)	142	190126	17.551	17.55			3	5
25) Carbon Disulfide	(2)	3.824(0.000)	76	343523	16.191	16.19			1	5
27) Methyl Acetate	(2)	3.958(0.000)	43	93771	17.553	17.55			2	5
29) Allyl Chloride	(2)	3.994(0.000)	41	189205	18.123	18.12			1	5
31) Methylene Chloride	(2)	4.176(0.000)	84	133521	18.571	18.57			2	5
32) t-Butyl alcohol	(1)	4.292(0.001)	59	139301M	209.257	209.26			20	100
33) Acrylonitrile	(2)	4.505(0.000)	53	214640	75.464	75.46			4	20
34) Methyl Tertiary Butyl Ether	(2)	4.578(0.000)	73	346120	17.114	17.11			0.5	5
35) trans-1,2-Dichloroethene	(2)	4.590(0.000)	96	121251	18.403	18.40			1	5
38) n-Hexane	(2)	5.010(0.000)	57	142529	13.420	13.42			1	5
40) 1,1-Dichloroethane	(2)	5.253(0.000)	63	229141	17.648	17.65			1	5
41) di-Isopropyl ether	(2)	5.302(0.000)	45	384731	15.974	15.97			1	5
42) 2-Chloro-1,3-butadiene	(2)	5.357(0.000)	53	183153	16.967	16.97			1	5
44) Ethyl t-butyl ether	(2)	5.843(0.000)	59	355811	16.801	16.80			1	5
45) 2-Butanone	(2)	6.050(0.000)	43	538732	148.528	148.53			4	10
46) cis-1,2-Dichloroethene	(2)	6.081(0.000)	96	136007	19.132	19.13			1	5
47) 1,2-Dichloroethene (Total)	(2)		96	257258	37.535	37.53			1	5
48) 2,2-Dichloropropane	(2)	6.099(0.000)	77	184534	18.012	18.01			1	5

M = Compound was manually integrated.

LCSA25

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCSA25

Data file: /chem2/HP09685.i/12nov08a.b/an08101.d

Injection date and time: 08-NOV-2012 01:39

Data file Sample Info. Line: LCSA25;LCSA25;2;3;LCS;;;an08b01;

Instrument ID: HP09685.i Batch: A123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 02:21 sas00403

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C

Calibration date and time (Last Method Edit): 08-NOV-2012 00:53

Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
50) Propionitrile	(1)	6.148(-0.002)	54	128753	149.417	149.42			30	100
51) Methacrylonitrile	(2)	6.360(0.000)	67	370687	128.396	128.40			5	50
52) Bromochloromethane	(2)	6.421(-0.000)	128	64159	19.602	19.60			1	5
53) Tetrahydrofuran	(1)	6.434(-0.002)	71	71449	100.961	100.96			4	5
54) Chloroform	(2)	6.567(-0.000)	83	222350	17.773	17.77			1	5
56) 1,1,1-Trichloroethane	(2)	6.798(0.000)	97	195860	17.236	17.24			1	5
57) Cyclohexane	(2)	6.896(0.000)	56	178111	14.479	14.48			1	5
58) 1,1-Dichloropropene	(2)	7.012(0.000)	75	162825	16.947	16.95			1	5
59) Carbon Tetrachloride	(2)	7.012(0.000)	117	152721	16.971	16.97			1	5
60) Isobutyl Alcohol	(1)	7.145(-0.002)	41	108639	444.654	444.65			100	250
62) Benzene	(2)	7.273(0.000)	78	507736	18.384	18.38			0.5	5
64) 1,2-Dichloroethane	(2)	7.358(-0.000)	62	170503	17.328	17.33			1	5
65) t-Amyl methyl ether	(2)	7.462(0.000)	73	323042	17.083	17.08			1	5
69) n-Heptane	(2)	7.687(0.000)	43	158447	13.413	13.41			3	5
70) n-Butanol	(1)	8.027(-0.002)	56	164488	875.552	875.55			110	250
72) Trichloroethene	(2)	8.161(-0.000)	95	129178	18.573	18.57			1	5
73) Methylcyclohexane	(2)	8.478(-0.000)	83	190444	17.067	17.07			1	5
74) 1,2-Dichloropropane	(2)	8.508(-0.000)	63	132758	17.774	17.77			1	5
76) Methyl Methacrylate	(2)	8.581(-0.000)	69	76254	15.885	15.89			1	5
77) 1,4-Dioxane	(1)	8.593(-0.001)	88	30042	497.889	497.89			70	250
78) Dibromomethane	(2)	8.618(-0.000)	93	76951	18.089	18.09			1	5
81) Bromodichloromethane	(2)	8.849(-0.000)	83	151288	17.773	17.77			1	5
82) 2-Nitropropane	(1)	9.122(-0.003)	41	25711	16.219	16.22			3	10
84) cis-1,3-Dichloropropene	(2)	9.402(-0.000)	75	196665	18.932	18.93			1	5
85) 4-Methyl-2-pentanone	(2)	9.567(-0.000)	43	562010	74.671	74.67			3	10
87) Toluene	(3)	9.786(0.000)	92	315828	18.866	18.87			1	5
88) trans-1,3-Dichloropropene	(3)	10.047(0.000)	75	175632	17.901	17.90			1	5
89) Ethyl Methacrylate	(3)	10.108(0.000)	69	142720	16.993	16.99			1	5
90) 1,1,2-Trichloroethane	(3)	10.254(0.000)	97	105499	18.826	18.83			1	5
92) Tetrachloroethene	(3)	10.333(0.000)	166	149431	19.428	19.43			1	5
93) 1,3-Dichloropropane	(3)	10.418(0.000)	76	186684	18.241	18.24			1	5
95) 2-Hexanone	(3)	10.467(0.000)	43	468282	84.593	84.59			3	10
97) Dibromochloromethane	(3)	10.637(0.000)	129	114851	18.542	18.54			1	5
98) 1,2-Dibromoethane	(3)	10.753(0.000)	107	106732	18.474	18.47			1	5
100) Chlorobenzene	(3)	11.203(-0.000)	112	363079	19.231	19.23			1	5
101) 1,1,1,2-Tetrachloroethane	(3)	11.288(0.000)	131	121881	18.686	18.69			1	5
102) Ethylbenzene	(3)	11.288(0.000)	91	608954	19.153	19.15			1	5
103) m+p-Xylene	(3)	11.404(0.000)	106	479249	38.831	38.83			1	5
104) o-Xylene	(3)	11.738(0.000)	106	226887	19.093	19.09			1	5
105) Xylene (Total)	(3)		106	706136	57.924	57.92			1	5
106) Styrene	(3)	11.751(0.000)	104	368630	19.207	19.21			1	5
107) Bromoform	(3)	11.915(0.000)	173	75064	17.551	17.55			1	5
108) Isopropylbenzene	(3)	12.036(-0.000)	105	592952	19.145	19.15			1	5
111) Cyclohexanone	(1)	12.116(-0.004)	55	136879	553.611	553.61			25	250
113) 1,1,2,2-Tetrachloroethane	(4)	12.286(0.000)	83	142682	18.581	18.58			1	5
114) Bromobenzene	(4)	12.304(0.000)	156	163822	19.582	19.58			1	5
115) trans-1,4-Dichloro-2-butene	(4)	12.310(0.000)	53	210669	90.131	90.13			10	50
116) 1,2,3-Trichloropropane	(4)	12.201(0.010)	110	41189	18.171	18.17			1	5
117) n-Propylbenzene	(4)	12.371(0.000)	91	730486	19.915	19.91			1	5
119) 2-Chlorotoluene	(4)	12.444(-0.000)	126	150893	19.569	19.57			1	5
122) 1,3,5-Trimethylbenzene	(4)	12.505(-0.000)	105	517115	19.650	19.65			1	5
123) 4-Chlorotoluene	(4)	12.541(0.000)	126	158993	19.761	19.76			1	5
126) tert-Butylbenzene	(4)	12.748(0.000)	134	121864	21.207	21.21			1	5

LCSA25

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCSA25

Data file: /chem2/HP09685.i/12nov08a.b/an08101.d

Injection date and time: 08-NOV-2012 01:39

Data file Sample Info. Line: LCSA25;LCSA25;2;3;LCS;;;an08b01;

Instrument ID: HP09685.i Batch: A123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 02:21 sas00403

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m

Sublist used: 8260S-F2C

Calibration date and time (Last Method Edit): 08-NOV-2012 00:53

Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml

Sample Weight (Ws): 5 g

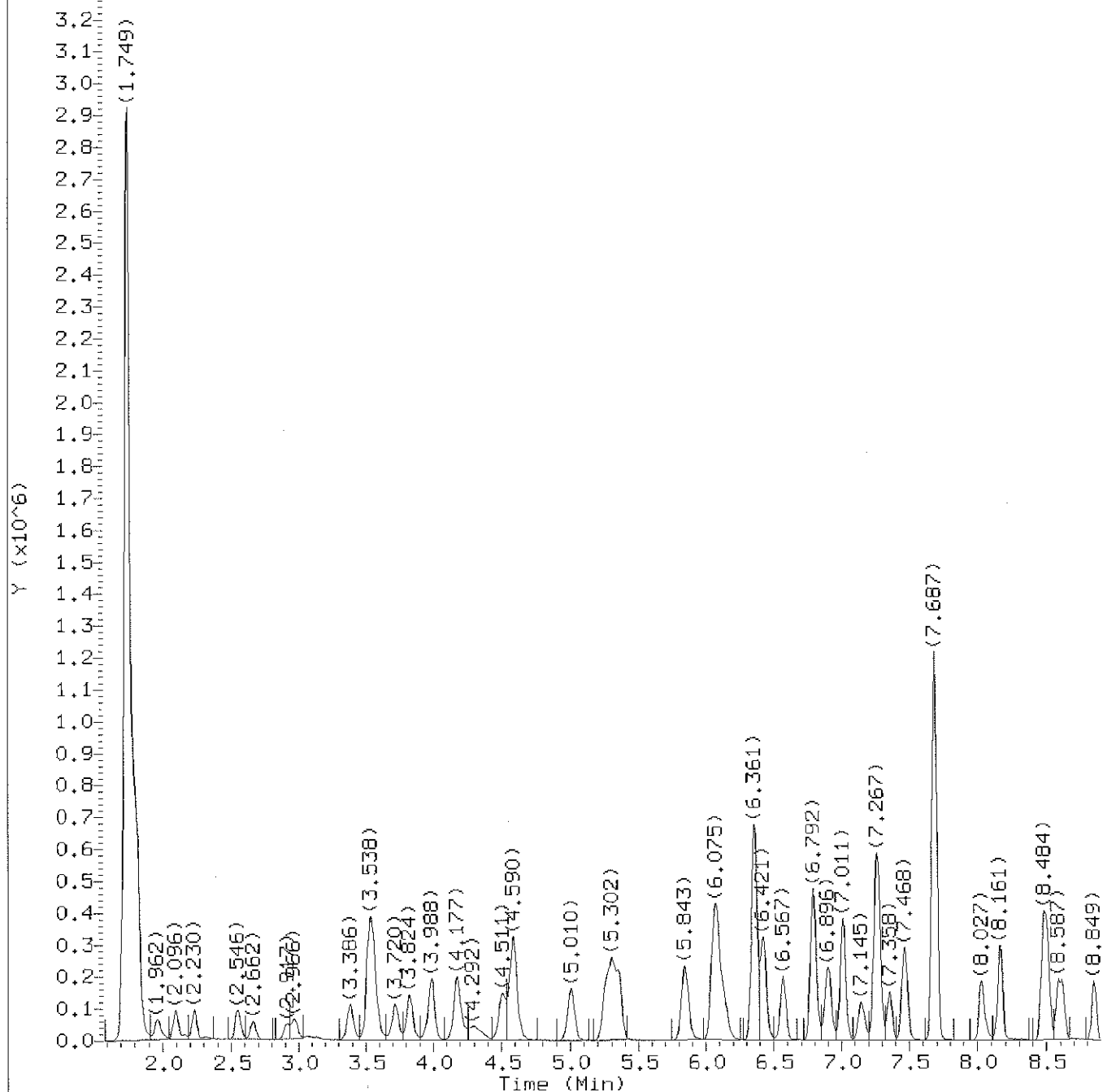
Target Compounds	I.S.		RT (+/-RRT)	QIon	Area	Conc.	Conc.	Blank	Reporting		
	Ref.					(on-column)	(in sample)	Conc.	Qual.	Limit	LOQ
=====											
127) Pentachloroethane	(4)		12.785 (0.000)	167	93045	17.045	17.04			1	5
128) 1,2,4-Trimethylbenzene	(4)		12.791 (0.000)	105	535926	19.503	19.50			1	5
129) sec-Butylbenzene	(4)		12.912 (-0.000)	105	651775	19.749	19.75			1	5
131) 1,3-Dichlorobenzene	(4)		13.016 (-0.000)	146	311571	19.513	19.51			1	5
132) p-Isopropyltoluene	(4)		13.022 (0.000)	119	587289	19.842	19.84			1	5
134) 1,4-Dichlorobenzene	(4)		13.089 (-0.000)	146	314001	19.247	19.25			1	5
135) 1,2,3-Trimethylbenzene	(4)		13.095 (-0.000)	105	533607	18.531	18.53			1	5
136) Benzyl Chloride	(4)		13.162 (-0.000)	126	58471	17.730	17.73			1	4
137) 1,3-Diethylbenzene	(4)		13.223 (-0.000)	119	341827	18.374	18.37			1	5
138) 1,4-Diethylbenzene	(4)		13.296 (-0.000)	119	353860	18.372	18.37			1	5
139) n-Butylbenzene	(4)		13.314 (-0.000)	92	288556M	19.173	19.17			1	5
140) 1,2-Dichlorobenzene	(4)		13.344 (-0.000)	146	293061	19.383	19.38			1	5
141) 1,2-Diethylbenzene	(4)		13.363 (-0.000)	119	291699M	18.373	18.37			1	5
144) 1,2-Dibromo-3-chloropropane	(4)		13.892 (-0.000)	75	24484	16.481	16.48			2	5
145) 1,3,5-Trichlorobenzene	(4)		14.014 (-0.000)	180	252754	19.313	19.31			1	5
146) 1,2,4-Trichlorobenzene	(4)		14.440 (-0.000)	180	225663	20.078	20.08			1	5
147) Hexachlorobutadiene	(4)		14.519 (-0.000)	225	131781	19.727	19.73			2	5
148) Naphthalene	(4)		14.622 (-0.000)	128	485795	20.763	20.76			1	5
149) 1,2,3-Trichlorobenzene	(4)		14.762 (-0.000)	180	214747	20.324	20.32			1	5
150) 2-Methylnaphthalene	(4)		15.395 (-0.000)	142	225082	18.495	18.50			2	5

M = Compound was manually integrated.

Total number of targets = 103

Digitally signed by Stephanie A. Selis on 11/08/2012 at 06:17. Target 3.5 signature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:59. Parallax ID: ahu01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08101.d
Injection date and time: 08-NOV-2012 01:39

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m
Calibration date and time: 08-NOV-2012 00:53

Sublist used: 8260S-F2C

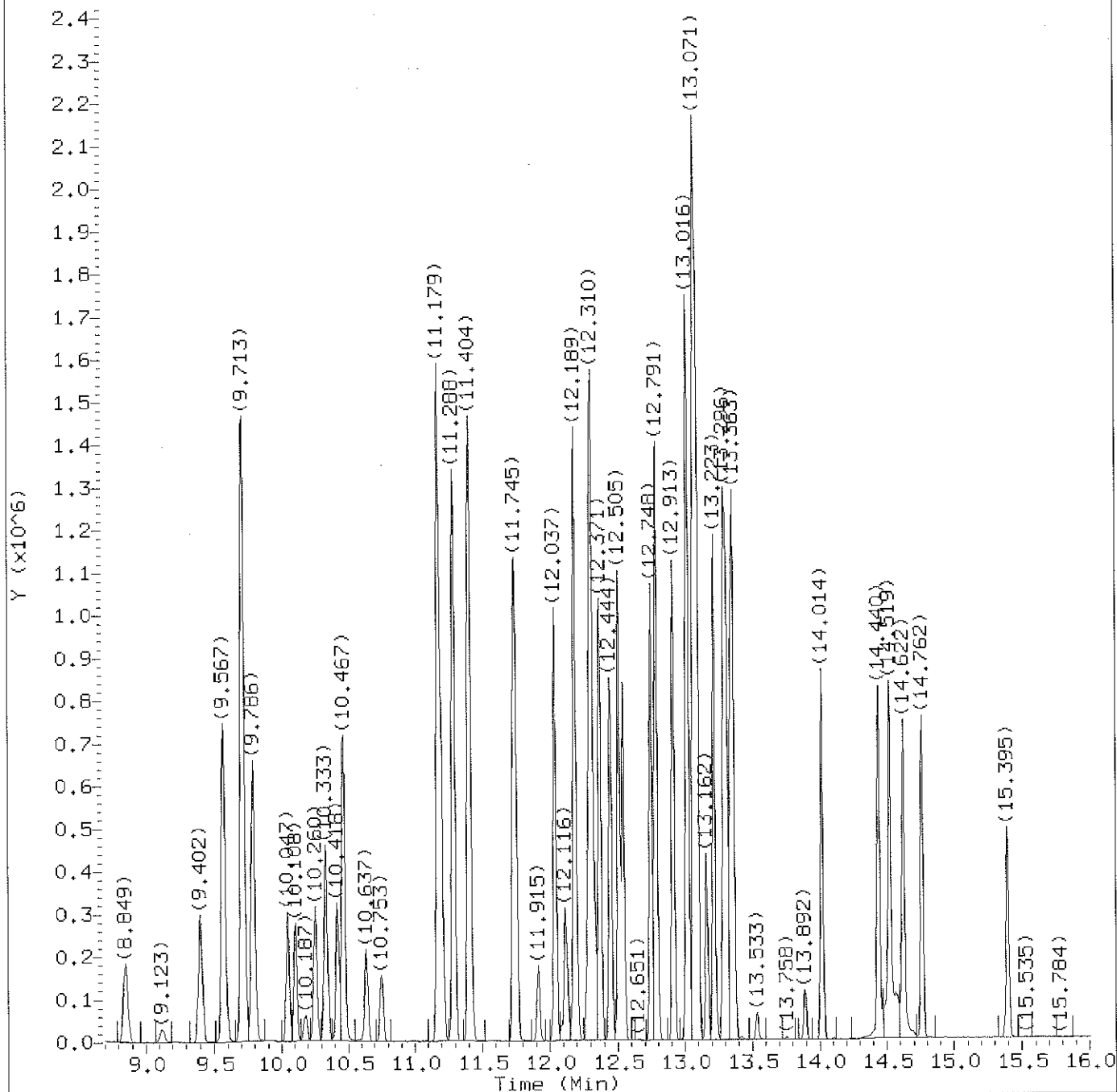
Date, time and analyst ID of latest file update: 08-Nov-2012 02:21 sas00403

Sample Name: LCSA25

Lab Sample ID: LCSA25

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:17.

Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08101.d
Injection date and time: 08-NOV-2012 01:39

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 02:21 sas00403

Sublist used: 8260S-F2C

Sample Name: LCSA25

Lab Sample ID: LCSA25

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:17.
Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08101.d
Injection date and time: 08-NOV-2012 01:39

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 02:21 sas00403

Sample Name: LCSA25

Lab Sample ID: LCSA25

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.968	85	122433	11.215
4) Chloromethane	(2)	2.096	50	141513	14.567
5) Vinyl Chloride	(2)	2.230	62	137093	14.651
9) Bromomethane	(2)	2.546	94	96175	16.386
10) Chloroethane	(2)	2.662	64	79309	15.784
13) Trichlorofluoromethane	(2)	2.966	101	165183	14.761
15) Ethanol	(1)	3.063	45	55257	890.652
18) Acrolein	(1)	3.386	56	174987	147.398
19) 1,1-Dichloroethene	(2)	3.520	96	103910	17.900
20) Acetone	(2)	3.550	58	167484	215.777
22) Freon 113	(2)	3.556	101	97402	15.210
23) 2-Propanol	(1)	3.702	45	55871	128.651
24) Methyl Iodide	(2)	3.720	142	190126	17.551
25) Carbon Disulfide	(2)	3.824	76	343523	16.191
27) Methyl Acetate	(2)	3.958	43	93771	17.553
29) Allyl Chloride	(2)	3.994	41	189205	18.123
30) *t-Butyl alcohol-d10	(1)	4.170	65	123756	250.000
31) Methylene Chloride	(2)	4.177	84	133521	18.571
32) t-Butyl alcohol	(1)	4.292	59	139301M	209.257
33) Acrylonitrile	(2)	4.505	53	214640	75.464
34) Methyl Tertiary Butyl Ether	(2)	4.578	73	346120	17.114
35) trans-1,2-Dichloroethene	(2)	4.590	96	121251	18.403
38) n-Hexane	(2)	5.010	57	142529	13.420
40) 1,1-Dichloroethane	(2)	5.253	63	229141	17.648
41) di-Isopropyl ether	(2)	5.302	45	384731	15.974
42) 2-Chloro-1,3-butadiene	(2)	5.357	53	183153	16.967
44) Ethyl t-butyl ether	(2)	5.843	59	355811	16.801
45) 2-Butanone	(2)	6.050	43	538732	148.528
46) cis-1,2-Dichloroethene	(2)	6.081	96	136007	19.132
48) 2,2-Dichloropropane	(2)	6.099	77	184534	18.012
47) 1,2-Dichloroethene (Total)	(2)		96	257258	37.535
50) Propionitrile	(1)	6.148	54	128753	149.417
51) Methacrylonitrile	(2)	6.361	67	370687	128.396
52) Bromochloromethane	(2)	6.421	128	64159	19.602
53) Tetrahydrofuran	(1)	6.434	71	71449	100.961
54) Chloroform	(2)	6.567	83	222350	17.773
55) \$Dibromofluoromethane	(2)	6.786	113	269360	47.163
56) 1,1,1-Trichloroethane	(2)	6.799	97	195860	17.236

M = Compound was manually integrated.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 3

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on 11/08/2012 at 06:17.
Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08101.d
 Injection date and time: 08-NOV-2012 01:39

Instrument ID: HP09685.i
 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C
 Calibration date and time: 08-NOV-2012 00:53
 Date, time and analyst ID of latest file update: 08-Nov-2012 02:21 sas00403

Sample Name: LCSA25

Lab Sample ID: LCSA25

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
57) Cyclohexane	(2)	6.896	56	178111	14.479
58) 1,1-Dichloropropene	(2)	7.011	75	162825	16.947
59) Carbon Tetrachloride	(2)	7.011	117	152721	16.971
60) Isobutyl Alcohol	(1)	7.145	41	108639	444.654
61) \$1,2-Dichloroethane-d4	(2)	7.255	102	64239	48.572
62) Benzene	(2)	7.273	78	507736	18.384
64) 1,2-Dichloroethane	(2)	7.358	62	170503	17.328
65) t-Amyl methyl ether	(2)	7.462	73	323042	17.083
67) *Fluorobenzene	(2)	7.687	96	1195194	50.000
69) n-Heptane	(2)	7.687	43	158447	13.413
70) n-Butanol	(1)	8.027	56	164488	875.552
72) Trichloroethene	(2)	8.161	95	129178	18.573
73) Methylcyclohexane	(2)	8.478	83	190444	17.067
74) 1,2-Dichloropropane	(2)	8.508	63	132758	17.774
76) Methyl Methacrylate	(2)	8.581	69	76254	15.885
77) 1,4-Dioxane	(1)	8.593	88	30042	497.889
78) Dibromomethane	(2)	8.618	93	76951	18.089
81) Bromodichloromethane	(2)	8.849	83	151288	17.773
82) 2-Nitropropane	(1)	9.123	41	25711	16.219
84) cis-1,3-Dichloropropene	(2)	9.402	75	196665	18.932
85) 4-Methyl-2-pentanone	(2)	9.567	43	562010	74.671
86) \$Toluene-d8	(3)	9.713	98	1147518	49.872
87) Toluene	(3)	9.786	92	315828	18.866
88) trans-1,3-Dichloropropene	(3)	10.047	75	175632	17.901
89) Ethyl Methacrylate	(3)	10.108	69	142720	16.993
90) 1,1,2-Trichloroethane	(3)	10.254	97	105499	18.826
92) Tetrachloroethene	(3)	10.333	166	149431	19.428
93) 1,3-Dichloropropane	(3)	10.418	76	186684	18.241
95) 2-Hexanone	(3)	10.467	43	468282	84.593
97) Dibromochloromethane	(3)	10.637	129	114851	18.542
98) 1,2-Dibromoethane	(3)	10.753	107	106732	18.474
99) *Chlorobenzene-d5	(3)	11.179	117	860415	50.000
100) Chlorobenzene	(3)	11.203	112	363079	19.231
101) 1,1,1,2-Tetrachloroethane	(3)	11.288	131	121881	18.686
102) Ethylbenzene	(3)	11.288	91	608954	19.153
103) m+p-Xylene	(3)	11.404	106	479249	38.831
104) o-Xylene	(3)	11.738	106	226887	19.093
105) Xylene (Total)	(3)		106	706136	57.924

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 2 of 3

Digitally signed by Stephanie A. Selis
 on 11/08/2012 at 06:17.
 Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08101.d
Injection date and time: 08-NOV-2012 01:39

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 02:21 sas00403

Sample Name: LCSA25

Lab Sample ID: LCSA25

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
106) Styrene	(3)	11.751	104	368630	19.207
107) Bromoform	(3)	11.915	173	75064	17.551
108) Isopropylbenzene	(3)	12.037	105	592952	19.145
111) Cyclohexanone	(1)	12.116	55	136879	553.611
112) \$4-Bromofluorobenzene	(3)	12.189	95	424144	49.249
116) 1,2,3-Trichloropropane	(4)	12.201	110	41189	18.171
113) 1,1,2,2-Tetrachloroethane	(4)	12.286	83	142682	18.581
114) Bromobenzene	(4)	12.304	156	163822	19.582
115) trans-1,4-Dichloro-2-butene	(4)	12.310	53	210669	90.131
117) n-Propylbenzene	(4)	12.371	91	730486	19.915
119) 2-Chlorotoluene	(4)	12.444	126	150893	19.569
122) 1,3,5-Trimethylbenzene	(4)	12.505	105	517115	19.650
123) 4-Chlorotoluene	(4)	12.541	126	158993	19.761
126) tert-Butylbenzene	(4)	12.748	134	121864	21.207
127) Pentachloroethane	(4)	12.785	167	93045	17.045
128) 1,2,4-Trimethylbenzene	(4)	12.791	105	535926	19.503
129) sec-Butylbenzene	(4)	12.913	105	651775	19.749
131) 1,3-Dichlorobenzene	(4)	13.016	146	311571	19.513
132) p-Isopropyltoluene	(4)	13.022	119	587289	19.842
133) *1,4-Dichlorobenzene-d4	(4)	13.071	152	492672	50.000
134) 1,4-Dichlorobenzene	(4)	13.089	146	314001	19.247
135) 1,2,3-Trimethylbenzene	(4)	13.095	105	533607	18.531
136) Benzyl Chloride	(4)	13.162	126	58471	17.730
137) 1,3-Diethylbenzene	(4)	13.223	119	341827	18.374
138) 1,4-Diethylbenzene	(4)	13.296	119	353860	18.372
139) n-Butylbenzene	(4)	13.314	92	288556M	19.173
140) 1,2-Dichlorobenzene	(4)	13.344	146	293061	19.383
141) 1,2-Diethylbenzene	(4)	13.363	119	291699M	18.373
144) 1,2-Dibromo-3-chloropropane	(4)	13.892	75	24484	16.481
145) 1,3,5-Trichlorobenzene	(4)	14.014	180	252754	19.313
146) 1,2,4-Trichlorobenzene	(4)	14.440	180	225663	20.078
147) Hexachlorobutadiene	(4)	14.519	225	131781	19.727
148) Naphthalene	(4)	14.622	128	485795	20.763
149) 1,2,3-Trichlorobenzene	(4)	14.762	180	214747	20.324
150) 2-Methylnaphthalene	(4)	15.395	142	225082	18.495

M = Compound was manually integrated.

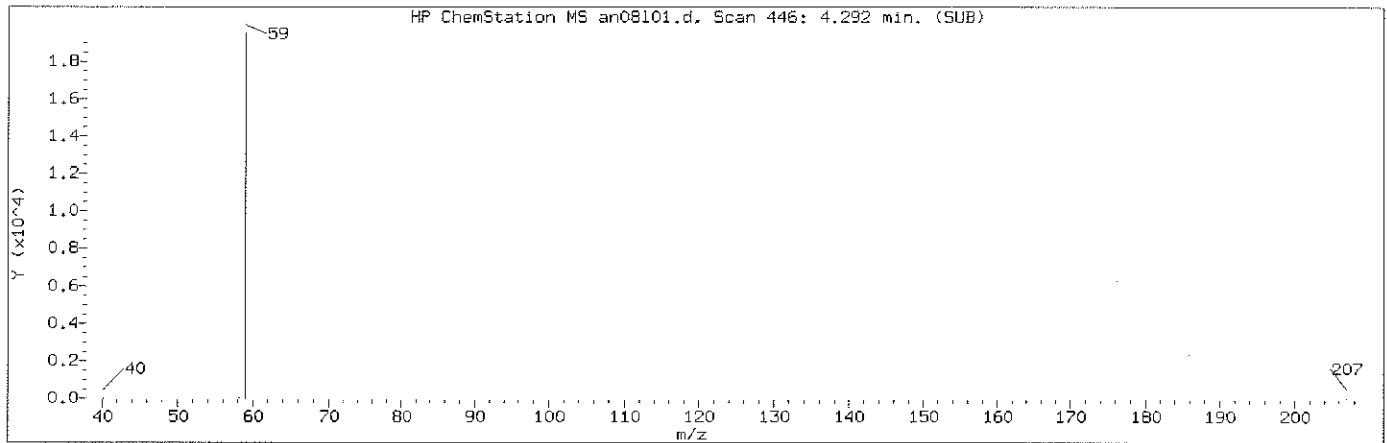
* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

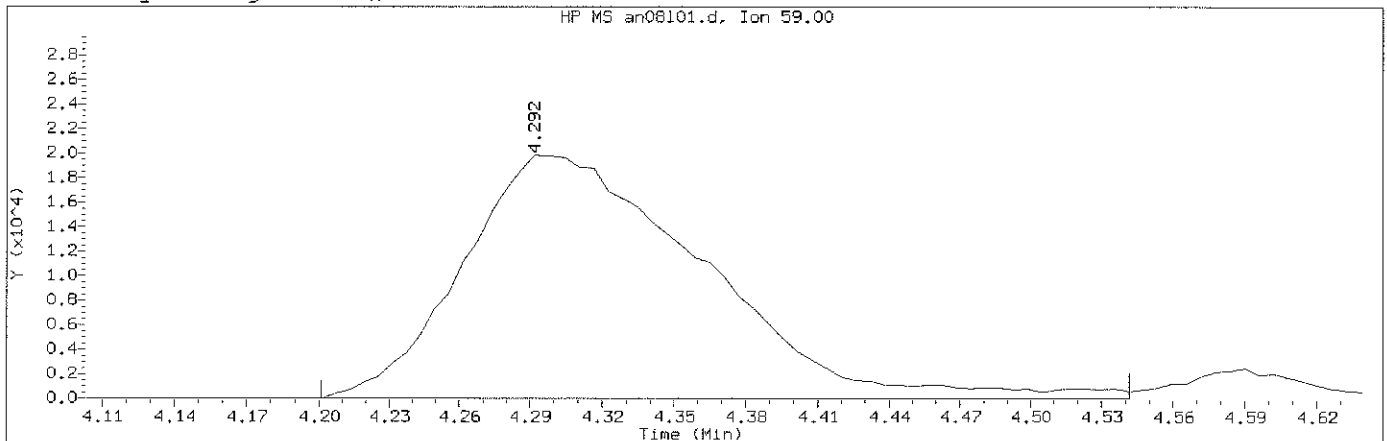
page 3 of 3

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:17.
Target 3.5 esignature user ID: sas00403

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12nov08a.b/an08101.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 01:39 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 02:21 sas00403

Sample Name: LCSA25 Lab Sample ID: LCSA25

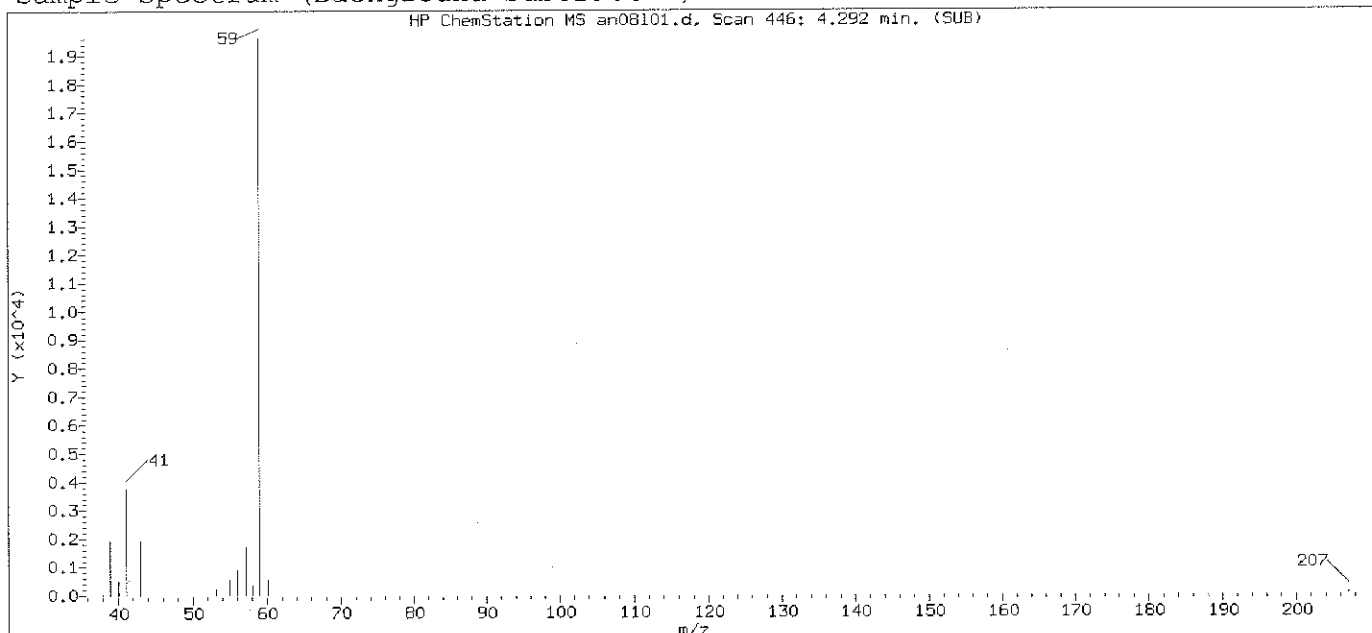
Compound Number : 32
Compound Name : t-Butyl alcohol
Scan Number : 446
Retention Time (minutes): 4.292
Quant Ion : 59.00
Area (flag) : 139301M
On-Column Amount (ng) : 209.2569
Integration start scan : 430 Integration stop scan: 486
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

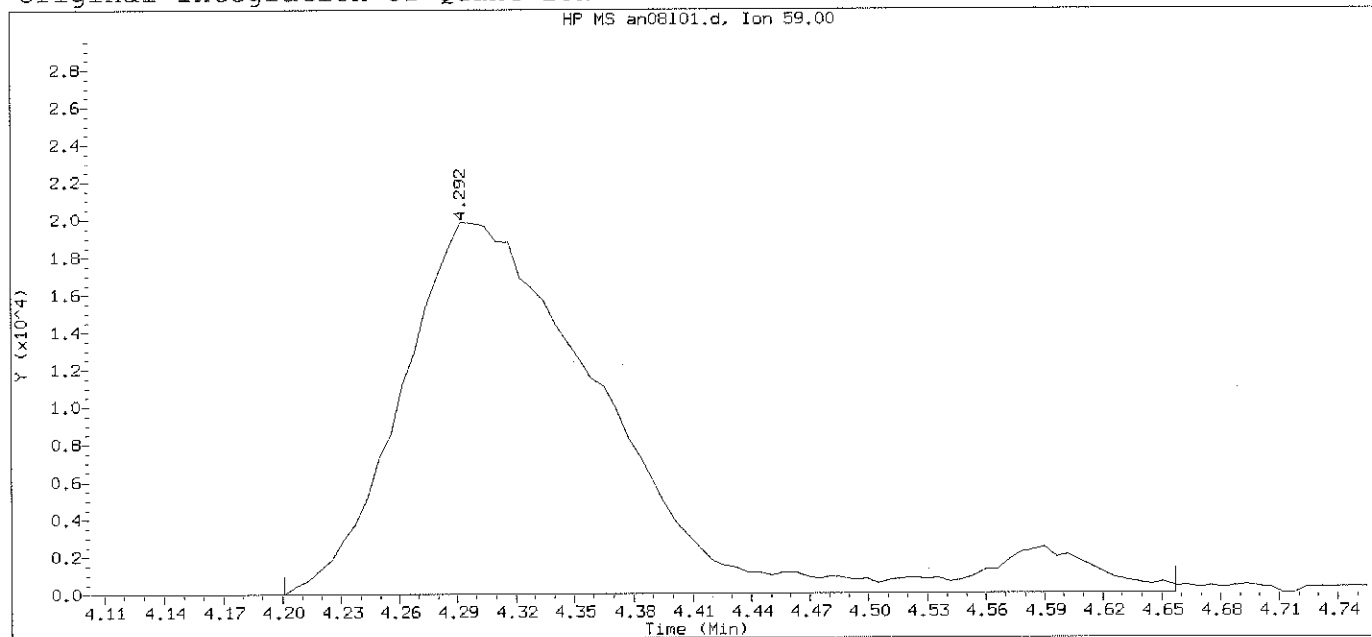
Analyst responsible for change: Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:17.
Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:59.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12nov08a.b/an08101.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 01:39 Analyst ID: SAS00403

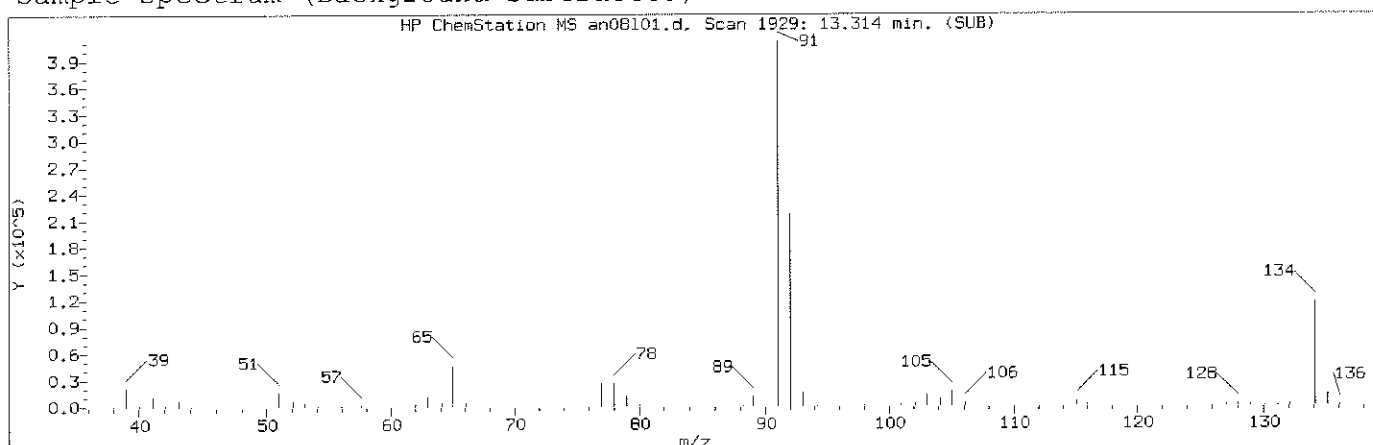
Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 01:59 Automation

Sample Name: LCSA25

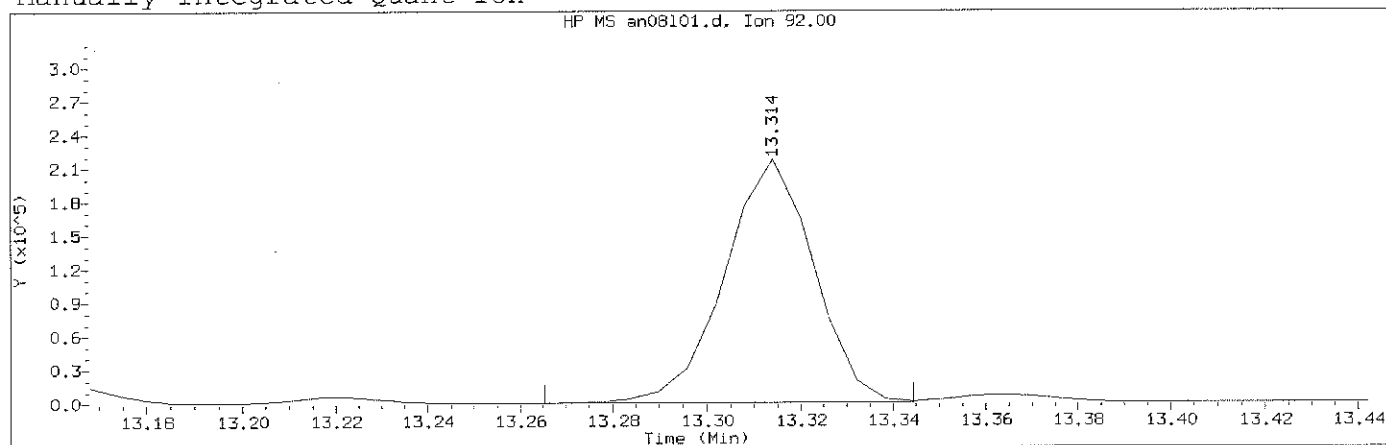
Lab Sample ID: LCSA25

Compound Number : 32
Compound Name : t-Butyl alcohol
Scan Number : 446
Retention Time (minutes): 4.292
Quant Ion : 59.00
Area : 148215
On-column Amount (ng) : 222.6458
Integration start scan : 430 Integration stop scan: 505
Y at integration start : 0 Y at integration end: 0

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12nov08a.b/an08101.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 01:39 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 02:21 sas00403

Sample Name: LCSA25 Lab Sample ID: LCSA25

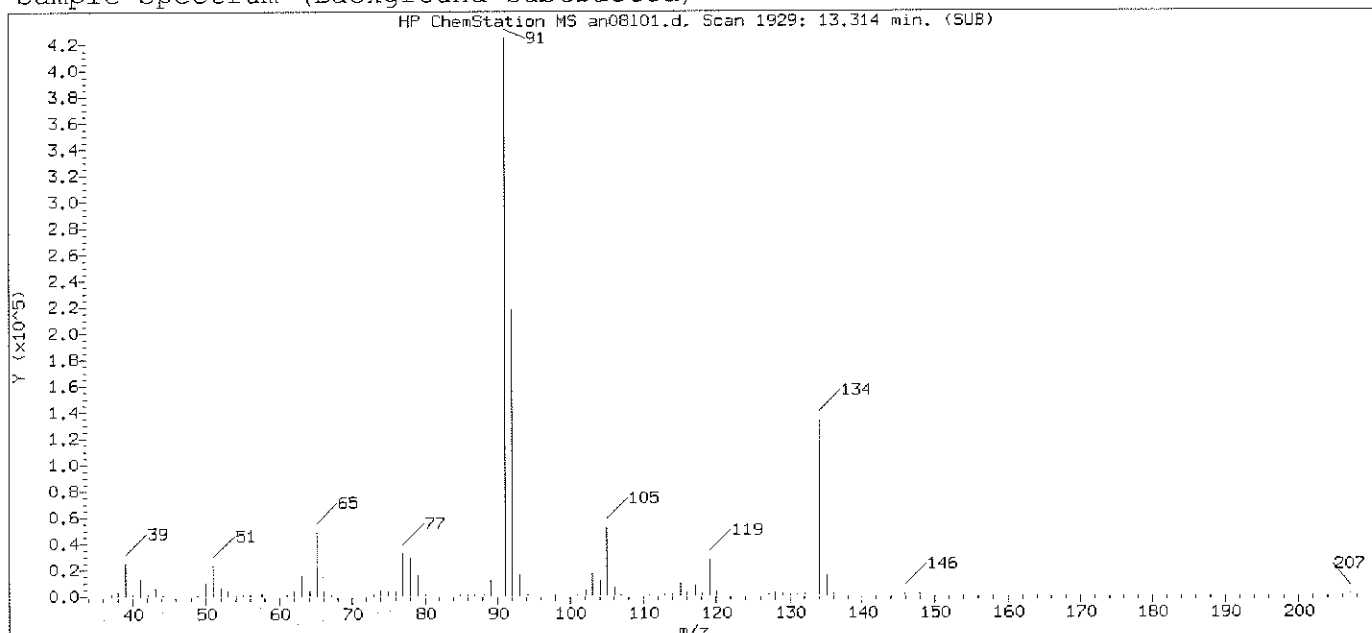
Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1929
Retention Time (minutes): 13.314
Quant Ion : 92.00
Area (flag) : 288556M
On-Column Amount (ng) : 19.1728
Integration start scan : 1920 Integration stop scan: 1933
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

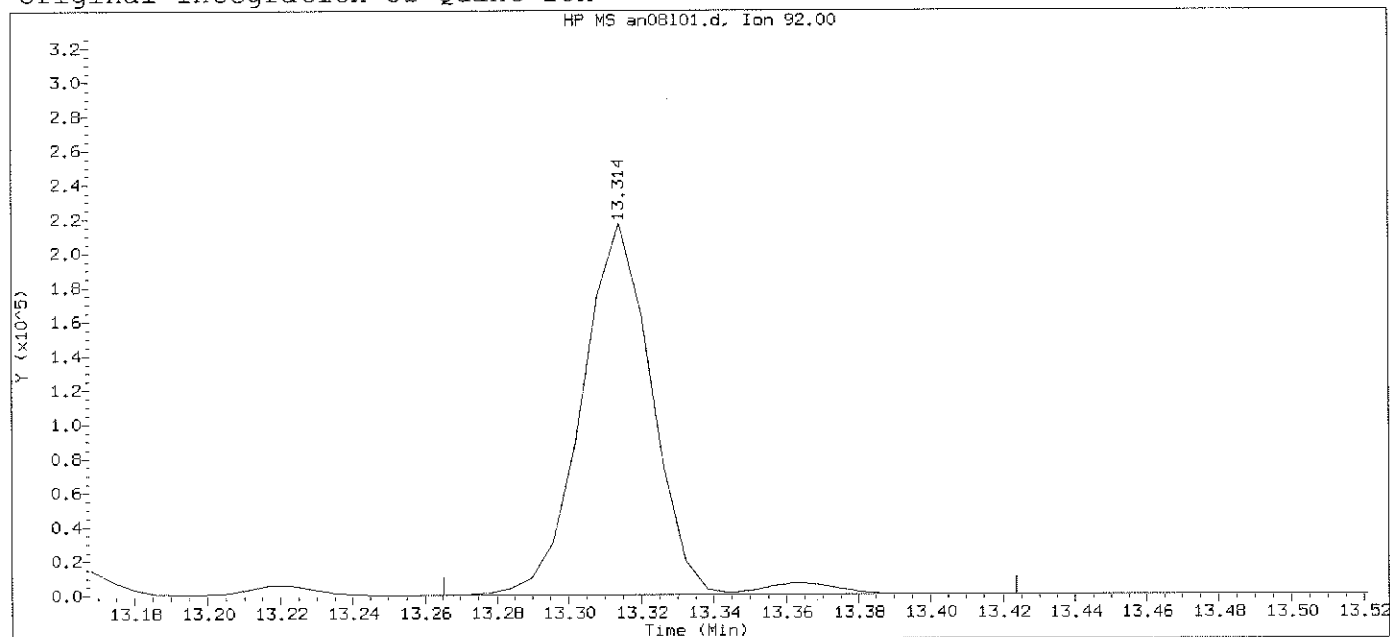
Analyst responsible for change: Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:17.
Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:59.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12nov08a.b/an08101.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 01:39 Analyst ID: SAS00403

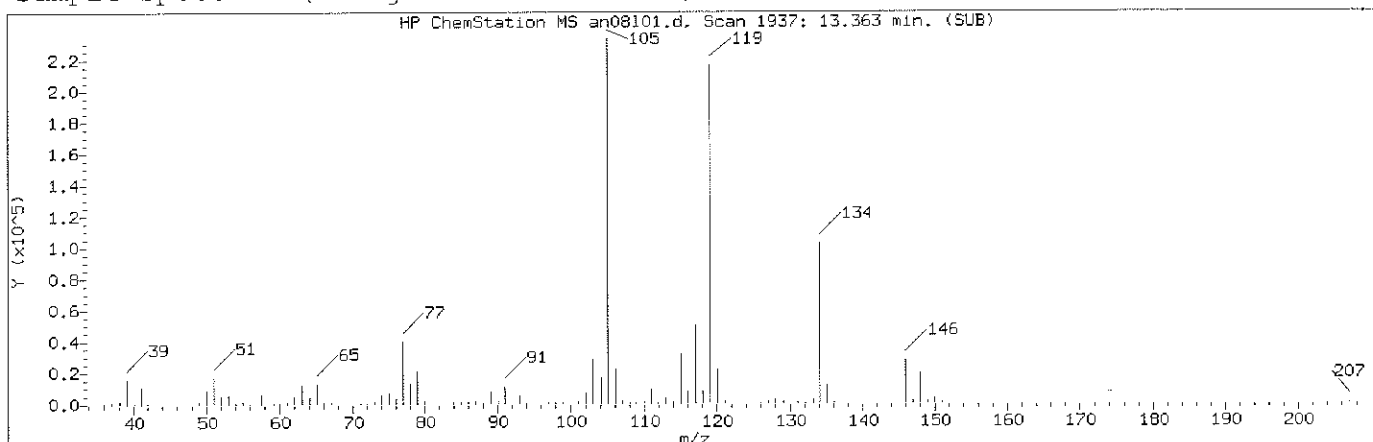
Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 01:59 Automation

Sample Name: LCSA25

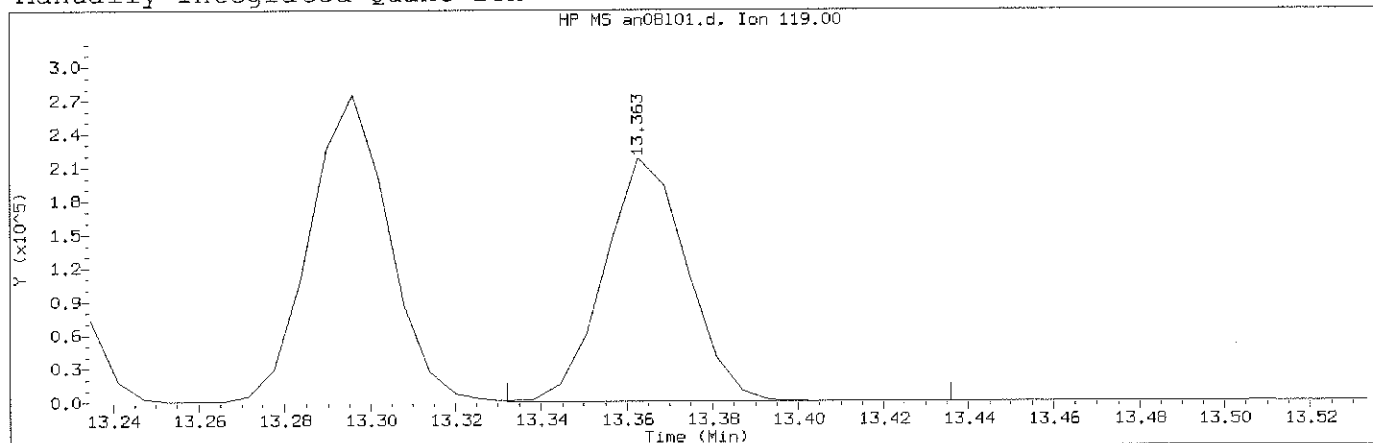
Lab Sample ID: LCSA25

Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1929
Retention Time (minutes): 13.314
Quant Ion : 92.00
Area : 297809
On-column Amount (ng) : 19.7876
Integration start scan : 1920 Integration stop scan: 1946
Y at integration start : 0 Y at integration end: 0

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12nov08a.b/an08101.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 01:39 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 02:21 sas00403

Sample Name: LCSA25 Lab Sample ID: LCSA25

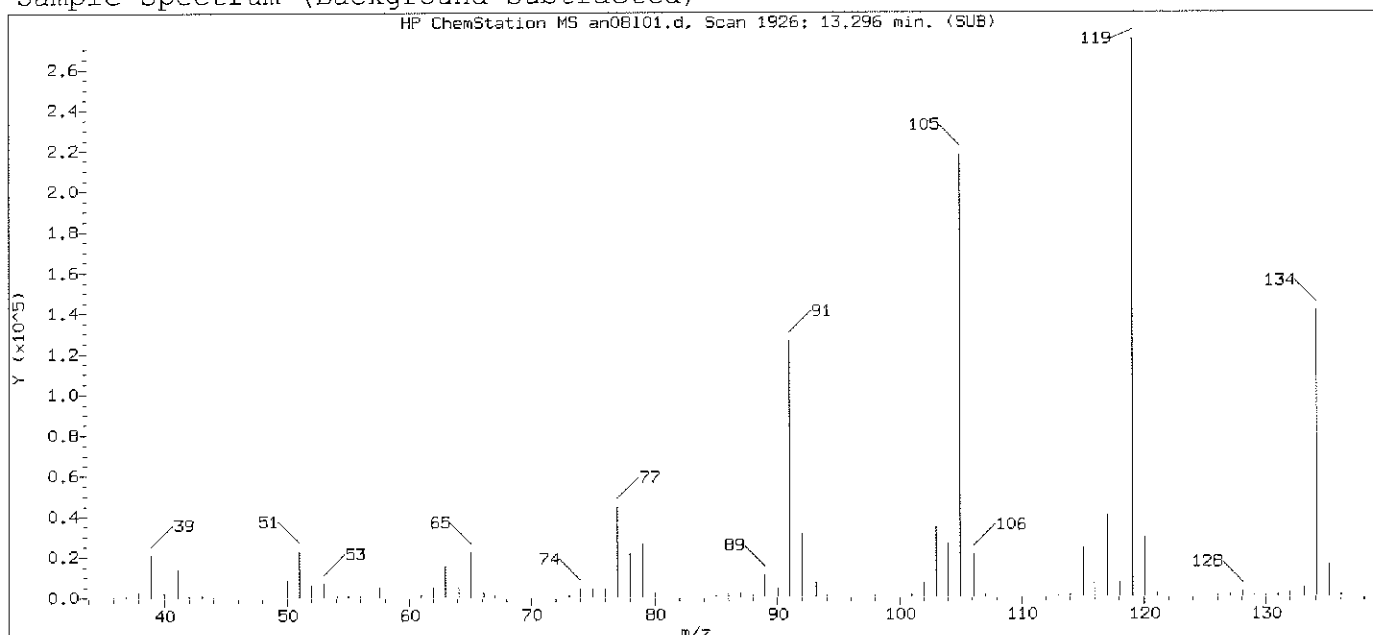
Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1937
Retention Time (minutes): 13.363
Quant Ion : 119.00
Area (flag) : 291699M
On-Column Amount (ng) : 18.3733
Integration start scan : 1931 Integration stop scan: 1948
Y at integration start : -49 Y at integration end: -49

Reason for manual integration: improper integration

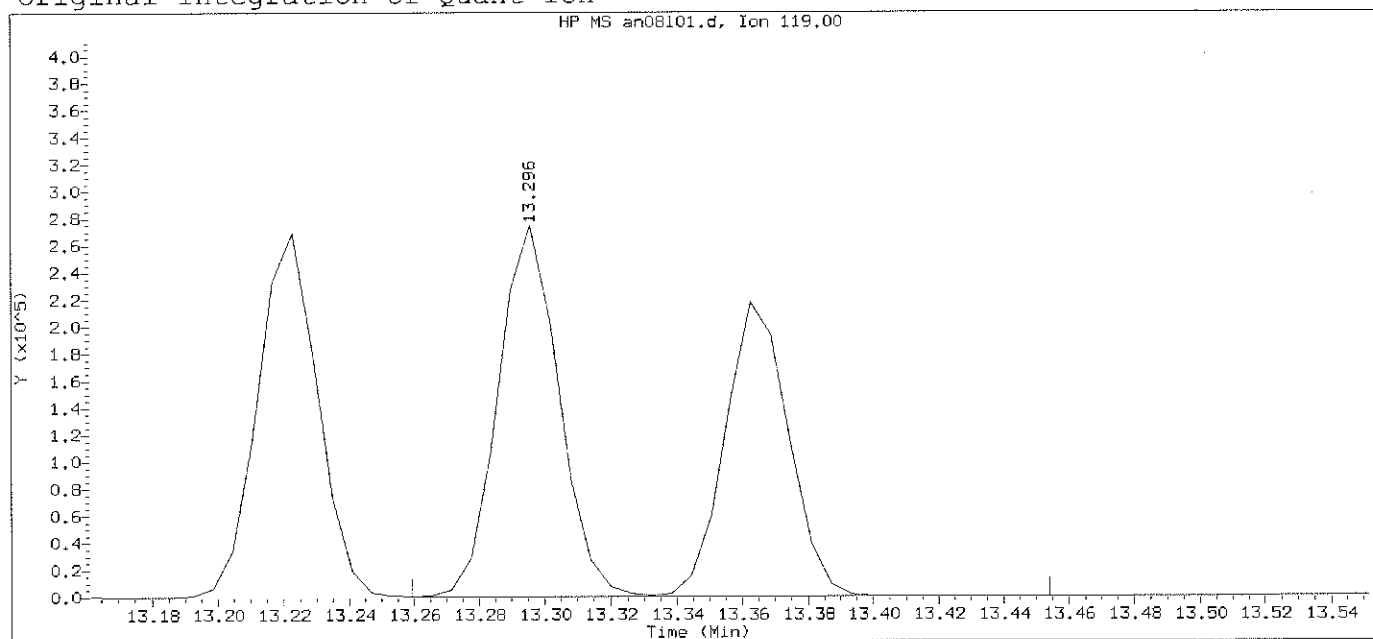
Analyst responsible for change: Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:17.
Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:59.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09685.i/12nov08a.b/an08101.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 01:39 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 01:59 Automation

Sample Name: LCSA25

Lab Sample ID: LCSA25

Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1926
Retention Time (minutes): 13.296
Quant Ion : 119.00
Area : 645037
On-column Amount (ng) : 40.6290
Integration start scan : 1919 Integration stop scan: 1951
Y at integration start : 0 Y at integration end: 0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDA25

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCDA25

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08102.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-71-8	Dichlorodifluoromethane	0.011	
74-87-3	Chloromethane	0.015	
75-01-4	Vinyl Chloride	0.015	
74-83-9	Bromomethane	0.017	
75-00-3	Chloroethane	0.016	
75-69-4	Trichlorofluoromethane	0.015	
64-17-5	Ethanol	0.900	
107-02-8	Acrolein	0.150	
75-35-4	1,1-Dichloroethene	0.018	
67-64-1	Acetone	0.230	
76-13-1	Freon 113	0.016	
67-63-0	2-Propanol	0.150	
74-88-4	Methyl Iodide	0.018	
75-15-0	Carbon Disulfide	0.017	
79-20-9	Methyl Acetate	0.018	
107-05-1	Allyl Chloride	0.018	
75-09-2	Methylene Chloride	0.019	
75-65-0	t-Butyl alcohol	0.210	
107-13-1	Acrylonitrile	0.078	
1634-04-4	Methyl Tertiary Butyl Ether	0.018	
156-60-5	trans-1,2-Dichloroethene	0.019	
110-54-3	n-Hexane	0.014	
75-34-3	1,1-Dichloroethane	0.018	
108-20-3	di-Isopropyl ether	0.016	
126-99-8	2-Chloro-1,3-butadiene	0.017	
637-92-3	Ethyl t-butyl ether	0.017	
78-93-3	2-Butanone	0.160	
156-59-2	cis-1,2-Dichloroethene	0.020	
540-59-0	1,2-Dichloroethene (Total)	0.038	
594-20-7	2,2-Dichloropropane	0.018	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDA25

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCDA25

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08102.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

107-12-0	Propionitrile	0.150	
126-98-7	Methacrylonitrile	0.130	
74-97-5	Bromochloromethane	0.020	
109-99-9	Tetrahydrofuran	0.100	
67-66-3	Chloroform	0.018	
71-55-6	1,1,1-Trichloroethane	0.018	
110-82-7	Cyclohexane	0.015	
563-58-6	1,1-Dichloropropene	0.017	
56-23-5	Carbon Tetrachloride	0.017	
78-83-1	Isobutyl Alcohol	0.450	
71-43-2	Benzene	0.019	
107-06-2	1,2-Dichloroethane	0.018	
994-05-8	t-Amyl methyl ether	0.017	
142-82-5	n-Heptane	0.014	
71-36-3	n-Butanol	0.900	
79-01-6	Trichloroethene	0.019	
108-87-2	Methylcyclohexane	0.018	
78-87-5	1,2-Dichloropropane	0.018	
80-62-6	Methyl Methacrylate	0.016	
123-91-1	1,4-Dioxane	0.490	
74-95-3	Dibromomethane	0.018	
75-27-4	Bromodichloromethane	0.018	
79-46-9	2-Nitropropane	0.016	
10061-01-5	cis-1,3-Dichloropropene	0.019	
108-10-1	4-Methyl-2-pentanone	0.078	
108-88-3	Toluene	0.019	
10061-02-6	trans-1,3-Dichloropropene	0.018	
97-63-2	Ethyl Methacrylate	0.017	
79-00-5	1,1,2-Trichloroethane	0.019	
127-18-4	Tetrachloroethene	0.019	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDA25

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCDA25

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08102.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(mg/L or mg/Kg) mg/Kg

Q

142-28-9-----	1,3-Dichloropropane	0.018	
591-78-6-----	2-Hexanone	0.088	
124-48-1-----	Dibromochloromethane	0.019	
106-93-4-----	1,2-Dibromoethane	0.019	
108-90-7-----	Chlorobenzene	0.019	
630-20-6-----	1,1,1,2-Tetrachloroethane	0.019	
100-41-4-----	Ethylbenzene	0.019	
179601-23-1----	m+p-Xylene	0.039	
95-47-6-----	o-Xylene	0.019	
1330-20-7-----	Xylene (Total)	0.058	
100-42-5-----	Styrene	0.019	
75-25-2-----	Bromoform	0.018	
98-82-8-----	Isopropylbenzene	0.020	
108-94-1-----	Cyclohexanone	0.560	
79-34-5-----	1,1,2,2-Tetrachloroethane	0.019	
108-86-1-----	Bromobenzene	0.020	
110-57-6-----	trans-1,4-Dichloro-2-butene	0.093	
96-18-4-----	1,2,3-Trichloropropane	0.018	
103-65-1-----	n-Propylbenzene	0.020	
95-49-8-----	2-Chlorotoluene	0.020	
108-67-8-----	1,3,5-Trimethylbenzene	0.020	
106-43-4-----	4-Chlorotoluene	0.020	
98-06-6-----	tert-Butylbenzene	0.021	
76-01-7-----	Pentachloroethane	0.017	
95-63-6-----	1,2,4-Trimethylbenzene	0.019	
135-98-8-----	sec-Butylbenzene	0.020	
541-73-1-----	1,3-Dichlorobenzene	0.020	
99-87-6-----	p-Isopropyltoluene	0.020	
106-46-7-----	1,4-Dichlorobenzene	0.019	
526-73-8-----	1,2,3-Trimethylbenzene	0.019	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDA25

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCDA25

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09685.i/12nov08a.b/an08102.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

100-44-7	Benzyl Chloride	0.018	
141-93-5	1,3-Diethylbenzene	0.019	
105-05-5	1,4-Diethylbenzene	0.018	
104-51-8	n-Butylbenzene	0.019	
95-50-1	1,2-Dichlorobenzene	0.020	
135-01-3	1,2-Diethylbenzene	0.018	
96-12-8	1,2-Dibromo-3-chloropropane	0.017	
108-70-3	1,3,5-Trichlorobenzene	0.019	
120-82-1	1,2,4-Trichlorobenzene	0.020	
87-68-3	Hexachlorobutadiene	0.019	
91-20-3	Naphthalene	0.020	
87-61-6	1,2,3-Trichlorobenzene	0.020	
91-57-6	2-Methylnaphthalene	0.018	
25340-17-4	Diethylbenzene (total)	0.055	

LCDA25

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCDA25

Data file: /chem2/HP09685.i/12nov08a.b/an08102.d

Injection date and time: 08-NOV-2012 02:02

Data file Sample Info. Line: LCDA25;LCDA25;2;3;LCS;,,,an08b01;

Instrument ID: HP09685.i Batch: A123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 02:33 sas00403

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C

Calibration date and time (Last Method Edit): 08-NOV-2012 00:53

Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	4.183(-0.006)	428	65	126794 (6)	250.00	
67) Fluorobenzene	7.687(0.000)	1004	96	1188480 (-5)	50.00	
99) Chlorobenzene-d5	11.179(0.000)	1578	117	861469 (-4)	50.00	
133) 1,4-Dichlorobenzene-d4	13.071(0.000)	1889	152	492390 (-4)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	6.786(0.000)	113	272666	48.011	96%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	7.255(0.000)	102	64056	48.707	97%		54 - 135
86) Toluene-d8	(3)	9.713(0.000)	98	1153107	50.054	100%		52 - 141
112) 4-Bromofluorobenzene	(3)	12.189(0.000)	95	421630	48.898	98%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit LOQ (in sample)
2) Dichlorodifluoromethane	(2)	1.968(0.000)	85	123734	11.398	11.40		2	5
4) Chloromethane	(2)	2.102(0.000)	50	144173	14.924	14.92		2	5
5) Vinyl Chloride	(2)	2.236(0.000)	62	137308	14.757	14.76		1	5
9) Bromomethane	(2)	2.552(0.001)	94	96598	16.552	16.55		2	5
10) Chloroethane	(2)	2.662(0.000)	64	79652	15.942	15.94		2	5
13) Trichlorofluoromethane	(2)	2.972(0.000)	101	168552	15.147	15.15		2	5
15) Ethanol	(1)	3.075(0.002)	45	57193	899.770	899.77		100	500
18) Acrolein	(1)	3.386(0.001)	56	179469	147.551	147.55		20	100
19) 1,1-Dichloroethene	(2)	3.520(0.000)	96	105210	18.226	18.23		1	5
20) Acetone	(2)	3.550(-0.000)	58	179485	232.545	232.54		7	20
22) Freon 113	(2)	3.568(-0.000)	101	98824	15.519	15.52		2	10
23) 2-Propanol	(1)	3.702(0.001)	45	68731	154.471	154.47		60	100
24) Methyl Iodide	(2)	3.720(0.000)	142	191683	17.795	17.80		3	5
25) Carbon Disulfide	(2)	3.830(0.000)	76	350915	16.633	16.63		1	5
27) Methyl Acetate	(2)	3.964(-0.000)	43	96503	18.166	18.17		2	5
29) Allyl Chloride	(2)	3.994(0.000)	41	191814	18.477	18.48		1	5
31) Methylene Chloride	(2)	4.183(0.000)	84	133097	18.617	18.62		2	5
32) t-Butyl alcohol	(1)	4.298(0.002)	59	143837	210.892	210.89		20	100
33) Acrylonitrile	(2)	4.505(0.000)	53	221486	78.311	78.31		4	20
34) Methyl Tertiary Butyl Ether	(2)	4.578(0.000)	73	352524	17.529	17.53		0.5	5
35) trans-1,2-Dichloroethene	(2)	4.596(0.000)	96	121992	18.620	18.62		1	5
38) n-Hexane	(2)	5.004(0.000)	57	146856	13.906	13.91		1	5
40) 1,1-Dichloroethane	(2)	5.259(-0.000)	63	231381	17.921	17.92		1	5
41) di-Isopropyl ether	(2)	5.308(-0.000)	45	389325	16.256	16.26		1	5
42) 2-Chloro-1,3-butadiene	(2)	5.357(0.000)	53	183846	17.127	17.13		1	5
44) Ethyl t-butyl ether	(2)	5.844(0.000)	59	361474	17.165	17.16		1	5
45) 2-Butanone	(2)	6.050(0.000)	43	563033	156.105	156.10		4	10
46) cis-1,2-Dichloroethene	(2)	6.081(0.000)	96	137865	19.503	19.50		1	5
47) 1,2-Dichloroethene (Total)	(2)		96	259857	38.123	38.12		1	5
48) 2,2-Dichloropropane	(2)	6.099(0.000)	77	185362	18.195	18.20		1	5

LCDA25

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCDA25

Data file: /chem2/HP09685.i/12nov08a.b/an08102.d

Injection date and time: 08-NOV-2012 02:02

Data file Sample Info. Line: LCDA25;LCDA25;2;3;LCSD;;;an08b01;

Instrument ID: HP09685.i Batch: A123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 02:33 sas00403

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C

Calibration date and time (Last Method Edit): 08-NOV-2012 00:53

Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
50) Propionitrile	(1)	6.148(0.002)	54	133904	151.671	151.67			30	100
51) Methacrylonitrile	(2)	6.361(0.000)	67	379519	132.198	132.20			5	50
52) Bromochloromethane	(2)	6.421(0.000)	128	65042	19.985	19.98			1	5
53) Tetrahydrofuran	(1)	6.434(0.002)	71	73247	101.022	101.02			4	5
54) Chloroform	(2)	6.567(0.000)	83	222888	17.917	17.92			1	5
56) 1,1,1-Trichloroethane	(2)	6.799(0.000)	97	198481	17.566	17.57			1	5
57) Cyclohexane	(2)	6.902(0.000)	56	185039	15.127	15.13			1	5
58) 1,1-Dichloropropene	(2)	7.012(0.000)	75	165296	17.302	17.30			1	5
59) Carbon Tetrachloride	(2)	7.012(0.000)	117	153578	17.162	17.16			1	5
60) Isobutyl Alcohol	(1)	7.151(0.001)	41	113652	454.027	454.03			100	250
62) Benzene	(2)	7.279(0.000)	78	509905	18.567	18.57			0.5	5
64) 1,2-Dichloroethane	(2)	7.358(0.000)	62	171815	17.560	17.56			1	5
65) t-Amyl methyl ether	(2)	7.468(0.000)	73	327514	17.417	17.42			1	5
69) n-Heptane	(2)	7.693(0.000)	43	161235	13.726	13.73			3	5
70) n-Butanol	(1)	8.034(0.001)	56	173409	900.921	900.92			110	250
72) Trichloroethene	(2)	8.161(0.000)	95	128637	18.600	18.60			1	5
73) Methylcyclohexane	(2)	8.478(0.000)	83	194690	17.546	17.55			1	5
74) 1,2-Dichloropropane	(2)	8.508(0.000)	63	131418	17.694	17.69			1	5
76) Methyl Methacrylate	(2)	8.581(0.000)	69	77809	16.301	16.30			1	5
77) 1,4-Dioxane	(1)	8.599(0.002)	88	30435	492.316	492.32			70	250
78) Dibromomethane	(2)	8.618(0.000)	93	76883	18.176	18.18			1	5
81) Bromodichloromethane	(2)	8.855(0.000)	83	153401	18.123	18.12			1	5
82) 2-Nitropropane	(1)	9.122(0.003)	41	26510	16.323	16.32			3	10
84) cis-1,3-Dichloropropene	(2)	9.402(0.000)	75	197300	19.101	19.10			1	5
85) 4-Methyl-2-pentanone	(2)	9.567(0.000)	43	581874	77.747	77.75			3	10
87) Toluene	(3)	9.786(0.000)	92	318983	19.031	19.03			1	5
88) trans-1,3-Dichloropropene	(3)	10.047(0.000)	75	176785	17.996	18.00			1	5
89) Ethyl Methacrylate	(3)	10.108(0.000)	69	144919	17.234	17.23			1	5
90) 1,1,2-Trichloroethane	(3)	10.260(0.000)	97	105180	18.746	18.75			1	5
92) Tetrachloroethene	(3)	10.333(0.000)	166	147867	19.202	19.20			1	5
93) 1,3-Dichloropropane	(3)	10.418(0.000)	76	186975	18.247	18.25			1	5
95) 2-Hexanone	(3)	10.467(0.000)	43	486141	87.711	87.71			3	10
97) Dibromochloromethane	(3)	10.637(0.000)	129	114939	18.533	18.53			1	5
98) 1,2-Dibromoethane	(3)	10.753(0.000)	107	107420	18.570	18.57			1	5
100) Chlorobenzene	(3)	11.203(0.000)	112	365993	19.361	19.36			1	5
101) 1,1,1,2-Tetrachloroethane	(3)	11.288(0.000)	131	122832	18.809	18.81			1	5
102) Ethylbenzene	(3)	11.288(0.000)	91	615138	19.324	19.32			1	5
103) m+p-Xylene	(3)	11.404(0.000)	106	483991	39.167	39.17			1	5
104) o-Xylene	(3)	11.738(0.000)	106	229101	19.256	19.26			1	5
105) Xylene (Total)	(3)		106	713092	58.423	58.42			1	5
106) Styrene	(3)	11.757(0.000)	104	368867	19.196	19.20			1	5
107) Bromoform	(3)	11.915(0.000)	173	76953	17.971	17.97			1	5
108) Isopropylbenzene	(3)	12.036(0.000)	105	605333	19.521	19.52			1	5
111) Cyclohexanone	(1)	12.116(0.004)	55	143052	564.716	564.72			25	250
113) 1,1,2,2-Tetrachloroethane	(4)	12.286(0.000)	83	144206	18.790	18.79			1	5
114) Bromobenzene	(4)	12.304(0.000)	156	164556	19.681	19.68			1	5
115) trans-1,4-Dichloro-2-butene	(4)	12.310(0.000)	53	216375	92.626	92.63			10	50
116) 1,2,3-Trichloropropane	(4)	12.335(0.000)	110	41771	18.438	18.44			1	5
117) n-Propylbenzene	(4)	12.371(0.000)	91	731360	19.950	19.95			1	5
119) 2-Chlorotoluene	(4)	12.444(0.000)	126	152330	19.766	19.77			1	5
122) 1,3,5-Trimethylbenzene	(4)	12.505(0.000)	105	523200	19.893	19.89			1	5
123) 4-Chlorotoluene	(4)	12.542(0.000)	126	159109	19.787	19.79			1	5
126) tert-Butylbenzene	(4)	12.748(0.000)	134	121856	21.218	21.22			1	5

LCDA25

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCDA25

Data file: /chem2/HP09685.i/12nov08a.b/an08102.d

Injection date and time: 08-NOV-2012 02:02

Data file Sample Info. Line: LCDA25;LCDA25;2;3;LCSD;;;an08b01;

Instrument ID: HP09685.i Batch: A123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 02:33 sas00403

Blank Data file reference: /chem2/HP09685.i/12nov08a.b/an08b01.d

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C

Calibration date and time (Last Method Edit): 08-NOV-2012 00:53

Mid Level Daily Calibration Standard Reference: /chem2/HP09685.i/12nov08a.b/an08c01.d

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

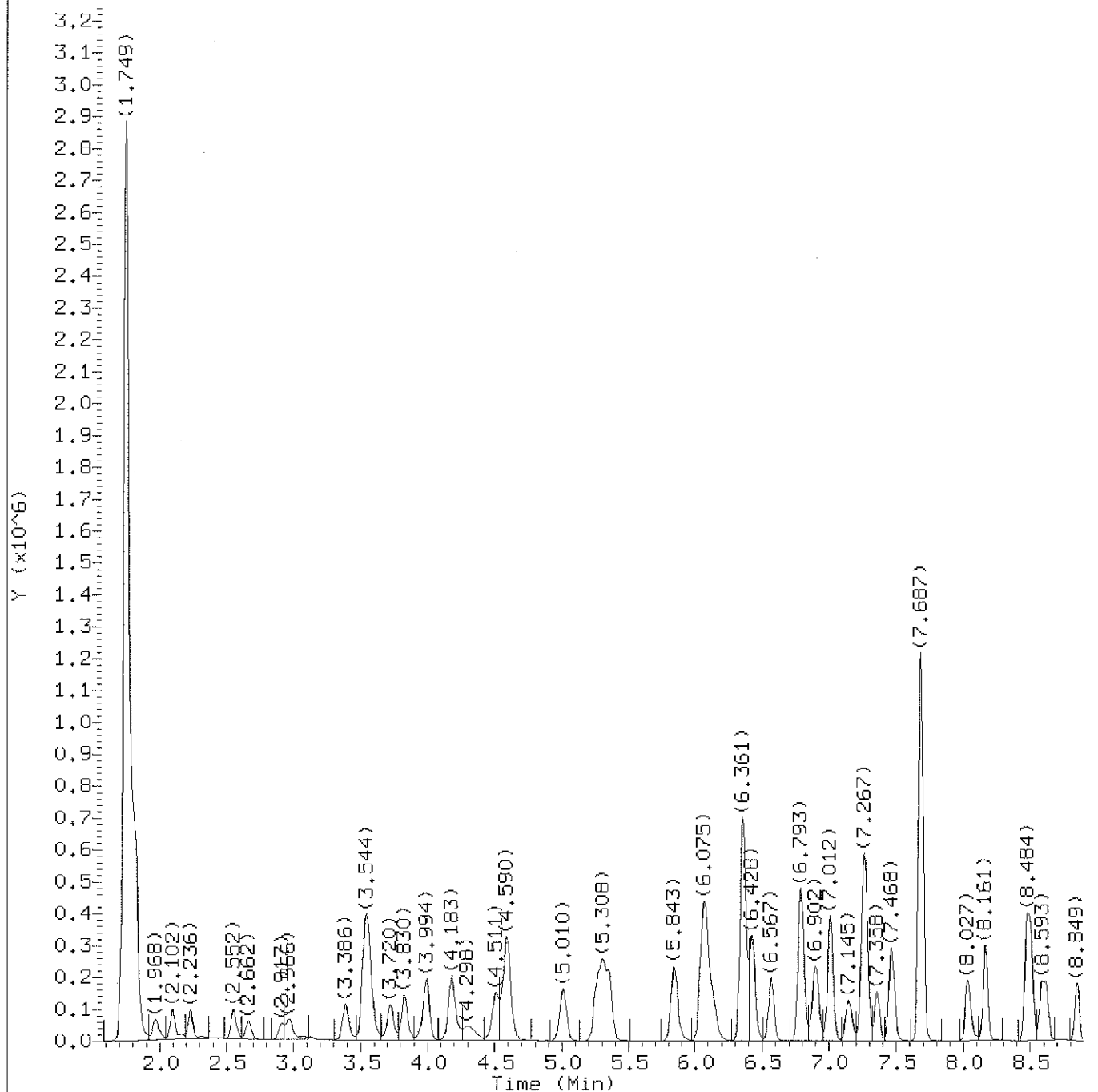
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
127) Pentachloroethane	(4)	12.785(0.000)	167	92525	16.959	16.96		1		5
128) 1,2,4-Trimethylbenzene	(4)	12.791(0.000)	105	533964	19.443	19.44		1		5
129) sec-Butylbenzene	(4)	12.913(0.000)	105	658258	19.956	19.96		1		5
131) 1,3-Dichlorobenzene	(4)	13.010(0.000)	146	313769	19.662	19.66		1		5
132) p-Isopropyltoluene	(4)	13.022(0.000)	119	589871	19.940	19.94		1		5
134) 1,4-Dichlorobenzene	(4)	13.089(0.000)	146	314040	19.261	19.26		1		5
135) 1,2,3-Trimethylbenzene	(4)	13.095(0.000)	105	536733	18.650	18.65		1		5
136) Benzyl Chloride	(4)	13.162(0.000)	126	60203	18.227	18.23		1		4
137) 1,3-Diethylbenzene	(4)	13.223(0.000)	119	346972	18.661	18.66		1		5
138) 1,4-Diethylbenzene	(4)	13.296(0.000)	119	354562	18.419	18.42		1		5
139) n-Butylbenzene	(4)	13.314(0.000)	92	287957	19.144	19.14		1		5
140) 1,2-Dichlorobenzene	(4)	13.344(0.000)	146	296249	19.605	19.60		1		5
141) 1,2-Diethylbenzene	(4)	13.363(0.000)	119	292013M	18.404	18.40		1		5
144) 1,2-Dibromo-3-chloropropane	(4)	13.892(0.000)	75	24820	16.716	16.72		2		5
145) 1,3,5-Trichlorobenzene	(4)	14.014(0.000)	180	253677	19.394	19.39		1		5
146) 1,2,4-Trichlorobenzene	(4)	14.440(0.000)	180	220433	19.624	19.62		1		5
147) Hexachlorobutadiene	(4)	14.519(0.000)	225	128673	19.273	19.27		2		5
148) Naphthalene	(4)	14.622(0.000)	128	461906	19.753	19.75		1		5
149) 1,2,3-Trichlorobenzene	(4)	14.762(0.000)	180	209363	19.826	19.83		1		5
150) 2-Methylnaphthalene	(4)	15.395(0.000)	142	219585	18.079	18.08		2		5

M = Compound was manually integrated.

Total number of targets = 103

Digitally signed by Stephanie A. Sellis on 11/08/2012 at 06:18. Target 3.5.5 signature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:59. Parallax ID: ahu01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08102.d
Injection date and time: 08-NOV-2012 02:02

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m
Calibration date and time: 08-NOV-2012 00:53

Sublist used: 8260S-F2C

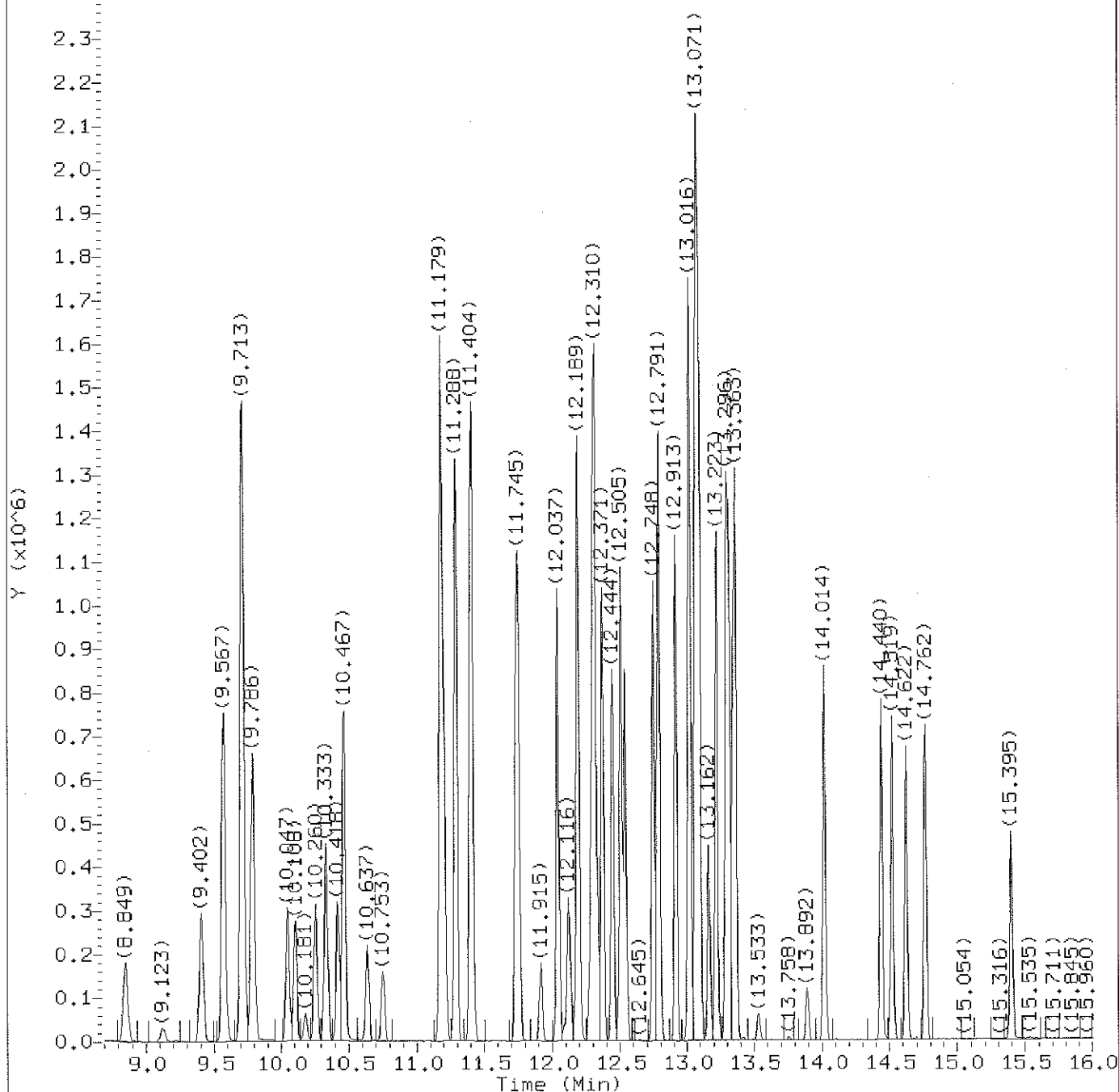
Date, time and analyst ID of latest file update: 08-Nov-2012 02:33 sas00403

Sample Name: LCDA25

Lab Sample ID: LCDA25

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:18.

Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08102.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 02:02 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 02:33 sas00403

Sample Name: LCDA25

Lab Sample ID: LCDA25

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:18.
Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08102.d
Injection date and time: 08-NOV-2012 02:02

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 02:33 sas00403

Sample Name: LCDA25

Lab Sample ID: LCDA25

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.968	85	123734	11.398
4) Chloromethane	(2)	2.102	50	144173	14.924
5) Vinyl Chloride	(2)	2.236	62	137308	14.757
9) Bromomethane	(2)	2.552	94	96598	16.552
10) Chloroethane	(2)	2.662	64	79652	15.942
13) Trichlorofluoromethane	(2)	2.972	101	168552	15.147
15) Ethanol	(1)	3.075	45	57193	899.770
18) Acrolein	(1)	3.386	56	179469	147.551
19) 1,1-Dichloroethene	(2)	3.520	96	105210	18.226
20) Acetone	(2)	3.550	58	179485	232.545
22) Freon 113	(2)	3.568	101	98824	15.519
23) 2-Propanol	(1)	3.702	45	68731	154.471
24) Methyl Iodide	(2)	3.720	142	191683	17.795
25) Carbon Disulfide	(2)	3.830	76	350915	16.633
27) Methyl Acetate	(2)	3.964	43	96503	18.166
29) Allyl Chloride	(2)	3.994	41	191814	18.477
30) *t-Butyl alcohol-d10	(1)	4.183	65	126794	250.000
31) Methylene Chloride	(2)	4.183	84	133097	18.617
32) t-Butyl alcohol	(1)	4.298	59	143837	210.892
33) Acrylonitrile	(2)	4.505	53	221486	78.311
34) Methyl Tertiary Butyl Ether	(2)	4.578	73	352524	17.529
35) trans-1,2-Dichloroethene	(2)	4.596	96	121992	18.620
38) n-Hexane	(2)	5.004	57	146856	13.906
40) 1,1-Dichloroethane	(2)	5.259	63	231381	17.921
41) di-Isopropyl ether	(2)	5.308	45	389325	16.256
42) 2-Chloro-1,3-butadiene	(2)	5.357	53	183846	17.127
44) Ethyl t-butyl ether	(2)	5.843	59	361474	17.165
45) 2-Butanone	(2)	6.050	43	563033	156.105
46) cis-1,2-Dichloroethene	(2)	6.081	96	137865	19.503
48) 2,2-Dichloropropane	(2)	6.099	77	185362	18.195
47) 1,2-Dichloroethene (Total)	(2)		96	259857	38.123
50) Propionitrile	(1)	6.148	54	133904	151.671
51) Methacrylonitrile	(2)	6.361	67	379519	132.198
52) Bromochloromethane	(2)	6.421	128	65042	19.985
53) Tetrahydrofuran	(1)	6.434	71	73247	101.022
54) Chloroform	(2)	6.567	83	222888	17.917
55) \$Dibromofluoromethane	(2)	6.786	113	272666	48.011
56) 1,1,1-Trichloroethane	(2)	6.799	97	198481	17.566

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 3

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on 11/08/2012 at 06:18.

Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08102.d
 Injection date and time: 08-NOV-2012 02:02

Instrument ID: HP09685.i
 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C
 Calibration date and time: 08-NOV-2012 00:53
 Date, time and analyst ID of latest file update: 08-Nov-2012 02:33 sas00403

Sample Name: LCDA25

Lab Sample ID: LCDA25

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
57) Cyclohexane	(2)	6.902	56	185039	15.127
58) 1,1-Dichloropropene	(2)	7.012	75	165296	17.302
59) Carbon Tetrachloride	(2)	7.012	117	153578	17.162
60) Isobutyl Alcohol	(1)	7.151	41	113652	454.027
61) \$1,2-Dichloroethane-d4	(2)	7.255	102	64056	48.707
62) Benzene	(2)	7.279	78	509905	18.567
64) 1,2-Dichloroethane	(2)	7.358	62	171815	17.560
65) t-Amyl methyl ether	(2)	7.468	73	327514	17.417
67) *Fluorobenzene	(2)	7.687	96	1188480	50.000
69) n-Heptane	(2)	7.693	43	161235	13.726
70) n-Butanol	(1)	8.034	56	173409	900.921
72) Trichloroethene	(2)	8.161	95	128637	18.600
73) Methylcyclohexane	(2)	8.478	83	194690	17.546
74) 1,2-Dichloropropane	(2)	8.508	63	131418	17.694
76) Methyl Methacrylate	(2)	8.581	69	77809	16.301
77) 1,4-Dioxane	(1)	8.599	88	30435	492.316
78) Dibromomethane	(2)	8.618	93	76883	18.176
81) Bromodichloromethane	(2)	8.855	83	153401	18.123
82) 2-Nitropropane	(1)	9.123	41	26510	16.323
84) cis-1,3-Dichloropropene	(2)	9.402	75	197300	19.101
85) 4-Methyl-2-pentanone	(2)	9.567	43	581874	77.747
86) \$Toluene-d8	(3)	9.713	98	1153107	50.054
87) Toluene	(3)	9.786	92	318983	19.031
88) trans-1,3-Dichloropropene	(3)	10.047	75	176785	17.996
89) Ethyl Methacrylate	(3)	10.108	69	144919	17.234
90) 1,1,2-Trichloroethane	(3)	10.260	97	105180	18.746
92) Tetrachloroethene	(3)	10.333	166	147867	19.202
93) 1,3-Dichloropropane	(3)	10.418	76	186975	18.247
95) 2-Hexanone	(3)	10.467	43	486141	87.711
97) Dibromochloromethane	(3)	10.637	129	114939	18.533
98) 1,2-Dibromoethane	(3)	10.753	107	107420	18.570
99) *Chlorobenzene-d5	(3)	11.179	117	861469	50.000
100) Chlorobenzene	(3)	11.203	112	365993	19.361
101) 1,1,1,2-Tetrachloroethane	(3)	11.288	131	122832	18.809
102) Ethylbenzene	(3)	11.288	91	615138	19.324
103) m+p-Xylene	(3)	11.404	106	483991	39.167
104) o-Xylene	(3)	11.738	106	229101	19.256
105) Xylene (Total)	(3)		106	713092	58.423

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 2 of 3

Digitally signed by Stephanie A. Selis
 on 11/08/2012 at 06:18.
 Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09685.i/12nov08a.b/an08102.d
Injection date and time: 08-NOV-2012 02:02

Instrument ID: HP09685.i
Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 02:33 sas00403

Sample Name: LCDA25

Lab Sample ID: LCDA25

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
106) Styrene	(3)	11.757	104	368867	19.196
107) Bromoform	(3)	11.915	173	76953	17.971
108) Isopropylbenzene	(3)	12.037	105	605333	19.521
111) Cyclohexanone	(1)	12.116	55	143052	564.716
112) \$4-Bromofluorobenzene	(3)	12.189	95	421630	48.898
113) 1,1,2,2-Tetrachloroethane	(4)	12.286	83	144206	18.790
114) Bromobenzene	(4)	12.304	156	164556	19.681
115) trans-1,4-Dichloro-2-butene	(4)	12.310	53	216375	92.626
116) 1,2,3-Trichloropropane	(4)	12.335	110	41771	18.438
117) n-Propylbenzene	(4)	12.371	91	731360	19.950
119) 2-Chlorotoluene	(4)	12.444	126	152330	19.766
122) 1,3,5-Trimethylbenzene	(4)	12.505	105	523200	19.893
123) 4-Chlorotoluene	(4)	12.541	126	159109	19.787
126) tert-Butylbenzene	(4)	12.748	134	121856	21.218
127) Pentachloroethane	(4)	12.785	167	92525	16.959
128) 1,2,4-Trimethylbenzene	(4)	12.791	105	533964	19.443
129) sec-Butylbenzene	(4)	12.913	105	658258	19.956
131) 1,3-Dichlorobenzene	(4)	13.010	146	313769	19.662
132) p-Isopropyltoluene	(4)	13.022	119	589871	19.940
133) *1,4-Dichlorobenzene-d4	(4)	13.071	152	492390	50.000
134) 1,4-Dichlorobenzene	(4)	13.089	146	314040	19.261
135) 1,2,3-Trimethylbenzene	(4)	13.095	105	536733	18.650
136) Benzyl Chloride	(4)	13.162	126	60203	18.227
137) 1,3-Diethylbenzene	(4)	13.223	119	346972	18.661
138) 1,4-Diethylbenzene	(4)	13.296	119	354562	18.419
139) n-Butylbenzene	(4)	13.314	92	287957	19.144
140) 1,2-Dichlorobenzene	(4)	13.345	146	296249	19.605
141) 1,2-Diethylbenzene	(4)	13.363	119	292013M	18.404
144) 1,2-Dibromo-3-chloropropane	(4)	13.892	75	24820	16.716
145) 1,3,5-Trichlorobenzene	(4)	14.014	180	253677	19.394
146) 1,2,4-Trichlorobenzene	(4)	14.440	180	220433	19.624
147) Hexachlorobutadiene	(4)	14.519	225	128673	19.273
148) Naphthalene	(4)	14.622	128	461906	19.753
149) 1,2,3-Trichlorobenzene	(4)	14.762	180	209363	19.826
150) 2-Methylnaphthalene	(4)	15.395	142	219585	18.079

M = Compound was manually integrated.

* = Compound is an internal standard.

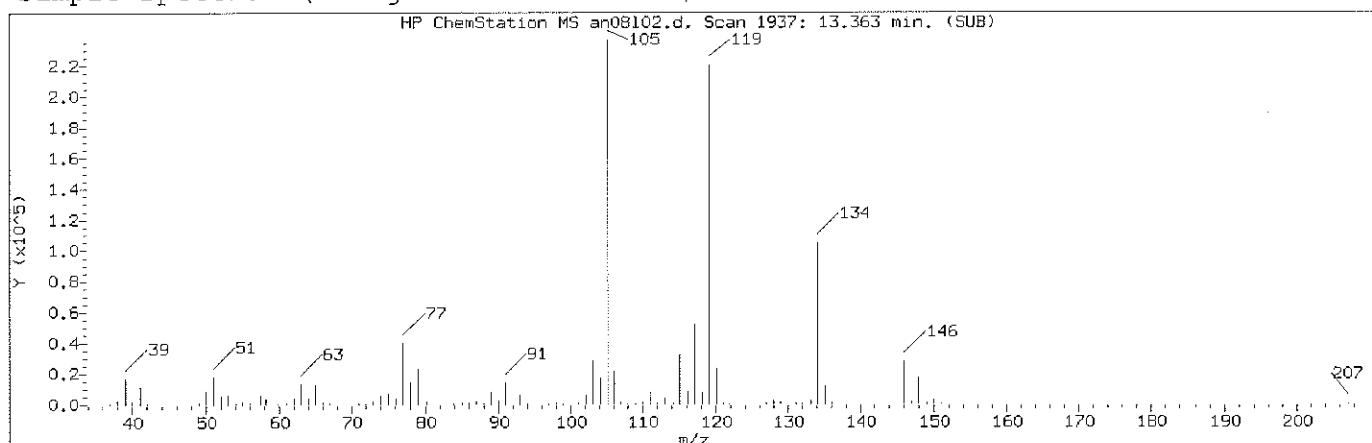
\$ = Compound is a surrogate standard.

page 3 of 3

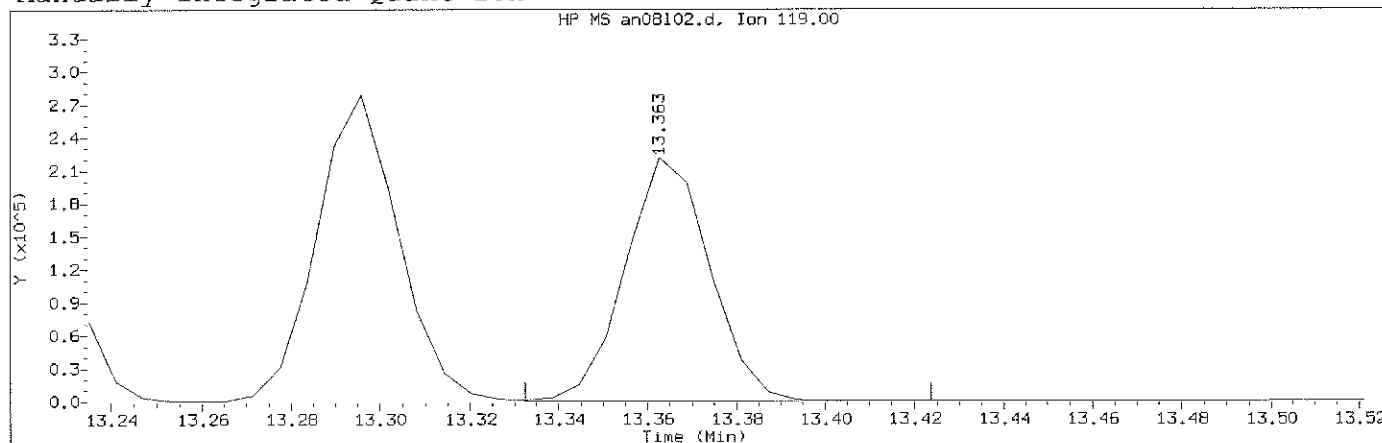
Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:18.

Target 3.5 esignature user ID: sas00403

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09685.i/12nov08a.b/an08102.d Instrument ID: HP09685.i
Injection date and time: 08-NOV-2012 02:02 Analyst ID: SAS00403

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 02:33 sas00403

Sample Name: LCDA25

Lab Sample ID: LCDA25

Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1937
Retention Time (minutes): 13.363
Quant Ion : 119.00
Area (flag) : 292013M
On-Column Amount (ng) : 18.4036
Integration start scan : 1931 Integration stop scan: 1946
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

Analyst responsible for change: Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:18.
Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:59.
Parallax ID: ahu01800

HP ChemStation MS an08102.d, Scan 1926: 13.296 min. (SUB)

Mass spectrum plot showing relative intensity (Y-axis, 0.0 to 2.6 x 10⁵) versus m/z (X-axis, 40 to 200). The base peak is at m/z 119. Other significant peaks are labeled at m/z 39, 51, 65, 77, 81, 105, 134, and 207.

m/z	Relative Intensity (Y x 10 ⁵)
39	0.25
51	0.25
65	0.25
77	0.45
81	1.35
105	2.25
119	2.65
134	1.45
207	0.05

HP MS an08102.d, Ion 119.00

Y ($\times 10^5$)

Time (Min)

13.22 13.296 13.36

The chromatogram displays three distinct peaks. The first peak is at 13.22 minutes with a height of approximately 2.65. The second peak is at 13.296 minutes with a height of approximately 2.8. The third peak is at 13.36 minutes with a height of approximately 2.2. The baseline is stable at approximately 0.1 throughout the run.

Time (Min)	Y ($\times 10^5$)
13.22	2.65
13.296	2.80
13.36	2.20

Method used: /chem2/HP09685.i/12nov08a.b/di8260b.m Sublist used: 8260S-F2C
Calibration date and time: 08-NOV-2012 00:53
Date, time and analyst ID of latest file update: 08-Nov-2012 02:22 Automation

```
Compound Number      : 141
Compound Name        : 1,2-Diethylbenzene
Scan Number          : 1926
Retention Time (minutes): 13.296
Quant Ion            : 119.00
Area                 : 646363
On-column Amount (ng) : 40.7357
Integration start scan : 1919      Integration stop scan: 1951
Y at integration start  : 0          Y at integration end: 0
```

Digitally signed by Stephanie A. Selis on 11/08/2012 at 06:18.
Target 3.5 esignature use ID: ssa00403

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB84

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LCSB84

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07110.d

Level: (low/med) LOW Date Received: _____

Moisture: not dec. _____ Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(mg/L or mg/Kg) mg/Kg	Q
75-71-8	Dichlorodifluoromethane	0.019	
74-87-3	Chloromethane	0.020	
75-01-4	Vinyl Chloride	0.019	
74-83-9	Bromomethane	0.021	
75-00-3	Chloroethane	0.021	
75-69-4	Trichlorofluoromethane	0.022	
64-17-5	Ethanol	0.940	
107-02-8	Acrolein	0.160	
75-35-4	1,1-Dichloroethene	0.021	
67-64-1	Acetone	0.170	
76-13-1	Freon 113	0.021	
67-63-0	2-Propanol	0.140	
74-88-4	Methyl Iodide	0.020	
75-15-0	Carbon Disulfide	0.020	
79-20-9	Methyl Acetate	0.051	E
107-05-1	Allyl Chloride	0.022	
75-09-2	Methylene Chloride	0.024	B
75-65-0	t-Butyl alcohol	0.200	
107-13-1	Acrylonitrile	0.110	
1634-04-4	Methyl Tertiary Butyl Ether	0.023	
156-60-5	trans-1,2-Dichloroethene	0.021	
110-54-3	n-Hexane	0.018	
75-34-3	1,1-Dichloroethane	0.021	
108-20-3	di-Isopropyl ether	0.020	
126-99-8	2-Chloro-1,3-butadiene	0.022	
637-92-3	Ethyl t-butyl ether	0.021	
78-93-3	2-Butanone	0.160	
156-59-2	cis-1,2-Dichloroethene	0.020	
540-59-0	1,2-Dichloroethene (Total)	0.041	
594-20-7	2,2-Dichloropropane	0.022	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB84

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCSB84

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07110.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/07/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

107-12-0-----	Propionitrile	0.140	
126-98-7-----	Methacrylonitrile	0.170	
74-97-5-----	Bromochloromethane	0.021	
109-99-9-----	Tetrahydrofuran	0.099	
67-66-3-----	Chloroform	0.021	
71-55-6-----	1,1,1-Trichloroethane	0.022	
110-82-7-----	Cyclohexane	0.019	
563-58-6-----	1,1-Dichloropropene	0.020	
56-23-5-----	Carbon Tetrachloride	0.020	
78-83-1-----	Isobutyl Alcohol	0.450	
71-43-2-----	Benzene	0.020	
107-06-2-----	1,2-Dichloroethane	0.023	
994-05-8-----	t-Amyl methyl ether	0.020	
142-82-5-----	n-Heptane	0.018	
71-36-3-----	n-Butanol	0.750	
79-01-6-----	Trichloroethene	0.020	
108-87-2-----	Methylcyclohexane	0.018	
78-87-5-----	1,2-Dichloropropane	0.020	
80-62-6-----	Methyl Methacrylate	0.019	
123-91-1-----	1,4-Dioxane	0.360	
74-95-3-----	Dibromomethane	0.021	
75-27-4-----	Bromodichloromethane	0.020	
79-46-9-----	2-Nitropropane	0.017	
110-75-8-----	2-Chloroethyl Vinyl Ether	0.072	
10061-01-5-----	cis-1,3-Dichloropropene	0.021	
108-10-1-----	4-Methyl-2-pentanone	0.099	
108-88-3-----	Toluene	0.020	
10061-02-6-----	trans-1,3-Dichloropropene	0.020	
97-63-2-----	Ethyl Methacrylate	0.019	
79-00-5-----	1,1,2-Trichloroethane	0.021	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB84

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCSB84

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09953.i/12nov07b,b/bn07110.d

Level: (low/med) LOW

Date Received:

Moisture: not dec. _____

Date Analyzed: 11/07/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

127-18-4-----	Tetrachloroethene	0.021	
142-28-9-----	1,3-Dichloropropane	0.021	
591-78-6-----	2-Hexanone	0.099	
124-48-1-----	Dibromochloromethane	0.021	
106-93-4-----	1,2-Dibromoethane	0.021	
108-90-7-----	Chlorobenzene	0.020	
630-20-6-----	1,1,1,2-Tetrachloroethane	0.020	
100-41-4-----	Ethylbenzene	0.020	
179601-23-1----	m+p-Xylene	0.039	
95-47-6-----	o-Xylene	0.019	
1330-20-7-----	Xylene (Total)	0.059	
100-42-5-----	Styrene	0.020	
75-25-2-----	Bromoform	0.019	
98-82-8-----	Isopropylbenzene	0.020	
108-94-1-----	Cyclohexanone	0.620	
79-34-5-----	1,1,2,2-Tetrachloroethane	0.021	
108-86-1-----	Bromobenzene	0.020	
110-57-6-----	trans-1,4-Dichloro-2-butene	0.120	
96-18-4-----	1,2,3-Trichloropropane	0.022	
103-65-1-----	n-Propylbenzene	0.017	
95-49-8-----	2-Chlorotoluene	0.020	
108-67-8-----	1,3,5-Trimethylbenzene	0.020	
106-43-4-----	4-Chlorotoluene	0.020	
98-06-6-----	tert-Butylbenzene	0.019	
76-01-7-----	Pentachloroethane	0.019	
95-63-6-----	1,2,4-Trimethylbenzene	0.021	
135-98-8-----	sec-Butylbenzene	0.020	
541-73-1-----	1,3-Dichlorobenzene	0.020	
99-87-6-----	p-Isopropyltoluene	0.020	
106-46-7-----	1,4-Dichlorobenzene	0.020	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB84

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LCSB84

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07110.d

Level: (low/med) LOW Date Received: _____

Moisture: not dec. _____ Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

526-73-8-----	1,2,3-Trimethylbenzene	0.021	
100-44-7-----	Benzyl Chloride	0.018	
141-93-5-----	1,3-Diethylbenzene	0.020	
105-05-5-----	1,4-Diethylbenzene	0.020	
104-51-8-----	n-Butylbenzene	0.020	
95-50-1-----	1,2-Dichlorobenzene	0.020	
135-01-3-----	1,2-Diethylbenzene	0.020	
96-12-8-----	1,2-Dibromo-3-chloropropane	0.021	
108-70-3-----	1,3,5-Trichlorobenzene	0.019	
120-82-1-----	1,2,4-Trichlorobenzene	0.020	
87-68-3-----	Hexachlorobutadiene	0.020	
91-20-3-----	Naphthalene	0.021	
87-61-6-----	1,2,3-Trichlorobenzene	0.020	
91-57-6-----	2-Methylnaphthalene	0.018	
25340-17-4-----	Diethylbenzene (total)	0.059	

LCSB84

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCSB84

Data file: /chem2/HP09953.i/12nov07b.b/bn07110.d

Injection date and time: 07-NOV-2012 22:44

Data file Sample Info. Line: LCSB84;LCSB84;2;3;LCS;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 07-Nov-2012 23:32 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code:

Matrix: SOIL

Level: Low

On-Column Amount units: ng

In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml

Sample Weight (Ws): 5 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	2.210(0.000)	227	65	129465 (-8)	250.00	
67) Fluorobenzene	4.351(0.000)	579	96	1132853 (-2)	50.00	
99) Chlorobenzene-d5	7.539(0.000)	1103	117	762014 (-5)	50.00	
133) 1,4-Dichlorobenzene-d4	9.522(0.000)	1429	152	472260 (-7)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.713(-0.001)	113	291814	51.443	103%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.023(0.001)	102	61260	51.380	103%		54 - 135
86) Toluene-d8	(3)	5.988(-0.001)	98	1131981	51.876	104%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622(0.000)	95	409294	50.042	100%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(2)	1.091(-0.001)	85	191356	19.203	19.20			2	5
4) Chloromethane	(2)	1.133(-0.000)	50	200017	20.299	20.30			2	5
5) Vinyl Chloride	(2)	1.206(-0.000)	62	158953	19.257	19.26			1	5
9) Bromomethane	(2)	1.376(-0.000)	94	111102	21.472	21.47			2	5
10) Chloroethane	(2)	1.431(-0.001)	64	89851	20.897	20.90			2	5
13) Trichlorofluoromethane	(2)	1.589(-0.000)	101	230123	21.915	21.92			2	5
15) Ethanol	(1)	1.656(-0.002)	45	64258	935.307	935.31			100	500
18) Acrolein	(1)	1.796(-0.005)	56	159360	158.962	158.96			20	100
19) 1,1-Dichloroethene	(2)	1.863(-0.001)	96	103287	21.481	21.48			1	5
20) Acetone	(2)	1.888(-0.001)	58	91357M	166.749	166.75			7	20
22) Freon 113	(1)	1.888(-0.001)	101	117094	20.836	20.84			2	10
23) 2-Propanol	(2)	1.979(-0.002)	45	67244	143.294	143.29			60	100
24) Methyl Iodide	(2)	1.967(-0.001)	142	203899	20.426	20.43			3	5
25) Carbon Disulfide	(2)	2.015(-0.001)	76	316669	19.978	19.98			1	5
27) Methyl Acetate	(2)	2.100(-0.000)	43	212819	50.610	50.61		E	2	5
29) Allyl Chloride	(2)	2.094(-0.001)	41	228743	21.877	21.88			1	5
31) Methylene Chloride	(2)	2.186(-0.001)	84	136221	24.399	24.40	2.347	B	2	5
32) t-Butyl alcohol	(1)	2.283(-0.008)	59	132238M	201.408	201.41			20	100
33) Acrylonitrile	(2)	2.374(-0.001)	53	197463M	107.761	107.76			4	20
34) Methyl Tertiary Butyl Ether	(2)	2.405(-0.000)	73	360700	23.104	23.10			0.5	5
35) trans-1,2-Dichloroethene	(2)	2.392(-0.001)	96	115074	21.207	21.21			1	5
38) n-Hexane	(2)	2.611(-0.001)	57	167645	17.757	17.76			1	5
40) 1,1-Dichloroethane	(2)	2.745(-0.001)	63	250121	20.996	21.00			1	5
41) di-Isopropyl ether	(2)	2.812(-0.002)	45	451528	19.925	19.92			1	5
42) 2-Chloro-1,3-butadiene	(2)	2.824(-0.001)	53	225534	21.593	21.59			1	5
44) Ethyl t-butyl ether	(2)	3.135(-0.001)	59	380366	20.521	20.52			1	5
45) 2-Butanone	(2)	3.281(-0.000)	43	455754	162.671	162.67			4	10
46) cis-1,2-Dichloroethene	(2)	3.262(-0.001)	96	123850	20.242	20.24			1	5

M = Compound was manually integrated. E = Compound concentration above calibration range. B = Compound detected in referenced method blank.

LCSB84

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCSB84

Data file: /chem2/HP09953.i/12nov07b.b/bn07110.d

Injection date and time: 07-NOV-2012 22:44

Data file Sample Info. Line: LCSB84;LCSB84;2;3;LCS;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 07-Nov-2012 23:32 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit	LOQ
47) 1,2-Dichloroethene (Total)	(2)		96	238924	41.450	41.45			1	5
48) 2,2-Dichloropropane	(2)	3.275(-0.001)	77	202074	22.291	22.29			1	5
50) Propionitrile	(1)	3.342(-0.002)	54	120667	138.833	138.83			30	100
51) Methacrylonitrile	(2)	3.475(-0.001)	67	333461	165.061	165.06			5	50
52) Bromochloromethane	(2)	3.481(-0.001)	128	60886	20.704	20.70			1	5
53) Tetrahydrofuran	(1)	3.518(-0.000)	71	68123	99.131	99.13			4	5
54) Chloroform	(2)	3.560(-0.001)	83	241675	21.240	21.24			1	5
56) 1,1,1-Trichloroethane	(2)	3.731(-0.000)	97	214753	22.118	22.12			1	5
57) Cyclohexane	(2)	3.780(-0.001)	56	223158	19.455	19.45			1	5
58) 1,1-Dichloropropene	(2)	3.877(-0.000)	75	170969	19.622	19.62			1	5
59) Carbon Tetrachloride	(2)	3.883(-0.000)	117	178561	20.455	20.46			1	5
60) Isobutyl Alcohol	(1)	4.041(-0.002)	41	107594	445.744	445.74			100	250
62) Benzene	(2)	4.078(-0.000)	78	481958	20.099	20.10			0.5	5
64) 1,2-Dichloroethane	(2)	4.102(-0.001)	62	210277	23.174	23.17			1	5
65) t-Amyl methyl ether	(2)	4.205(-0.001)	73	310253	20.458	20.46			1	5
69) n-Heptane	(2)	4.357(-0.001)	43	207710	18.494	18.49			3	5
70) n-Butanol	(1)	4.716(-0.002)	56	121339	752.279	752.28			110	250
72) Trichloroethene	(2)	4.716(-0.000)	95	123441	19.970	19.97			1	5
73) Methylcyclohexane	(2)	4.905(-0.000)	83	199859	18.345	18.35			1	5
74) 1,2-Dichloropropene	(2)	4.942(-0.000)	63	132689	19.857	19.86			1	5
76) Methyl Methacrylate	(2)	5.106(-0.001)	69	65414	19.160	19.16			1	5
77) 1,4-Dioxane	(1)	5.106(-0.000)	88	22772	363.779	363.78			70	250
78) Dibromomethane	(2)	5.063(-0.000)	93	73775	20.603	20.60			1	5
81) Bromodichloromethane	(2)	5.234(-0.001)	83	157685	20.256	20.26			1	5
82) 2-Nitropropane	(1)	5.489(-0.002)	41	28243	16.960	16.96			3	10
83) 2-Chloroethyl Vinyl Ether	(2)	5.586(-0.002)	63	55779	72.166	72.17			2	10
84) cis-1,3-Dichloropropene	(2)	5.714(-0.001)	75	187942	20.985	20.98			1	5
85) 4-Methyl-2-pentanone	(2)	5.897(-0.000)	43	618753	98.846	98.85			3	10
87) Toluene	(3)	6.055(-0.000)	92	284871	19.800	19.80			1	5
88) trans-1,3-Dichloropropene	(3)	6.322(-0.000)	75	162531	20.237	20.24			1	5
89) Ethyl Methacrylate	(3)	6.456(-0.000)	69	117256	19.384	19.38			1	5
90) 1,1,2-Trichloroethane	(3)	6.511(-0.000)	97	94559	20.944	20.94			1	5
92) Tetrachloroethene	(3)	6.645(-0.000)	166	133524	21.075	21.07			1	5
93) 1,3-Dichloropropane	(3)	6.687(-0.000)	76	172713	20.668	20.67			1	5
95) 2-Hexanone	(3)	6.821(-0.000)	43	425994	99.471	99.47			3	10
97) Dibromochloromethane	(3)	6.931(-0.000)	129	110268	20.753	20.75			1	5
98) 1,2-Dibromoethane	(3)	7.040(-0.000)	107	93804	20.579	20.58			1	5
100) Chlorobenzene	(3)	7.570(-0.000)	112	317007	19.694	19.69			1	5
101) 1,1,1,2-Tetrachloroethane	(3)	7.661(-0.000)	131	118049	20.175	20.17			1	5
102) Ethylbenzene	(3)	7.697(-0.000)	91	548995	20.054	20.05			1	5
103) m+p-Xylene	(3)	7.813(-0.000)	106	420667	39.336	39.34			1	5
104) o-Xylene	(3)	8.172(-0.000)	106	201529	19.374	19.37			1	5
105) Xylene (Total)	(3)		106	622196	58.710	58.71			1	5
106) Styrene	(3)	8.190(-0.000)	104	320783	19.609	19.61			1	5
107) Bromoform	(3)	8.342(-0.000)	173	66243	19.007	19.01			1	5
108) Isopropylbenzene	(3)	8.500(-0.000)	105	545951	19.681	19.68			1	5
111) Cyclohexanone	(1)	8.567(-0.002)	55	110652	622.237	622.24			25	250
113) 1,1,2,2-Tetrachloroethane	(4)	8.762(-0.000)	83	132165	21.495	21.50			1	5
114) Bromobenzene	(4)	8.732(-0.000)	156	140823	20.485	20.48			1	5
115) trans-1,4-Dichloro-2-butene	(4)	8.811(-0.000)	53	233880	122.728	122.73			10	50
116) 1,2,3-Trichloropropane	(4)	8.786(-0.000)	110	39070	22.453	22.45			1	5
117) n-Propylbenzene	(4)	8.841(-0.000)	91	697916	17.335	17.33			1	5
119) 2-Chlorotoluene	(4)	8.896(-0.000)	126	135677	20.065	20.06			1	5

LCSB84

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCSB84

Data file: /chem2/HP09953.i/12nov07b.b/bn07110.d

Injection date and time: 07-NOV-2012 22:44

Data file Sample Info. Line: LCSB84;LCSB84;2;3;LCS;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 07-Nov-2012 23:32 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

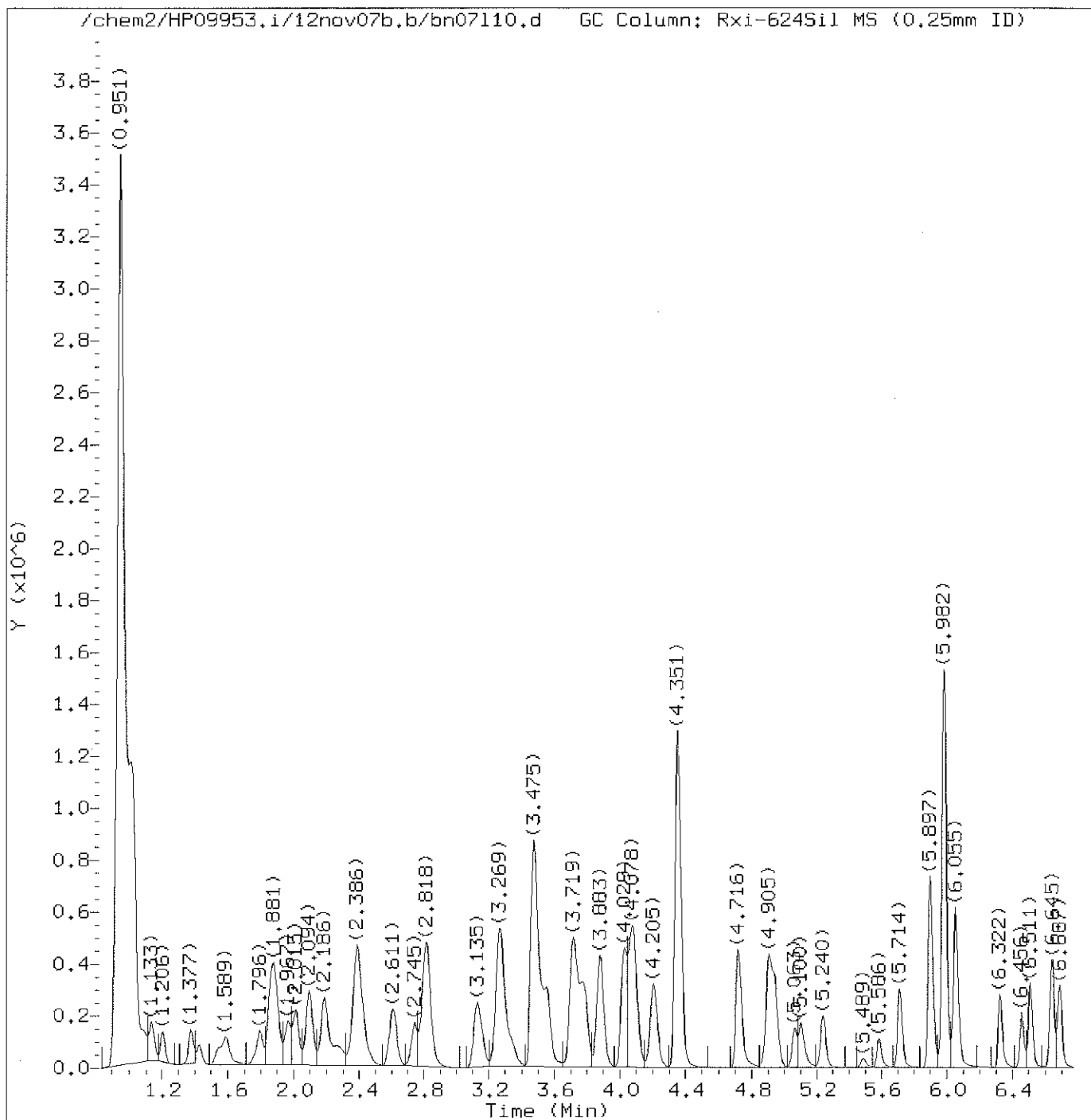
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
122) 1,3,5-Trimethylbenzene	(4)	8.987(0.000)	105	493366	20.425	20.43		1		5
123) 4-Chlorotoluene	(4)	8.987(0.000)	126	140526	19.688	19.69		1		5
126) tert-Butylbenzene	(4)	9.236(-0.000)	134	105870	19.447	19.45		1		5
127) Pentachloroethane	(4)	9.242(-0.000)	167	87879	18.820	18.82		1		5
128) 1,2,4-Trimethylbenzene	(4)	9.273(0.000)	105	501638	20.507	20.51		1		5
129) sec-Butylbenzene	(4)	9.401(0.000)	105	612667	20.032	20.03		1		5
131) 1,3-Dichlorobenzene	(4)	9.474(-0.000)	146	268378	19.974	19.97		1		5
132) p-Isopropyltoluene	(4)	9.516(-0.000)	119	537533M	19.965	19.96		1		5
134) 1,4-Dichlorobenzene	(4)	9.541(0.000)	146	290003	20.113	20.11		1		5
135) 1,2,3-Trimethylbenzene	(4)	9.583(0.000)	105	520979	20.676	20.68		1		5
136) Benzyl Chloride	(4)	9.650(0.000)	126	41755	18.478	18.48		1		4
137) 1,3-Diethylbenzene	(4)	9.735(0.000)	119	308652	19.663	19.66		1		5
138) 1,4-Diethylbenzene	(4)	9.796(0.000)	119	333079	19.714	19.71		1		5
139) n-Butylbenzene	(4)	9.814(-0.000)	92	275618M	19.757	19.76		1		5
140) 1,2-Dichlorobenzene	(4)	9.808(0.000)	146	275765	19.998	20.00		1		5
141) 1,2-Diethylbenzene	(4)	9.875(0.000)	119	277379M	19.828	19.83		1		5
144) 1,2-Dibromo-3-chloropropane	(4)	10.362(-0.000)	75	25910	20.912	20.91		2		5
145) 1,3,5-Trichlorobenzene	(4)	10.502(0.000)	180	222463	19.126	19.13		1		5
146) 1,2,4-Trichlorobenzene	(4)	10.916(-0.000)	180	198331	19.698	19.70		1		5
147) Hexachlorobutadiene	(4)	11.025(0.000)	225	118629	19.871	19.87		2		5
148) Naphthalene	(4)	11.074(-0.000)	128	424255	20.745	20.74		1		5
149) 1,2,3-Trichlorobenzene	(4)	11.226(0.000)	180	195609	20.498	20.50		1		5
150) 2-Methylnaphthalene	(4)	11.798(-0.000)	142	217219	18.190	18.19		2		5

M = Compound was manually integrated.

Total number of targets = 104

Digitally signed by Stephanie A. Sellis on 11/08/2012 at 06:16. Target 3.5 signature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Oysal on 11/08/2012 at 10:14. Parallax ID: abh01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07110.d
Injection date and time: 07-NOV-2012 22:44

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m
Calibration date and time: 07-NOV-2012 22:23

Sublist used: 8260S-F

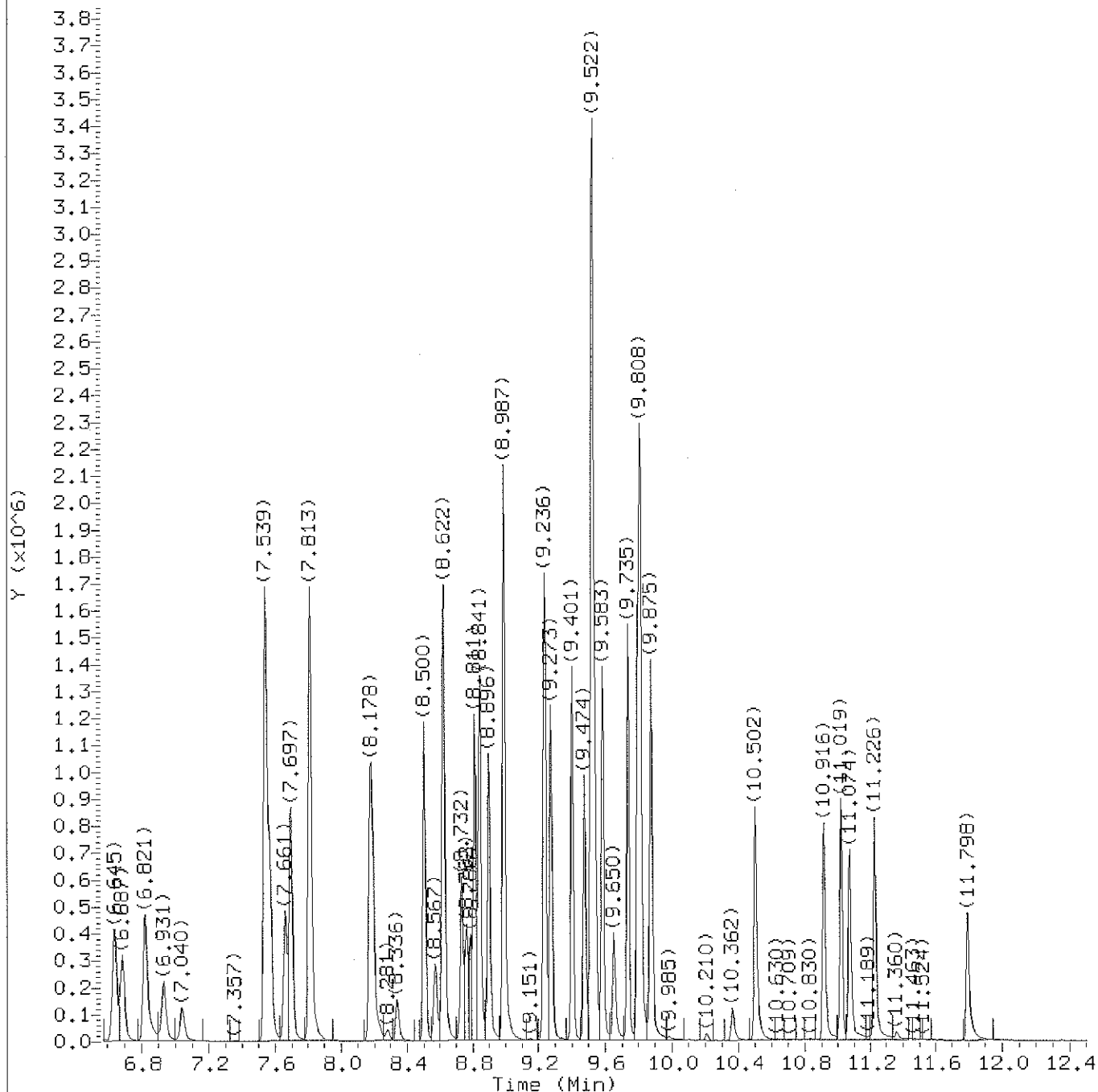
Date, time and analyst ID of latest file update: 07-Nov-2012 23:32 sas00403

Sample Name: LCSB84

Lab Sample ID: LCSB84

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:16.

Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.1/12nov07b.b/bn07110.d
Injection date and time: 07-NOV-2012 22:44

Instrument ID: HP09953.1
Analyst ID: AEL02861

Method used: /chem2/HP09953.1/12nov07b.b/di8260b.m
Calibration date and time: 07-NOV-2012 22:23

Sublist used: 8260S-F

Date, time and analyst ID of latest file update: 07-Nov-2012 23:32 sas00403

Sample Name: LCSB84

Lab Sample ID: LCSB84

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:16.

Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07110.d
 Injection date and time: 07-NOV-2012 22:44

Instrument ID: HP09953.i
 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
 Calibration date and time: 07-NOV-2012 22:23
 Date, time and analyst ID of latest file update: 07-Nov-2012 23:32 sas00403

Sample Name: LCSB84

Lab Sample ID: LCSB84

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
2) Dichlorodifluoromethane	(2)	1.091	85	191356	19.203
4) Chloromethane	(2)	1.133	50	200017	20.299
5) Vinyl Chloride	(2)	1.206	62	158953	19.257
9) Bromomethane	(2)	1.377	94	111102	21.472
10) Chloroethane	(2)	1.431	64	89851	20.897
13) Trichlorofluoromethane	(2)	1.589	101	230123	21.915
15) Ethanol	(1)	1.656	45	64258	935.307
18) Acrolein	(1)	1.796	56	159360	158.962
19) 1,1-Dichloroethene	(2)	1.863	96	103287	21.481
20) Acetone	(2)	1.888	58	91357M	166.749
22) Freon 113	(2)	1.888	101	117094	20.836
24) Methyl Iodide	(2)	1.967	142	203899	20.426
23) 2-Propanol	(1)	1.979	45	67244	143.294
25) Carbon Disulfide	(2)	2.015	76	316669	19.978
29) Allyl Chloride	(2)	2.094	41	228743	21.877
27) Methyl Acetate	(2)	2.100	43	212819	50.610
31) Methylene Chloride	(2)	2.186	84	136221	24.399
30)*t-Butyl alcohol-d10	(1)	2.210	65	129465	250.000
32) t-Butyl alcohol	(1)	2.283	59	132238M	201.408
33) Acrylonitrile	(2)	2.374	53	197463M	107.761
35) trans-1,2-Dichloroethene	(2)	2.392	96	115074	21.207
34) Methyl Tertiary Butyl Ether	(2)	2.405	73	360700	23.104
38) n-Hexane	(2)	2.611	57	167645	17.757
40) 1,1-Dichloroethane	(2)	2.745	63	250121	20.996
41) di-Isopropyl ether	(2)	2.812	45	451528	19.925
42) 2-Chloro-1,3-butadiene	(2)	2.824	53	225534	21.593
44) Ethyl t-butyl ether	(2)	3.135	59	380366	20.521
46) cis-1,2-Dichloroethene	(2)	3.262	96	123850	20.242
48) 2,2-Dichloropropane	(2)	3.275	77	202074	22.291
45) 2-Butanone	(2)	3.281	43	455754	162.671
50) Propionitrile	(1)	3.342	54	120667	138.833
51) Methacrylonitrile	(2)	3.475	67	333461	165.061
52) Bromochloromethane	(2)	3.481	128	60886	20.704
53) Tetrahydrofuran	(1)	3.518	71	68123	99.131
54) Chloroform	(2)	3.561	83	241675	21.240
55)\$Dibromofluoromethane	(2)	3.713	113	291814	51.443
56) 1,1,1-Trichloroethane	(2)	3.731	97	214753	22.118
57) Cyclohexane	(2)	3.780	56	223158	19.455

M = Compound was manually integrated.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 3

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 on 11/08/2012 at 06:16.

Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07110.d
Injection date and time: 07-NOV-2012 22:44

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 23:32 sas00403

Sample Name: LCSB84

Lab Sample ID: LCSB84

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
58) 1,1-Dichloropropene	(2)	3.877	75	170969	19.622
59) Carbon Tetrachloride	(2)	3.883	117	178561	20.455
61) \$1,2-Dichloroethane-d4	(2)	4.023	102	61260	51.380
60) Isobutyl Alcohol	(1)	4.041	41	107594	445.744
62) Benzene	(2)	4.078	78	481958	20.099
64) 1,2-Dichloroethane	(2)	4.102	62	210277	23.174
65) t-Amyl methyl ether	(2)	4.205	73	310253	20.458
67) *Fluorobenzene	(2)	4.351	96	1132853	50.000
69) n-Heptane	(2)	4.357	43	207710	18.494
70) n-Butanol	(1)	4.716	56	121339	752.279
72) Trichloroethene	(2)	4.716	95	123441	19.970
73) Methylcyclohexane	(2)	4.905	83	199859	18.345
74) 1,2-Dichloropropane	(2)	4.941	63	132689	19.857
78) Dibromomethane	(2)	5.063	93	73775	20.603
77) 1,4-Dioxane	(1)	5.106	88	22772	363.779
76) Methyl Methacrylate	(2)	5.106	69	65414	19.160
81) Bromodichloromethane	(2)	5.234	83	157685	20.256
82) 2-Nitropropane	(1)	5.489	41	28243	16.960
83) 2-Chloroethyl Vinyl Ether	(2)	5.586	63	55779	72.166
84) cis-1,3-Dichloropropene	(2)	5.714	75	187942	20.985
85) 4-Methyl-2-pentanone	(2)	5.897	43	618753	98.846
86) \$Toluene-d8	(3)	5.988	98	1131981	51.876
87) Toluene	(3)	6.055	92	284871	19.800
47) 1,2-Dichloroethene (Total)	(2)		96	238924	41.450
88) trans-1,3-Dichloropropene	(3)	6.322	75	162531	20.237
89) Ethyl Methacrylate	(3)	6.456	69	117256	19.384
90) 1,1,2-Trichloroethane	(3)	6.511	97	94559	20.944
92) Tetrachloroethene	(3)	6.645	166	133524	21.075
93) 1,3-Dichloropropane	(3)	6.687	76	172713	20.668
95) 2-Hexanone	(3)	6.821	43	425994	99.471
97) Dibromochloromethane	(3)	6.931	129	110268	20.753
98) 1,2-Dibromoethane	(3)	7.040	107	93804	20.579
99) *Chlorobenzene-d5	(3)	7.539	117	762014	50.000
100) Chlorobenzene	(3)	7.570	112	317007	19.694
101) 1,1,1,2-Tetrachloroethane	(3)	7.661	131	118049	20.175
102) Ethylbenzene	(3)	7.697	91	548995	20.054
103) m+p-Xylene	(3)	7.813	106	420667	39.336
104) o-Xylene	(3)	8.172	106	201529	19.374

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 2 of 3

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on 11/08/2012 at 06:16.
Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07110.d
Injection date and time: 07-NOV-2012 22:44

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 23:32 sas00403

Sample Name: LCSB84

Lab Sample ID: LCSB84

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
106) Styrene	(3)	8.190	104	320783	19.609
107) Bromoform	(3)	8.342	173	66243	19.007
108) Isopropylbenzene	(3)	8.500	105	545951	19.681
111) Cyclohexanone	(1)	8.567	55	110652	622.237
112) \$4-Bromofluorobenzene	(3)	8.622	95	409294	50.042
114) Bromobenzene	(4)	8.732	156	140823	20.485
113) 1,1,2,2-Tetrachloroethane	(4)	8.762	83	132165	21.495
116) 1,2,3-Trichloropropane	(4)	8.786	110	39070	22.453
115) trans-1,4-Dichloro-2-butene	(4)	8.811	53	233880	122.728
117) n-Propylbenzene	(4)	8.841	91	697916	17.335
119) 2-Chlorotoluene	(4)	8.896	126	135677	20.065
123) 4-Chlorotoluene	(4)	8.987	126	140526	19.688
122) 1,3,5-Trimethylbenzene	(4)	8.987	105	493366	20.425
126) tert-Butylbenzene	(4)	9.236	134	105870	19.447
127) Pentachloroethane	(4)	9.243	167	87879	18.820
128) 1,2,4-Trimethylbenzene	(4)	9.273	105	501638	20.507
129) sec-Butylbenzene	(4)	9.401	105	612667	20.032
131) 1,3-Dichlorobenzene	(4)	9.474	146	268378	19.974
132) p-Isopropyltoluene	(4)	9.516	119	537533M	19.965
133) *1,4-Dichlorobenzene-d4	(4)	9.522	152	472260	50.000
134) 1,4-Dichlorobenzene	(4)	9.541	146	290003	20.113
135) 1,2,3-Trimethylbenzene	(4)	9.583	105	520979	20.676
136) Benzyl Chloride	(4)	9.650	126	41755	18.478
137) 1,3-Diethylbenzene	(4)	9.735	119	308652	19.663
138) 1,4-Diethylbenzene	(4)	9.796	119	333079	19.714
140) 1,2-Dichlorobenzene	(4)	9.808	146	275765	19.998
139) n-Butylbenzene	(4)	9.814	92	275618M	19.757
141) 1,2-Diethylbenzene	(4)	9.875	119	277379M	19.828
144) 1,2-Dibromo-3-chloropropane	(4)	10.362	75	25910	20.912
145) 1,3,5-Trichlorobenzene	(4)	10.502	180	222463	19.126
146) 1,2,4-Trichlorobenzene	(4)	10.916	180	198331	19.698
147) Hexachlorobutadiene	(4)	11.025	225	118629	19.871
148) Naphthalene	(4)	11.074	128	424255	20.745
149) 1,2,3-Trichlorobenzene	(4)	11.226	180	195609	20.498
105) Xylene (Total)	(3)		106	622196	58.710
150) 2-Methylnaphthalene	(4)	11.798	142	217219	18.190

M = Compound was manually integrated.

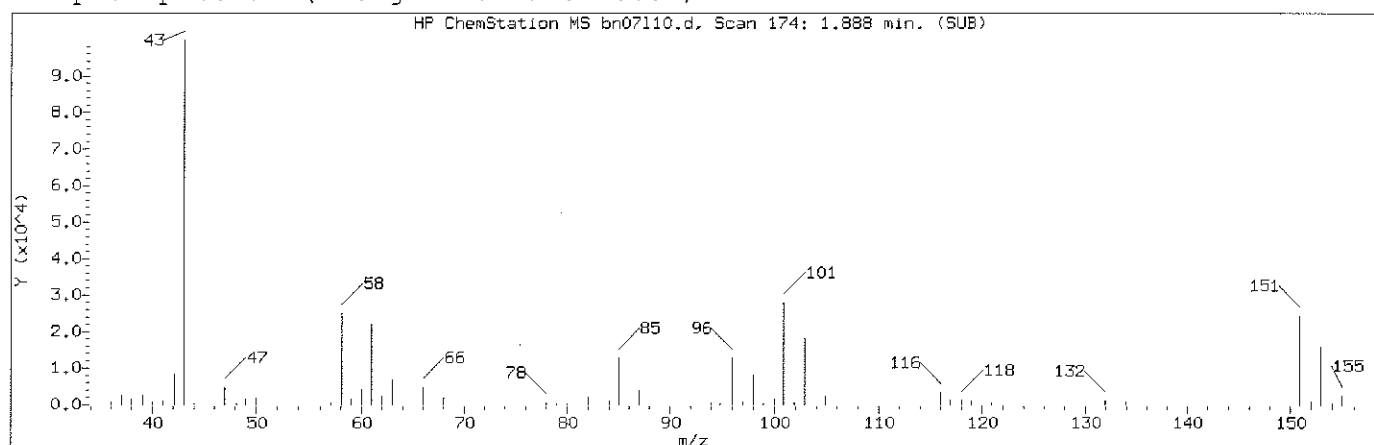
* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

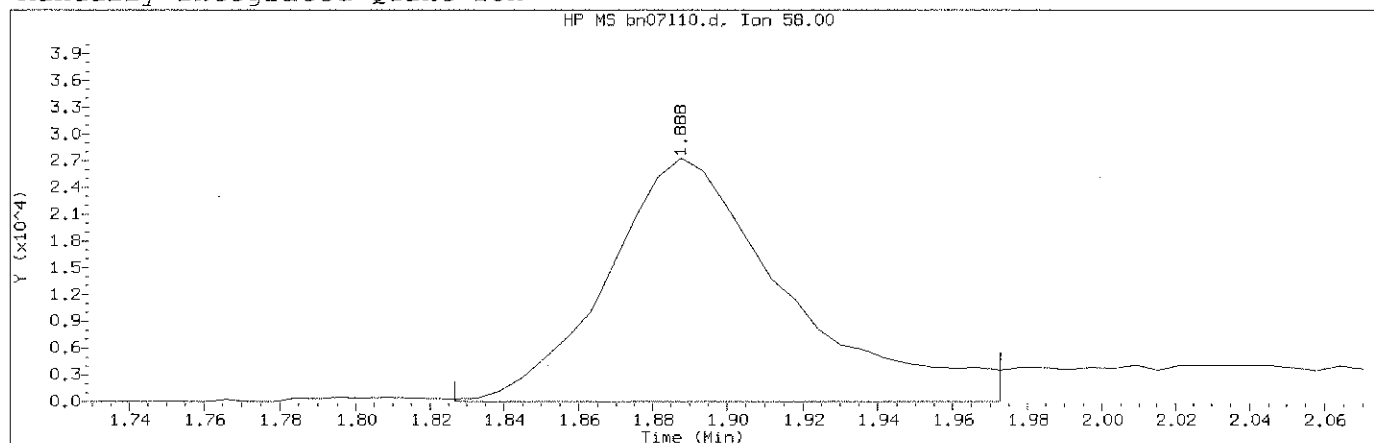
page 3 of 3

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:16.
Target 3.5 esignature user ID: sas00403

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07110.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2012 22:44 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 23:32 sas00403

Sample Name: LCSB84

Lab Sample ID: LCSB84

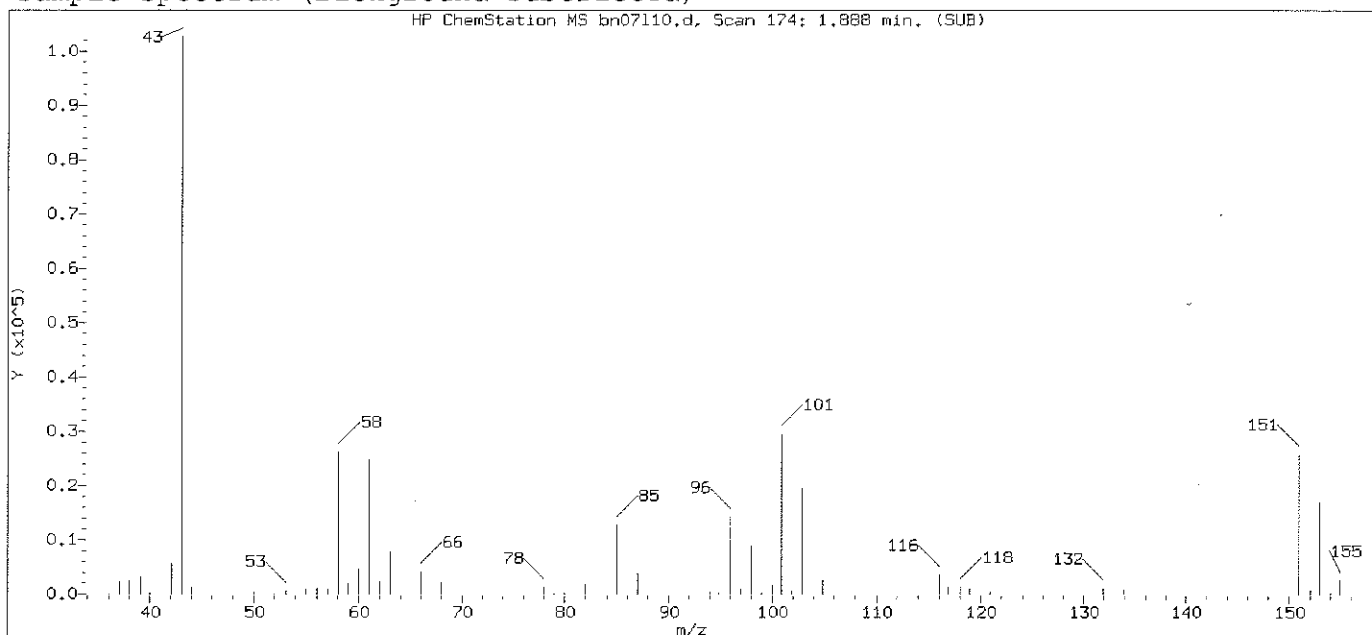
Compound Number : 20
Compound Name : Acetone
Scan Number : 174
Retention Time (minutes): 1.888
Quant Ion : 58.00
Area (flag) : 91357M
On-Column Amount (ng) : 166.7494
Integration start scan : 163 Integration stop scan: 187
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

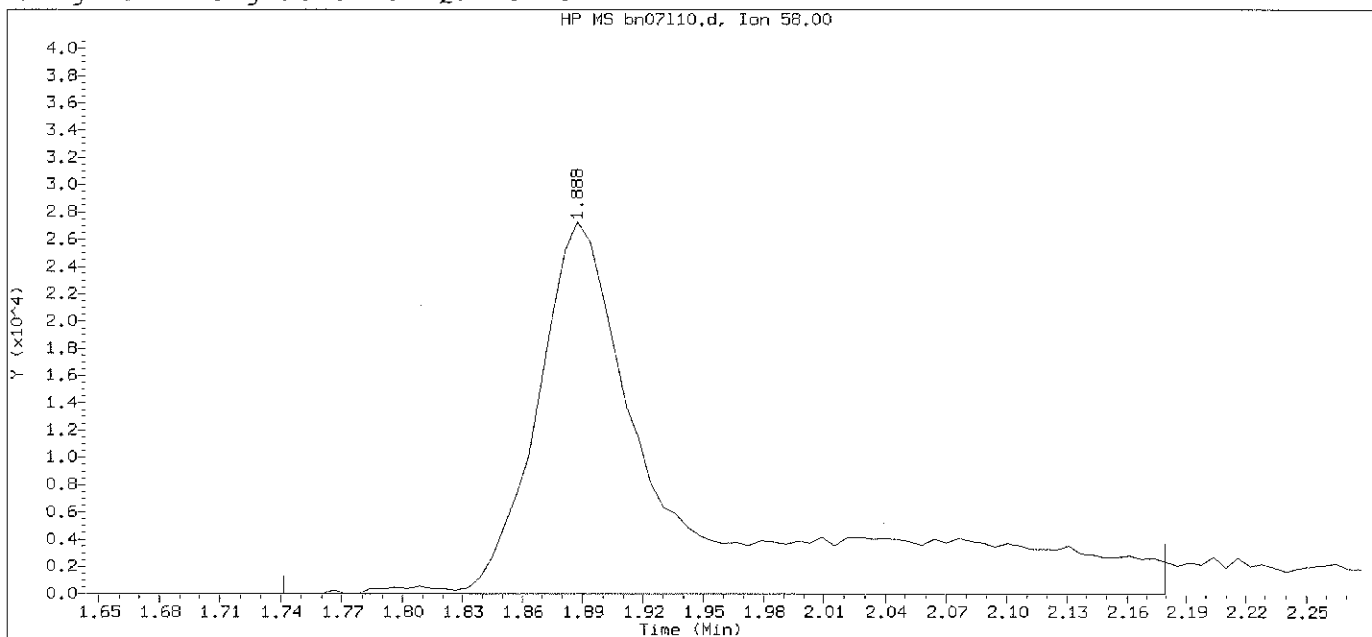
Analyst responsible for change: Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:16.
Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07110.d

Instrument ID: HP09953.i

Injection date and time: 07-NOV-2012 22:44

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time: 07-NOV-2012 22:23

Date, time and analyst ID of latest file update: 07-Nov-2012 23:00 Automation

Sample Name: LCSB84

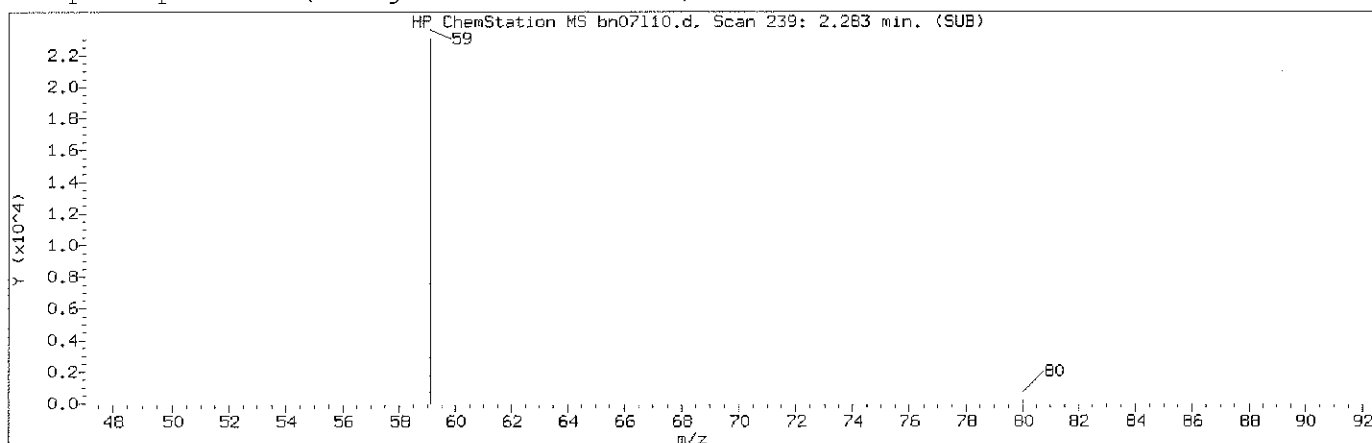
Lab Sample ID: LCSB84

Compound Number	: 20	
Compound Name	: Acetone	
Scan Number	: 174	
Retention Time (minutes)	: 1.888	
Quant Ion	: 58.00	
Area	: 135531	
On-column Amount (ng)	: 247.3760	
Integration start scan	: 149	Integration stop scan: 221
Y at integration start	: 0	Y at integration end: 0

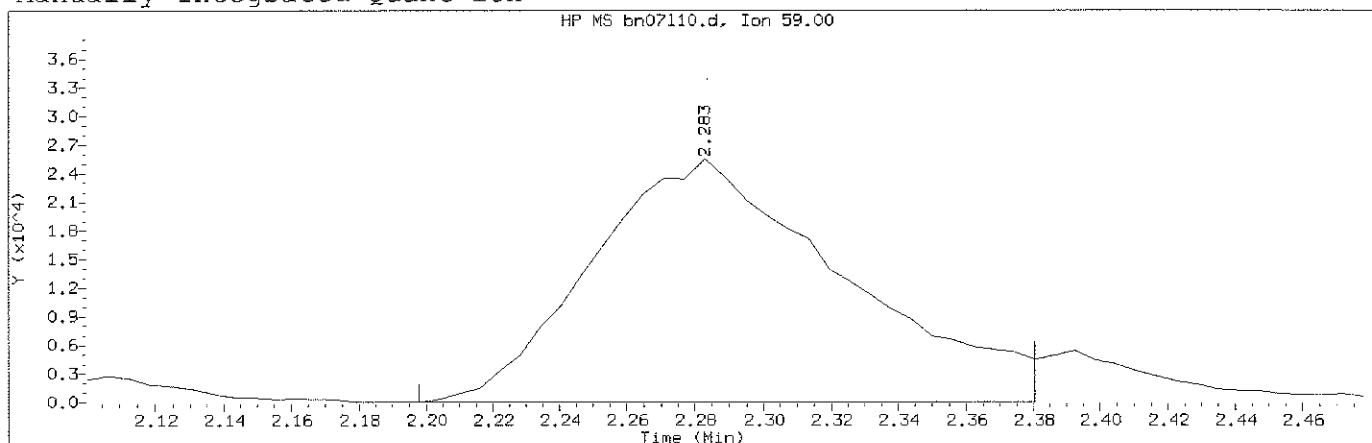
Digitally signed by Stephanie A. Selis on 11/08/2012 at 06:16.

Target 3.5 esignature user ID: 95004788
TAP03 Page 768 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07110.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2012 22:44 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 23:32 sas00403

Sample Name: LCSB84 Lab Sample ID: LCSB84

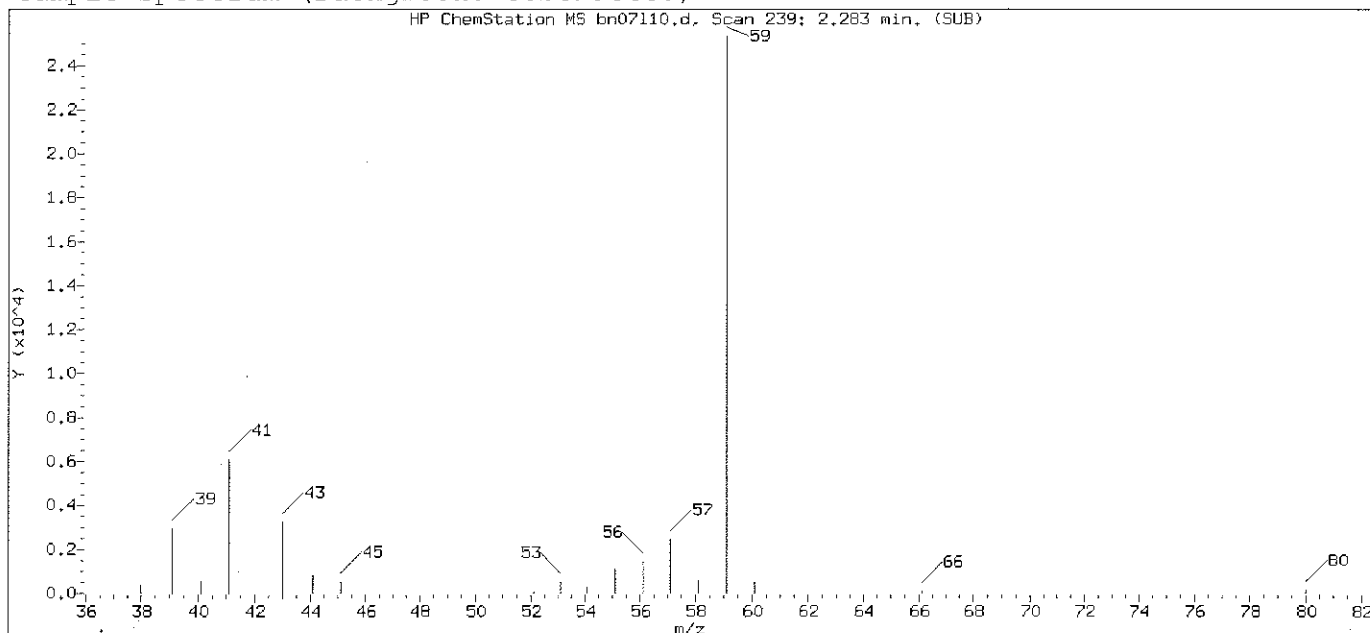
Compound Number : 32
Compound Name : t-Butyl alcohol
Scan Number : 239
Retention Time (minutes): 2.283
Quant Ion : 59.00
Area (flag) : 132238M
On-Column Amount (ng) : 201.4076
Integration start scan : 224 Integration stop scan: 254
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

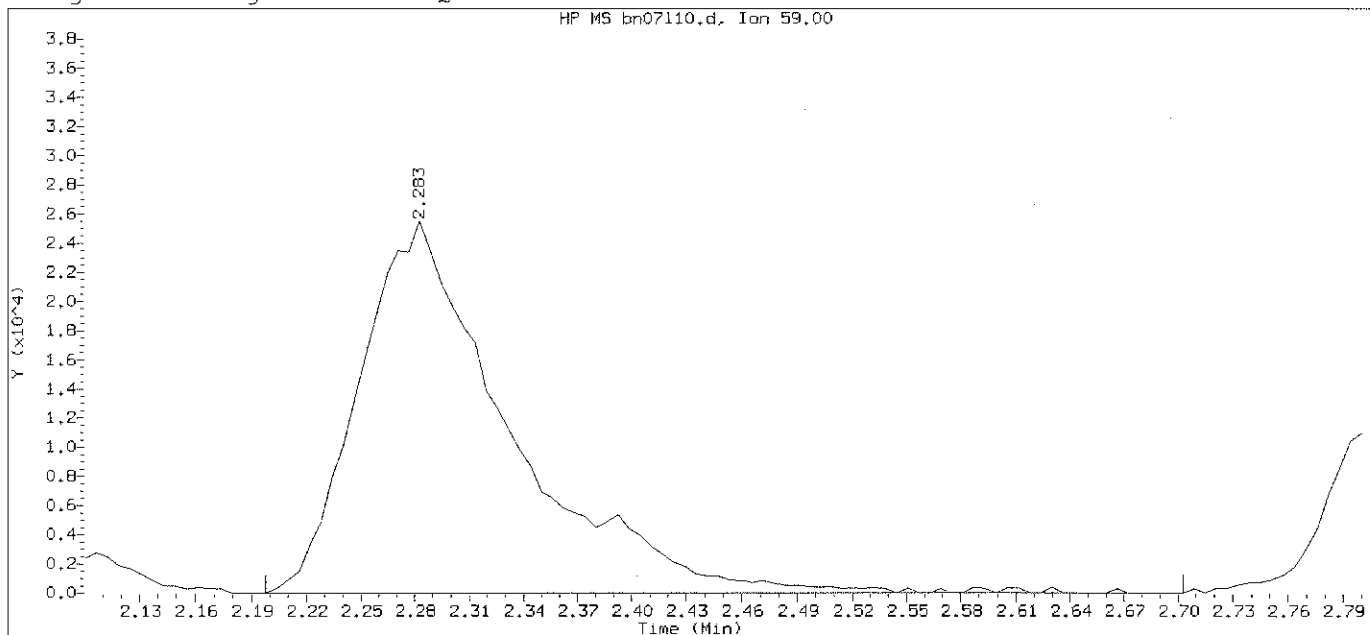
Analyst responsible for change: Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:16.
Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07110.d

Instrument ID: HP09953.i

Injection date and time: 07-NOV-2012 22:44

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time: 07-NOV-2012 22:23

Date, time and analyst ID of latest file update: 07-Nov-2012 23:00 Automation

Sample Name: LCSB84

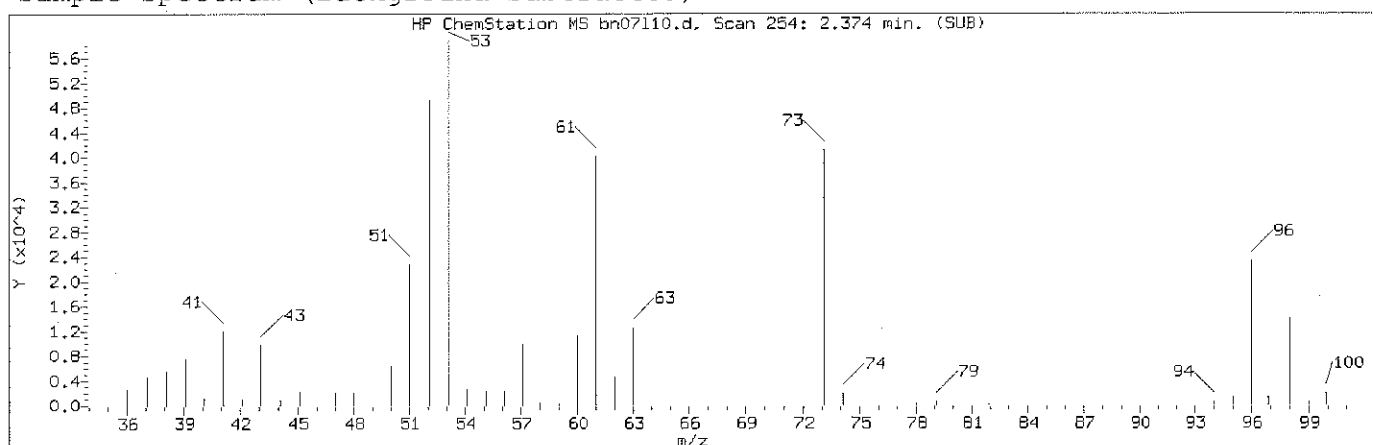
Lab Sample ID: LCSB84

Compound Number	: 32	
Compound Name	: t-Butyl alcohol	
Scan Number	: 239	
Retention Time (minutes)	: 2.283	
Quant Ion	: 59.00	
Area	: 147768	
On-column Amount (ng)	: 225.0604	
Integration start scan	: 224	Integration stop scan: 307
Y at integration start	: 0	Y at integration end: 0

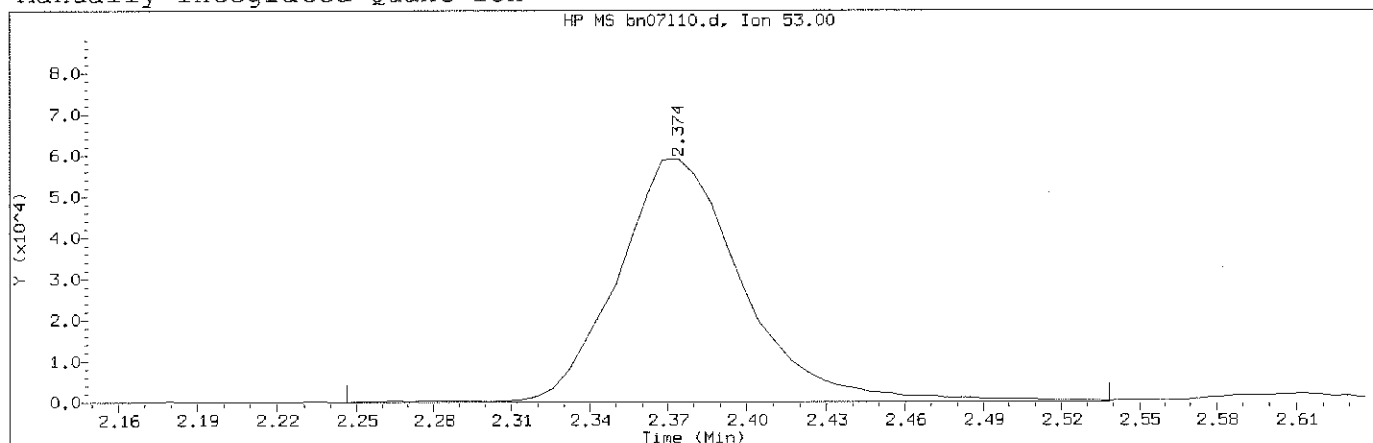
Digitally signed by Stephanie A. Selis on 11/08/2012 at 06:16.

Target 3.5 esignature user TAP03 Page 170 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07110.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2012 22:44 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 23:32 sas00403

Sample Name: LCSB84

Lab Sample ID: LCSB84

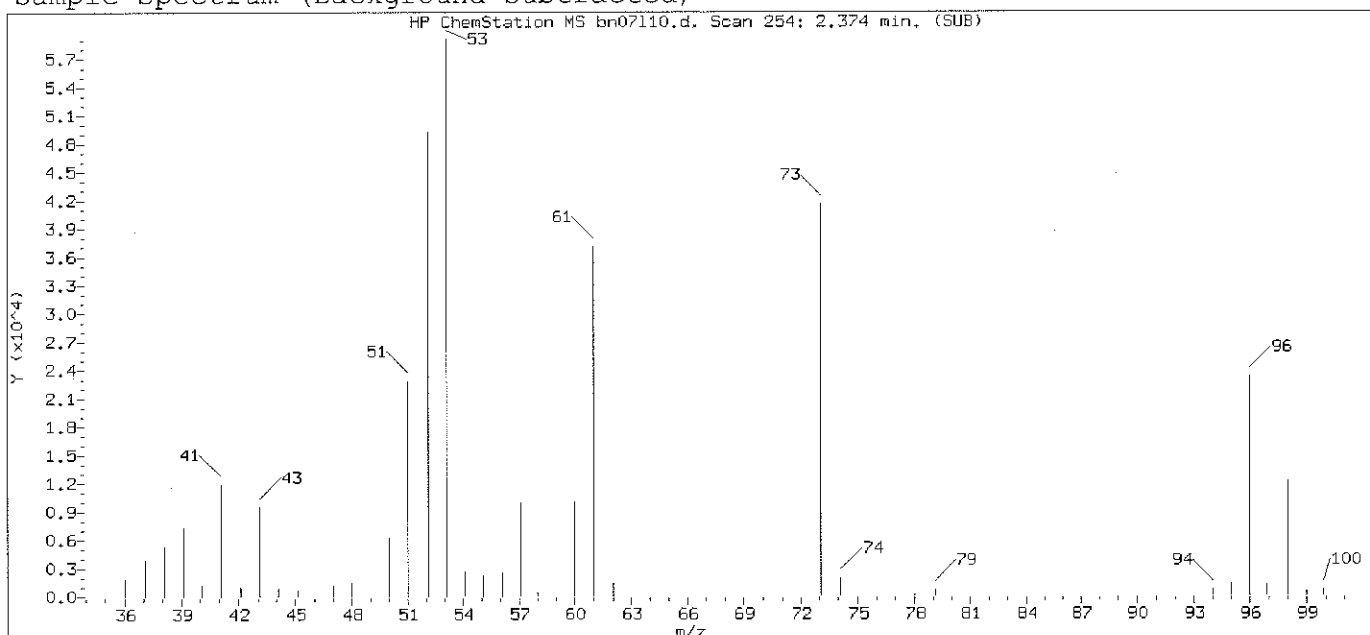
Compound Number : 33
Compound Name : Acrylonitrile
Scan Number : 254
Retention Time (minutes): 2.374
Quant Ion : 53.00
Area (flag) : 197463M
On-Column Amount (ng) : 107.7609
Integration start scan : 232 Integration stop scan: 280
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

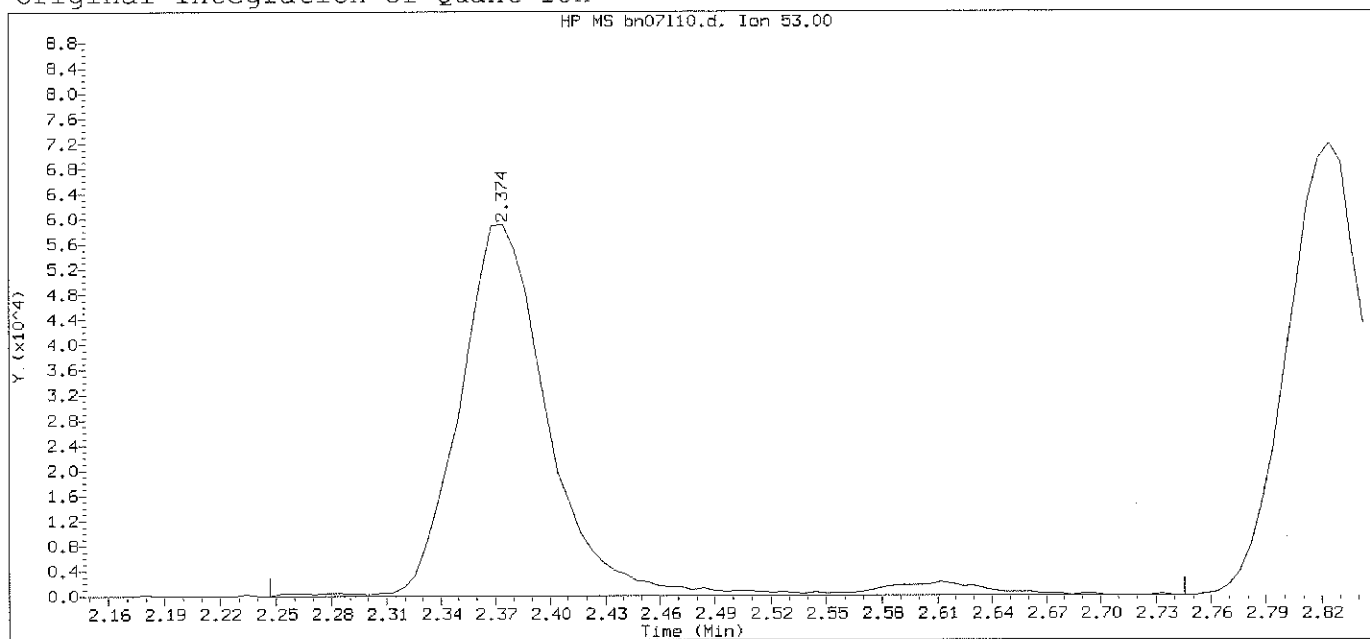
Analyst responsible for change: Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:16.
Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07110.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2012 22:44 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 23:00 Automation

Sample Name: LCSB84

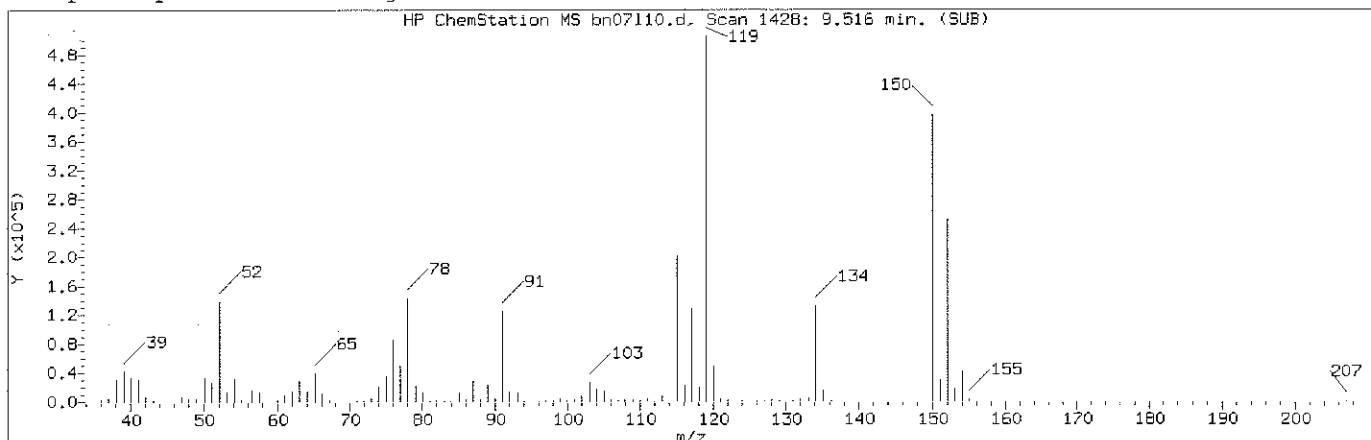
Lab Sample ID: LCSB84

Compound Number : 33
Compound Name : Acrylonitrile
Scan Number : 254
Retention Time (minutes): 2.374
Quant Ion : 53.00
Area : 206169
On-column Amount (ng) : 112.5122
Integration start scan : 232 Integration stop scan: 314
Y at integration start : 0 Y at integration end: 0

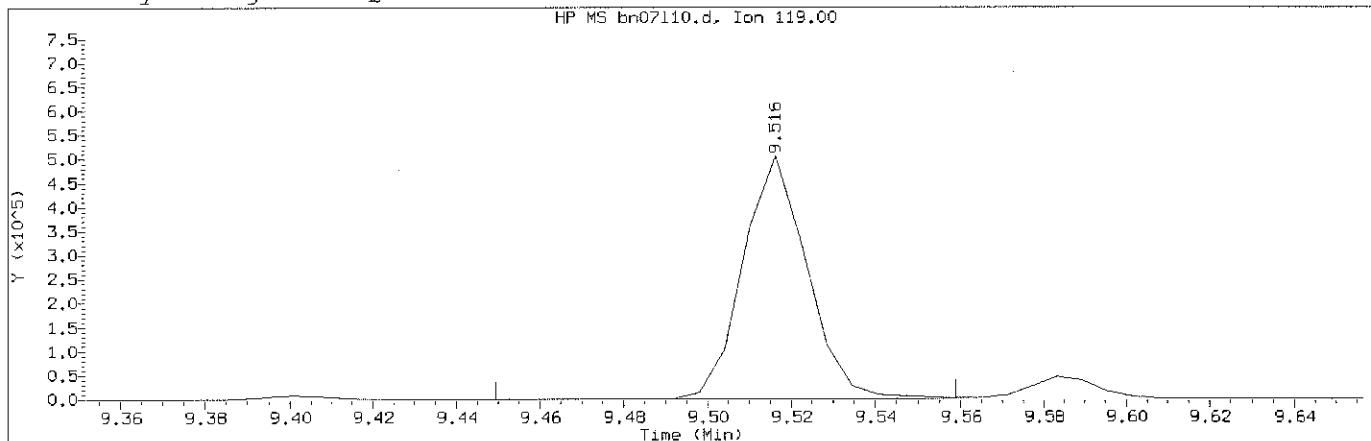
Digitally signed by Stephanie A. Selis on 11/08/2012 at 06:16.

Target 3.5 esignature use TAP03 Page 772 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07110.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2012 22:44 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 23:32 sas00403

Sample Name: LCSB84 Lab Sample ID: LCSB84

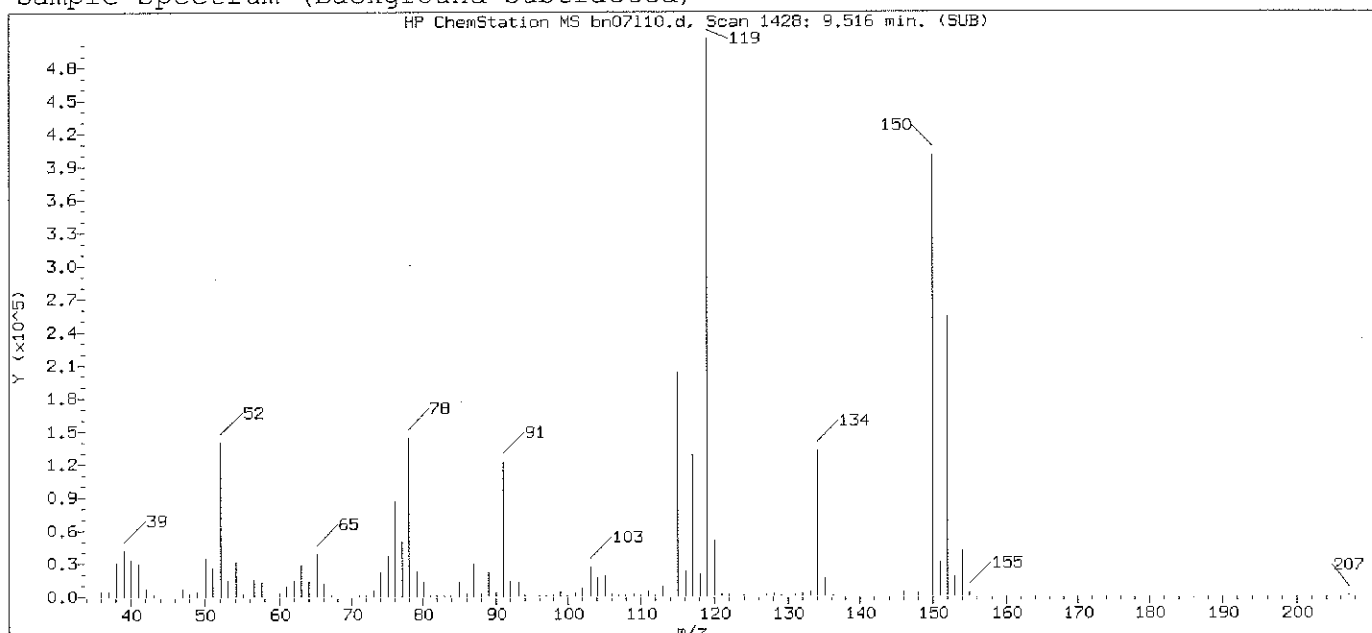
Compound Number : 132
Compound Name : p-Isopropyltoluene
Scan Number : 1428
Retention Time (minutes): 9.516
Quant Ion : 119.00
Area (flag) : 537533M
On-Column Amount (ng) : 19.9645
Integration start scan : 1416 Integration stop scan: 1434
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

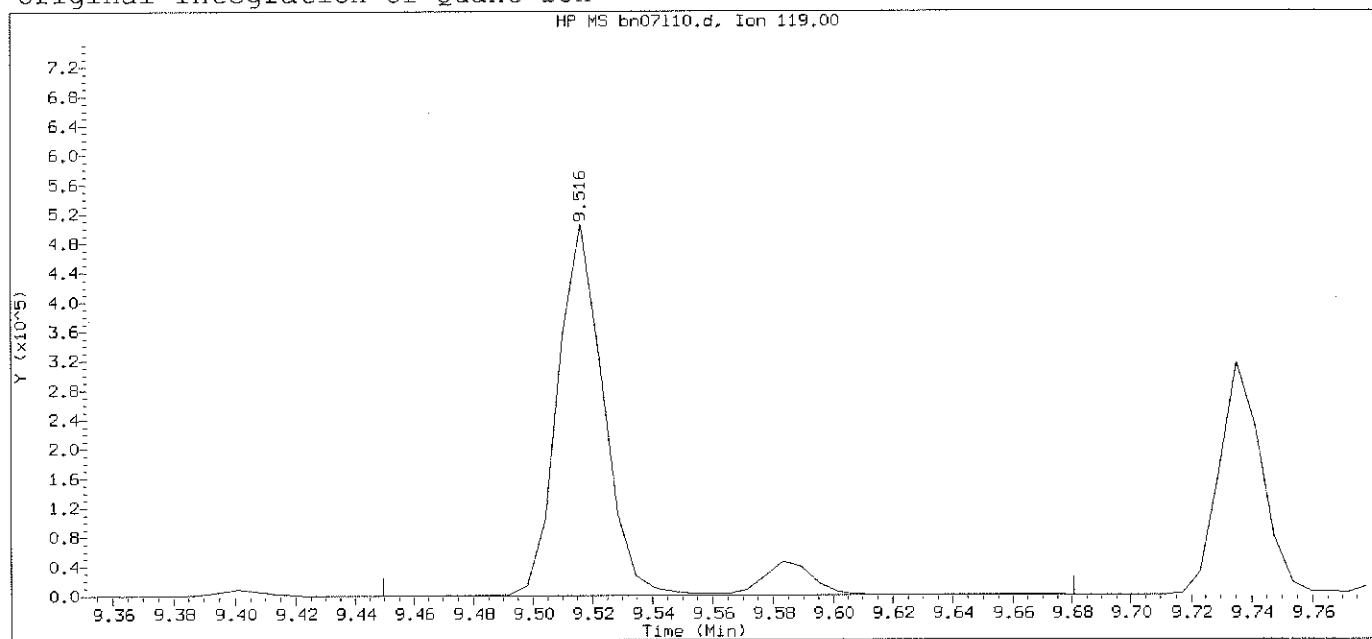
Analyst responsible for change: Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:16.
Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07110.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2012 22:44 Analyst ID: AEL02861

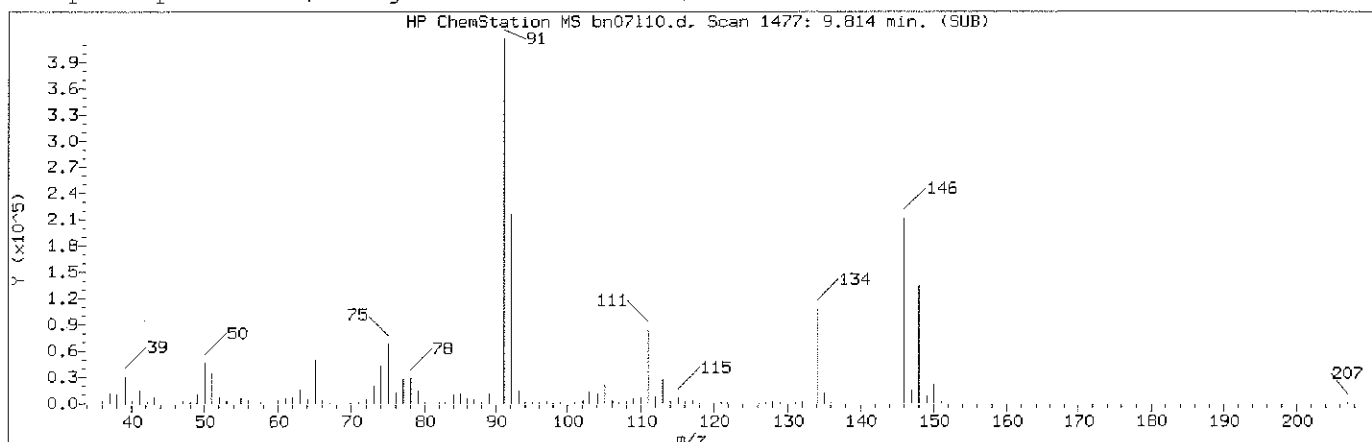
Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 23:00 Automation

Sample Name: LCSB84

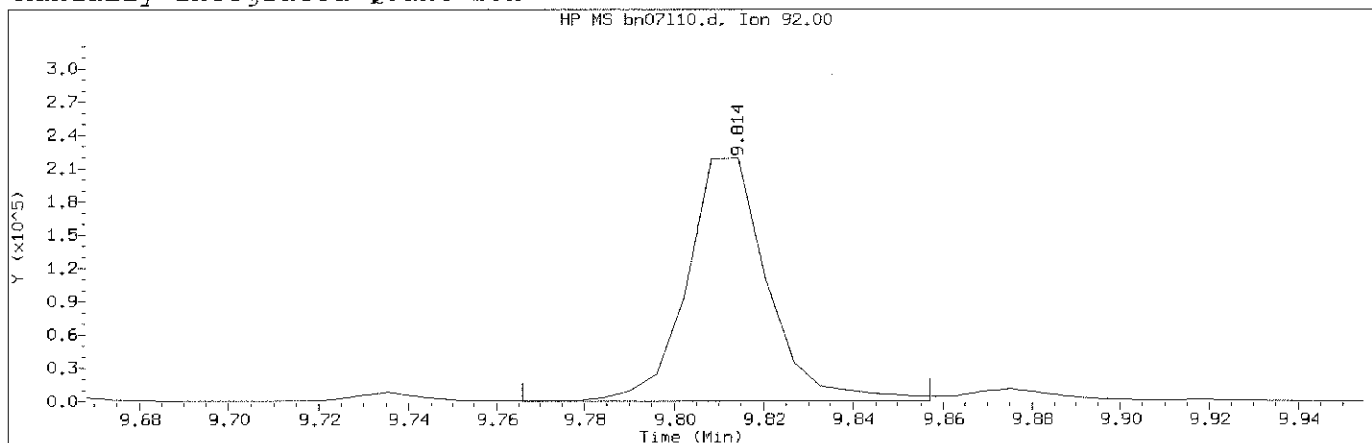
Lab Sample ID: LCSB84

Compound Number : 132
Compound Name : p-Isopropyltoluene
Scan Number : 1428
Retention Time (minutes): 9.516
Quant Ion : 119.00
Area : 593117
On-column Amount (ng) : 22.0290
Integration start scan : 1416 Integration stop scan: 1454
Y at integration start : 0 Y at integration end: 0

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07110.d

Instrument ID: HP09953.i

Injection date and time: 07-NOV-2012 22:44

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time: 07-NOV-2012 22:23

Date, time and analyst ID of latest file update: 07-Nov-2012 23:32 sas00403

Sample Name: LCSB84

Lab Sample ID: LCSB84

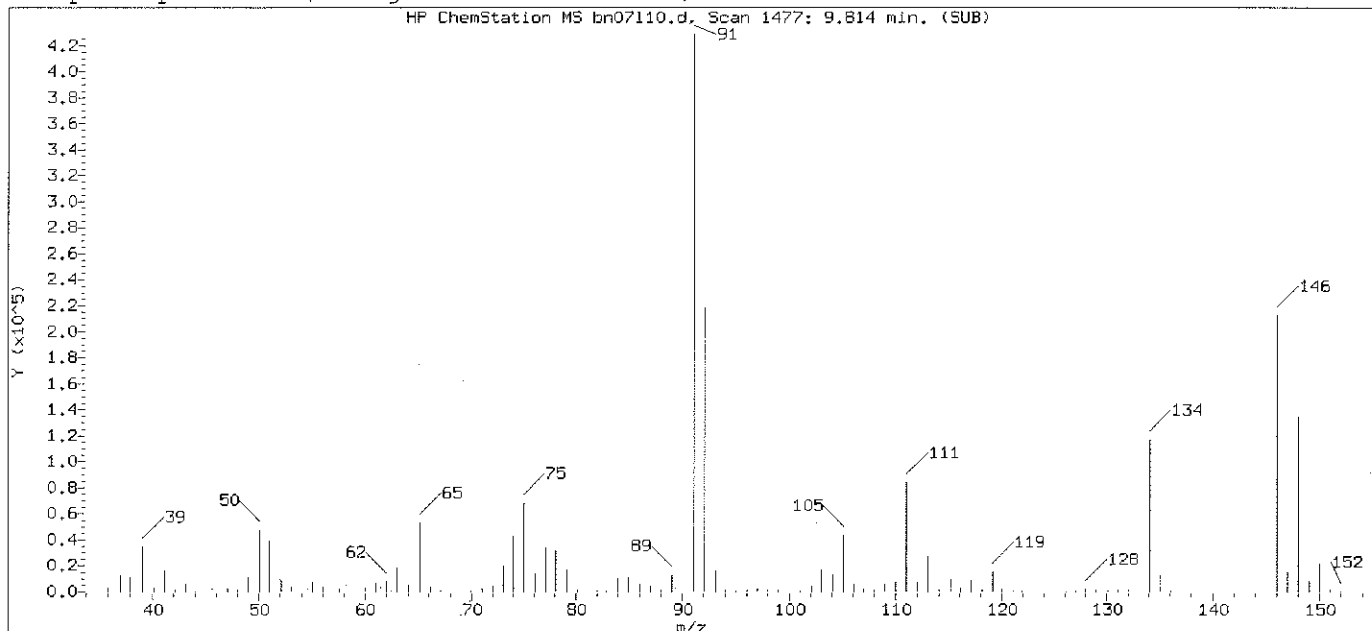
Compound Number	: 139	
Compound Name	: n-Butylbenzene	
Scan Number	: 1477	
Retention Time (minutes)	: 9.814	
Quant Ion	: 92.00	
Area (flag)	: 275618M	
On-Column Amount (ng)	: 19.7567	
Integration start scan	: 1468	Integration stop scan: 1483
Y at integration start	: 0	Y at integration end: 0

Reason for manual integration: improper integration

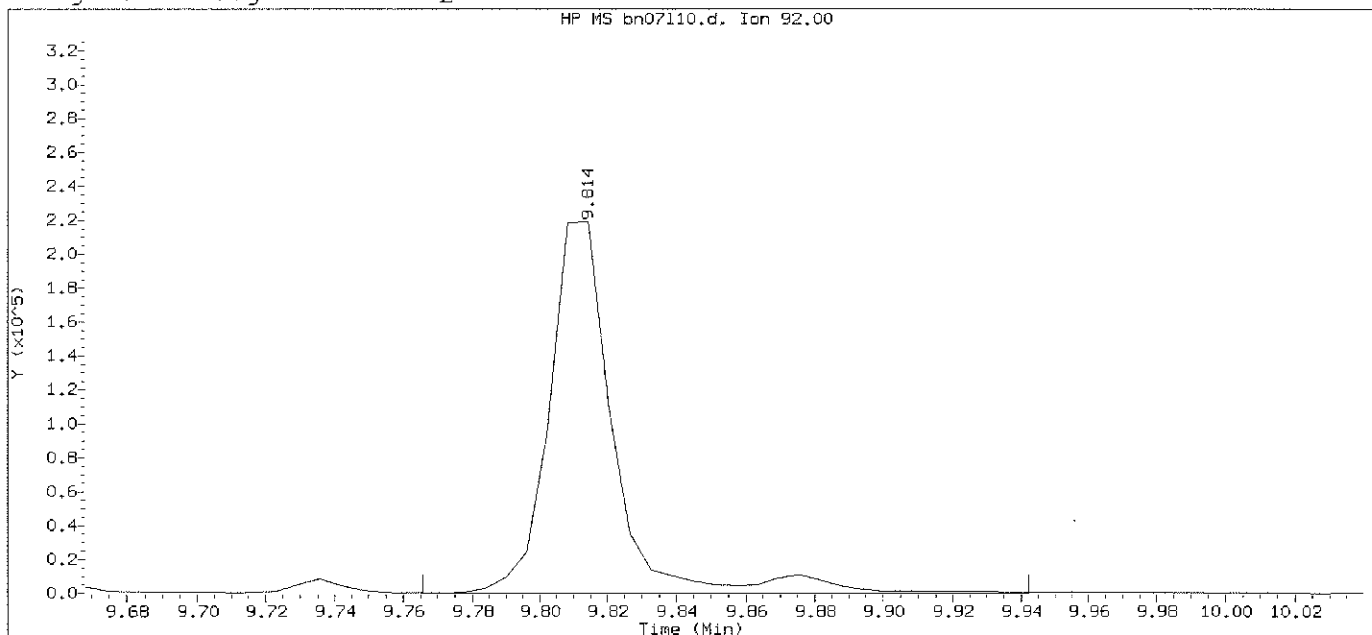
Analyst responsible for change: on 11/08/2012 at 06:16.
Digitally signed by Stephanie A. Selis
Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



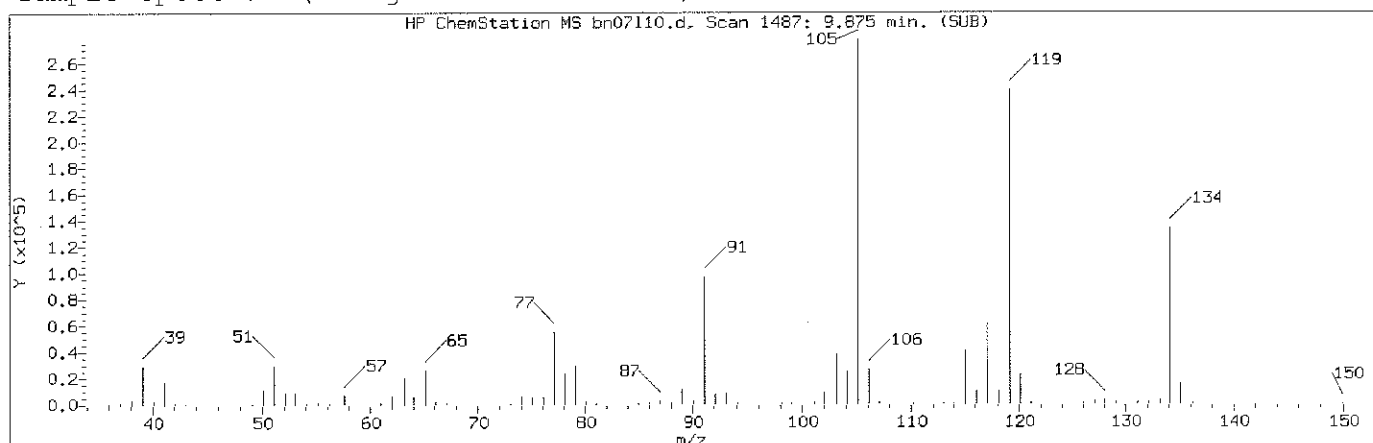
Data File: /chem2/HP09953.i/12nov07b.b/bn07110.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2012 22:44 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 23:00 Automation

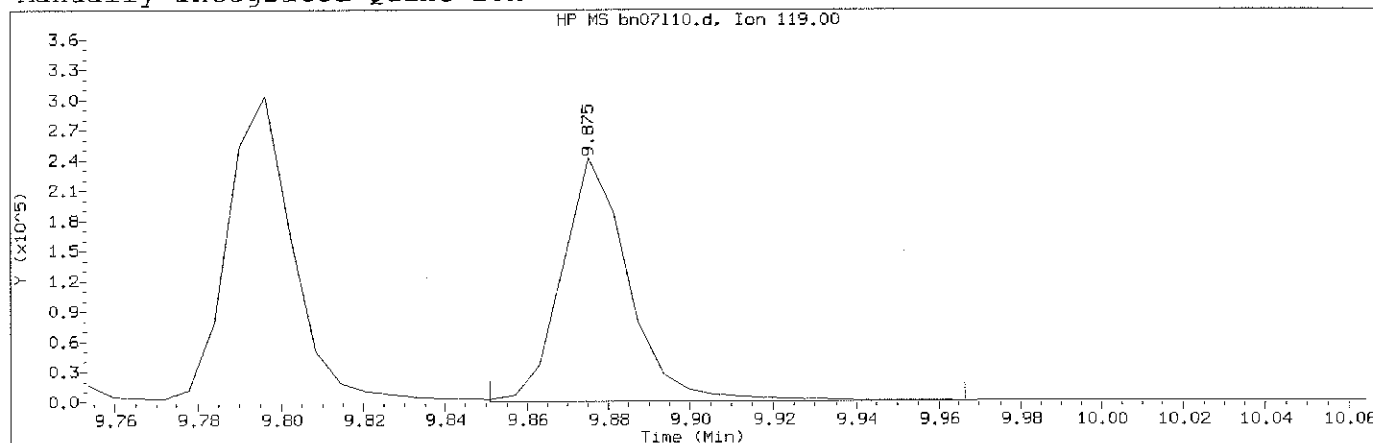
Sample Name: LCSB84 Lab Sample ID: LCSB84

Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1477
Retention Time (minutes): 9.814
Quant Ion : 92.00
Area : 292935
On-column Amount (ng) : 20.9980
Integration start scan : 1468 Integration stop scan: 1497
Y at integration start : 0 Y at integration end: 0

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07110.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2012 22:44 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 23:32 sas00403

Sample Name: LCSB84

Lab Sample ID: LCSB84

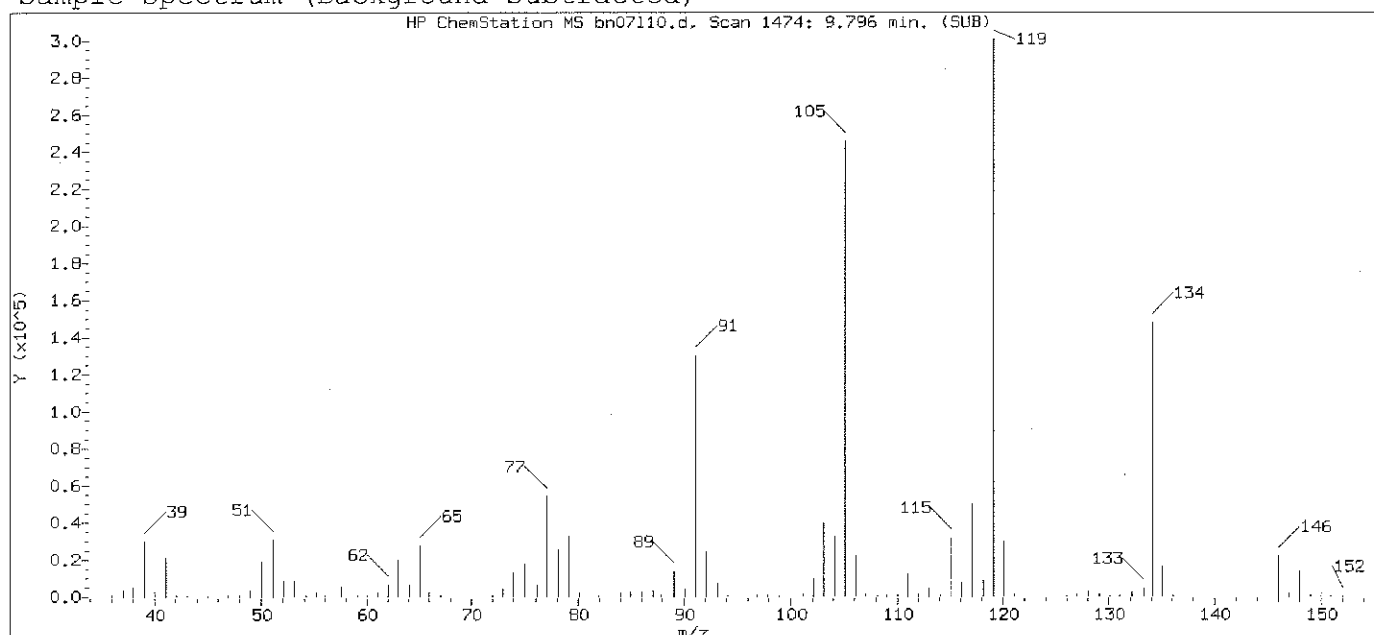
Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1487
Retention Time (minutes): 9.875
Quant Ion : 119.00
Area (flag) : 277379M
On-Column Amount (ng) : 19.8277
Integration start scan : 1482 Integration stop scan: 1501
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

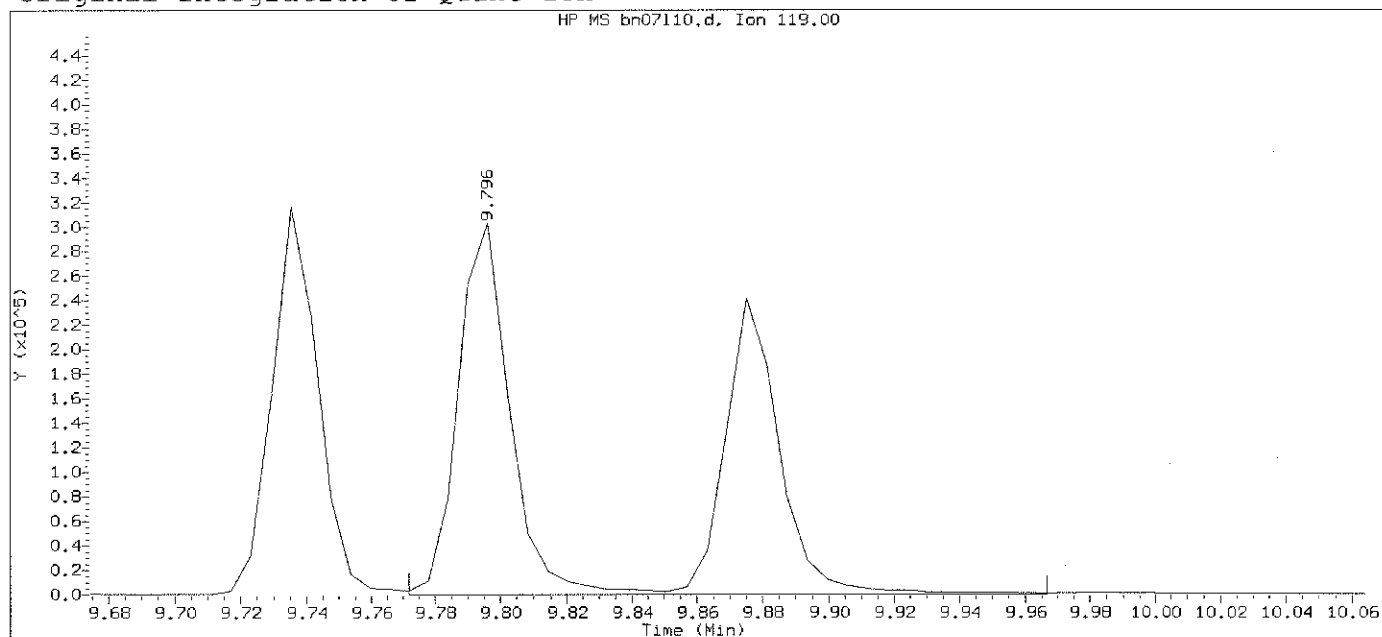
Analyst responsible for change: Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:16.
Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07110.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2012 22:44 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 23:00 Automation

Sample Name: LCSB84

Lab Sample ID: LCSB84

Compound Number : 141
Compound Name : 1,2-Diethylbenzene
Scan Number : 1474
Retention Time (minutes): 9.796
Quant Ion : 119.00
Area : 609910
On-column Amount (ng) : 43.5978
Integration start scan : 1469 Integration stop scan: 1501
Y at integration start : 0 Y at integration end: 0

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDB84

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCDB84

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07111.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/07/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-71-8	Dichlorodifluoromethane	0.019	
74-87-3	Chloromethane	0.020	
75-01-4	Vinyl Chloride	0.019	
74-83-9	Bromomethane	0.021	
75-00-3	Chloroethane	0.021	
75-69-4	Trichlorofluoromethane	0.021	
64-17-5	Ethanol	0.830	
107-02-8	Acrolein	0.150	
75-35-4	1,1-Dichloroethene	0.021	
67-64-1	Acetone	0.150	
76-13-1	Freon 113	0.021	
67-63-0	2-Propanol	0.130	
74-88-4	Methyl Iodide	0.020	
75-15-0	Carbon Disulfide	0.020	
79-20-9	Methyl Acetate	0.063	E
107-05-1	Allyl Chloride	0.021	
75-09-2	Methylene Chloride	0.023	B
75-65-0	t-Butyl alcohol	0.180	
107-13-1	Acrylonitrile	0.100	
1634-04-4	Methyl Tertiary Butyl Ether	0.022	
156-60-5	trans-1,2-Dichloroethene	0.020	
110-54-3	n-Hexane	0.018	
75-34-3	1,1-Dichloroethane	0.020	
108-20-3	di-Isopropyl ether	0.020	
126-99-8	2-Chloro-1,3-butadiene	0.021	
637-92-3	Ethyl t-butyl ether	0.020	
78-93-3	2-Butanone	0.150	
156-59-2	cis-1,2-Dichloroethene	0.020	
540-59-0	1,2-Dichloroethene (Total)	0.040	
594-20-7	2,2-Dichloropropane	0.022	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDB84

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LCDB84

Sample wt/vol: 5.00 (g/mL) g Lab File ID: HP09953.i/12nov07b.b/bn07111.d

Level: (low/med) LOW Date Received: _____

Moisture: not dec. _____ Date Analyzed: 11/07/12

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

107-12-0-----	Propionitrile	0.130	
126-98-7-----	Methacrylonitrile	0.150	
74-97-5-----	Bromochloromethane	0.020	
109-99-9-----	Tetrahydrofuran	0.091	
67-66-3-----	Chloroform	0.020	
71-55-6-----	1,1,1-Trichloroethane	0.022	
110-82-7-----	Cyclohexane	0.019	
563-58-6-----	1,1-Dichloropropene	0.019	
56-23-5-----	Carbon Tetrachloride	0.020	
78-83-1-----	Isobutyl Alcohol	0.400	
71-43-2-----	Benzene	0.020	
107-06-2-----	1,2-Dichloroethane	0.022	
994-05-8-----	t-Amyl methyl ether	0.020	
142-82-5-----	n-Heptane	0.019	
71-36-3-----	n-Butanol	0.680	
79-01-6-----	Trichloroethene	0.020	
108-87-2-----	Methylcyclohexane	0.018	
78-87-5-----	1,2-Dichloropropane	0.019	
80-62-6-----	Methyl Methacrylate	0.018	
123-91-1-----	1,4-Dioxane	0.320	
74-95-3-----	Dibromomethane	0.020	
75-27-4-----	Bromodichloromethane	0.020	
79-46-9-----	2-Nitropropane	0.016	
110-75-8-----	2-Chloroethyl Vinyl Ether	0.070	
10061-01-5-----	cis-1,3-Dichloropropene	0.021	
108-10-1-----	4-Methyl-2-pentanone	0.094	
108-88-3-----	Toluene	0.019	
10061-02-6-----	trans-1,3-Dichloropropene	0.020	
97-63-2-----	Ethyl Methacrylate	0.018	
79-00-5-----	1,1,2-Trichloroethane	0.020	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDB84

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCDB84

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07111.d

Level: (low/med) LOW

Date Received:

Moisture: not dec. _____

Date Analyzed: 11/07/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(mg/L or mg/Kg) mg/Kg

Q

127-18-4-----	Tetrachloroethene	0.021	
142-28-9-----	1,3-Dichloropropane	0.020	
591-78-6-----	2-Hexanone	0.091	
124-48-1-----	Dibromochloromethane	0.019	
106-93-4-----	1,2-Dibromoethane	0.020	
108-90-7-----	Chlorobenzene	0.019	
630-20-6-----	1,1,1,2-Tetrachloroethane	0.019	
100-41-4-----	Ethylbenzene	0.019	
179601-23-1----	m+p-Xylene	0.039	
95-47-6-----	o-Xylene	0.019	
1330-20-7-----	Xylene (Total)	0.058	
100-42-5-----	Styrene	0.019	
75-25-2-----	Bromoform	0.018	
98-82-8-----	Isopropylbenzene	0.019	
108-94-1-----	Cyclohexanone	0.590	
79-34-5-----	1,1,2,2-Tetrachloroethane	0.020	
108-86-1-----	Bromobenzene	0.020	
110-57-6-----	trans-1,4-Dichloro-2-butene	0.120	
96-18-4-----	1,2,3-Trichloropropane	0.020	
103-65-1-----	n-Propylbenzene	0.017	
95-49-8-----	2-Chlorotoluene	0.020	
108-67-8-----	1,3,5-Trimethylbenzene	0.020	
106-43-4-----	4-Chlorotoluene	0.019	
98-06-6-----	tert-Butylbenzene	0.019	
76-01-7-----	Pentachloroethane	0.018	
95-63-6-----	1,2,4-Trimethylbenzene	0.020	
135-98-8-----	sec-Butylbenzene	0.020	
541-73-1-----	1,3-Dichlorobenzene	0.020	
99-87-6-----	p-Isopropyltoluene	0.020	
106-46-7-----	1,4-Dichlorobenzene	0.020	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCDB84

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCDB84

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09953.i/12nov07b.b/bn07111.d

Level: (low/med) LOW

Date Received:

Moisture: not dec. _____

Date Analyzed: 11/07/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

526-73-8-----	1,2,3-Trimethylbenzene	0.021	
100-44-7-----	Benzyl Chloride	0.018	
141-93-5-----	1,3-Diethylbenzene	0.020	
105-05-5-----	1,4-Diethylbenzene	0.019	
104-51-8-----	n-Butylbenzene	0.020	
95-50-1-----	1,2-Dichlorobenzene	0.019	
135-01-3-----	1,2-Diethylbenzene	0.020	
96-12-8-----	1,2-Dibromo-3-chloropropane	0.019	
108-70-3-----	1,3,5-Trichlorobenzene	0.019	
120-82-1-----	1,2,4-Trichlorobenzene	0.020	
87-68-3-----	Hexachlorobutadiene	0.020	
91-20-3-----	Naphthalene	0.020	
87-61-6-----	1,2,3-Trichlorobenzene	0.020	
91-57-6-----	2-Methylnaphthalene	0.018	
25340-17-4-----	Diethylbenzene (total)	0.059	

LCDB84

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCDB84

Data file: /chem2/HP09953.i/12nov07b.b/bn07111.d

Injection date and time: 07-NOV-2012 23:07

Data file Sample Info. Line: LCDB84;LCDB84;2;3;LCSD;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 07-Nov-2012 23:31 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	2.204(0.006)	226	65	132850 (-6)	250.00	
67) Fluorobenzene	4.351(0.000)	579	96	1152210 (-1)	50.00	
99) Chlorobenzene-d5	7.539(0.000)	1103	117	775879 (-3)	50.00	
133) 1,4-Dichlorobenzene-d4	9.522(0.000)	1429	152	472756 (-7)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.706(0.000)	113	292390	50.678	101%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.023(0.001)	102	62845	51.824	104%		54 - 135
86) Toluene-d8	(3)	5.982(0.000)	98	1137267	51.187	102%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622(0.000)	95	415788	49.928	100%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(2)	1.084(0.000)	85	189749	18.721	18.72			2	5
4) Chloromethane	(2)	1.127(0.001)	50	201234	20.080	20.08			2	5
5) Vinyl Chloride	(2)	1.200(0.001)	62	156342	18.622	18.62			1	5
9) Bromomethane	(2)	1.370(0.001)	94	110408	20.979	20.98			2	5
10) Chloroethane	(2)	1.425(0.000)	64	90007	20.582	20.58			2	5
13) Trichlorofluoromethane	(2)	1.577(0.002)	101	225729	21.135	21.14			2	5
15) Ethanol	(1)	1.656(-0.004)	45	58618	831.474	831.47			100	500
18) Acrolein	(1)	1.790(-0.004)	56	153166	148.891	148.89			20	100
19) 1,1-Dichloroethene	(2)	1.851(0.001)	96	101199	20.693	20.69			1	5
20) Acetone	(2)	1.881(0.000)	58	84943	152.436	152.44			7	20
22) Freon 113	(2)	1.881(0.000)	101	117203	20.505	20.50			2	10
23) 2-Propanol	(1)	1.972(-0.002)	45	63526M	131.923	131.92			60	100
24) Methyl Iodide	(2)	1.960(-0.000)	142	204402	20.133	20.13			3	5
25) Carbon Disulfide	(2)	2.009(-0.000)	76	318548M	19.759	19.76			1	5
27) Methyl Acetate	(2)	2.100(0.000)	43	268417	62.759	62.76			2	5
29) Allyl Chloride	(2)	2.088(0.000)	41	225935	21.245	21.25			1	5
31) Methylene Chloride	(2)	2.179(0.000)	84	130480	22.978	22.98	2.347	B	2	5
32) t-Butyl alcohol	(1)	2.271(-0.005)	59	120413M	178.726	178.73			20	100
33) Acrylonitrile	(2)	2.368(-0.000)	53	187422	100.563	100.56			4	20
34) Methyl Tertiary Butyl Ether	(2)	2.404(-0.000)	73	353163	22.242	22.24			0.5	5
35) trans-1,2-Dichloroethene	(2)	2.386(-0.000)	96	112983	20.472	20.47			1	5
38) n-Hexane	(2)	2.605(0.000)	57	173579	18.077	18.08			1	5
40) 1,1-Dichloroethane	(2)	2.739(0.000)	63	245426	20.255	20.26			1	5
41) di-Isopropyl ether	(2)	2.806(-0.001)	45	455433	19.760	19.76			1	5
42) 2-Chloro-1,3-butadiene	(2)	2.818(-0.000)	53	222460	20.941	20.94			1	5
44) Ethyl t-butyl ether	(2)	3.128(0.000)	59	379484	20.129	20.13			1	5
45) 2-Butanone	(2)	3.274(0.001)	43	433938	152.282	152.28			4	10
46) cis-1,2-Dichloroethene	(2)	3.256(-0.000)	96	122486	19.683	19.68			1	5

M = Compound was manually integrated. E = Compound concentration above calibration range. B = Compound detected in referenced method blank.

LCDB84

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCDB84

Data file: /chem2/HP09953.i/12nov07b.b/bn07111.d

Injection date and time: 07-NOV-2012 23:07

Data file Sample Info. Line: LCDB84;LCDB84;2;3;LCSD;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 07-Nov-2012 23:31 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit	LOQ
(in sample)										
47) 1,2-Dichloroethene (Total)	(2)		96	235469	40.155	40.16			1	5
48) 2,2-Dichloropropane	(2)	3.268(-0.000)	77	198483	21.527	21.53			1	5
50) Propionitrile	(1)	3.335(-0.004)	54	115418	129.410	129.41			30	100
51) Methacrylonitrile	(2)	3.469(0.000)	67	317245	154.396	154.40			5	50
52) Bromochloromethane	(2)	3.475(0.000)	128	59887	20.022	20.02			1	5
53) Tetrahydrofuran	(1)	3.524(-0.007)	71	63819	90.502	90.50			4	5
54) Chloroform	(2)	3.554(0.000)	83	234108	20.230	20.23			1	5
56) 1,1,1-Trichloroethane	(2)	3.725(0.001)	97	212637	21.532	21.53			1	5
57) Cyclohexane	(2)	3.773(0.000)	56	223100	19.123	19.12			1	5
58) 1,1-Dichloropropene	(2)	3.877(0.000)	75	169270	19.101	19.10			1	5
59) Carbon Tetrachloride	(2)	3.883(0.000)	117	176118	19.836	19.84			1	5
60) Isobutyl Alcohol	(1)	4.041(-0.002)	41	97984	395.588	395.59			100	250
62) Benzene	(2)	4.071(0.001)	78	476271	19.528	19.53			0.5	5
64) 1,2-Dichloroethane	(2)	4.096(-0.000)	62	203651	22.066	22.07			1	5
65) t-Amyl methyl ether	(2)	4.199(0.000)	73	307514	19.937	19.94			1	5
69) n-Heptane	(2)	4.351(0.000)	43	221347	19.377	19.38			3	5
70) n-Butanol	(1)	4.710(-0.005)	56	112227	678.058	678.06			110	250
72) Trichloroethene	(2)	4.716(-0.000)	95	122792	19.531	19.53			1	5
73) Methylcyclohexane	(2)	4.905(-0.000)	83	201553	18.190	18.19			1	5
74) 1,2-Dichloropropane	(2)	4.941(-0.000)	63	129537	19.060	19.06			1	5
76) Methyl Methacrylate	(2)	5.106(-0.001)	69	62829	18.093	18.09			1	5
77) 1,4-Dioxane	(1)	5.106(-0.006)	88	20602	320.728	320.73			70	250
78) Dibromomethane	(2)	5.063(-0.000)	93	71221	19.556	19.56			1	5
81) Bromodichloromethane	(2)	5.233(0.001)	83	155365	19.623	19.62			1	5
82) 2-Nitropropane	(1)	5.483(-0.006)	41	26044	15.587	15.59			3	10
83) 2-Chloroethyl Vinyl Ether	(2)	5.580(-0.001)	63	54612	69.675	69.67			2	10
84) cis-1,3-Dichloropropene	(2)	5.708(-0.000)	75	186867	20.514	20.51			1	5
85) 4-Methyl-2-pentanone	(2)	5.896(-0.000)	43	597553	93.885	93.88			3	10
87) Toluene	(3)	6.055(0.000)	92	283753	19.370	19.37			1	5
88) trans-1,3-Dichloropropene	(3)	6.322(0.000)	75	160057	19.572	19.57			1	5
89) Ethyl Methacrylate	(3)	6.456(0.000)	69	113386	18.409	18.41			1	5
90) 1,1,2-Trichloroethane	(3)	6.511(0.000)	97	91964	20.005	20.01			1	5
92) Tetrachloroethene	(3)	6.639(0.000)	166	135769	21.046	21.05			1	5
93) 1,3-Dichloropropane	(3)	6.687(0.000)	76	169266	19.893	19.89			1	5
95) 2-Hexanone	(3)	6.821(-0.000)	43	397547	91.154	91.15			3	10
97) Dibromochloromethane	(3)	6.931(0.000)	129	104666	19.347	19.35			1	5
98) 1,2-Dibromoethane	(3)	7.040(-0.000)	107	91056	19.619	19.62			1	5
100) Chlorobenzene	(3)	7.569(0.000)	112	314775	19.206	19.21			1	5
101) 1,1,1,2-Tetrachloroethane	(3)	7.661(0.000)	131	115611	19.405	19.41			1	5
102) Ethylbenzene	(3)	7.697(-0.000)	91	540268	19.382	19.38			1	5
103) m+p-Xylene	(3)	7.813(0.000)	106	422918	38.840	38.84			1	5
104) o-Xylene	(3)	8.172(0.000)	106	198631	18.754	18.75			1	5
105) Xylene (Total)	(3)		106	621549	57.594	57.59			1	5
106) Styrene	(3)	8.190(0.000)	104	314291	18.869	18.87			1	5
107) Bromoform	(3)	8.342(-0.000)	173	62652	17.655	17.66			1	5
108) Isopropylbenzene	(3)	8.500(0.000)	105	541046	19.156	19.16			1	5
111) Cyclohexanone	(1)	8.567(-0.007)	55	105702	585.227	585.23			25	250
113) 1,1,2,2-Tetrachloroethane	(4)	8.762(-0.000)	83	125975	20.467	20.47			1	5
114) Bromobenzene	(4)	8.731(0.000)	156	137523	19.984	19.98			1	5
115) trans-1,4-Dichloro-2-butene	(4)	8.810(-0.000)	53	223038	116.916	116.92			10	50
116) 1,2,3-Trichloropropane	(4)	8.786(-0.000)	110	35542	20.404	20.40			1	5
117) n-Propylbenzene	(4)	8.841(-0.000)	91	679668	16.960	16.96			1	5
119) 2-Chlorotoluene	(4)	8.896(0.000)	126	132173	19.526	19.53			1	5

LCDB84

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCDB84

Data file: /chem2/HP09953.i/12nov07b.b/bn07111.d

Injection date and time: 07-NOV-2012 23:07

Data file Sample Info. Line: LCDB84;LCDB84;2;3;LCSD;;;bn07b10a;

Instrument ID: HP09953.i Batch: B123122AA

Date, time and analyst ID of latest file update: 07-Nov-2012 23:31 sas00403

Blank Data file reference: /chem2/HP09953.i/12nov07b.b/bn07b10a.d

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time (Last Method Edit): 07-NOV-2012 22:23

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov07b.b/bn07c11.d

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml

Sample Weight (Ws): 5 g

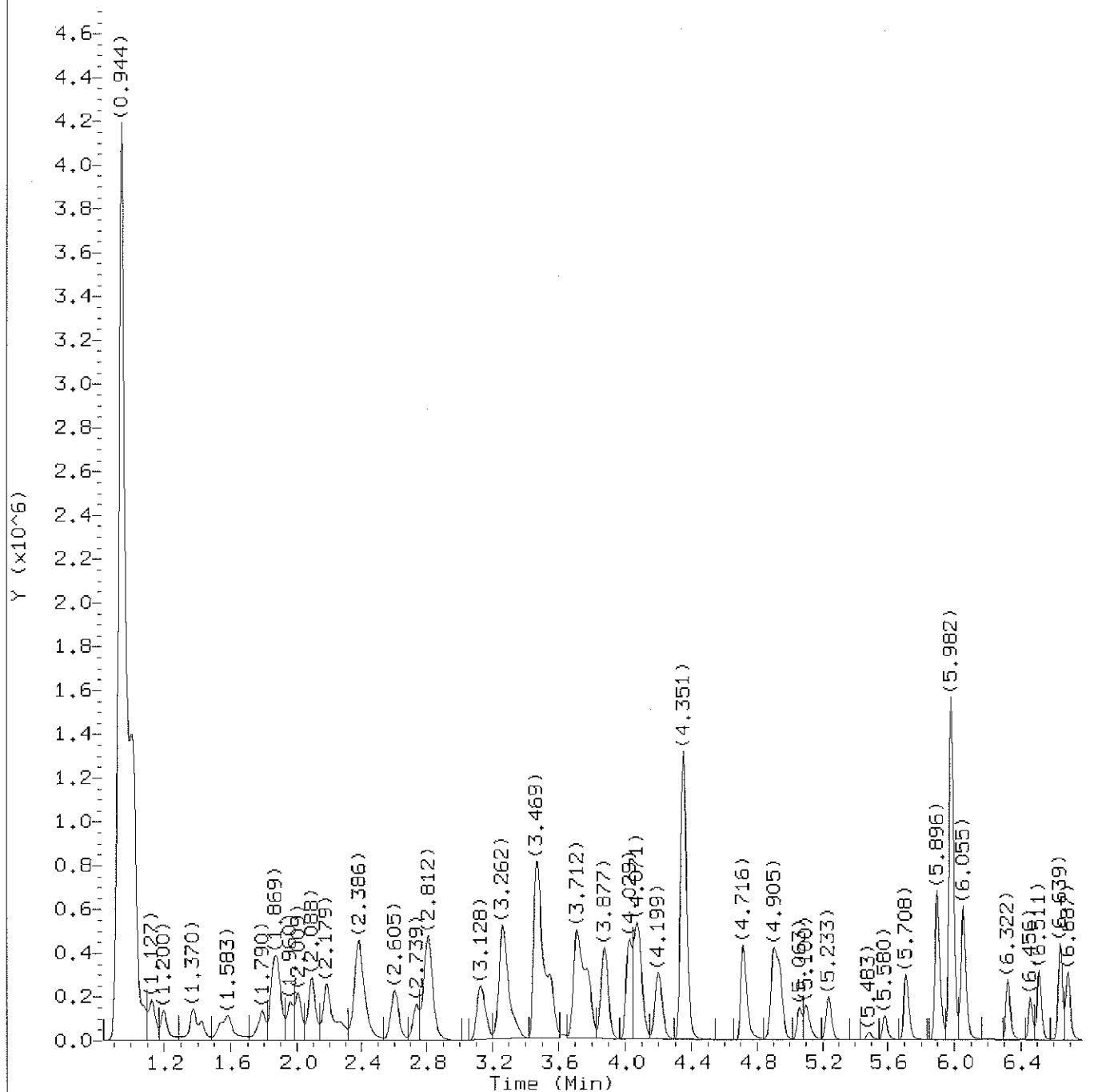
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
122) 1,3,5-Trimethylbenzene	(4)	8.987(-0.000)	105	487150	20.147	20.15		1		5
123) 4-Chlorotoluene	(4)	8.987(-0.000)	126	138067	19.323	19.32		1		5
126) tert-Butylbenzene	(4)	9.236(-0.000)	134	103457	18.984	18.98		1		5
127) Pentachloroethane	(4)	9.242(-0.000)	167	83838	17.935	17.94		1		5
128) 1,2,4-Trimethylbenzene	(4)	9.273(-0.000)	105	492706	20.121	20.12		1		5
129) sec-Butylbenzene	(4)	9.401(-0.000)	105	609638	19.912	19.91		1		5
131) 1,3-Dichlorobenzene	(4)	9.474(-0.000)	146	264878	19.693	19.69		1		5
132) p-Isopropyltoluene	(4)	9.516(-0.000)	119	541428M	20.088	20.09		1		5
134) 1,4-Dichlorobenzene	(4)	9.540(-0.000)	146	282072	19.542	19.54		1		5
135) 1,2,3-Trimethylbenzene	(4)	9.583(-0.000)	105	519008M	20.576	20.58		1		5
136) Benzyl Chloride	(4)	9.650(-0.000)	126	40944	18.100	18.10		1		4
137) 1,3-Diethylbenzene	(4)	9.735(-0.000)	119	307625	19.577	19.58		1		5
138) 1,4-Diethylbenzene	(4)	9.796(-0.000)	119	328123	19.401	19.40		1		5
139) n-Butylbenzene	(4)	9.814(-0.000)	92	273020M	19.550	19.55		1		5
140) 1,2-Dichlorobenzene	(4)	9.808(-0.000)	146	268995	19.487	19.49		1		5
141) 1,2-Diethylbenzene	(4)	9.875(-0.000)	119	280263	20.013	20.01		1		5
144) 1,2-Dibromo-3-chloropropane	(4)	10.362(-0.000)	75	24005	19.354	19.35		2		5
145) 1,3,5-Trichlorobenzene	(4)	10.502(-0.000)	180	224035	19.241	19.24		1		5
146) 1,2,4-Trichlorobenzene	(4)	10.915(-0.000)	180	196595	19.505	19.50		1		5
147) Hexachlorobutadiene	(4)	11.025(-0.000)	225	118413	19.814	19.81		2		5
148) Naphthalene	(4)	11.074(-0.000)	128	407596	19.909	19.91		1		5
149) 1,2,3-Trichlorobenzene	(4)	11.226(-0.000)	180	192881	20.191	20.19		1		5
150) 2-Methylnaphthalene	(4)	11.798(-0.000)	142	211951	17.752	17.75		2		5

M = Compound was manually integrated.

Total number of targets = 104

Digitally signed by Stephanie A. Selis on 11/08/2012 at 06:17. Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Oysal on 11/08/2012 at 10:14. Parallax ID: ahu01800



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07111.d
Injection date and time: 07-NOV-2012 23:07

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m
Calibration date and time: 07-NOV-2012 22:23

Sublist used: 8260S-F

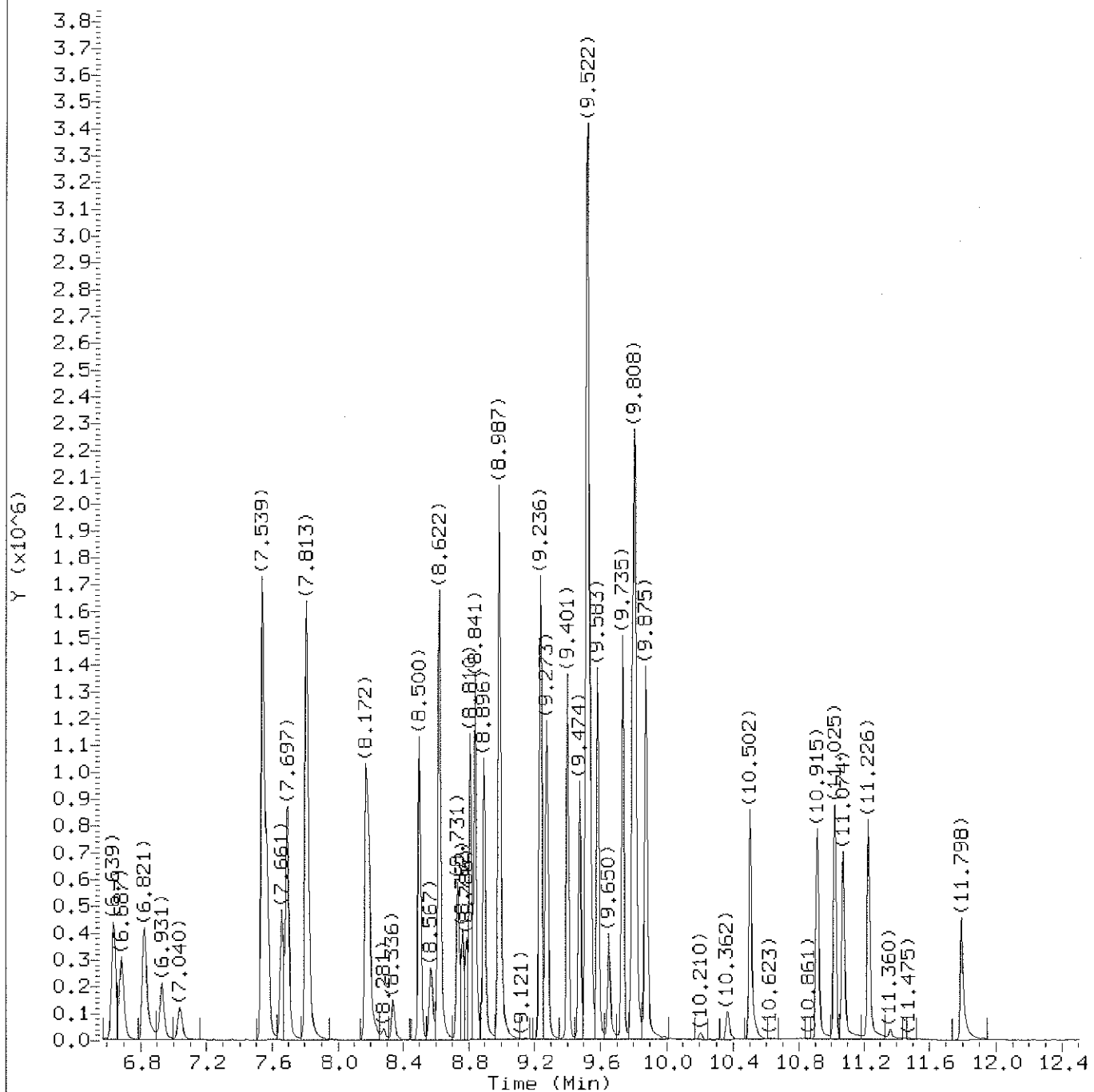
Date, time and analyst ID of latest file update: 07-Nov-2012 23:31 sas00403

Sample Name: LCDB84

Lab Sample ID: LCDB84

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:17.

Target 3.5 esignature user ID: sas00403



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07111.d
Injection date and time: 07-NOV-2012 23:07

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m
Calibration date and time: 07-NOV-2012 22:23

Sublist used: 8260S-F

Date, time and analyst ID of latest file update: 07-Nov-2012 23:31 sas00403

Sample Name: LCDB84

Lab Sample ID: LCDB84

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:17.

Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07111.d
Injection date and time: 07-NOV-2012 23:07

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 23:31 sas00403

Sample Name: LCDB84

Lab Sample ID: LCDB84

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.084	85	189749	18.721
4) Chloromethane	(2)	1.127	50	201234	20.080
5) Vinyl Chloride	(2)	1.200	62	156342	18.622
9) Bromomethane	(2)	1.370	94	110408	20.979
10) Chloroethane	(2)	1.425	64	90007	20.582
13) Trichlorofluoromethane	(2)	1.577	101	225729	21.135
15) Ethanol	(1)	1.656	45	58618	831.474
18) Acrolein	(1)	1.790	56	153166	148.891
19) 1,1-Dichloroethene	(2)	1.851	96	101199	20.693
20) Acetone	(2)	1.881	58	84943	152.436
22) Freon 113	(2)	1.881	101	117203	20.505
24) Methyl Iodide	(2)	1.960	142	204402	20.133
23) 2-Propanol	(1)	1.973	45	63526M	131.923
25) Carbon Disulfide	(2)	2.009	76	318548M	19.759
29) Allyl Chloride	(2)	2.088	41	225935	21.245
27) Methyl Acetate	(2)	2.100	43	268417	62.759
31) Methylene Chloride	(2)	2.179	84	130480	22.978
30)*t-Butyl alcohol-d10	(1)	2.204	65	132850	250.000
32) t-Butyl alcohol	(1)	2.271	59	120413M	178.726
33) Acrylonitrile	(2)	2.368	53	187422	100.563
35) trans-1,2-Dichloroethene	(2)	2.386	96	112983	20.472
34) Methyl Tertiary Butyl Ether	(2)	2.405	73	353163	22.242
38) n-Hexane	(2)	2.605	57	173579	18.077
40) 1,1-Dichloroethane	(2)	2.739	63	245426	20.255
41) di-Isopropyl ether	(2)	2.806	45	455433	19.760
42) 2-Chloro-1,3-butadiene	(2)	2.818	53	222460	20.941
44) Ethyl t-butyl ether	(2)	3.128	59	379484	20.129
46) cis-1,2-Dichloroethene	(2)	3.256	96	122486	19.683
48) 2,2-Dichloropropane	(2)	3.268	77	198483	21.527
45) 2-Butanone	(2)	3.274	43	433938	152.282
50) Propionitrile	(1)	3.335	54	115418	129.410
51) Methacrylonitrile	(2)	3.469	67	317245	154.396
52) Bromochloromethane	(2)	3.475	128	59887	20.022
53) Tetrahydrofuran	(1)	3.524	71	63819	90.502
54) Chloroform	(2)	3.554	83	234108	20.230
55)\$Dibromofluoromethane	(2)	3.706	113	292390	50.678
56) 1,1,1-Trichloroethane	(2)	3.725	97	212637	21.532
57) Cyclohexane	(2)	3.773	56	223100	19.123

M = Compound was manually integrated.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:17.
Target 3.5 esignature user ID: sas00403

page 1 of 3

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07111.d
Injection date and time: 07-NOV-2012 23:07

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 23:31 sas00403

Sample Name: LCDB84

Lab Sample ID: LCDB84

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
58) 1,1-Dichloropropene	(2)	3.877	75	169270	19.101
59) Carbon Tetrachloride	(2)	3.883	117	176118	19.836
61) \$1,2-Dichloroethane-d4	(2)	4.023	102	62845	51.824
60) Isobutyl Alcohol	(1)	4.041	41	97984	395.588
62) Benzene	(2)	4.071	78	476271	19.528
64) 1,2-Dichloroethane	(2)	4.096	62	203651	22.066
65) t-Amyl methyl ether	(2)	4.199	73	307514	19.937
69) n-Heptane	(2)	4.351	43	221347	19.377
67) *Fluorobenzene	(2)	4.351	96	1152210	50.000
70) n-Butanol	(1)	4.710	56	112227	678.058
72) Trichloroethene	(2)	4.716	95	122792	19.531
73) Methylcyclohexane	(2)	4.905	83	201553	18.190
74) 1,2-Dichloropropane	(2)	4.941	63	129537	19.060
78) Dibromomethane	(2)	5.063	93	71221	19.556
77) 1,4-Dioxane	(1)	5.106	88	20602	320.728
76) Methyl Methacrylate	(2)	5.106	69	62829	18.093
81) Bromodichloromethane	(2)	5.233	83	155365	19.623
82) 2-Nitropropane	(1)	5.483	41	26044	15.587
83) 2-Chloroethyl Vinyl Ether	(2)	5.580	63	54612	69.675
84) cis-1,3-Dichloropropene	(2)	5.708	75	186867	20.514
85) 4-Methyl-2-pentanone	(2)	5.896	43	597553	93.885
86) \$Toluene-d8	(3)	5.982	98	1137267	51.187
87) Toluene	(3)	6.055	92	283753	19.370
47) 1,2-Dichloroethene (Total)	(2)		96	235469	40.155
88) trans-1,3-Dichloropropene	(3)	6.322	75	160057	19.572
89) Ethyl Methacrylate	(3)	6.456	69	113386	18.409
90) 1,1,2-Trichloroethane	(3)	6.511	97	91964	20.005
92) Tetrachloroethene	(3)	6.639	166	135769	21.046
93) 1,3-Dichloropropane	(3)	6.687	76	169266	19.893
95) 2-Hexanone	(3)	6.821	43	397547	91.154
97) Dibromochloromethane	(3)	6.931	129	104666	19.347
98) 1,2-Dibromoethane	(3)	7.040	107	91056	19.619
99) *Chlorobenzene-d5	(3)	7.539	117	775879	50.000
100) Chlorobenzene	(3)	7.569	112	314775	19.206
101) 1,1,1,2-Tetrachloroethane	(3)	7.661	131	115611	19.405
102) Ethylbenzene	(3)	7.697	91	540268	19.382
103) m+p-Xylene	(3)	7.813	106	422918	38.840
104) o-Xylene	(3)	8.172	106	198631	18.754

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 2 of 3

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:17.
Target 3.5 esignature user ID: sas00403

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov07b.b/bn07111.d
Injection date and time: 07-NOV-2012 23:07

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 23:31 sas00403

Sample Name: LCDB84

Lab Sample ID: LCDB84

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
106) Styrene	(3)	8.190	104	314291	18.869
107) Bromoform	(3)	8.342	173	62652	17.655
108) Isopropylbenzene	(3)	8.500	105	541046	19.156
111) Cyclohexanone	(1)	8.567	55	105702	585.227
112) \$4-Bromofluorobenzene	(3)	8.622	95	415788	49.928
114) Bromobenzene	(4)	8.731	156	137523	19.984
113) 1,1,2,2-Tetrachloroethane	(4)	8.762	83	125975	20.467
116) 1,2,3-Trichloropropane	(4)	8.786	110	35542	20.404
115) trans-1,4-Dichloro-2-butene	(4)	8.810	53	223038	116.916
117) n-Propylbenzene	(4)	8.841	91	679668	16.960
119) 2-Chlorotoluene	(4)	8.896	126	132173	19.526
123) 4-Chlorotoluene	(4)	8.987	126	138067	19.323
122) 1,3,5-Trimethylbenzene	(4)	8.987	105	487150	20.147
126) tert-Butylbenzene	(4)	9.236	134	103457	18.984
127) Pentachloroethane	(4)	9.242	167	83838	17.935
128) 1,2,4-Trimethylbenzene	(4)	9.273	105	492706	20.121
129) sec-Butylbenzene	(4)	9.401	105	609638	19.912
131) 1,3-Dichlorobenzene	(4)	9.474	146	264878	19.693
132) p-Isopropyltoluene	(4)	9.516	119	541428M	20.088
133) *1,4-Dichlorobenzene-d4	(4)	9.522	152	472756	50.000
134) 1,4-Dichlorobenzene	(4)	9.541	146	282072	19.542
135) 1,2,3-Trimethylbenzene	(4)	9.583	105	519008M	20.576
136) Benzyl Chloride	(4)	9.650	126	40944	18.100
137) 1,3-Diethylbenzene	(4)	9.735	119	307625	19.577
138) 1,4-Diethylbenzene	(4)	9.796	119	328123	19.401
140) 1,2-Dichlorobenzene	(4)	9.808	146	268995	19.487
139) n-Butylbenzene	(4)	9.814	92	273020M	19.550
141) 1,2-Diethylbenzene	(4)	9.875	119	280263	20.013
144) 1,2-Dibromo-3-chloropropane	(4)	10.362	75	24005	19.354
145) 1,3,5-Trichlorobenzene	(4)	10.502	180	224035	19.241
146) 1,2,4-Trichlorobenzene	(4)	10.915	180	196595	19.505
147) Hexachlorobutadiene	(4)	11.025	225	118413	19.814
148) Naphthalene	(4)	11.074	128	407596	19.909
149) 1,2,3-Trichlorobenzene	(4)	11.226	180	192881	20.191
105) Xylene (Total)	(3)		106	621549	57.594
150) 2-Methylnaphthalene	(4)	11.798	142	211951	17.752

M = Compound was manually integrated.

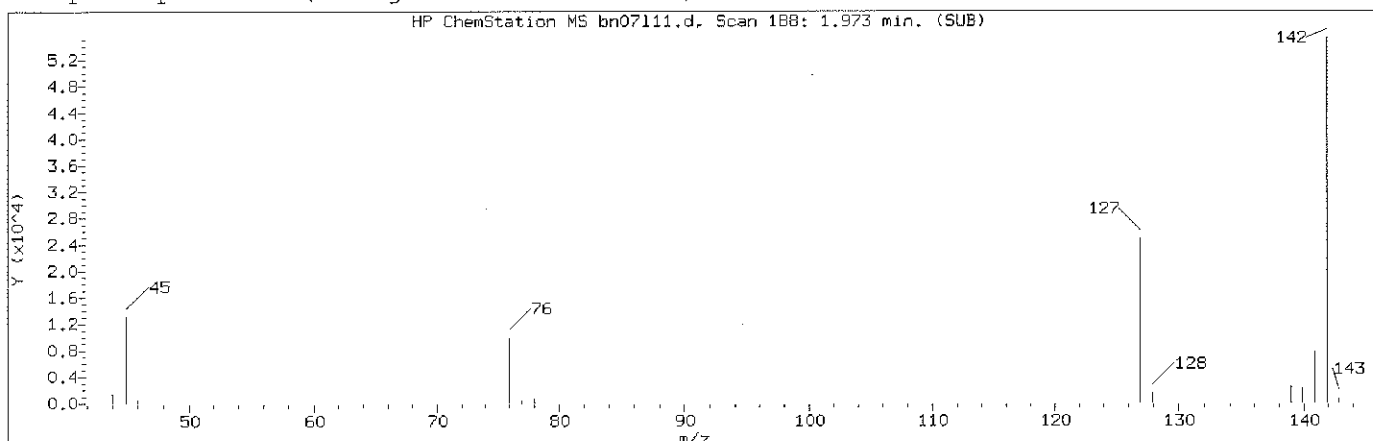
* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

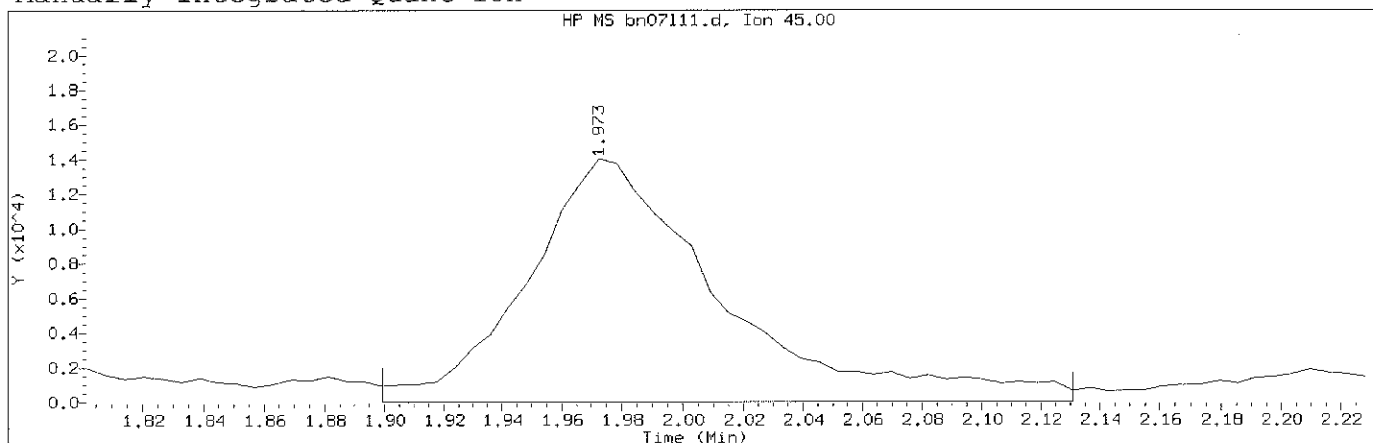
page 3 of 3

Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:17.
Target 3.5 esignature user ID: sas00403

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07111.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2012 23:07 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 23:31 sas00403

Sample Name: LCDB84 Lab Sample ID: LCDB84

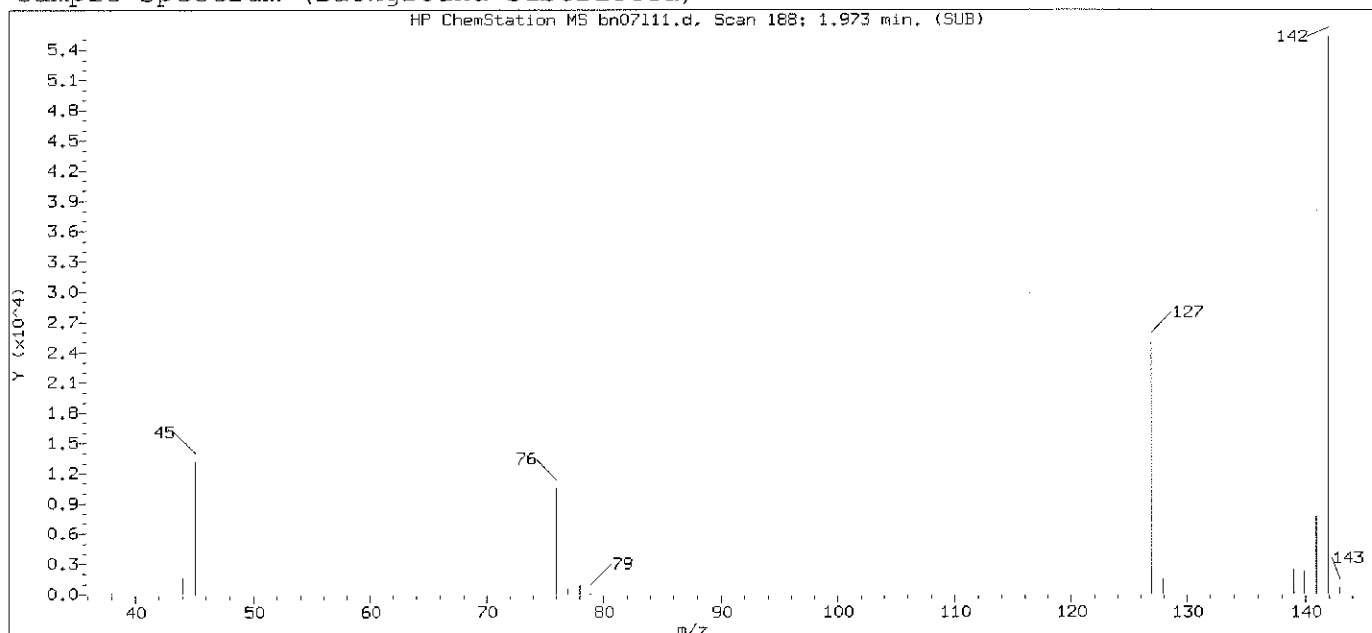
Compound Number : 23
Compound Name : 2-Propanol
Scan Number : 188
Retention Time (minutes): 1.973
Quant Ion : 45.00
Area (flag) : 63526M
On-Column Amount (ng) : 131.9231
Integration start scan : 175 Integration stop scan: 213
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

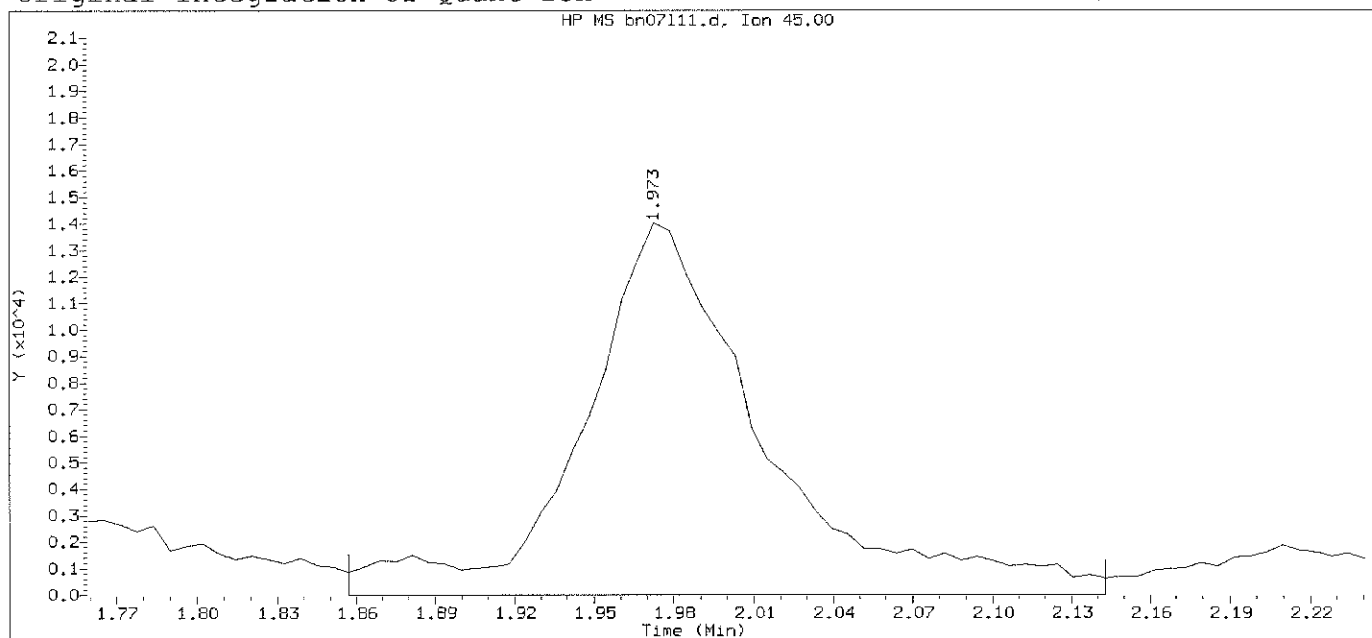
Analyst responsible for change: Digitally signed by Stephanie A. Sellis
on 11/08/2012 at 06:17.
Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07111.d

Instrument ID: HP09953.i

Injection date and time: 07-NOV-2012 23:07

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time: 07-NOV-2012 22:23

Date, time and analyst ID of latest file update: 07-Nov-2012 23:23 Automation

Sample Name: LCDB84

Lab Sample ID: LCDB84

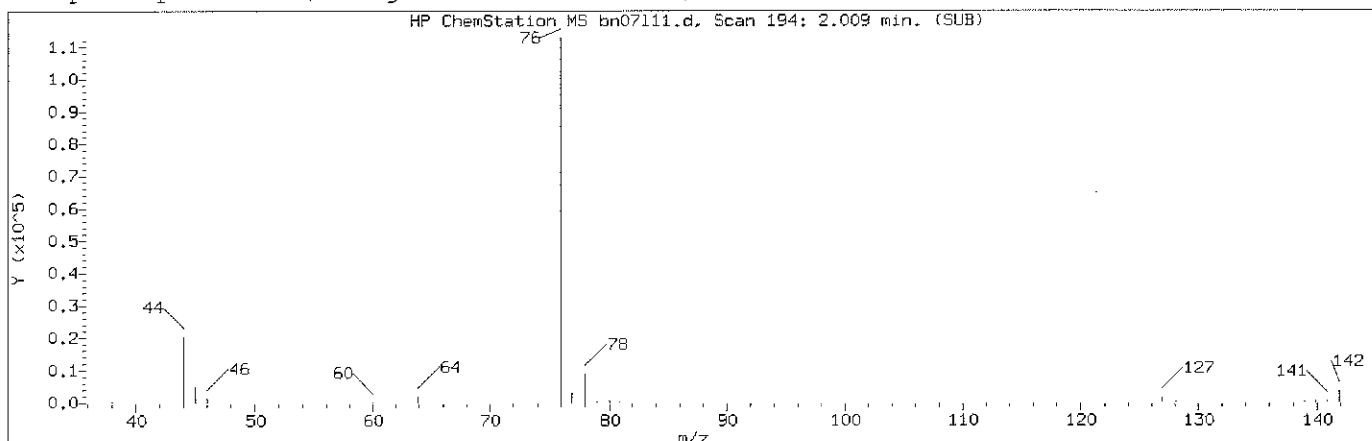
Compound Number : 23
 Compound Name : 2-Propanol
 Scan Number : 188
 Retention Time (minutes): 1.973
 Quant Ion : 45.00
 Area : 66811
 On-column Amount (ng) : 138.7442
 Integration start scan : 168
 Y at integration start : 0

Integration stop scan: 215
 Y at integration end: 0

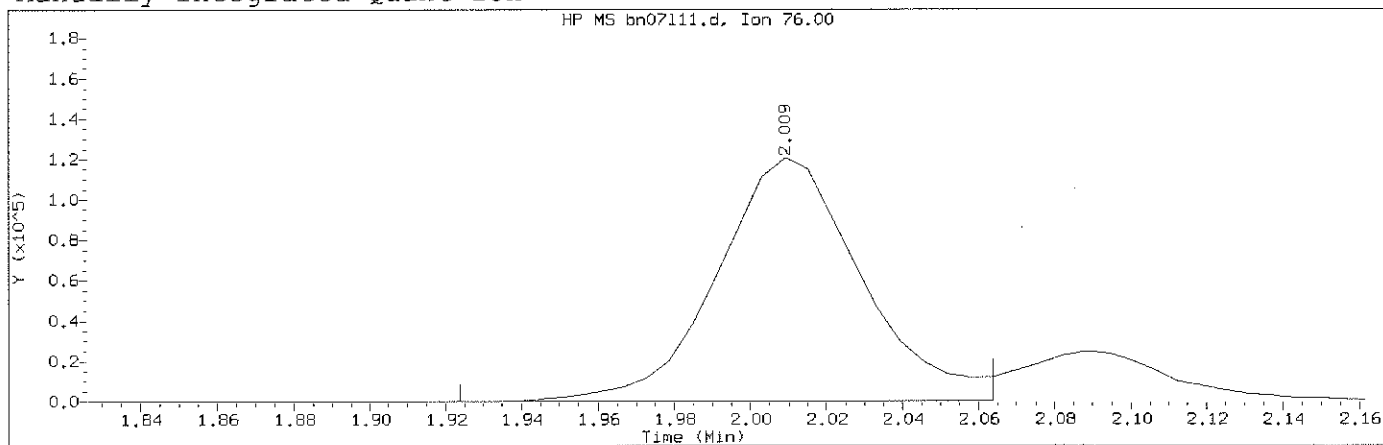
Digitally signed by Stephanie A. Selis on 11/08/2012 at 06:17.

Target 3.5 esignature user: TAP03 Page 792 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07111.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2012 23:07 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 23:31 sas00403

Sample Name: LCDB84 Lab Sample ID: LCDB84

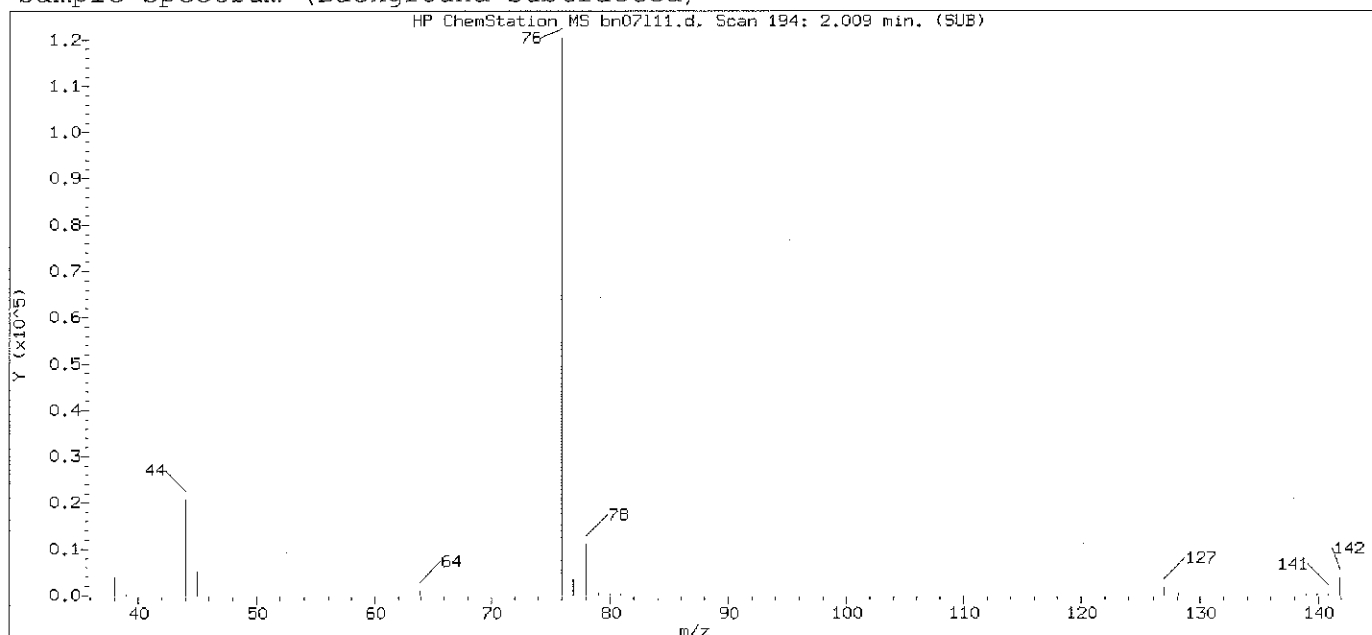
Compound Number : 25
Compound Name : Carbon Disulfide
Scan Number : 194
Retention Time (minutes): 2.009
Quant Ion : 76.00
Area (flag) : 318548M
On-Column Amount (ng) : 19.7593
Integration start scan : 179 Integration stop scan: 202
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

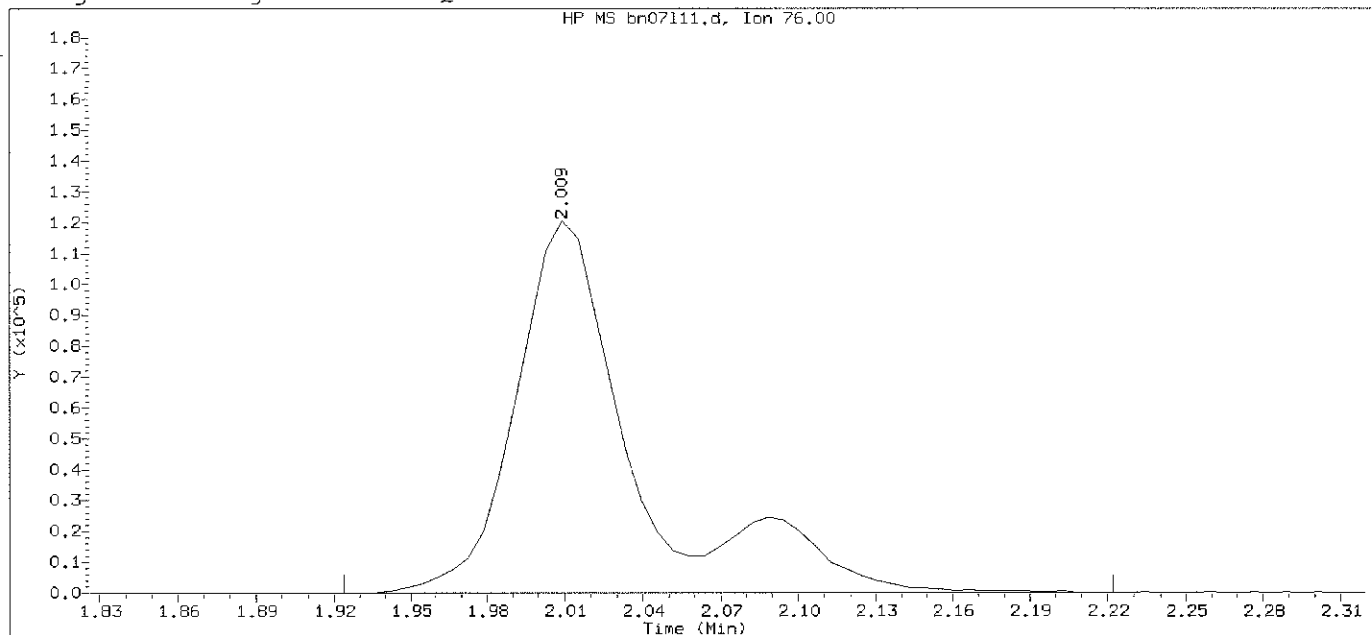
Analyst responsible for change: Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:17.
Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07111.d

Instrument ID: HP09953.i

Injection date and time: 07-NOV-2012 23:07

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time: 07-NOV-2012 22:23

Date, time and analyst ID of latest file update: 07-Nov-2012 23:23 Automation

Sample Name: LCDB84

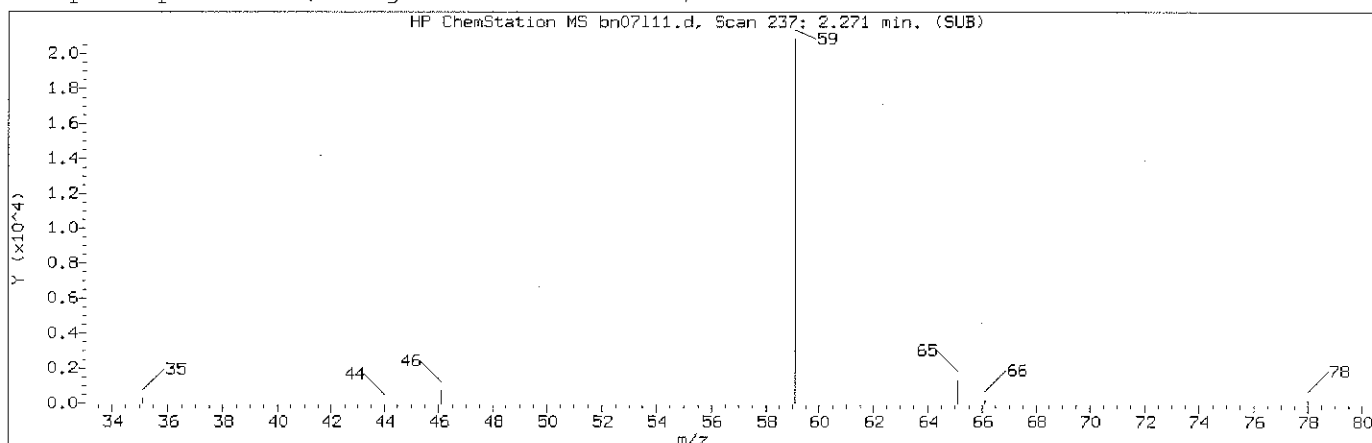
Lab Sample ID: LCDB84

Compound Number	: 25	
Compound Name	: Carbon Disulfide	
Scan Number	: 194	
Retention Time (minutes)	: 2.009	
Quant Ion	: 76.00	
Area	: 383798	
On-column Amount (ng)	: 23.8066	
Integration start scan	: 179	Integration stop scan: 228
Y at integration start	: 0	Y at integration end: 0

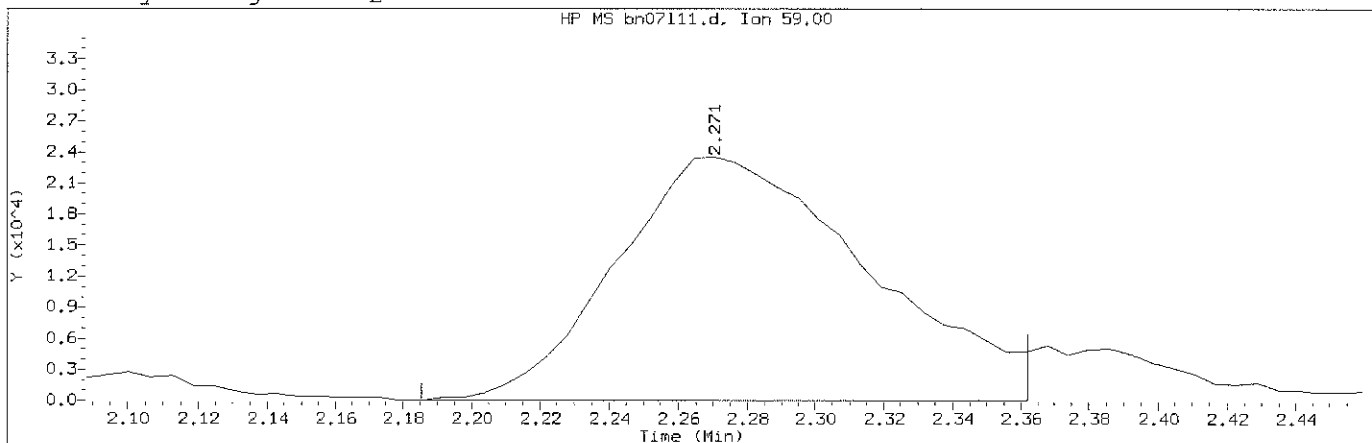
Digitally signed by Stephanie A. Selis on 11/08/2012 at 06:17.

Target 3.5 esignature use TAP03 Page 794 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07111.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2012 23:07 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 23:31 sas00403

Sample Name: LCDB84

Lab Sample ID: LCDB84

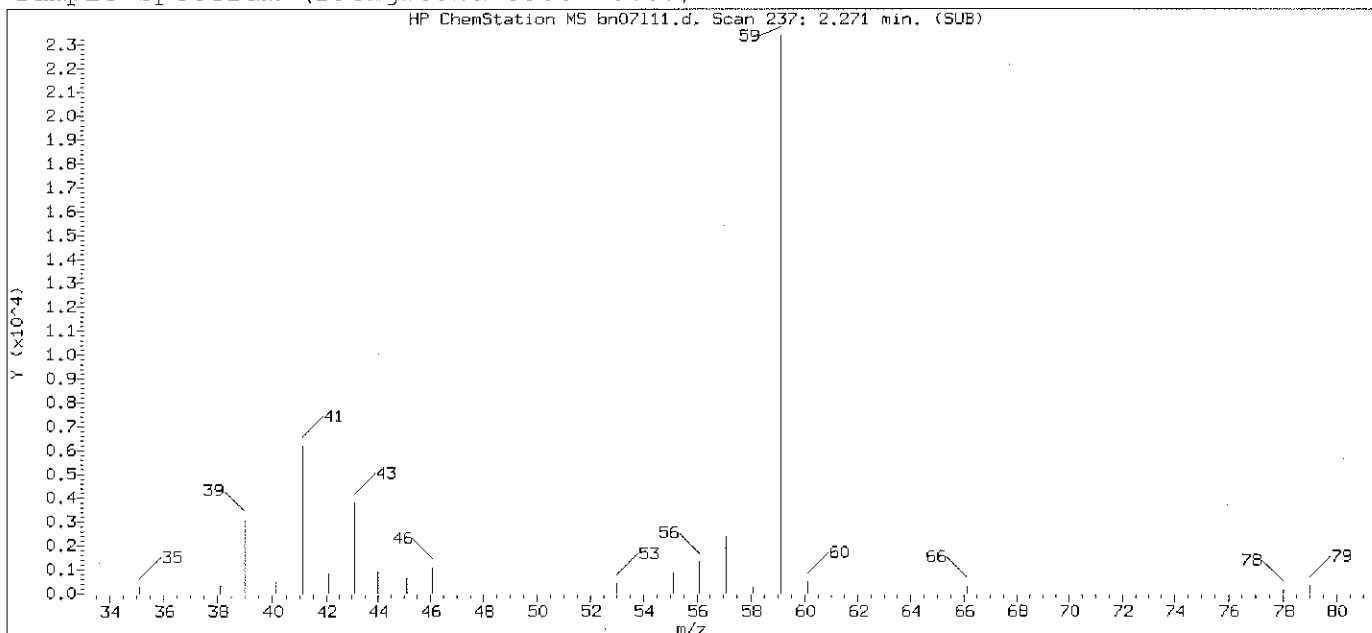
Compound Number : 32
Compound Name : t-Butyl alcohol
Scan Number : 237
Retention Time (minutes): 2.271
Quant Ion : 59.00
Area (flag) : 120413M
On-Column Amount (ng) : 178.7257
Integration start scan : 222 Integration stop scan: 251
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

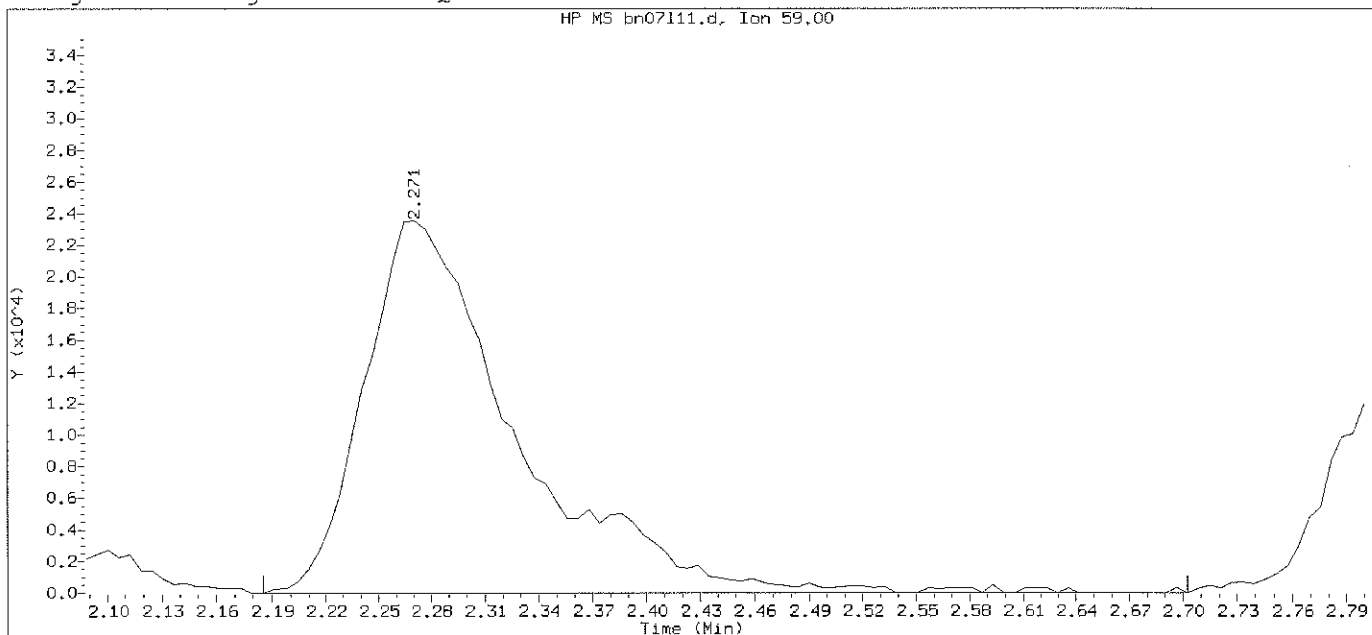
Analyst responsible for change: Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:17.
Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07111.d

Instrument ID: HP09953.i

Injection date and time: 07-NOV-2012 23:07

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time: 07-NOV-2012 22:23

Date, time and analyst ID of latest file update: 07-Nov-2012 23:23 Automation

Sample Name: LCDB84

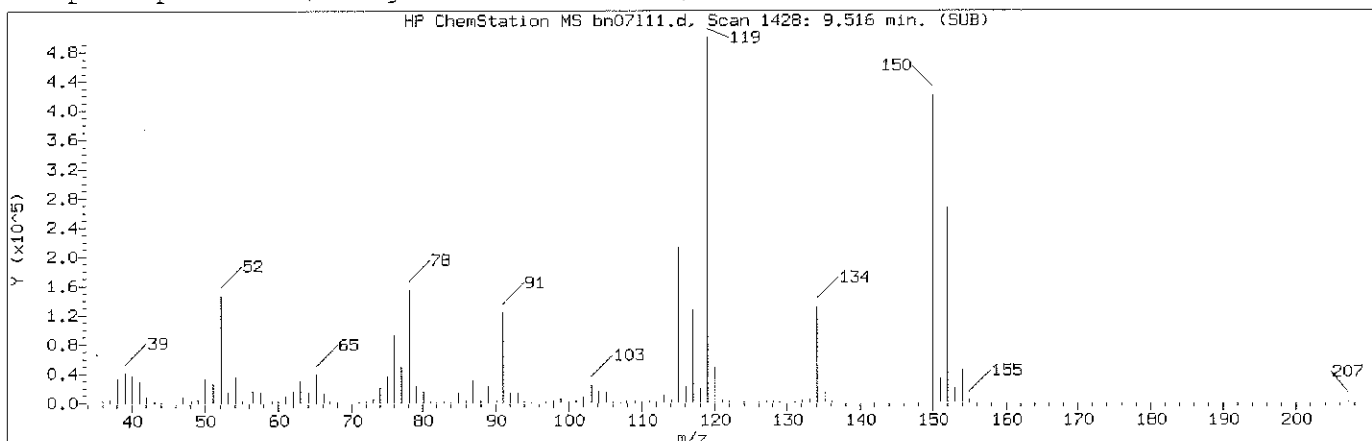
Lab Sample ID: LCDB84

Compound Number	: 32	
Compound Name	: t-Butyl alcohol	
Scan Number	: 237	
Retention Time (minutes)	: 2.271	
Quant Ion	: 59.00	
Area	: 139272	
On-column Amount (ng)	: 206.7172	
Integration start scan	: 222	Integration stop scan: 307
Y at integration start	: 0	Y at integration end: 0

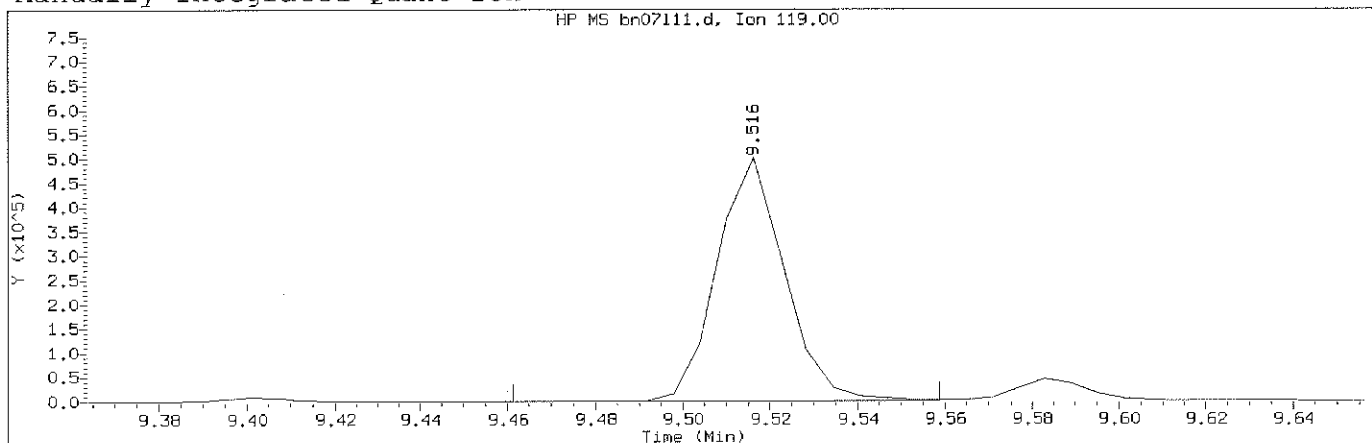
Digitally signed by Stephanie A. Selis on 11/08/2012 at 06:17.

Target 3.5 esignature user ID: 800406
TAP03 Page 196 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07111.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2012 23:07 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 23:31 sas00403

Sample Name: LCDB84

Lab Sample ID: LCDB84

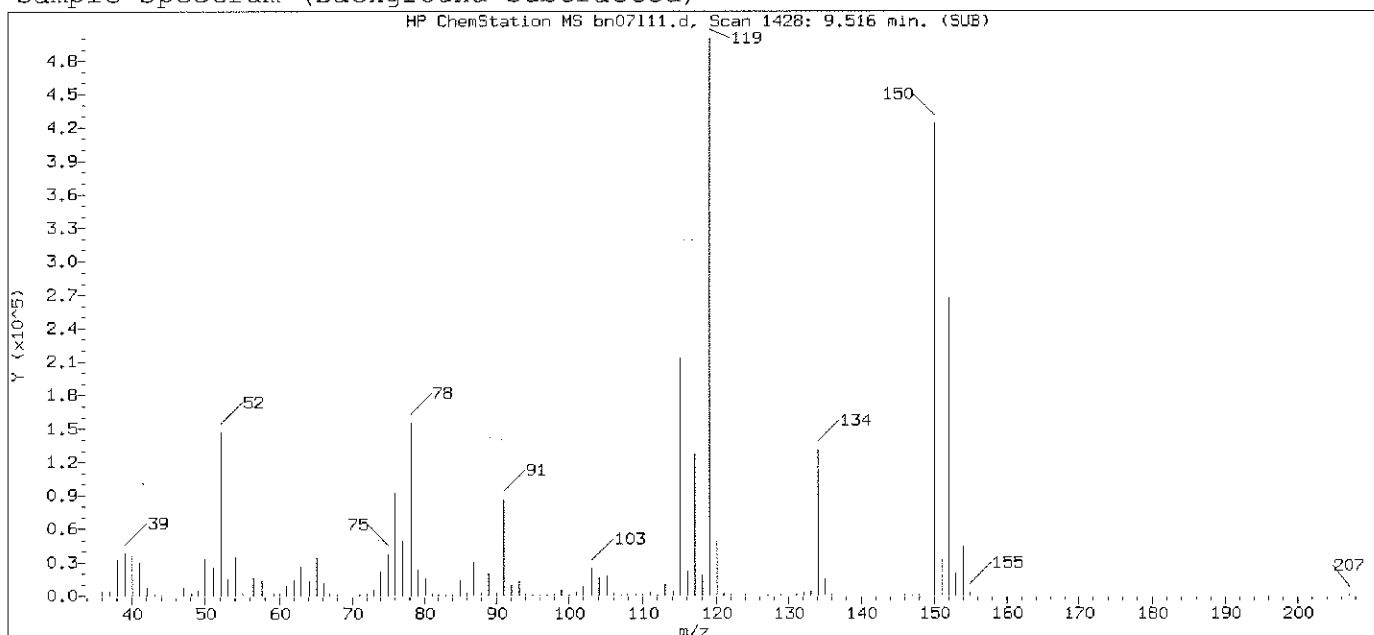
Compound Number : 132
Compound Name : p-Isopropyltoluene
Scan Number : 1428
Retention Time (minutes): 9.516
Quant Ion : 119.00
Area (flag) : 541428M
On-Column Amount (ng) : 20.0881
Integration start scan : 1418 Integration stop scan: 1434
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

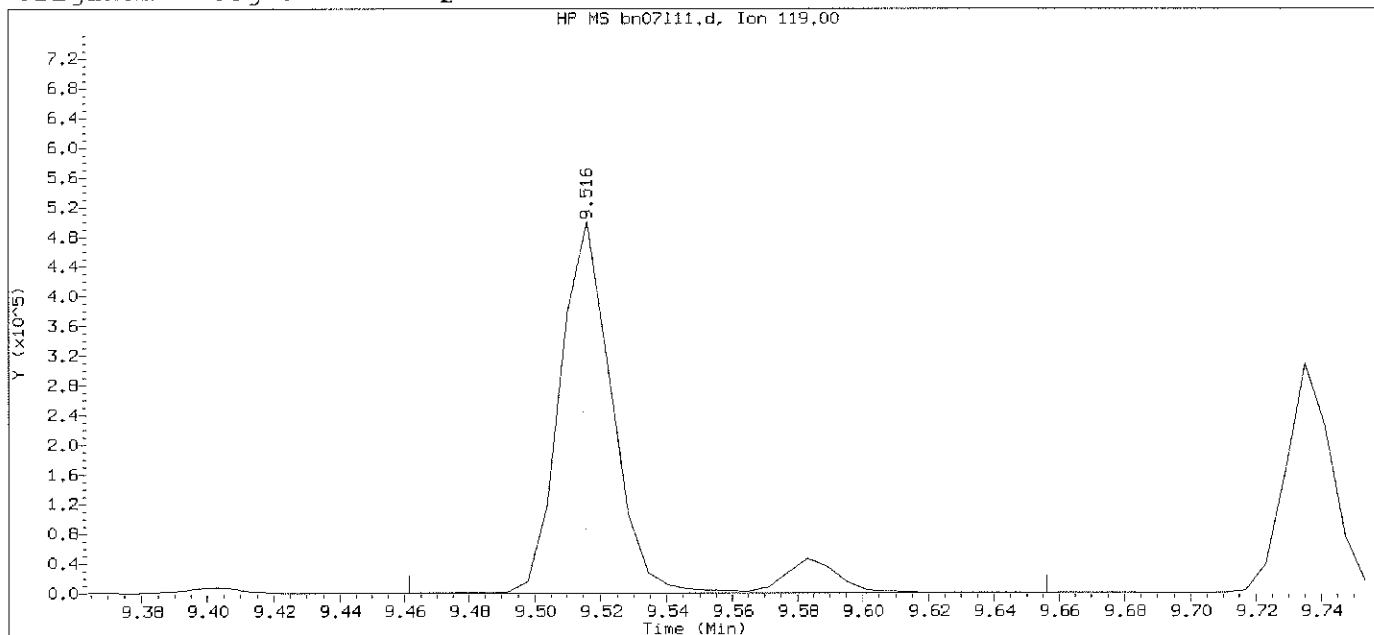
Analyst responsible for change: Digitally signed by Stephanie A. Selis
on 11/08/2012 at 06:17.
Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07111.d

Instrument ID: HP09953.i

Injection date and time: 07-NOV-2012 23:07

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time: 07-NOV-2012 22:23

Date, time and analyst ID of latest file update: 07-Nov-2012 23:23 Automation

Sample Name: LCDB84

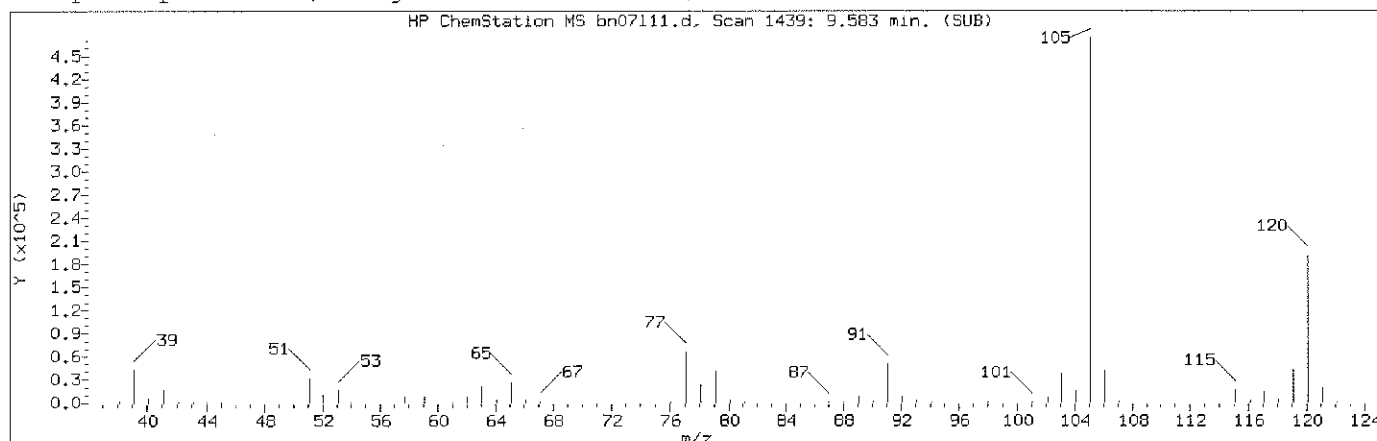
Lab Sample ID: LCDB84

Compound Number : 132
 Compound Name : p-Isopropyltoluene
 Scan Number : 1428
 Retention Time (minutes): 9.516
 Quant Ion : 119.00
 Area : 595256
 On-column Amount (ng) : 22.0852
 Integration start scan : 1418 Integration stop scan: 1450
 Y at integration start : 0 Y at integration end: 0

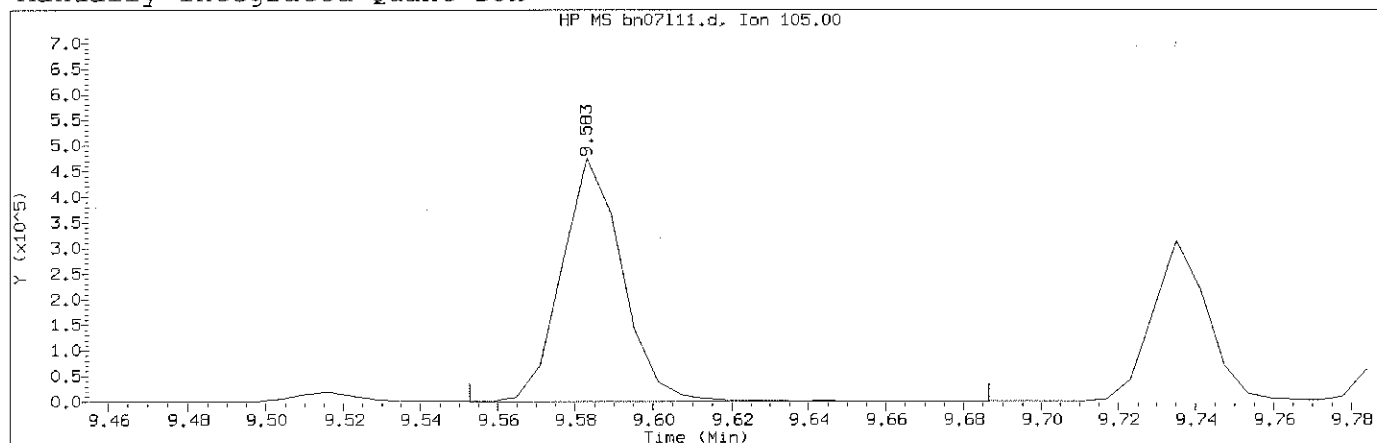
Digitally signed by Stephanie A. Selis on 11/08/2012 at 06:17.

Target 3.5 esignature user: TAP03 Page 798 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07111.d
Injection date and time: 07-NOV-2012 23:07

Instrument ID: HP09953.i
Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 23:31 sas00403

Sample Name: LCDB84

Lab Sample ID: LCDB84

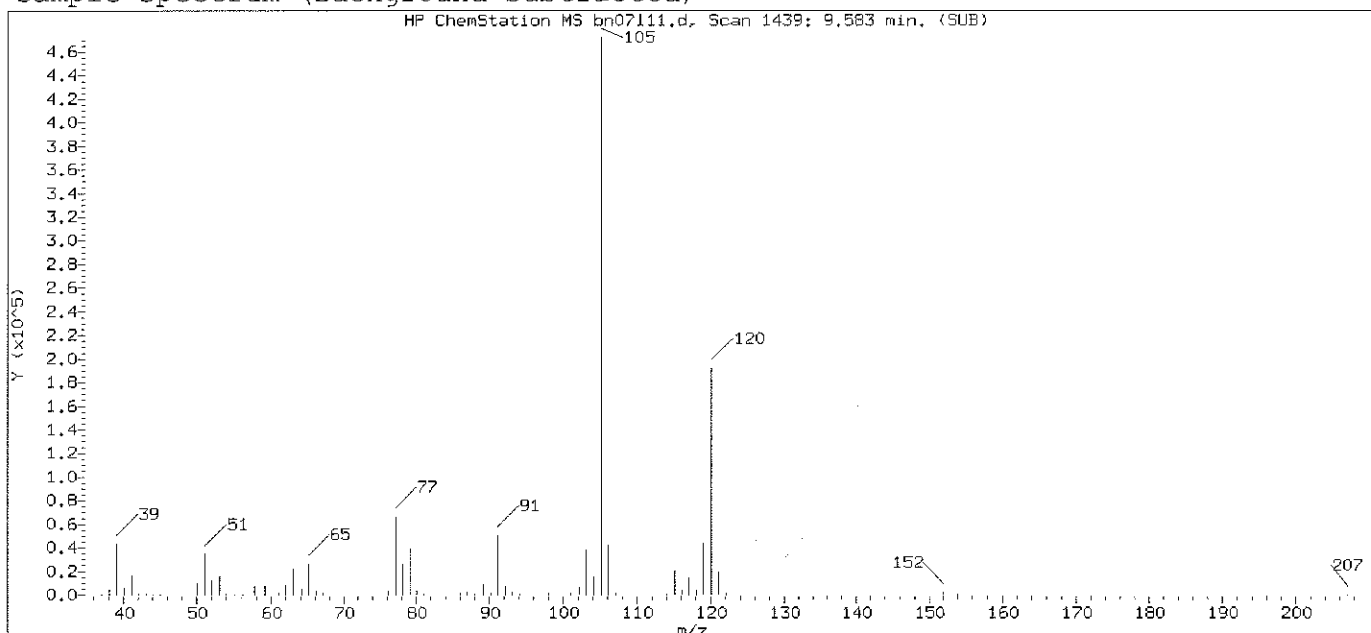
Compound Number	: 135	
Compound Name	: 1,2,3-Trimethylbenzene	
Scan Number	: 1439	
Retention Time (minutes)	: 9.583	
Quant Ion	: 105.00	
Area (flag)	: 519008M	
On-Column Amount (ng)	: 20.5760	
Integration start scan	: 1433	Integration stop scan: 1455
Y at integration start	: 0	Y at integration end: 0

Reason for manual integration: improper integration

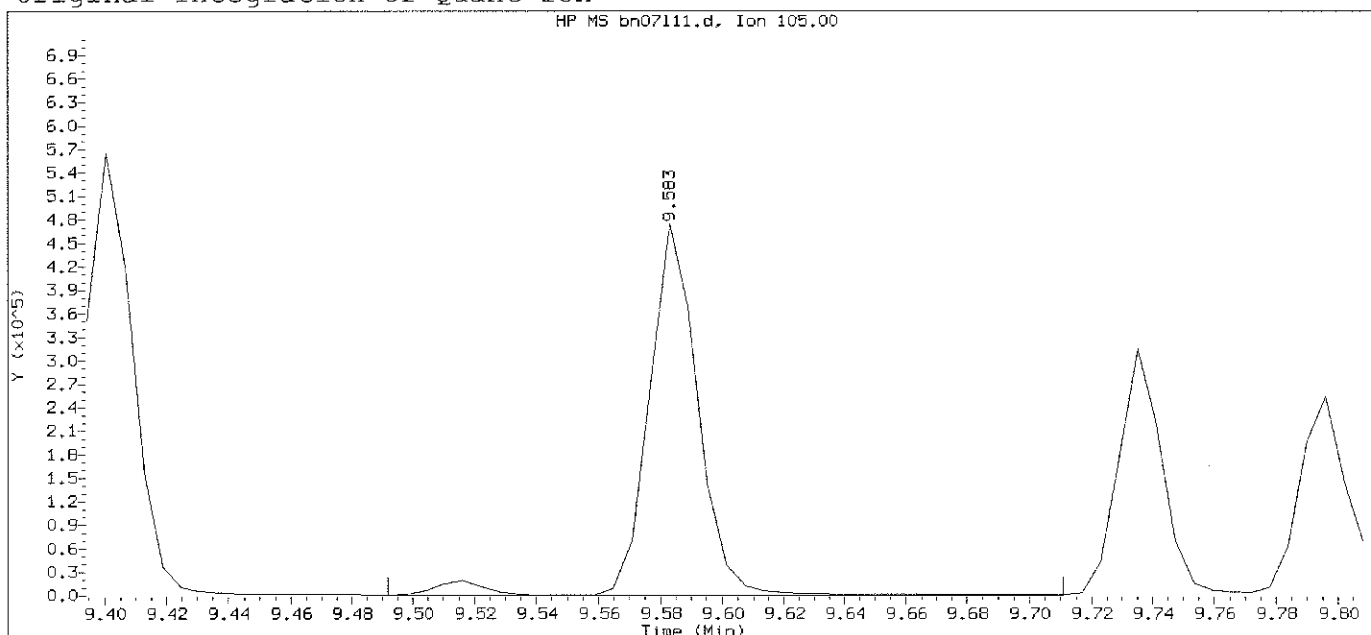
Analyst responsible for change: Digitally signed by Stephanie A. Selis on 11/08/2012 at 06:17.
Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14.
Parallax ID: ahu03800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07111.d

Instrument ID: HP09953.i

Injection date and time: 07-NOV-2012 23:07

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time: 07-NOV-2012 22:23

Date, time and analyst ID of latest file update: 07-Nov-2012 23:23 Automation

Sample Name: LCDB84

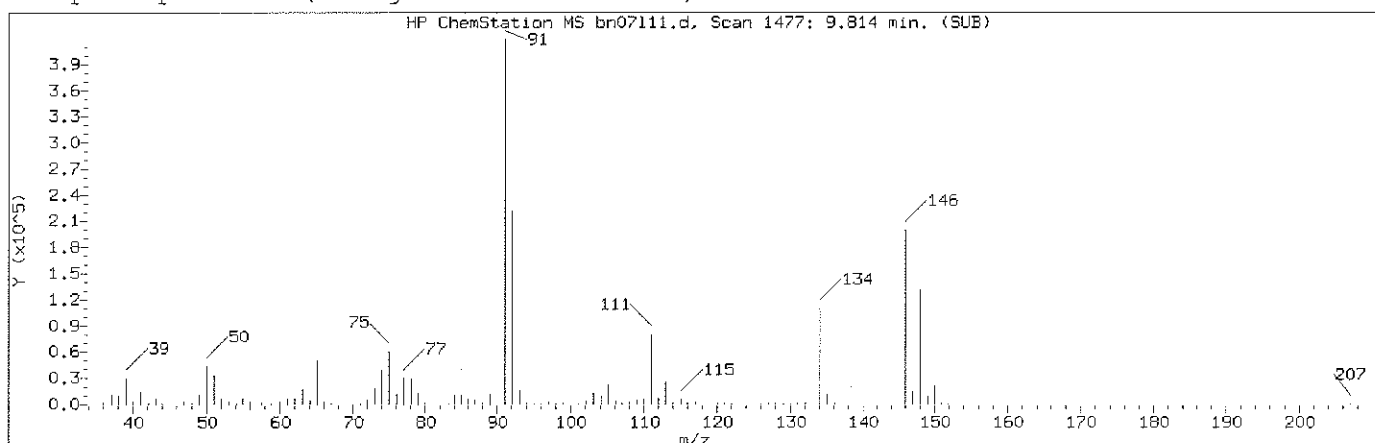
Lab Sample ID: LCDB84

Compound Number	: 135	
Compound Name	: 1,2,3-Trimethylbenzene	
Scan Number	: 1439	
Retention Time (minutes)	: 9.583	
Quant Ion	: 105.00	
Area	: 542187	
On-column Amount (ng)	: 21.4949	
Integration start scan	: 1423	Integration stop scan: 1459
Y at integration start	: 0	Y at integration end: 0

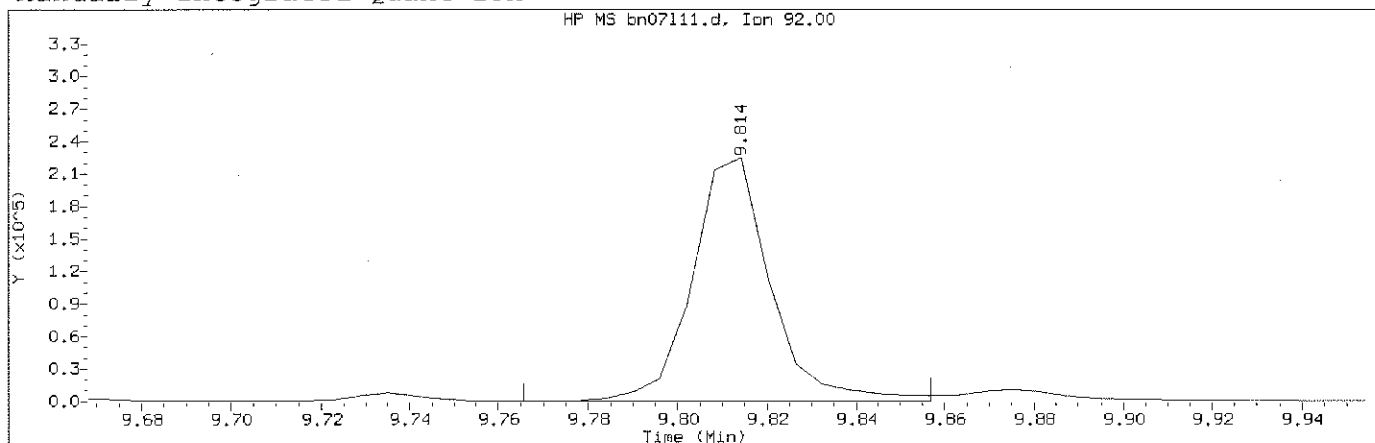
Digitally signed by Stephanie A. Selis on 11/08/2012 at 06:17.

Target 3.5 esignature use TAP03 Page 800 of 2648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07111.d Instrument ID: HP09953.i
Injection date and time: 07-NOV-2012 23:07 Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 07-NOV-2012 22:23
Date, time and analyst ID of latest file update: 07-Nov-2012 23:31 sas00403

Sample Name: LCDB84

Lab Sample ID: LCDB84

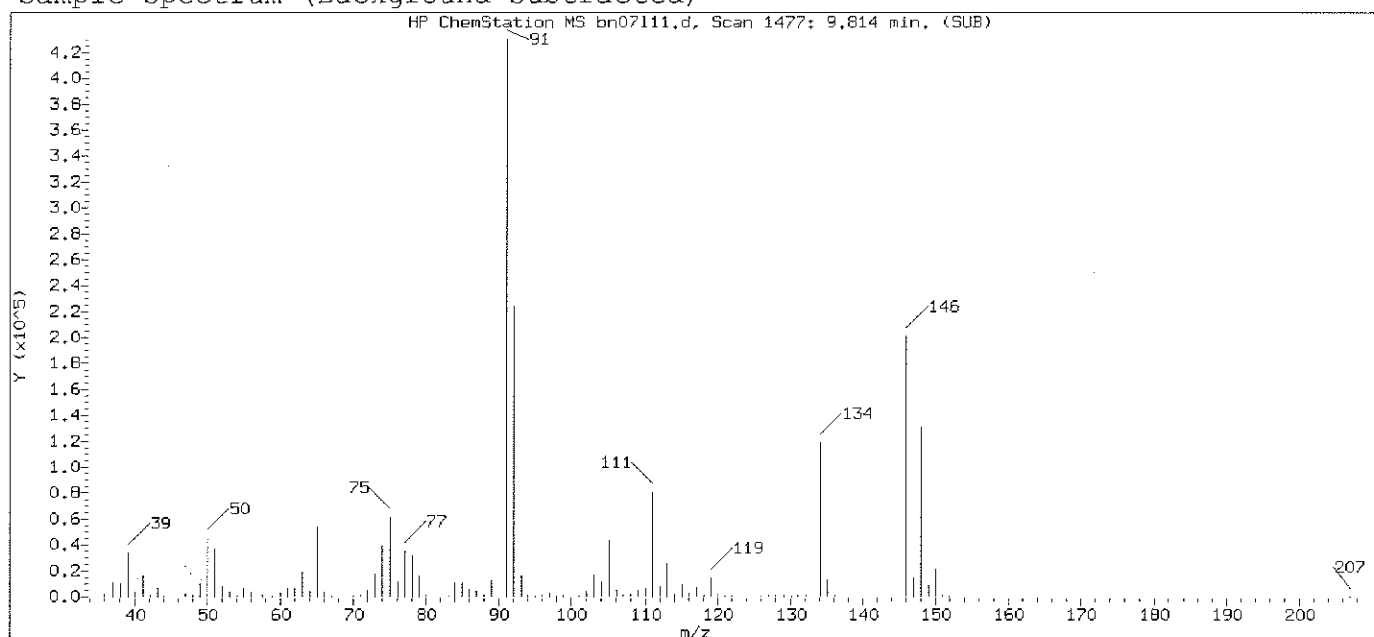
Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1477
Retention Time (minutes): 9.814
Quant Ion : 92.00
Area (flag) : 273020M
On-Column Amount (ng) : 19.5500
Integration start scan : 1468 Integration stop scan: 1483
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

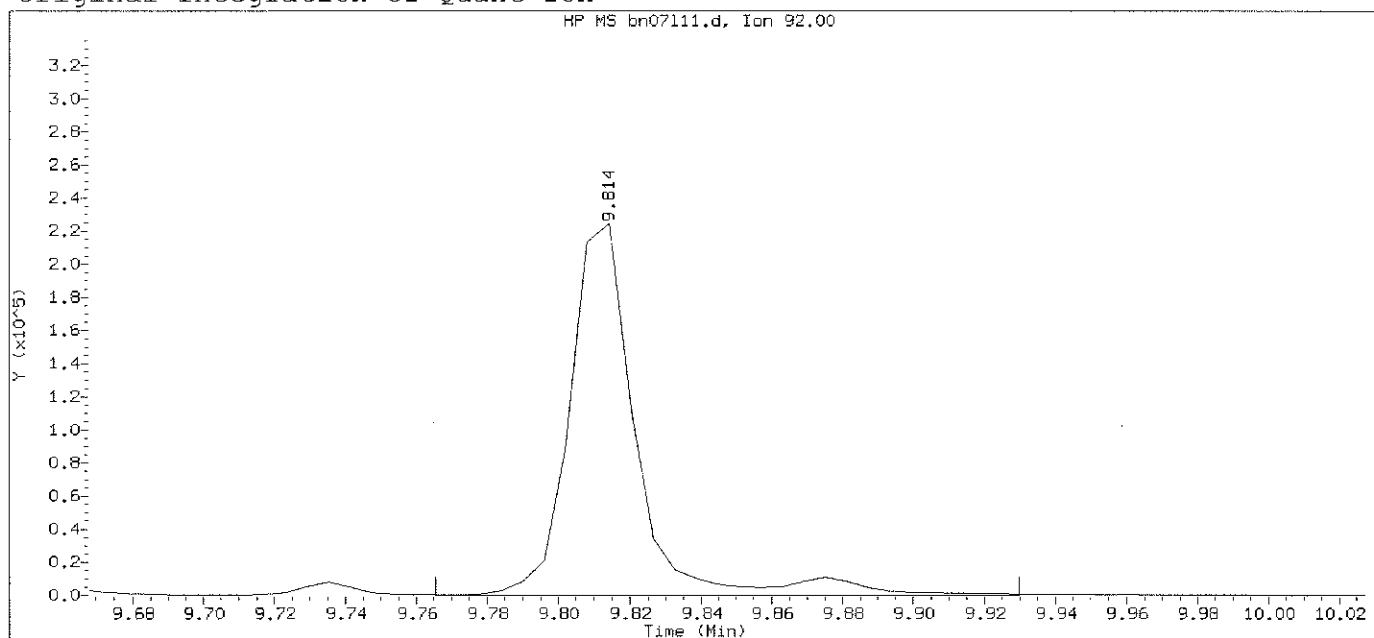
Analyst responsible for change: Digitally signed by Stephanie A. Selis on 11/08/2012 at 06:17.
Target 3.5 esignature user ID: sas00403

Secondary review performed and digitally signed by Abraham H. Uysal on 11/08/2012 at 10:14.
Parallax ID: ahu01800

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov07b.b/bn07111.d

Instrument ID: HP09953.i

Injection date and time: 07-NOV-2012 23:07

Analyst ID: AEL02861

Method used: /chem2/HP09953.i/12nov07b.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time: 07-NOV-2012 22:23

Date, time and analyst ID of latest file update: 07-Nov-2012 23:23 Automation

Sample Name: LCDB84

Lab Sample ID: LCDB84

Compound Number	: 139	
Compound Name	: n-Butylbenzene	
Scan Number	: 1477	
Retention Time (minutes)	: 9.814	
Quant Ion	: 92.00	
Area	: 290290	
On-column Amount (ng)	: 20.7866	
Integration start scan	: 1468	Integration stop scan: 1495
Y at integration start	: 0	Y at integration end: 0

Digitally signed by Stephanie A. Selis on 11/08/2012 at 06:17.

Target 3.5 esignature use ID: ps00603
TAP03 Page 802 of 2648

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB85

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCSB85

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09953.i/12nov08a.b/bn08s01.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(mg/L or mg/Kg) mg/Kg Q

75-71-8	Dichlorodifluoromethane	0.017	
74-87-3	Chloromethane	0.018	
75-01-4	Vinyl Chloride	0.017	
74-83-9	Bromomethane	0.020	
75-00-3	Chloroethane	0.019	
75-69-4	Trichlorofluoromethane	0.021	
64-17-5	Ethanol	0.880	
107-02-8	Acrolein	0.150	
75-35-4	1,1-Dichloroethene	0.020	
67-64-1	Acetone	0.230	E
76-13-1	Freon 113	0.020	
67-63-0	2-Propanol	0.140	
74-88-4	Methyl Iodide	0.019	
75-15-0	Carbon Disulfide	0.018	
79-20-9	Methyl Acetate	0.026	
107-05-1	Allyl Chloride	0.021	
75-09-2	Methylene Chloride	0.021	
75-65-0	t-Butyl alcohol	0.200	
107-13-1	Acrylonitrile	0.110	
1634-04-4	Methyl Tertiary Butyl Ether	0.023	
156-60-5	trans-1,2-Dichloroethene	0.020	
110-54-3	n-Hexane	0.017	
75-34-3	1,1-Dichloroethane	0.020	
108-20-3	di-Isopropyl ether	0.019	
126-99-8	2-Chloro-1,3-butadiene	0.021	
637-92-3	Ethyl t-butyl ether	0.020	
78-93-3	2-Butanone	0.210	
156-59-2	cis-1,2-Dichloroethene	0.020	
540-59-0	1,2-Dichloroethene (Total)	0.040	
594-20-7	2,2-Dichloropropane	0.022	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB85

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCSB85

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09953.i/12nov08a.b/bn08s01.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(mg/L or mg/Kg) mg/Kg

Q

107-12-0-----	Propionitrile	0.130	
126-98-7-----	Methacrylonitrile	0.170	
74-97-5-----	Bromochloromethane	0.020	
109-99-9-----	Tetrahydrofuran	0.087	
67-66-3-----	Chloroform	0.020	
71-55-6-----	1,1,1-Trichloroethane	0.022	
110-82-7-----	Cyclohexane	0.018	
563-58-6-----	1,1-Dichloropropene	0.019	
56-23-5-----	Carbon Tetrachloride	0.020	
78-83-1-----	Isobutyl Alcohol	0.420	
71-43-2-----	Benzene	0.019	
107-06-2-----	1,2-Dichloroethane	0.023	
994-05-8-----	t-Amyl methyl ether	0.020	
142-82-5-----	n-Heptane	0.019	
71-36-3-----	n-Butanol	0.740	
79-01-6-----	Trichloroethene	0.019	
108-87-2-----	Methylcyclohexane	0.017	
78-87-5-----	1,2-Dichloropropane	0.019	
80-62-6-----	Methyl Methacrylate	0.019	
123-91-1-----	1,4-Dioxane	0.340	
74-95-3-----	Dibromomethane	0.021	
75-27-4-----	Bromodichloromethane	0.020	
79-46-9-----	2-Nitropropane	0.016	
110-75-8-----	2-Chloroethyl Vinyl Ether	0.072	
10061-01-5-----	cis-1,3-Dichloropropene	0.020	
108-10-1-----	4-Methyl-2-pentanone	0.100	
108-88-3-----	Toluene	0.019	
10061-02-6-----	trans-1,3-Dichloropropene	0.020	
97-63-2-----	Ethyl Methacrylate	0.020	
79-00-5-----	1,1,2-Trichloroethane	0.021	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB85

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCSB85

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09953.i/12nov08a.b/bn08s01.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

127-18-4	Tetrachloroethene	0.020	
142-28-9	1,3-Dichloropropane	0.021	
591-78-6	2-Hexanone	0.120	
124-48-1	Dibromochloromethane	0.020	
106-93-4	1,2-Dibromoethane	0.021	
108-90-7	Chlorobenzene	0.019	
630-20-6	1,1,1,2-Tetrachloroethane	0.019	
100-41-4	Ethylbenzene	0.019	
179601-23-1	m+p-Xylene	0.039	
95-47-6	o-Xylene	0.019	
1330-20-7	Xylene (Total)	0.057	
100-42-5	Styrene	0.019	
75-25-2	Bromoform	0.019	
98-82-8	Isopropylbenzene	0.019	
108-94-1	Cyclohexanone	0.620	
79-34-5	1,1,2,2-Tetrachloroethane	0.022	
108-86-1	Bromobenzene	0.019	
110-57-6	trans-1,4-Dichloro-2-butene	0.130	
96-18-4	1,2,3-Trichloropropane	0.022	
103-65-1	n-Propylbenzene	0.017	
95-49-8	2-Chlorotoluene	0.018	
108-67-8	1,3,5-Trimethylbenzene	0.020	
106-43-4	4-Chlorotoluene	0.019	
98-06-6	tert-Butylbenzene	0.018	
76-01-7	Pentachloroethane	0.019	
95-63-6	1,2,4-Trimethylbenzene	0.020	
135-98-8	sec-Butylbenzene	0.019	
541-73-1	1,3-Dichlorobenzene	0.019	
99-87-6	p-Isopropyltoluene	0.019	
106-46-7	1,4-Dichlorobenzene	0.019	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSB85

Lab Name: Lancaster Laboratories

Contract: _____

Lab Code: LANCAS

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: LCSB85

Sample wt/vol: 5.00 (g/mL) g

Lab File ID: HP09953.i/12nov08a.b/bn08s01.d

Level: (low/med) LOW

Date Received: _____

Moisture: not dec. _____

Date Analyzed: 11/08/12

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (mg/L or mg/Kg) mg/Kg Q

526-73-8	1,2,3-Trimethylbenzene	0.020	
100-44-7	Benzyl Chloride	0.019	
141-93-5	1,3-Diethylbenzene	0.019	
105-05-5	1,4-Diethylbenzene	0.019	
104-51-8	n-Butylbenzene	0.019	
95-50-1	1,2-Dichlorobenzene	0.019	
135-01-3	1,2-Diethylbenzene	0.019	
96-12-8	1,2-Dibromo-3-chloropropane	0.022	
108-70-3	1,3,5-Trichlorobenzene	0.019	
120-82-1	1,2,4-Trichlorobenzene	0.019	
87-68-3	Hexachlorobutadiene	0.019	
91-20-3	Naphthalene	0.021	
87-61-6	1,2,3-Trichlorobenzene	0.020	
91-57-6	2-Methylnaphthalene	0.018	
25340-17-4	Diethylbenzene (total)	0.057	

LCSB85

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCSB85

Data file: /chem2/HP09953.i/12nov08a.b/bn08s01.d

Injection date and time: 08-NOV-2012 10:53

Data file Sample Info. Line: LCSB85;LCSB85;2;3;LCS;;;bn08b01;

Instrument ID: HP09953.i Batch: B123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 11:30 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov08a.b/bn08b01.d

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time (Last Method Edit): 08-NOV-2012 11:27

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov08a.b/bn08c01.d

Bottle Code:

Matrix: SOIL

Level: Low

On-Column Amount units: ng

In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml

Sample Weight (Ws): 5 g

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area(+/- %Change)	Conc. (on-column)	QC Flag
30) t-Butyl alcohol-d10	2.210(0.012)	227	65	148182 (-3)	250.00	
67) Fluorobenzene	4.357(0.000)	580	96	1131612 (4)	50.00	
99) Chlorobenzene-d5	7.539(0.000)	1103	117	766450 (2)	50.00	
133) 1,4-Dichlorobenzene-d4	9.522(0.000)	1429	152	484039 (-1)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
55) Dibromofluoromethane	(2)	3.712(0.000)	113	293960	51.878	104%		50 - 141
61) 1,2-Dichloroethane-d4	(2)	4.029(0.000)	102	63494	53.312	107%		54 - 135
86) Toluene-d8	(3)	5.988(0.000)	98	1129520	51.464	103%		52 - 141
112) 4-Bromofluorobenzene	(3)	8.622(0.000)	95	414116	50.339	101%		50 - 131

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
2) Dichlorodifluoromethane	(2)	1.084(0.001)	85	169960	17.074	17.07			2	5
4) Chloromethane	(2)	1.133(0.001)	50	181440	18.434	18.43			2	5
5) Vinyl Chloride	(2)	1.200(0.002)	62	141254M	17.132	17.13			1	5
9) Bromomethane	(2)	1.376(0.001)	94	102231	19.779	19.78			2	5
10) Chloroethane	(2)	1.425(0.000)	64	83024	19.331	19.33			2	5
13) Trichlorofluoromethane	(2)	1.589(0.001)	101	215937	20.587	20.59			2	5
15) Ethanol	(1)	1.656(0.001)	45	69480	883.575	883.58			100	500
18) Acrolein	(1)	1.796(-0.007)	56	166883	145.440	145.44			20	100
19) 1,1-Dichloroethene	(2)	1.863(0.000)	96	96355	20.061	20.06			1	5
20) Acetone	(2)	1.887(0.000)	58	127027	232.108	232.11		E	7	20
22) Freon 113	(2)	1.887(0.000)	101	112842	20.101	20.10			2	10
23) 2-Propanol	(1)	1.979(-0.004)	45	76207	141.881	141.88			60	100
24) Methyl Iodide	(2)	1.966(0.000)	142	194205	19.476	19.48			3	5
25) Carbon Disulfide	(2)	2.015(0.000)	76	291711	18.424	18.42			1	5
27) Methyl Acetate	(2)	2.106(-0.001)	43	107672	25.633	25.63			2	5
29) Allyl Chloride	(2)	2.094(0.000)	41	215668	20.649	20.65			1	5
31) Methylene Chloride	(2)	2.186(0.000)	84	119414	21.412	21.41			2	5
32) t-Butyl alcohol	(1)	2.277(-0.005)	59	152964	203.547	203.55			20	100
33) Acrylonitrile	(2)	2.374(0.000)	53	209500	114.455	114.46			4	20
34) Methyl Tertiary Butyl Ether	(2)	2.411(0.001)	73	364459	23.371	23.37			0.5	5
35) trans-1,2-Dichloroethene	(2)	2.386(0.001)	96	109388	20.182	20.18			1	5
38) n-Hexane	(2)	2.605(0.001)	57	163043	17.289	17.29			1	5
40) 1,1-Dichloroethane	(2)	2.745(0.000)	63	239823	20.153	20.15			1	5
41) di-Isopropyl ether	(2)	2.812(-0.001)	45	439656	19.422	19.42			1	5
42) 2-Chloro-1,3-butadiene	(2)	2.824(0.000)	53	214513	20.560	20.56			1	5
44) Ethyl t-butyl ether	(2)	3.134(0.001)	59	373529	20.174	20.17			1	5
45) 2-Butanone	(2)	3.280(0.001)	43	587006	209.748	209.75			4	10
46) cis-1,2-Dichloroethene	(2)	3.262(0.000)	96	120848	19.773	19.77			1	5
47) 1,2-Dichloroethene (Total)	(2)		96	230236	39.955	39.96			1	5
48) 2,2-Dichloropropane	(2)	3.274(0.000)	77	197624	21.824	21.82			1	5

M = Compound was manually integrated. E = Compound concentration above calibration range.

Digitally signed by Angela D. Sneeringer on 11/08/2012 at 11:35. Target 3.5 esignature user ID: ads01731

LCSB85

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCSB85

Data file: /chem2/HP09953.i/12nov08a.b/bn08s01.d

Injection date and time: 08-NOV-2012 10:53

Data file Sample Info. Line: LCSB85;LCSB85;2;3;LCS;::;bn08b01;

Instrument ID: HP09953.i Batch: B123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 11:30 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov08a.b/bn08b01.d

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time (Last Method Edit): 08-NOV-2012 11:27

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov08a.b/bn08c01.d

Bottle Code:

Matrix: SOIL

Level: Low

On-Column Amount units: ng

In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws)

VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml

Sample Weight (Ws): 5 g

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting	
									Limit (in sample)	LOQ
50) Propionitrile	(1)	3.341(-0.008)	54	130233	130.912	130.91			30	100
51) Methacrylonitrile	(2)	3.475(0.000)	67	348491	172.690	172.69			5	50
52) Bromochloromethane	(2)	3.481(0.000)	128	59855	20.376	20.38			1	5
53) Tetrahydrofuran	(1)	3.530(-0.011)	71	68570	87.178	87.18			4	5
54) Chloroform	(2)	3.560(0.000)	83	229253	20.171	20.17			1	5
56) 1,1,1-Trichloroethane	(2)	3.731(0.000)	97	215038	22.171	22.17			1	5
57) Cyclohexane	(2)	3.779(0.001)	56	207503	18.110	18.11			1	5
58) 1,1-Dichloropropene	(2)	3.877(0.000)	75	162560	18.677	18.68			1	5
59) Carbon Tetrachloride	(2)	3.889(0.000)	117	175933	20.176	20.18			1	5
60) Isobutyl Alcohol	(1)	4.047(-0.012)	41	117165	424.085	424.08			100	250
62) Benzene	(2)	4.078(-0.000)	78	462082	19.291	19.29			0.5	5
64) 1,2-Dichloroethane	(2)	4.102(-0.000)	62	210682	23.244	23.24			1	5
65) t-Amyl methyl ether	(2)	4.205(-0.000)	73	309859	20.455	20.45			1	5
69) n-Heptane	(2)	4.351(0.000)	43	212620	18.952	18.95			3	5
70) n-Butanol	(1)	4.716(-0.011)	56	136118	737.311	737.31			110	250
72) Trichloroethene	(2)	4.716(-0.000)	95	120163	19.461	19.46			1	5
73) Methylcyclohexane	(2)	4.905(-0.000)	83	190104	17.469	17.47			1	5
74) 1,2-Dichloropropene	(2)	4.941(-0.000)	63	129647	19.423	19.42			1	5
76) Methyl Methacrylate	(2)	5.106(-0.001)	69	66405	19.471	19.47			1	5
77) 1,4-Dioxane	(1)	5.106(-0.015)	88	24634	343.818	343.82			70	250
78) Dibromomethane	(2)	5.063(-0.000)	93	73699	20.605	20.60			1	5
81) Bromodichloromethane	(2)	5.239(-0.000)	83	154190	19.829	19.83			1	5
82) 2-Nitropropane	(1)	5.489(-0.016)	41	29081	15.600	15.60			3	10
83) 2-Chloroethyl Vinyl Ether	(2)	5.580(-0.000)	63	55586	72.009	72.01			2	10
84) cis-1,3-Dichloropropene	(2)	5.714(-0.000)	75	183071	20.464	20.46			1	5
85) 4-Methyl-2-pentanone	(2)	5.896(0.001)	43	655153	104.741	104.74			3	10
87) Toluene	(3)	6.055(0.000)	92	279350	19.304	19.30			1	5
88) trans-1,3-Dichloropropene	(3)	6.322(0.000)	75	161426	19.983	19.98			1	5
89) Ethyl Methacrylate	(3)	6.456(0.000)	69	119444	19.632	19.63			1	5
90) 1,1,2-Trichloroethane	(3)	6.511(0.000)	97	94579	20.827	20.83			1	5
92) Tetrachloroethene	(3)	6.645(0.000)	166	127924	20.074	20.07			1	5
93) 1,3-Dichloropropane	(3)	6.687(0.000)	76	173764	20.673	20.67			1	5
95) 2-Hexanone	(3)	6.821(0.000)	43	499220	115.973	115.97			3	10
97) Dibromochloromethane	(3)	6.931(0.000)	129	109121	20.418	20.42			1	5
98) 1,2-Dibromoethane	(3)	7.040(0.000)	107	94771	20.671	20.67			1	5
100) Chlorobenzene	(3)	7.569(-0.000)	112	311011	19.209	19.21			1	5
101) 1,1,1,2-Tetrachloroethane	(3)	7.661(-0.000)	131	114420	19.442	19.44			1	5
102) Ethylbenzene	(3)	7.697(0.000)	91	524269	19.040	19.04			1	5
103) m+p-Xylene	(3)	7.813(0.000)	106	414187	38.506	38.51			1	5
104) o-Xylene	(3)	8.172(0.000)	106	195259	18.662	18.66			1	5
105) Xylene (Total)	(3)		106	609446	57.168	57.17			1	5
106) Styrene	(3)	8.190(0.000)	104	308244	18.733	18.73			1	5
107) Bromoform	(3)	8.342(-0.000)	173	66780	19.050	19.05			1	5
108) Isopropylbenzene	(3)	8.500(-0.000)	105	532579	19.088	19.09			1	5
111) Cyclohexanone	(1)	8.567(-0.021)	55	125165	615.963	615.96			25	250
113) 1,1,2,2-Tetrachloroethane	(4)	8.762(-0.000)	83	136859	21.717	21.72			1	5
114) Bromobenzene	(4)	8.738(-0.000)	156	135751	19.266	19.27			1	5
115) trans-1,4-Dichloro-2-butene	(4)	8.810(-0.000)	53	244971	125.420	125.42			10	50
116) 1,2,3-Trichloropropane	(4)	8.786(-0.000)	110	40047	22.454	22.45			1	5
117) n-Propylbenzene	(4)	8.841(-0.000)	91	676003	16.580	16.58			1	5
119) 2-Chlorotoluene	(4)	8.896(-0.000)	126	128190	18.496	18.50			1	5
122) 1,3,5-Trimethylbenzene	(4)	8.993(-0.000)	105	485902	19.627	19.63			1	5
123) 4-Chlorotoluene	(4)	8.987(0.000)	126	135663	18.544	18.54			1	5

LCSB85

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCSB85

Data file: /chem2/HP09953.i/12nov08a.b/bn08s01.d

Injection date and time: 08-NOV-2012 10:53

Data file Sample Info. Line: LCSB85;LCSB85;2;3;LCS;;;bn08b01;

Instrument ID: HP09953.i Batch: B123131AA

Date, time and analyst ID of latest file update: 08-Nov-2012 11:30 ads01731

Blank Data file reference: /chem2/HP09953.i/12nov08a.b/bn08b01.d

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 8260S-F

Calibration date and time (Last Method Edit): 08-NOV-2012 11:27

Mid Level Daily Calibration Standard Reference: /chem2/HP09953.i/12nov08a.b/bn08c01.d

Bottle Code: Matrix: SOIL Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/Kg

Sample Concentration Formula: On-Column Amount * (Vt/Ws) VOA Prep Factor: 1.00

Volume Purged (Vt): 5 ml Sample Weight (Ws): 5 g

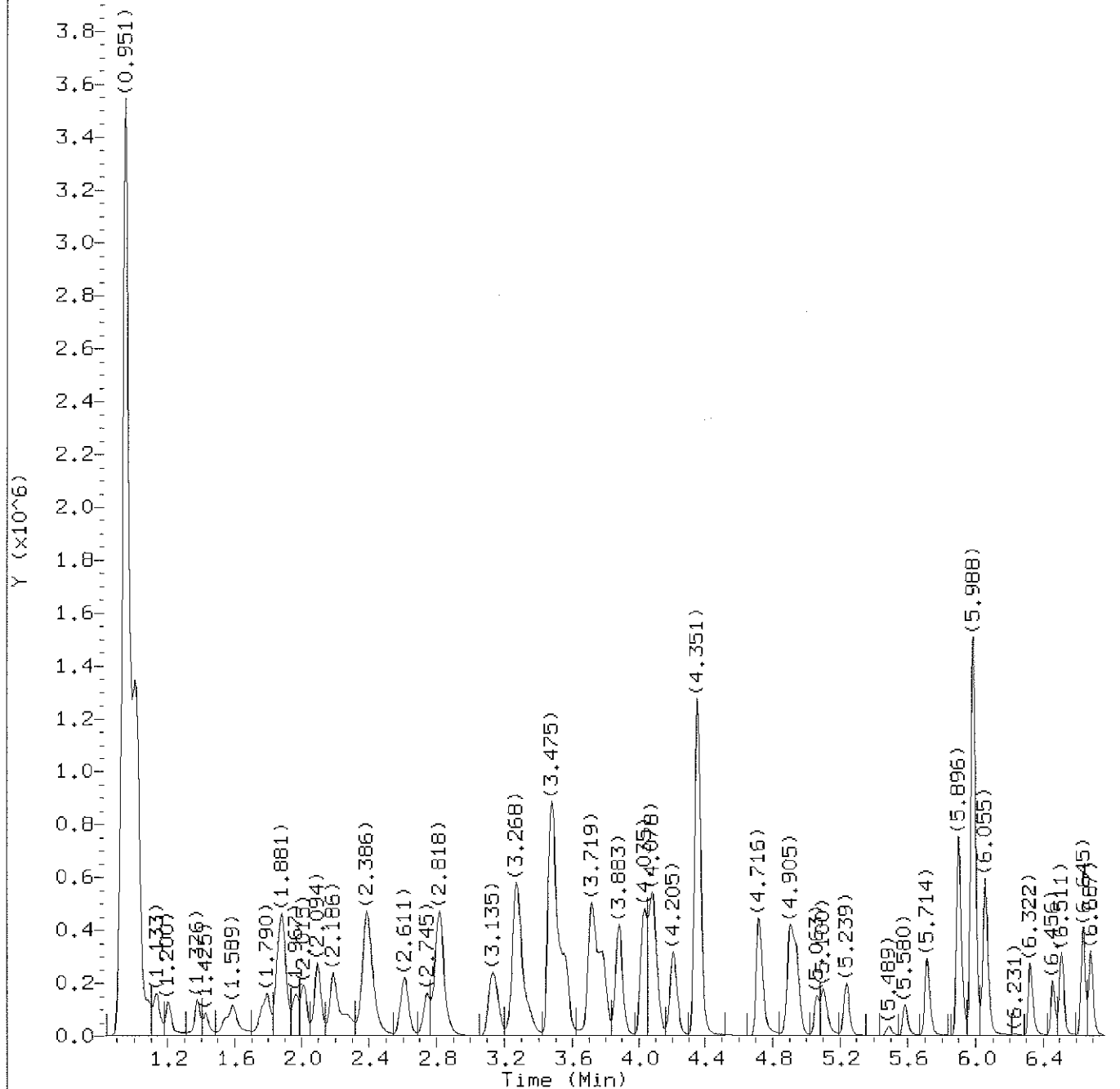
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit LOQ	
									(in sample)	
126) tert-Butylbenzene	(4)	9.236(-0.000)	134	101987	18.278	18.28		1		5
127) Pentachloroethane	(4)	9.242(-0.000)	167	88728	18.539	18.54		1		5
128) 1,2,4-Trimethylbenzene	(4)	9.273(-0.000)	105	490568	19.567	19.57		1		5
129) sec-Butylbenzene	(4)	9.401(-0.000)	105	600777	19.165	19.16		1		5
131) 1,3-Dichlorobenzene	(4)	9.474(-0.000)	146	262040	19.027	19.03		1		5
132) p-Isopropyltoluene	(4)	9.516(-0.000)	119	530947M	19.240	19.24		1		5
134) 1,4-Dichlorobenzene	(4)	9.540(-0.000)	146	279766	18.931	18.93		1		5
135) 1,2,3-Trimethylbenzene	(4)	9.583(-0.000)	105	513309	19.876	19.88		1		5
136) Benzyl Chloride	(4)	9.650(-0.000)	126	44252	19.106	19.11		1		4
137) 1,3-Diethylbenzene	(4)	9.735(-0.000)	119	303724	18.879	18.88		1		5
138) 1,4-Diethylbenzene	(4)	9.796(-0.000)	119	322800	18.641	18.64		1		5
139) n-Butylbenzene	(4)	9.814(-0.000)	92	275196M	19.246	19.25		1		5
140) 1,2-Dichlorobenzene	(4)	9.814(-0.000)	146	268760	19.016	19.02		1		5
141) 1,2-Diethylbenzene	(4)	9.875(-0.000)	119	273608	19.082	19.08		1		5
144) 1,2-Dibromo-3-chloropropane	(4)	10.362(-0.000)	75	27342	21.531	21.53		2		5
145) 1,3,5-Trichlorobenzene	(4)	10.502(-0.000)	180	222753	18.685	18.68		1		5
146) 1,2,4-Trichlorobenzene	(4)	10.915(-0.000)	180	194965	18.892	18.89		1		5
147) Hexachlorobutadiene	(4)	11.025(-0.000)	225	116349	19.015	19.02		2		5
148) Naphthalene	(4)	11.074(-0.000)	128	433620	20.687	20.69		1		5
149) 1,2,3-Trichlorobenzene	(4)	11.232(-0.000)	180	195884	20.027	20.03		1		5
150) 2-Methylnaphthalene	(4)	11.798(-0.000)	142	219254	17.926	17.93		2		5

M = Compound was manually integrated.

Total number of targets = 104

Digitally signed by Angela D. Sneeringer on 11/08/2012 at 11:35. Target 3.5 esignature user ID: ads01731

Secondary review performed and digitally signed by Christine M. Dulaney on 11/08/2012 at 16:03. Parallax ID: cmd00448



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08s01.d
Injection date and time: 08-NOV-2012 10:53

Instrument ID: HP09953.i
Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m
Calibration date and time: 08-NOV-2012 11:27

Sublist used: 8260S-F

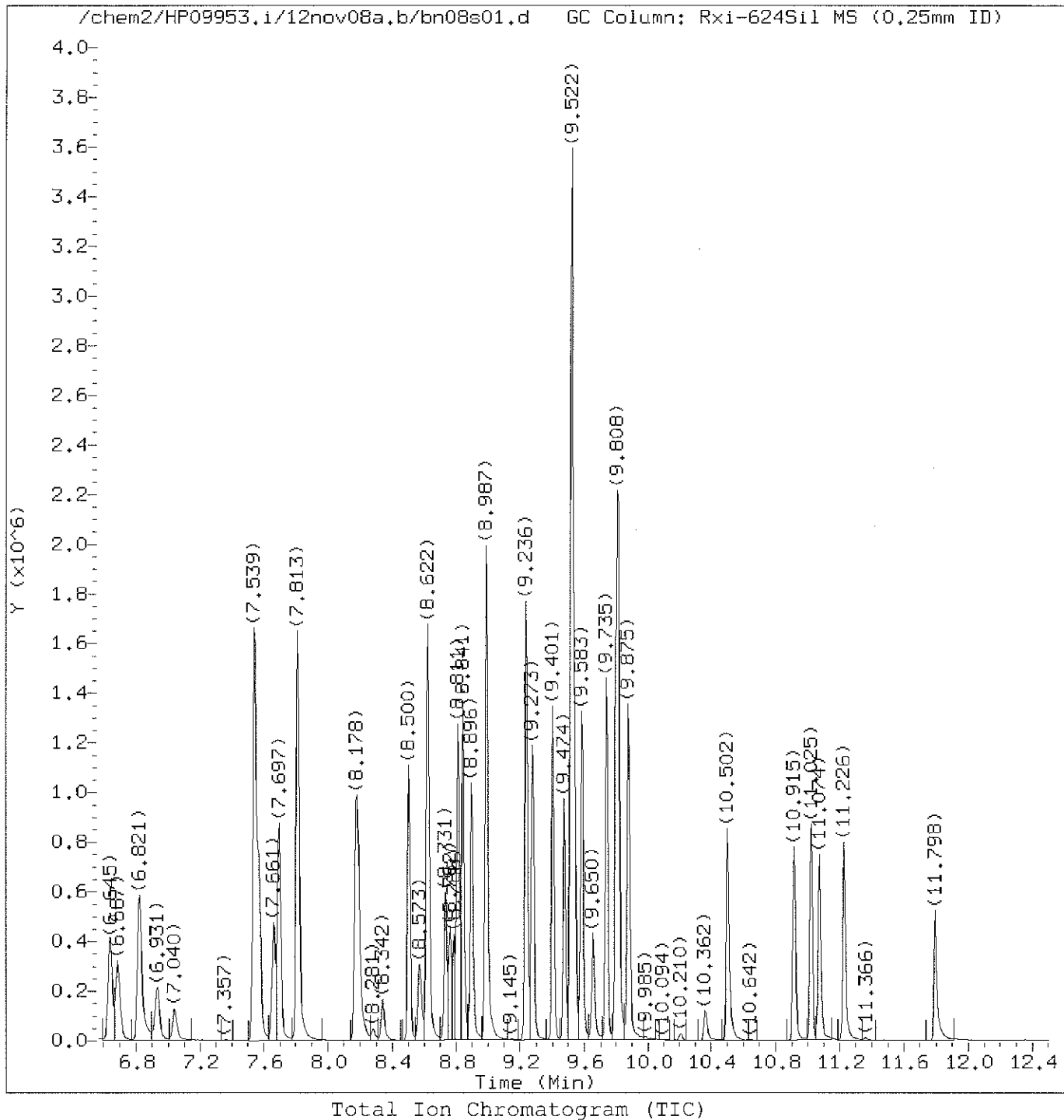
Date, time and analyst ID of latest file update: 08-Nov-2012 11:30 ads01731

Sample Name: LCSB85

Lab Sample ID: LCSB85

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 11:35.

Target 3.5 esignature user ID: ads01731



Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08s01.d
Injection date and time: 08-NOV-2012 10:53

Instrument ID: HP09953.i
Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 08-NOV-2012 11:27
Date, time and analyst ID of latest file update: 08-Nov-2012 11:30 ads01731

Sample Name: LCSB85

Lab Sample ID: LCSB85

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 11:35.

Target 3.5 esignature user ID: ads01731

TAP03 Page 811 of 2648

page 2 of 2

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08s01.d
Injection date and time: 08-NOV-2012 10:53

Instrument ID: HP09953.i
Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 08-NOV-2012 11:27
Date, time and analyst ID of latest file update: 08-Nov-2012 11:30 ads01731

Sample Name: LCSB85

Lab Sample ID: LCSB85

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
2) Dichlorodifluoromethane	(2)	1.084	85	169960	17.074
4) Chloromethane	(2)	1.133	50	181440	18.434
5) Vinyl Chloride	(2)	1.200	62	141254M	17.132
9) Bromomethane	(2)	1.376	94	102231	19.779
10) Chloroethane	(2)	1.425	64	83024	19.331
13) Trichlorofluoromethane	(2)	1.589	101	215937	20.587
15) Ethanol	(1)	1.656	45	69480	883.575
18) Acrolein	(1)	1.796	56	166883	145.440
19) 1,1-Dichloroethene	(2)	1.863	96	96355	20.061
20) Acetone	(2)	1.887	58	127027	232.108
22) Freon 113	(2)	1.887	101	112842	20.101
24) Methyl Iodide	(2)	1.967	142	194205	19.476
23) 2-Propanol	(1)	1.979	45	76207	141.881
25) Carbon Disulfide	(2)	2.015	76	291711	18.424
29) Allyl Chloride	(2)	2.094	41	215668	20.649
27) Methyl Acetate	(2)	2.106	43	107672	25.633
31) Methylene Chloride	(2)	2.186	84	119414	21.412
30)*t-Butyl alcohol-d10	(1)	2.210	65	148182	250.000
32) t-Butyl alcohol	(1)	2.277	59	152964	203.547
33) Acrylonitrile	(2)	2.374	53	209500	114.455
35) trans-1,2-Dichloroethene	(2)	2.386	96	109388	20.182
34) Methyl Tertiary Butyl Ether	(2)	2.411	73	364459	23.371
38) n-Hexane	(2)	2.605	57	163043	17.289
40) 1,1-Dichloroethane	(2)	2.745	63	239823	20.153
41) di-Isopropyl ether	(2)	2.812	45	439656	19.422
42) 2-Chloro-1,3-butadiene	(2)	2.824	53	214513	20.560
44) Ethyl t-butyl ether	(2)	3.135	59	373529	20.174
46) cis-1,2-Dichloroethene	(2)	3.262	96	120848	19.773
48) 2,2-Dichloropropane	(2)	3.274	77	197624	21.824
45) 2-Butanone	(2)	3.281	43	587006	209.748
50) Propionitrile	(1)	3.341	54	130233	130.912
51) Methacrylonitrile	(2)	3.475	67	348491	172.690
52) Bromochloromethane	(2)	3.481	128	59855	20.376
53) Tetrahydrofuran	(1)	3.530	71	68570	87.178
54) Chloroform	(2)	3.560	83	229253	20.171
55)\$Dibromofluoromethane	(2)	3.712	113	293960	51.878
56) 1,1,1-Trichloroethane	(2)	3.731	97	215038	22.171
57) Cyclohexane	(2)	3.779	56	207503	18.110

M = Compound was manually integrated.

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 1 of 3

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on 11/08/2012 at 11:35.
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08s01.d
Injection date and time: 08-NOV-2012 10:53

Instrument ID: HP09953.i
Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 08-NOV-2012 11:27
Date, time and analyst ID of latest file update: 08-Nov-2012 11:30 ads01731

Sample Name: LCSB85

Lab Sample ID: LCSB85

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
=====	=====	=====	=====	=====	=====
58) 1,1-Dichloropropene	(2)	3.877	75	162560	18.677
59) Carbon Tetrachloride	(2)	3.889	117	175933	20.176
61) \$1,2-Dichloroethane-d4	(2)	4.029	102	63494	53.312
60) Isobutyl Alcohol	(1)	4.047	41	117165	424.085
62) Benzene	(2)	4.078	78	462082	19.291
64) 1,2-Dichloroethane	(2)	4.102	62	210682	23.244
65) t-Amyl methyl ether	(2)	4.205	73	309859	20.455
69) n-Heptane	(2)	4.351	43	212620	18.952
67) *Fluorobenzene	(2)	4.357	96	1131612	50.000
70) n-Butanol	(1)	4.716	56	136118	737.311
72) Trichloroethene	(2)	4.716	95	120163	19.461
73) Methylcyclohexane	(2)	4.905	83	190104	17.469
74) 1,2-Dichloropropane	(2)	4.941	63	129647	19.423
78) Dibromomethane	(2)	5.063	93	73699	20.605
77) 1,4-Dioxane	(1)	5.106	88	24634	343.818
76) Methyl Methacrylate	(2)	5.106	69	66405	19.471
81) Bromodichloromethane	(2)	5.239	83	154190	19.829
82) 2-Nitropropane	(1)	5.489	41	29081	15.600
83) 2-Chloroethyl Vinyl Ether	(2)	5.580	63	55586	72.009
84) cis-1,3-Dichloropropene	(2)	5.714	75	183071	20.464
85) 4-Methyl-2-pentanone	(2)	5.896	43	655153	104.741
86) \$Toluene-d8	(3)	5.988	98	1129520	51.464
87) Toluene	(3)	6.055	92	279350	19.304
47) 1,2-Dichloroethene (Total)	(2)		96	230236	39.955
88) trans-1,3-Dichloropropene	(3)	6.322	75	161426	19.983
89) Ethyl Methacrylate	(3)	6.456	69	119444	19.632
90) 1,1,2-Trichloroethane	(3)	6.511	97	94579	20.827
92) Tetrachloroethene	(3)	6.645	166	127924	20.074
93) 1,3-Dichloropropane	(3)	6.687	76	173764	20.673
95) 2-Hexanone	(3)	6.821	43	499220	115.973
97) Dibromochloromethane	(3)	6.931	129	109121	20.418
98) 1,2-Dibromoethane	(3)	7.040	107	94771	20.671
99) *Chlorobenzene-d5	(3)	7.539	117	766450	50.000
100) Chlorobenzene	(3)	7.569	112	311011	19.209
101) 1,1,1,2-Tetrachloroethane	(3)	7.661	131	114420	19.442
102) Ethylbenzene	(3)	7.697	91	524269	19.040
103) m+p-Xylene	(3)	7.813	106	414187	38.506
104) o-Xylene	(3)	8.172	106	195259	18.662

* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

page 2 of 3

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on 11/08/2012 at 11:35.
Target 3.5 esignature user ID: ads01731

Quant Report

Target Revision 3.5

Data File: /chem2/HP09953.i/12nov08a.b/bn08s01.d
Injection date and time: 08-NOV-2012 10:53

Instrument ID: HP09953.i
Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 08-NOV-2012 11:27
Date, time and analyst ID of latest file update: 08-Nov-2012 11:30 ads01731

Sample Name: LCSB85

Lab Sample ID: LCSB85

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
106) Styrene	(3)	8.190	104	308244	18.733
107) Bromoform	(3)	8.342	173	66780	19.050
108) Isopropylbenzene	(3)	8.500	105	532579	19.088
111) Cyclohexanone	(1)	8.567	55	125165	615.963
112) \$4-Bromofluorobenzene	(3)	8.622	95	414116	50.339
114) Bromobenzene	(4)	8.738	156	135751	19.266
113) 1,1,2,2-Tetrachloroethane	(4)	8.762	83	136859	21.717
116) 1,2,3-Trichloropropane	(4)	8.786	110	40047	22.454
115) trans-1,4-Dichloro-2-butene	(4)	8.811	53	244971	125.420
117) n-Propylbenzene	(4)	8.841	91	676003	16.580
119) 2-Chlorotoluene	(4)	8.896	126	128190	18.496
123) 4-Chlorotoluene	(4)	8.987	126	135663	18.544
122) 1,3,5-Trimethylbenzene	(4)	8.993	105	485902	19.627
126) tert-Butylbenzene	(4)	9.236	134	101987	18.278
127) Pentachloroethane	(4)	9.242	167	88728	18.539
128) 1,2,4-Trimethylbenzene	(4)	9.273	105	490568	19.567
129) sec-Butylbenzene	(4)	9.401	105	600777	19.165
131) 1,3-Dichlorobenzene	(4)	9.474	146	262040	19.027
132) p-Isopropyltoluene	(4)	9.516	119	530947M	19.240
133) *1,4-Dichlorobenzene-d4	(4)	9.522	152	484039	50.000
134) 1,4-Dichlorobenzene	(4)	9.541	146	279766	18.931
135) 1,2,3-Trimethylbenzene	(4)	9.583	105	513309	19.876
136) Benzyl Chloride	(4)	9.650	126	44252	19.106
137) 1,3-Diethylbenzene	(4)	9.735	119	303724	18.879
138) 1,4-Diethylbenzene	(4)	9.796	119	322800	18.641
139) n-Butylbenzene	(4)	9.814	92	275196M	19.246
140) 1,2-Dichlorobenzene	(4)	9.814	146	268760	19.016
141) 1,2-Diethylbenzene	(4)	9.875	119	273608	19.082
144) 1,2-Dibromo-3-chloropropane	(4)	10.362	75	27342	21.531
145) 1,3,5-Trichlorobenzene	(4)	10.502	180	222753	18.685
146) 1,2,4-Trichlorobenzene	(4)	10.915	180	194965	18.892
147) Hexachlorobutadiene	(4)	11.025	225	116349	19.015
148) Naphthalene	(4)	11.074	128	433620	20.687
149) 1,2,3-Trichlorobenzene	(4)	11.232	180	195884	20.027
105) Xylene (Total)	(3)		106	609446	57.168
150) 2-Methylnaphthalene	(4)	11.798	142	219254	17.926

M = Compound was manually integrated.

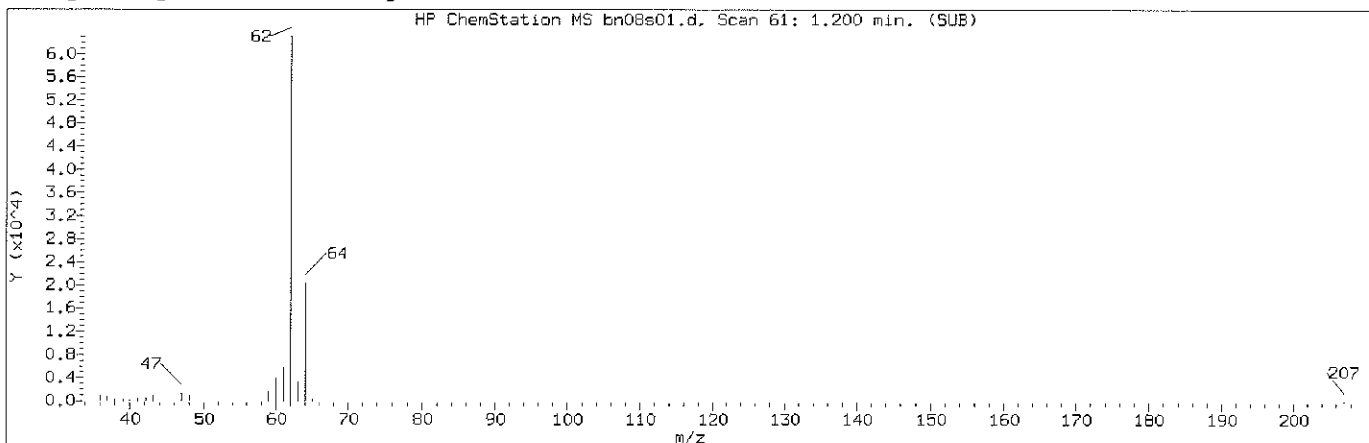
* = Compound is an internal standard.

\$ = Compound is a surrogate standard.

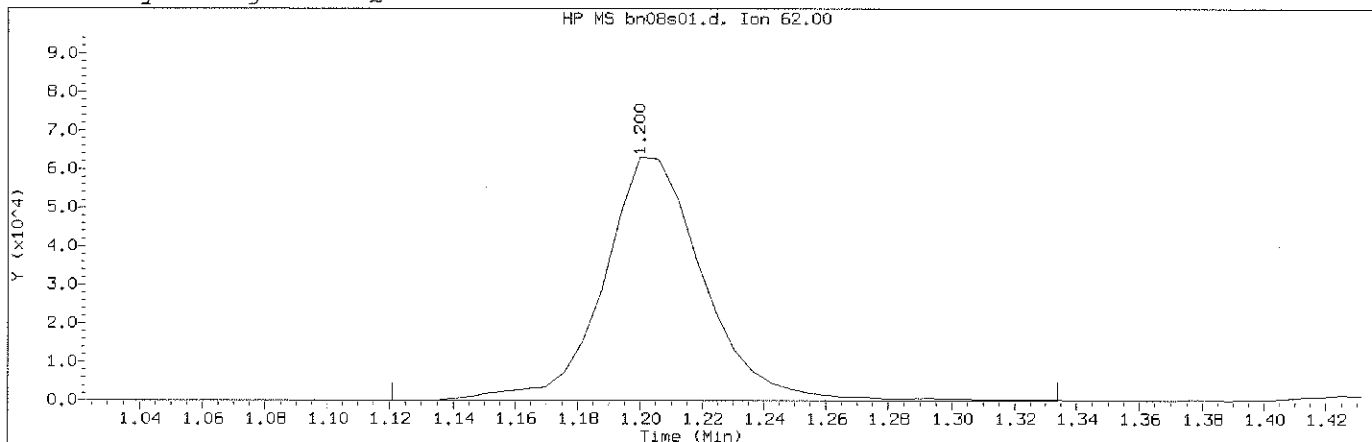
page 3 of 3

Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 11:35.
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov08a.b/bn08s01.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 10:53 Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 08-NOV-2012 11:27
Date, time and analyst ID of latest file update: 08-Nov-2012 11:30 ads01731

Sample Name: LCSB85 Lab Sample ID: LCSB85

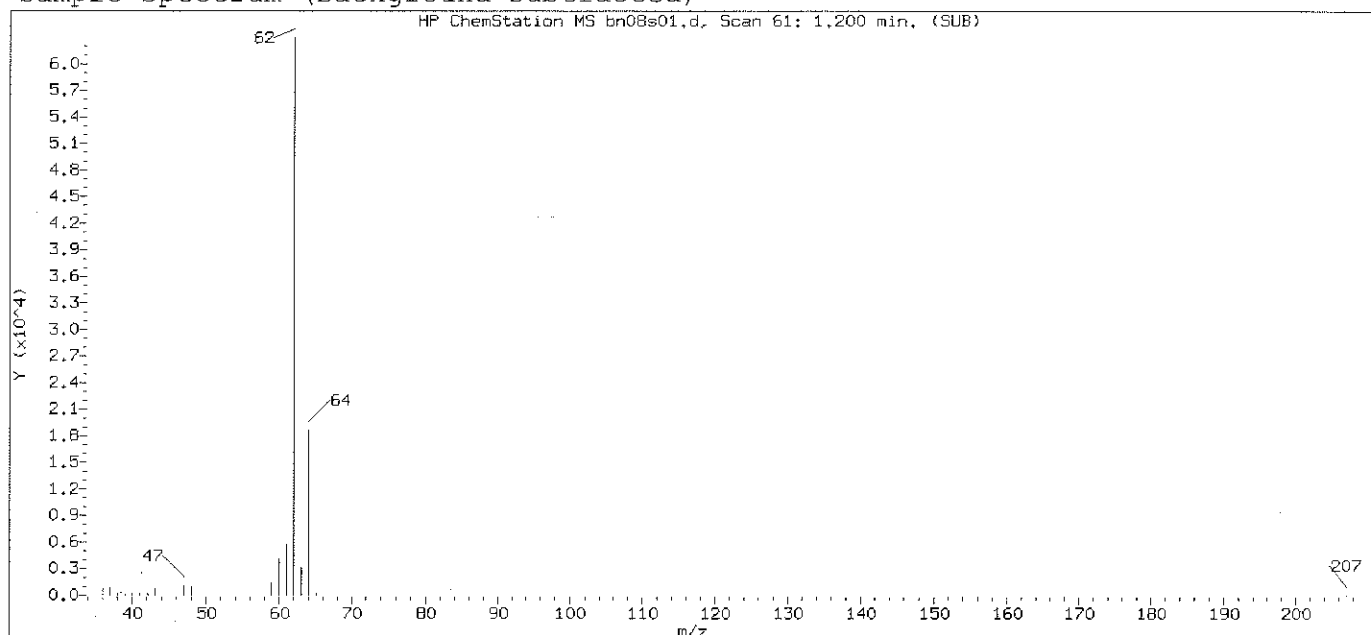
Compound Number : 5
Compound Name : Vinyl Chloride
Scan Number : 61
Retention Time (minutes): 1.200
Quant Ion : 62.00
Area (flag) : 141254M
On-Column Amount (ng) : 17.1316
Integration start scan : 47 Integration stop scan: 82
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

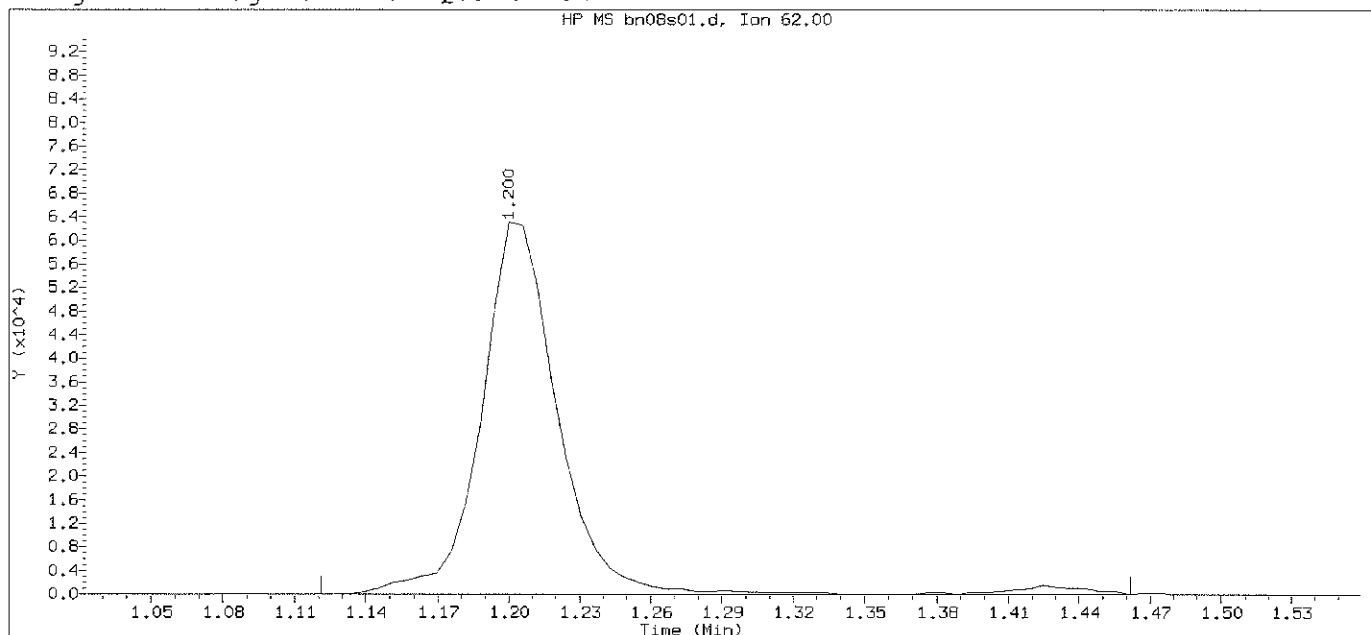
Analyst responsible for change: Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 11:35.
Target 3.5 esignature user ID: ads01731

Secondary review performed and digitally signed by Christine M. Dulaney on 11/08/2012 at 16:03.
Parallax ID: cmd00448

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov08a.b/bn08s01.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 10:53 Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 08-NOV-2012 10:56
Date, time and analyst ID of latest file update: 08-Nov-2012 11:09 Automation

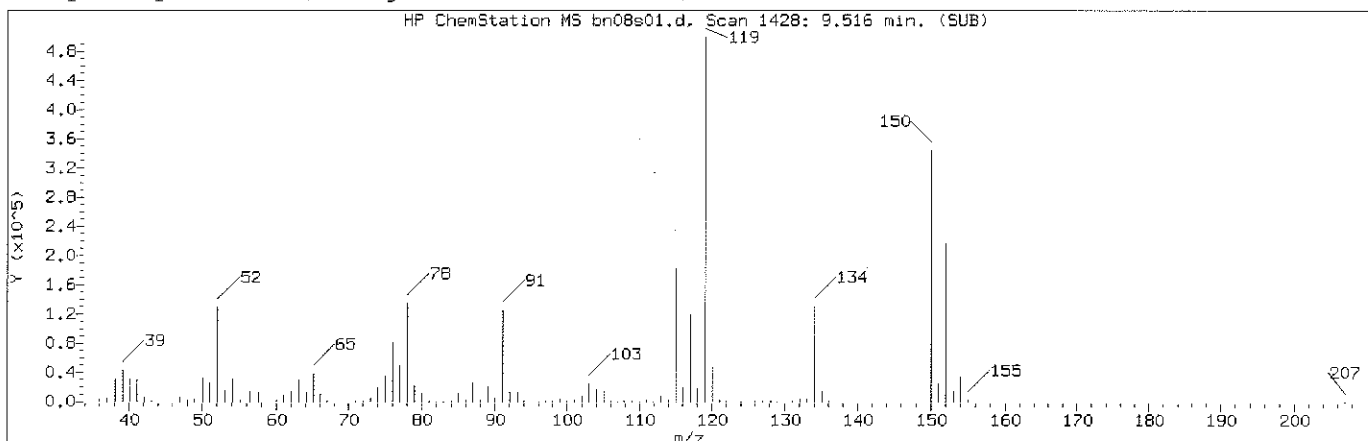
Sample Name: LCSB85

Lab Sample ID: LCSB85

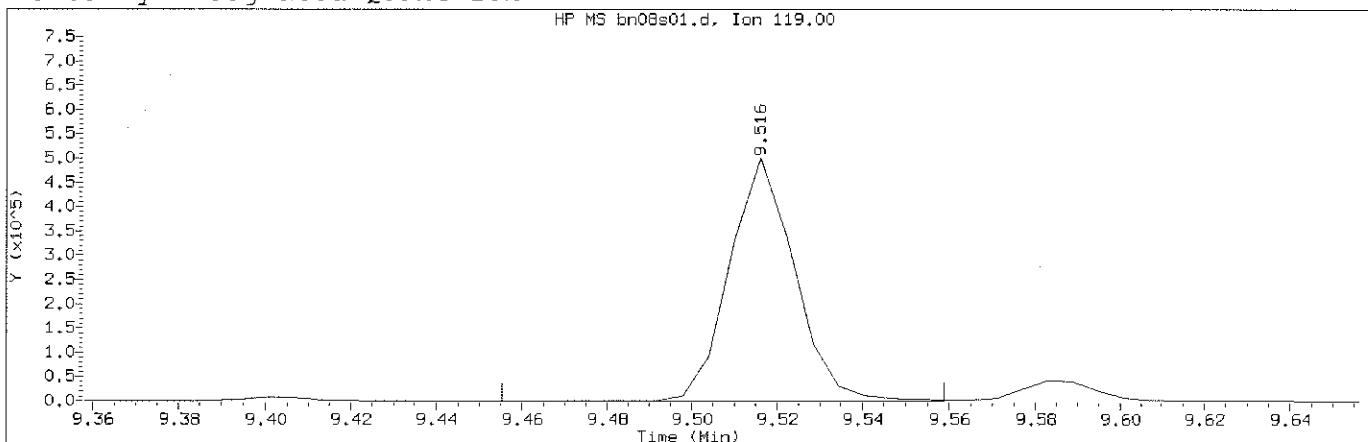
Compound Number : 5
Compound Name : Vinyl Chloride
Scan Number : 61
Retention Time (minutes): 1.200
Quant Ion : 62.00
Area : 144689
On-column Amount (ng) : 17.5482
Integration start scan : 47 Integration stop scan: 103
Y at integration start : 0 Y at integration end: 0

Digitally signed by Angela D. Sneeringer on 11/08/2012 at 11:35.
Target 3.5 esignature user ID: ads01731

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov08a.b/bn08s01.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 10:53 Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 08-NOV-2012 11:27
Date, time and analyst ID of latest file update: 08-Nov-2012 11:30 ads01731

Sample Name: LCSB85 Lab Sample ID: LCSB85

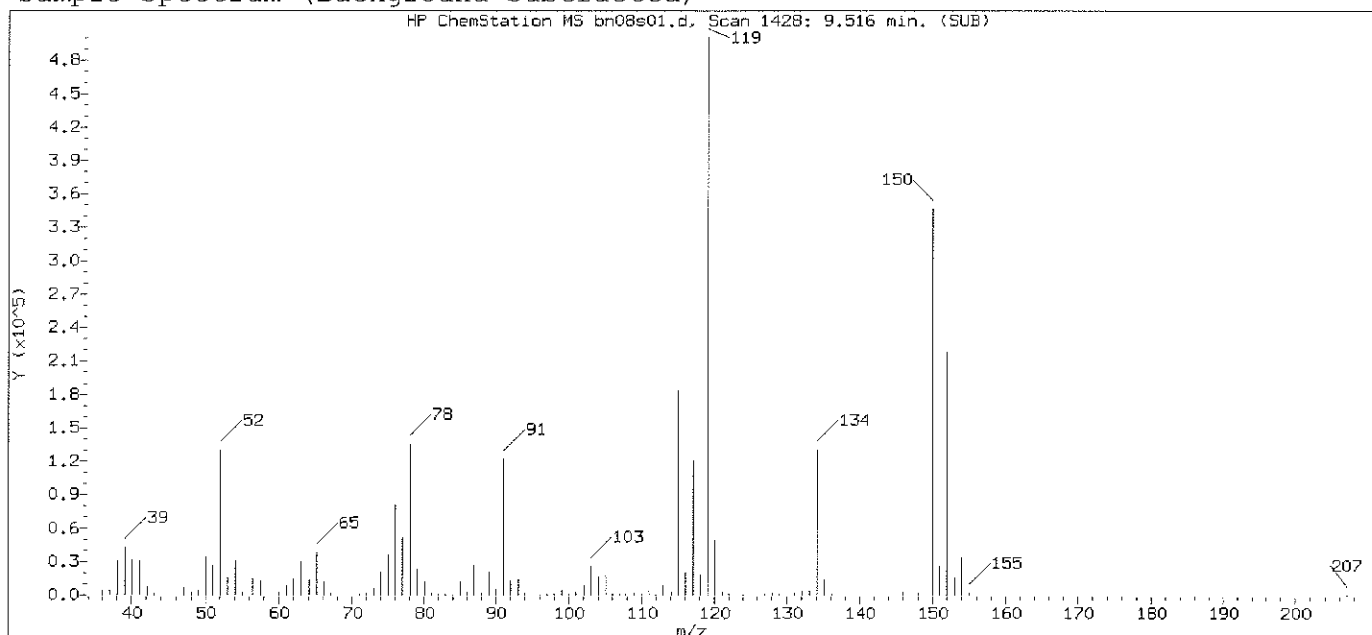
Compound Number : 132
Compound Name : p-Isopropyltoluene
Scan Number : 1428
Retention Time (minutes): 9.516
Quant Ion : 119.00
Area (flag) : 530947M
On-Column Amount (ng) : 19.2400
Integration start scan : 1417 Integration stop scan: 1434
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

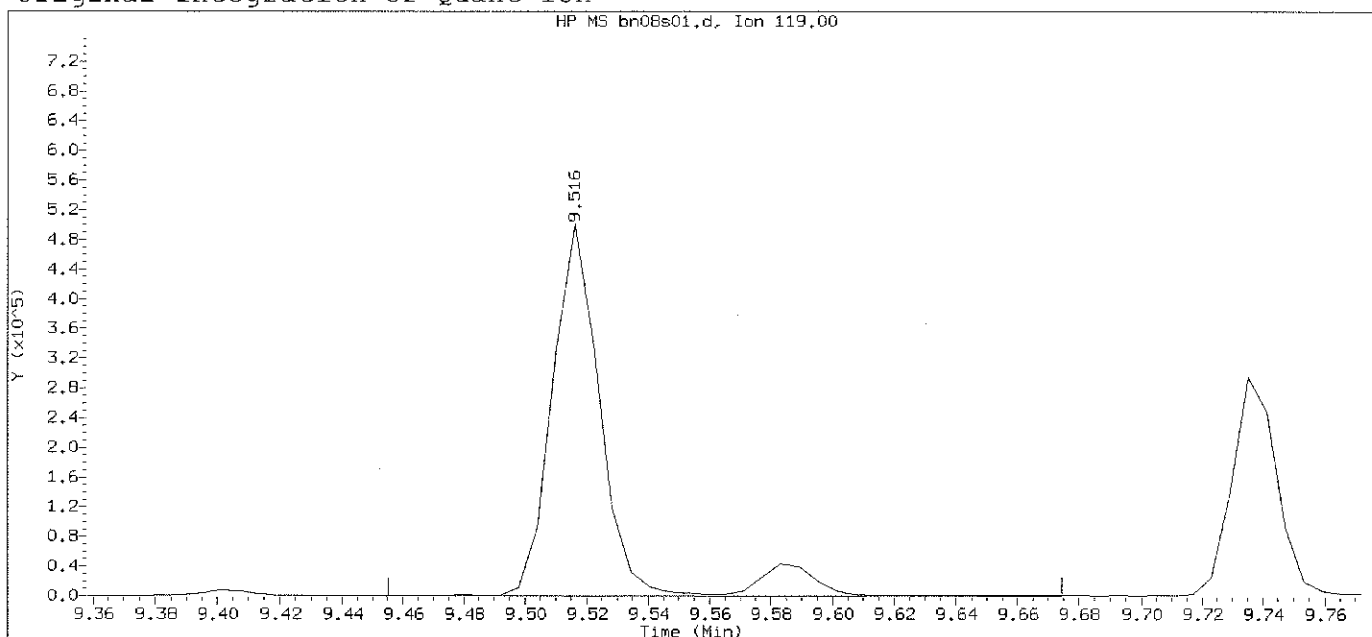
Analyst responsible for change: Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 11:35.
Target 3.5 esignature user ID: ads01731

Secondary review performed and digitally signed by Christine M. Dulaney on 11/08/2012 at 16:03.
Parallax ID: cmd00448

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov08a.b/bn08s01.d

Instrument ID: HP09953.i

Injection date and time: 08-NOV-2012 10:53

Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time: 08-NOV-2012 10:56

Date, time and analyst ID of latest file update: 08-Nov-2012 11:09 Automation

Sample Name: LCSB85

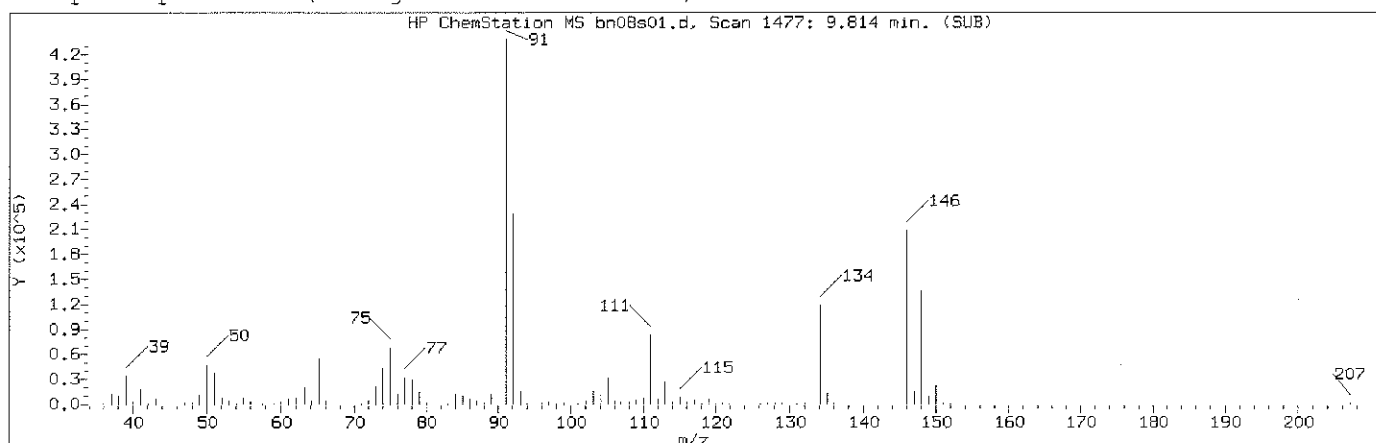
Lab Sample ID: LCSB85

Compound Number	: 132	
Compound Name	: p-Isopropyltoluene	
Scan Number	: 1428	
Retention Time (minutes)	: 9.516	
Quant Ion	: 119.00	
Area	: 585935	
On-column Amount (ng)	: 21.2327	
Integration start scan	: 1417	Integration stop scan: 1453
Y at integration start	: 0	Y at integration end: 0

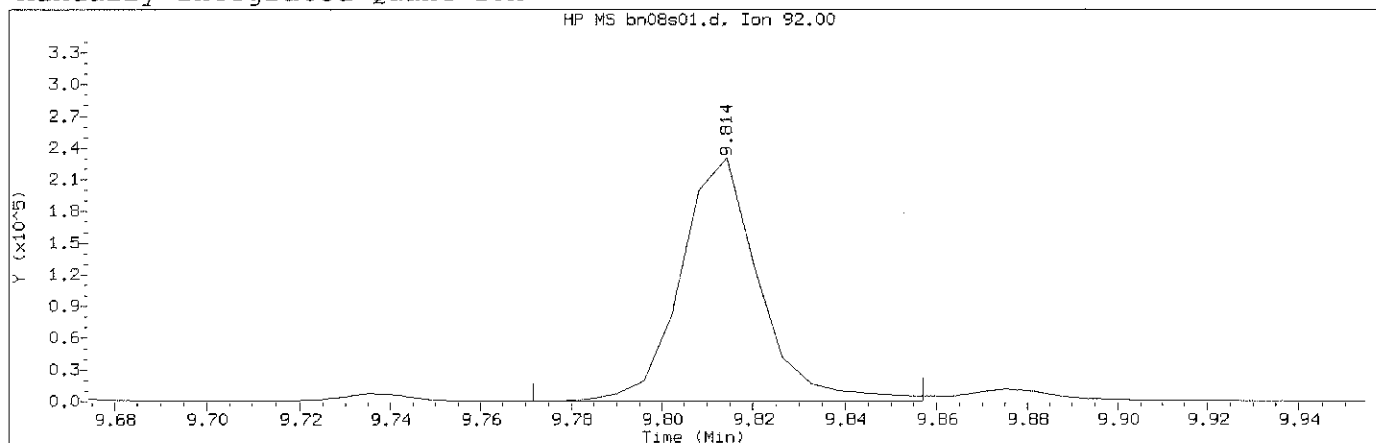
Digitally signed by Angela D. Sneeringer on 11/08/2012 at 11:35.

Target 3.5 esignature user ID: ADS01731
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Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09953.i/12nov08a.b/bn08s01.d Instrument ID: HP09953.i
Injection date and time: 08-NOV-2012 10:53 Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m Sublist used: 8260S-F
Calibration date and time: 08-NOV-2012 11:27
Date, time and analyst ID of latest file update: 08-Nov-2012 11:30 ads01731

Sample Name: LCSB85 Lab Sample ID: LCSB85

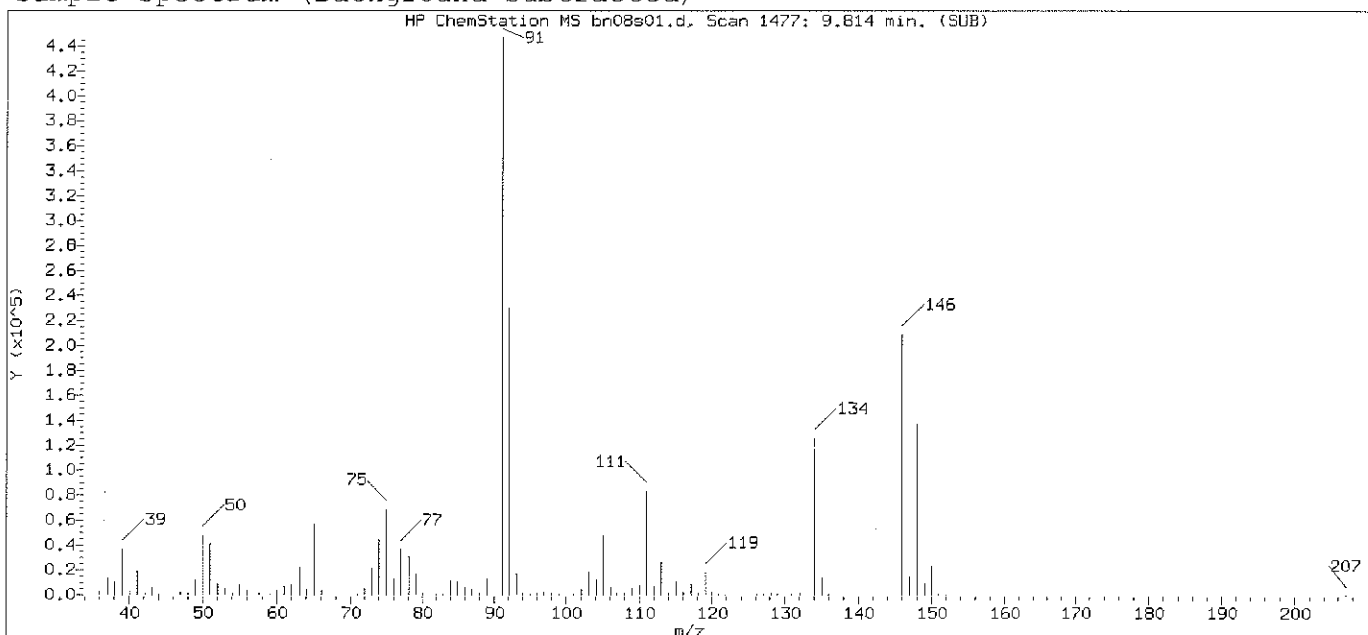
Compound Number : 139
Compound Name : n-Butylbenzene
Scan Number : 1477
Retention Time (minutes): 9.814
Quant Ion : 92.00
Area (flag) : 275196M
On-Column Amount (ng) : 19.2465
Integration start scan : 1469 Integration stop scan: 1483
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

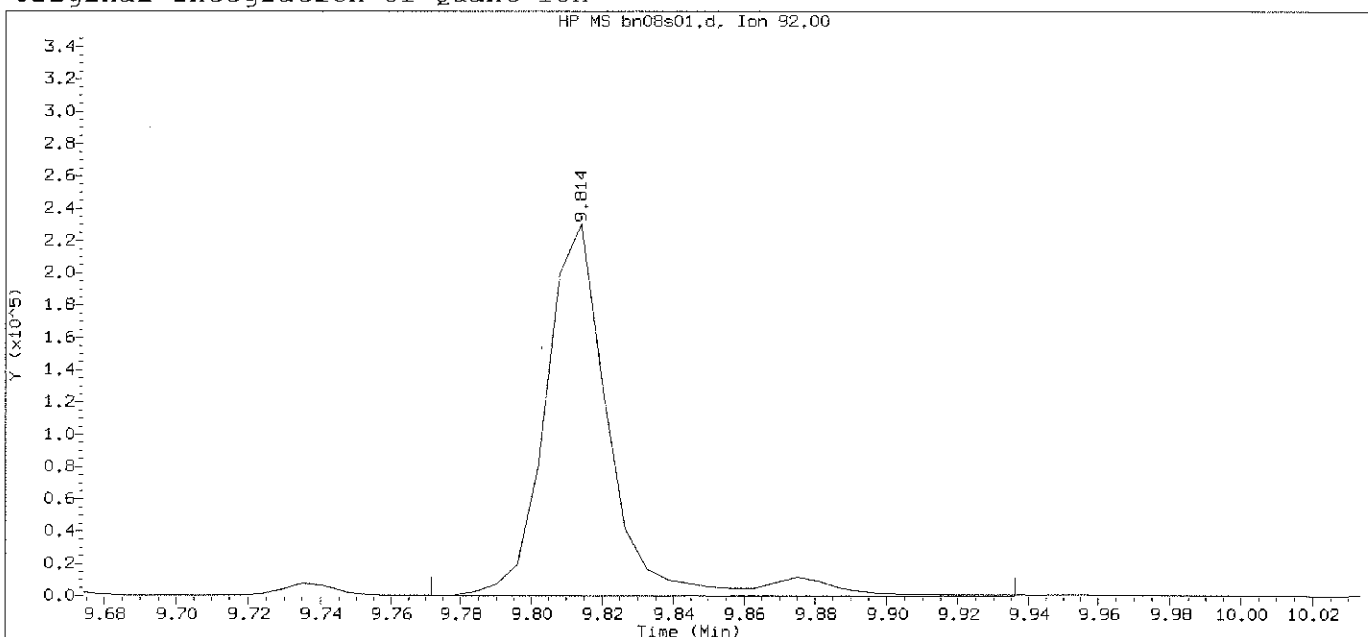
Analyst responsible for change: Digitally signed by Angela D. Sneeringer
on 11/08/2012 at 11:35.
Target 3.5 esignature user ID: ads01731

Secondary review performed and digitally signed by Christine M. Dulaney on 11/08/2012 at 16:03.
Parallax ID: cmd00448

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09953.i/12nov08a.b/bn08s01.d

Instrument ID: HP09953.i

Injection date and time: 08-NOV-2012 10:53

Analyst ID: ADS01731

Method used: /chem2/HP09953.i/12nov08a.b/di8260b.m

Sublist used: 8260S-F

Calibration date and time: 08-NOV-2012 10:56

Date, time and analyst ID of latest file update: 08-Nov-2012 11:09 Automation

Sample Name: LCSB85

Lab Sample ID: LCSB85

Compound Number	: 139	
Compound Name	: n-Butylbenzene	
Scan Number	: 1477	
Retention Time (minutes)	: 9.814	
Quant Ion	: 92.00	
Area	: 292440	
On-column Amount (ng)	: 20.4525	
Integration start scan	: 1469	Integration stop scan: 1496
Y at integration start	: 0	Y at integration end: 0

Digitally signed by Angela D. Sneeringer on 11/08/2012 at 11:35.

Target 3.5 esignature user: ADS01731
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Preparation Logs

Volatiles by GC/MS

VOA Prep Summary by SDG: TAP03
21 - GC/MS Volatiles

Sample Number	Bottle Code	Prep Analysis#	Vial ID	Used for Analysis?	Collected	Prepared	Initial Weight	Final Weight	Net soil weight	Weight requirement	Meets requirements?	Preserv. lot #	Preservative (volume)	Final Extraction Vol (mL)	Problem Codes
6850733	150A	00374	12452472	N	11/06/12 12:00	11/07/12 12:24	0.00 g	5.09 g	5.09 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850733	150B	00374	12452473	Y	11/06/12 12:00	11/07/12 12:24	0.00 g	5.03 g	5.03 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850733	169A	06646	12452499	N	11/06/12 12:00	11/07/12 12:01	0.00 g	5.07 g	5.07 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850734	150A	00374	12452471	Y	11/06/12 12:05	11/07/12 12:24	0.00 g	5.11 g	5.11 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850734	150B	00374	12452470	N	11/06/12 12:05	11/07/12 12:24	0.00 g	4.83 g	4.83 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850734	169A	06646	12452498	N	11/06/12 12:05	11/07/12 12:02	0.00 g	5.22 g	5.22 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850735	150A	00374	12452467	Y	11/06/12 12:10	11/07/12 12:24	0.00 g	5.23 g	5.23 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850735	150B	00374	12452466	N	11/06/12 12:10	11/07/12 12:24	0.00 g	5.28 g	5.28 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850735	169A	06646	12452495	N	11/06/12 12:10	11/07/12 12:04	0.00 g	5.12 g	5.12 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850736	150A	00374	12452469	Y	11/06/12 12:15	11/07/12 12:24	0.00 g	4.91 g	4.91 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850736	150B	00374	12452468	N	11/06/12 12:15	11/07/12 12:24	0.00 g	4.87 g	4.87 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850736	169A	06646	12452494	N	11/06/12 12:15	11/07/12 12:06	0.00 g	5.32 g	5.32 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850739	150A	00374	12452463	N	11/06/12 12:30	11/07/12 12:24	0.00 g	5.01 g	5.01 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850739	150B	00374	12452462	Y	11/06/12 12:30	11/07/12 12:24	0.00 g	4.92 g	4.92 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850739	169A	06646	12452497	N	11/06/12 12:30	11/07/12 12:08	0.00 g	5.14 g	5.14 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850740	150A	00374	12452465	N	11/06/12 12:35	11/07/12 12:24	0.00 g	5.36 g	5.36 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850740	150B	00374	12452464	Y	11/06/12 12:35	11/07/12 12:24	0.00 g	4.98 g	4.98 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	

Final Extraction Vol (mL) = Preservative Vol + Added MeOH (if applicable)

KEY to problem codes:

A = wt. does not meet requirements B = vial leaked C# where # = volume of MeOH added in mL due to sample not covered/matrix (lot #)
D = sampler not full E = effervescence observed F = pH >= 2 G = headspace in container

VOA Prep Summary by SDG: TAP03
21 - GC/MS Volatiles

Sample Number	Bottle Code	Prep Analysis#	Vial ID	Used for Analysis?	Collected	Prepared	Initial Weight	Final Weight	Net soil weight	Weight requirement	Meets requirement?	Preserv. lot #	Preservative (volume)	Final Extraction Vol (mL)	Problem Codes
6850740	169A	06646	12452496	N	11/06/12 12:35	11/07/12 12:10	0.00 g	5.29 g	5.29 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850742	150A	00374	12452459	N	11/06/12 12:50	11/07/12 12:24	0.00 g	4.77 g	4.77 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850742	150B	00374	12452458	Y	11/06/12 12:50	11/07/12 12:24	0.00 g	4.83 g	4.83 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850742	169A	06646	12452493	N	11/06/12 12:50	11/07/12 12:14	0.00 g	4.94 g	4.94 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850743	150A	00374	12452461	N	11/06/12 12:55	11/07/12 12:24	0.00 g	5.28 g	5.28 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850743	150B	00374	12452460	Y	11/06/12 12:55	11/07/12 12:24	0.00 g	5.03 g	5.03 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850743	169A	06646	12452492	N	11/06/12 12:55	11/07/12 12:16	0.00 g	5.23 g	5.23 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850745	150A	00374	12452455	Y	11/06/12 13:15	11/07/12 12:24	0.00 g	4.84 g	4.84 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850745	150B	00374	12452454	N	11/06/12 13:15	11/07/12 12:24	0.00 g	4.80 g	4.80 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850745	169A	06646	12452490	N	11/06/12 13:15	11/07/12 12:18	0.00 g	5.13 g	5.13 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850746	150A	00374	12452457	N	11/06/12 13:20	11/07/12 12:24	0.00 g	4.88 g	4.88 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850746	150B	00374	12452456	Y	11/06/12 13:20	11/07/12 12:24	0.00 g	4.99 g	4.99 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850746	169A	06646	12452491	N	11/06/12 13:20	11/07/12 12:20	0.00 g	5.34 g	5.34 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850748	150A	00374	12452451	Y	11/06/12 14:25	11/07/12 12:24	0.00 g	4.96 g	4.96 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850748	150B	00374	12452450	N	11/06/12 14:25	11/07/12 12:24	0.00 g	5.14 g	5.14 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850748	169A	06646	12452488	N	11/06/12 14:25	11/07/12 12:22	0.00 g	4.99 g	4.99 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850749	150A	00374	12452453	Y	11/06/12 14:30	11/07/12 12:24	0.00 g	4.92 g	4.92 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	

Final Extraction Vol (mL) = Preservative Vol + Added MeOH (if applicable)

KEY to problem codes:

A = wt. does not meet requirements B = vial leaked C# where # = volume of MeOH added in mL due to sample not covered/matrix (lot #)
D = sampler not full E = effervescence observed F = pH >= 2 G = headspace in container

VOA Prep Summary by SDG: TAP03
21 - GC/MS Volatiles

Sample Number	Bottle Code	Prep Analysis#	Vial ID	Used for Analysis?	Collected	Prepared	Initial Weight	Final Weight	Net soil weight	Weight requirement	Meets requirements?	Preserv. lot #	Preservative (volume)	Final Extraction Vol (mL)	Problem Codes
6850749	150B	00374	12452452	N	11/06/12 14:30	11/07/12 12:24	0.00 g	5.29 g	5.29 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850749	169A	06646	12452489	N	11/06/12 14:30	11/07/12 12:23	0.00 g	4.82 g	4.82 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850751	150A	00374	12452448	N	11/06/12 14:40	11/07/12 12:59	0.00 g	4.69 g	4.69 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850751	150B	00374	12452449	Y	11/06/12 14:40	11/07/12 12:59	0.00 g	5.18 g	5.18 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850751	169A	06646	12452487	N	11/06/12 14:40	11/07/12 12:46	0.00 g	5.40 g	5.40 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850752	150A	00374	12452442	N	11/06/12 14:45	11/07/12 12:59	0.00 g	4.66 g	4.66 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850752	150B	00374	12452444	Y	11/06/12 14:45	11/07/12 12:59	0.00 g	5.15 g	5.15 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850752	169A	06646	12452486	N	11/06/12 14:45	11/07/12 12:53	0.00 g	4.76 g	4.76 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850754	150A	00374	12452447	N	11/06/12 14:50	11/07/12 12:59	0.00 g	5.37 g	5.37 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850754	150B	00374	12452446	Y	11/06/12 14:50	11/07/12 12:59	0.00 g	5.28 g	5.28 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850754	169A	06646	12452485	N	11/06/12 14:50	11/07/12 12:54	0.00 g	5.09 g	5.09 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850755	150A	00374	12452445	Y	11/06/12 14:55	11/07/12 12:58	0.00 g	5.08 g	5.08 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850755	150B	00374	12452443	N	11/06/12 14:55	11/07/12 12:58	0.00 g	4.87 g	4.87 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850755	169A	06646	12452484	N	11/06/12 14:55	11/07/12 12:56	0.00 g	4.79 g	4.79 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850757	150A	00374	12452432	N	11/06/12 13:10	11/07/12 12:58	0.00 g	4.84 g	4.84 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850757	150B	00374	12452440	Y	11/06/12 13:10	11/07/12 12:58	0.00 g	4.93 g	4.93 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850757	169A	06646	12452482	N	11/06/12 13:10	11/07/12 12:58	0.00 g	5.33 g	5.33 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	

Final Extraction Vol (mL) = Preservative Vol + Added MeOH (if applicable)

KEY to problem codes:

A = wt. does not meet requirements
D = sampler not fullB = vial leaked
E = effervescence observedC# where # = volume of MeOH added in mL due to sample not covered/matrix (lot #)
F = pH >= 2
G = headspace in container

VOA Prep Summary by SDG: TAP03
21 - GC/MS Volatiles

Sample Number	Bottle Code	Prep Analysis#	Vial ID	Used for Analysis?	Collected	Prepared	Initial Weight	Final Weight	Net soil weight	Weight requirement	Meets requirements?	Preserv. lot #	Preservative (volume)	Final Extraction Vol (mL)	Problem Codes
6850758	150A	00374	12452429	N	11/06/12 13:05	11/07/12 12:59	0.00 g	4.81 g	4.81 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850758	150B	00374	12452441	Y	11/06/12 13:05	11/07/12 12:59	0.00 g	5.14 g	5.14 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850758	169A	06646	12452477	N	11/06/12 13:05	11/07/12 12:44	0.00 g	5.28 g	5.28 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850760	150A	00374	12452422	Y	11/06/12 13:35	11/07/12 12:59	0.00 g	5.39 g	5.39 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850760	150B	00374	12452439	N	11/06/12 13:35	11/07/12 12:59	0.00 g	5.08 g	5.08 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850760	169A	06646	12452483	N	11/06/12 13:35	11/07/12 12:48	0.00 g	5.08 g	5.08 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850761	150A	00374	12452436	Y	11/06/12 13:40	11/07/12 12:59	0.00 g	5.45 g	5.45 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850761	150B	00374	12452423	N	11/06/12 13:40	11/07/12 12:59	0.00 g	4.89 g	4.89 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850761	169A	06646	12452480	N	11/06/12 13:40	11/07/12 12:49	0.00 g	4.82 g	4.82 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850762	150A	00374	12452433	Y	11/06/12 13:45	11/07/12 12:59	0.00 g	5.00 g	5.00 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850762	150B	00374	12452424	N	11/06/12 13:45	11/07/12 12:59	0.00 g	4.77 g	4.77 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850762	169A	06646	12452476	N	11/06/12 13:45	11/07/12 12:51	0.00 g	5.08 g	5.08 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850763	150A	00374	12452430	N	11/06/12 13:50	11/07/12 12:58	0.00 g	5.33 g	5.33 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850763	150B	00374	12452438	Y	11/06/12 13:50	11/07/12 12:58	0.00 g	4.74 g	4.74 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850763	169A	06646	12452479	N	11/06/12 13:50	11/07/12 12:40	0.00 g	5.42 g	5.42 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850766	150A	00374	12452427	Y	11/06/12 13:55	11/07/12 12:58	0.00 g	5.06 g	5.06 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850766	150B	00374	12452434	N	11/06/12 13:55	11/07/12 12:58	0.00 g	5.15 g	5.15 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	

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Final Extraction Vol (mL) = Preservative Vol + Added MeOH (if applicable)

KEY to problem codes:

A = wt. does not meet requirements
D = sampler not fullB = vial leaked
E = effervescence observed

C# where # = volume of MeOH added in mL due to sample not covered/matrix (lot #)

F = pH >= 2

G = headspace in container

VOA Prep Summary by SDG: TAP03
21 - GC/MS Volatiles

Sample Number	Bottle Code	Prep Analysis#	Vial ID	Used for Analysis?	Collected	Prepared	Initial Weight	Final Weight	Net soil weight	Weight requirement	Meets requirement?	Preserv. lot #	Preservative (volume)	Final Extraction Vol (mL)	Problem Codes
6850766	169A	06646	12452481	N	11/06/12 13:55	11/07/12 12:41	0.00 g	4.63 g	4.63 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850767	150A	00374	12452437	Y	11/06/12 14:00	11/07/12 12:58	0.00 g	5.40 g	5.40 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850767	150B	00374	12452425	N	11/06/12 14:00	11/07/12 12:58	0.00 g	4.75 g	4.75 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850767	169A	06646	12452478	N	11/06/12 14:00	11/07/12 12:43	0.00 g	4.96 g	4.96 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850768	150A	00374	12452428	N	11/06/12 14:05	11/07/12 12:58	0.00 g	5.19 g	5.19 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850768	150B	00374	12452431	Y	11/06/12 14:05	11/07/12 12:59	0.00 g	4.95 g	4.95 g	4.50 g - 5.50 g	Y	1230501/21 429	DI Water (5 mL)	5.000	
6850768	169A	06646	12452475	N	11/06/12 14:05	11/07/12 12:38	0.00 g	4.86 g	4.86 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6850769	150A	00374	12452435	N	11/06/12 14:10	11/07/12 12:59	0.00 g	4.70 g	4.70 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850769	150B	00374	12452426	Y	11/06/12 14:10	11/07/12 12:58	0.00 g	5.40 g	5.40 g	4.50 g - 5.50 g	Y	1230801/21 429	DI Water (5 mL)	5.000	
6850769	169A	06646	12452474	N	11/06/12 14:10	11/07/12 12:36	0.00 g	5.14 g	5.14 g	4.50 g - 5.50 g	Y	1230501/21 429	MeOH w/surrogate (5 mL)	5.000	
6847401	150A	00374	12451211	N	10/30/12 09:50	11/06/12 21:38	0.00 g	5.24 g	5.24 g	4.50 g - 5.50 g	Y	1230801	DI Water (5 mL)	5.000	
6847401	150B	00374	12451201	Y	10/30/12 09:50	11/06/12 21:39	0.00 g	5.15 g	5.15 g	4.50 g - 5.50 g	Y	1230801	DI Water (5 mL)	5.000	
6847401	150C	00374	12451264	N	10/30/12 09:50	11/06/12 21:39	0.00 g	5.40 g	5.40 g	4.50 g - 5.50 g	Y	1230801	DI Water (5 mL)	5.000	
6847401	150D	00374	12451212	N	10/30/12 09:50	11/06/12 21:39	0.00 g	5.20 g	5.20 g	4.50 g - 5.50 g	Y	1230801	DI Water (5 mL)	5.000	
6847401	150E	00374	12451267	N	10/30/12 09:50	11/06/12 21:39	0.00 g	5.41 g	5.41 g	4.50 g - 5.50 g	Y	1230801	DI Water (5 mL)	5.000	
6847401	150F	00374	12451265	N	10/30/12 09:50	11/06/12 21:39	0.00 g	5.18 g	5.18 g	4.50 g - 5.50 g	Y	1230801	DI Water (5 mL)	5.000	
6847401	169A	06646	12451367	N	10/30/12 09:50	11/06/12 20:52	0.00 g	5.09 g	5.09 g	4.50 g - 5.50 g	Y	1230301	MeOH w/surrogate (5 mL)	5.000	
6847401	169B	06646	12451366	N	10/30/12 09:50	11/06/12 20:53	0.00 g	5.35 g	5.35 g	4.50 g - 5.50 g	Y	1230301	MeOH w/surrogate (5 mL)	5.000	
6847401	169C	06646	12451364	N	10/30/12 09:50	11/06/12 21:00	0.00 g	5.10 g	5.10 g	4.50 g - 5.50 g	Y	1230301	MeOH w/surrogate (5 mL)	5.000	

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Final Extraction Vol (mL) = Preservative Vol + Added MeOH (if applicable)

KEY to problem codes:

A = wt. does not meet requirements
D = sampler not fullB = vial leaked
E = effervescence observedC# where # = volume of MeOH added in mL due to sample not covered/matrix (lot #)
F = pH >= 2
G = headspace in container

Semivolatiles by GC/MS Data

Case Narrative/Conformance Summary

Semivolatiles by GC/MS

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP03

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

Sample #	Client ID	Matrix		DF	Comments
		Liquid	Solid		
6850737	TCN-STC5		X	1	
6850738	TCN-STC6		X	1	
6850741	TCN-STC7		X	1	
6850744	TCN-STC8		X	1	
6850747	TCN-STC9		X	1	
6850750	TCN-STC10		X	1	
6850753	TCN-STC11		X	1	
6850756	TCN-STC12		X	1	
6850759	POC-TSC2		X	1	
6850764	POC-TSC3		X	1	
6850765	POC-TSC4		X	1	
6850770	POC-TSC5		X	1	
6850771	POC-TSC6		X	1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

All QC is within specification.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Case Narrative/Conformance Summary

CLIENT: ExxonMobil Refining & Supply
SDG: TAP03

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

GC/MS Semivolatiles CALCULATIONS:

1. Relative response factor (RRF)

$$\text{RRF} = \frac{\text{Ax}}{\text{Ais}} \times \frac{\text{Cis}}{\text{Cx}}$$

Where:

Ax = Area of the characteristic ion for the compound to be measured

Ais = Area of the characteristic ion for the specific internal standard to be measured

Cis = Concentration of the internal standard

Cx = Concentration of the compound to be measured

2. % Relative Standard Deviation (%RPD)

$$\% \text{RSD} = \frac{\text{standard deviation}}{\text{mean}} \times 100$$

3. % Difference (%D)

$$\% \text{D} = \frac{\text{RRFc} - \text{RRFi}}{\text{RRFi}} \times 100$$

Where:

RRFc = Relative response factor from continuing calibration standard

RRFi = Mean relative response factor from the initial calibration

4. Concentration

$$\text{Concentration (ug/l)} = \frac{(\text{Ax}) (\text{Is}) (\text{Df}) (\text{Vt})}{(\text{Ais}) (\text{RRF}) (\text{Vo}) (\text{Vi})}$$

Where:

Ax, Ais, and RRF are as given in 1. above

Is = Amount of internal standard added in parts per billion (ng)

Df = Dilution factor

Vt = volume of the concentrated extract (ul)

Vo = volume of water extracted (ml)

Vi = volume of extract injected (ul)

5. % Recovery

$$\% \text{Rec} = \frac{\text{SSR} - \text{SR}}{\text{SA}} \times 100$$

Where:

SSR = Spiked sample result

SR = Sample result

SA = Spike added

GC/MS Semivolatiles CALCULATIONS (continued):

6. Relative Percent Difference (RPD)

$$RPD = \frac{|MSR - MSDR|}{(1/2) (MSR + MSDR)}$$

Where:

MSR = Matrix spike recovery

MSDR = Matrix spike duplicate recovery

Quality Control and Calibration Summary Forms

Semivolatiles by GC/MS

Quality Control Reference List
GC/MS Semivolatiles

CLIENT: ExxonMobil Refining & Supply
SDG: TAP03

Fraction: Semivolatiles by GC/MS

Analysis	Batch Number	Sample Number	Analysis Date
Table 375-6.8(a) SVOCs	12312SLF026	SBLKLF312	11/08/2012 18:43:00
		312LFLCS	11/08/2012 19:06:00
		6850737 UNSPK	11/08/2012 19:28:00
		6850737 MS	11/08/2012 19:51:00
		6850737 MSD	11/08/2012 20:13:00
		6850738	11/08/2012 20:36:00
		6850741	11/08/2012 20:58:00
		6850744	11/08/2012 21:21:00
		6850747	11/08/2012 21:43:00
		6850750	11/08/2012 22:06:00
		6850753	11/08/2012 22:28:00
		6850756	11/08/2012 22:50:00
		6850759	11/08/2012 23:13:00
		6850764	11/08/2012 23:36:00
		6850765	11/08/2012 23:58:00
		6850770	11/09/2012 00:21:00
		6850771	11/09/2012 00:44:00

Fraction: Semivolatiles by GC/MS

12312SLF026 / SBLKLF312 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Phenol	11/08/12	N.D.	ug/kg	17	33
2-Methylphenol	11/08/12	N.D.	ug/kg	17	33
4-Methylphenol	11/08/12	N.D.	ug/kg	17	33
Naphthalene	11/08/12	N.D.	ug/kg	3	17
Acenaphthylene	11/08/12	N.D.	ug/kg	3	17
Acenaphthene	11/08/12	N.D.	ug/kg	3	17
Dibenzofuran	11/08/12	N.D.	ug/kg	17	33
Fluorene	11/08/12	N.D.	ug/kg	3	17
Pentachlorophenol	11/08/12	N.D.	ug/kg	33	170
Phenanthrene	11/08/12	N.D.	ug/kg	3	17
Anthracene	11/08/12	N.D.	ug/kg	3	17
Fluoranthene	11/08/12	N.D.	ug/kg	3	17
Pyrene	11/08/12	N.D.	ug/kg	3	17
Benzo(a)anthracene	11/08/12	N.D.	ug/kg	3	17
Chrysene	11/08/12	N.D.	ug/kg	3	17
Benzo(b)fluoranthene	11/08/12	N.D.	ug/kg	3	17
Benzo(k)fluoranthene	11/08/12	N.D.	ug/kg	3	17
Benzo(a)pyrene	11/08/12	N.D.	ug/kg	3	17
Indeno(1,2,3-cd)pyrene	11/08/12	N.D.	ug/kg	3	17
Dibenz(a,h)anthracene	11/08/12	N.D.	ug/kg	3	17
Benzo(g,h,i)perylene	11/08/12	N.D.	ug/kg	3	17

Fraction: Semivolatiles by GC/MS

12312SLF026 Sample	Phenol-d6		2-Fluorophenol		2,4,6-Tribromophenol		Nitrobenzene-d5		2-Fluorobiphenyl		Terphenyl-d14	
	Spike Added	6666.667 ug/kg	Spike Added	6666.667 ug/kg	Spike Added	6666.667 ug/kg	Spike Added	3333.333 ug/kg	Spike Added	3333.333 ug/kg	Spike Added	3333.333 ug/kg
	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
SBLKLF312	86	42 - 130	90	48 - 136	102	28 - 139	90	45 - 123	90	47 - 126	99	46 - 143
312LFLCS	88	42 - 130	95	48 - 136	99	28 - 139	94	45 - 123	96	47 - 126	102	46 - 143
6850737 MS	86	42 - 130	90	48 - 136	96	28 - 139	89	45 - 123	96	47 - 126	100	46 - 143
6850737 MSD	87	42 - 130	93	48 - 136	95	28 - 139	89	45 - 123	93	47 - 126	99	46 - 143
6850737	84	42 - 130	85	48 - 136	87	28 - 139	84	45 - 123	86	47 - 126	92	46 - 143
6850738	83	42 - 130	86	48 - 136	84	28 - 139	87	45 - 123	87	47 - 126	94	46 - 143
6850741	86	42 - 130	90	48 - 136	95	28 - 139	90	45 - 123	90	47 - 126	99	46 - 143
6850744	83	42 - 130	85	48 - 136	91	28 - 139	86	45 - 123	87	47 - 126	95	46 - 143
6850747	83	42 - 130	85	48 - 136	87	28 - 139	85	45 - 123	86	47 - 126	97	46 - 143
6850750	80	42 - 130	82	48 - 136	89	28 - 139	81	45 - 123	85	47 - 126	95	46 - 143
6850753	82	42 - 130	86	48 - 136	85	28 - 139	85	45 - 123	86	47 - 126	92	46 - 143
6850756	85	42 - 130	88	48 - 136	94	28 - 139	88	45 - 123	90	47 - 126	98	46 - 143
6850759	83	42 - 130	84	48 - 136	88	28 - 139	81	45 - 123	85	47 - 126	91	46 - 143
6850764	82	42 - 130	85	48 - 136	85	28 - 139	81	45 - 123	85	47 - 126	90	46 - 143
6850765	90	42 - 130	91	48 - 136	94	28 - 139	85	45 - 123	89	47 - 126	96	46 - 143
6850770	75	42 - 130	77	48 - 136	77	28 - 139	75	45 - 123	80	47 - 126	86	46 - 143
6850771	73	42 - 130	76	48 - 136	77	28 - 139	76	45 - 123	80	47 - 126	85	46 - 143

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

UNSPK: 6850737 MS: 6850737 MSD: 6850737 Analyte	Batch: 12312SLF026 (Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-6850765, 6850770-6850771)								
	Spike Added ug/kg	Unspiked Conc ug/kg	MS Conc ug/kg	MSD Conc ug/kg	MS %Rec	MSD %Rec	%Rec Limits	%RPD	%RPD Limits
Phenol	1639.34	N.D.	1435.07	1452.5	88	89	39-151	1	30
2-Methylphenol	1639.34	N.D.	1498.71	1559.92	91	95	32-146	4	30
4-Methylphenol	1639.34	N.D.	1463.82	1481.57	89	90	36-149	1	30
Naphthalene	1639.34	N.D.	1492.84	1477.73	91	90	35-141	1	30
Acenaphthylene	1639.34	N.D.	1694.39	1627.42	103	99	47-137	4	30
Acenaphthene	1639.34	N.D.	1556.38	1503.72	95	92	33-140	3	30
Dibenzofuran	1639.34	N.D.	1570.76	1536.75	96	94	38-148	2	30
Fluorene	1639.34	N.D.	1547.85	1483.96	94	91	36-140	4	30
Pentachlorophenol	1639.34	N.D.	1648.15	1674.65	101	102	23-145	2	30
Phenanthrene	1639.34	N.D.	1504.61	1499.82	92	91	34-147	0	30
Anthracene	1639.34	N.D.	1545.55	1543.1	94	94	40-147	0	30
Fluoranthene	1639.34	N.D.	1526.67	1501.38	93	92	30-151	2	30
Pyrene	1639.34	N.D.	1535.56	1530.8	94	93	29-148	0	30
Benzo(a)anthracene	1639.34	N.D.	1490.2	1472.52	91	90	32-150	1	30
Chrysene	1639.34	N.D.	1416.66	1384.73	86	84	33-142	2	30
Benzo(b)fluoranthene	1639.34	N.D.	1534.94	1462.54	94	89	29-150	5	30
Benzo(k)fluoranthene	1639.34	N.D.	1681.09	1675.2	103	102	35-148	0	30
Benzo(a)pyrene	1639.34	N.D.	1616.99	1598.4	99	98	30-150	1	30
Indeno(1,2,3-cd)pyrene	1639.34	N.D.	1583.48	1533.87	97	94	31-154	3	30
Dibenz(a,h)anthracene	1639.34	N.D.	1586.03	1559.5	97	95	37-151	2	30
Benzo(g,h,i)perylene	1639.34	N.D.	1537.2	1498.64	94	91	31-152	3	30

Comments:

(2) The unspiked sample result is greater than four times the spike added.

* = Out of Specification

Results are being reported on an as received basis.

**SDG: TAP03
Matrix: SOLID**

GC/MS Semivolatiles

Fraction: Semivolatiles by GC/MS

LCS: 312LFLCS	Batch: 12312SLF026 (Sample number(s): 6850737-6850738, 6850741, 6850744, 6850747, 6850750, 6850753, 6850756, 6850759, 6850764-6850765, 6850770-6850771)							
	Analyte	Spike Added ug/kg	LCS Conc ug/kg	LCSD Conc ug/kg	LCS %Rec	LCSD %Rec	%Rec Limits	%RPD Limits
Phenol	1666.67	1497.6	NA	90	NA	69-126	NA	NA
2-Methylphenol	1666.67	1541.02	NA	92	NA	75-126	NA	NA
4-Methylphenol	1666.67	1507.04	NA	90	NA	74-116	NA	NA
Naphthalene	1666.67	1559.28	NA	94	NA	77-115	NA	NA
Acenaphthylene	1666.67	1701.14	NA	102	NA	83-127	NA	NA
Acenaphthene	1666.67	1578.05	NA	95	NA	83-111	NA	NA
Dibenzofuran	1666.67	1613.27	NA	97	NA	78-116	NA	NA
Fluorene	1666.67	1579.79	NA	95	NA	81-117	NA	NA
Pentachlorophenol	1666.67	1758.34	NA	106	NA	60-134	NA	NA
Phenanthrene	1666.67	1538.5	NA	92	NA	77-119	NA	NA
Anthracene	1666.67	1568.24	NA	94	NA	83-111	NA	NA
Fluoranthene	1666.67	1549.09	NA	93	NA	80-113	NA	NA
Pyrene	1666.67	1614.7	NA	97	NA	80-121	NA	NA
Benzo(a)anthracene	1666.67	1594.86	NA	96	NA	73-123	NA	NA
Chrysene	1666.67	1483.36	NA	89	NA	73-119	NA	NA
Benzo(b)fluoranthene	1666.67	1617.92	NA	97	NA	76-124	NA	NA
Benzo(k)fluoranthene	1666.67	1664.07	NA	100	NA	71-135	NA	NA
Benzo(a)pyrene	1666.67	1646.71	NA	99	NA	80-123	NA	NA
Indeno(1,2,3-cd)pyrene	1666.67	1623.85	NA	97	NA	64-128	NA	NA
Dibenz(a,h)anthracene	1666.67	1616.97	NA	97	NA	67-129	NA	NA
Benzo(g,h,i)perylene	1666.67	1570.05	NA	94	NA	77-122	NA	NA

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract: _____
Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____
Lab File ID: hk0360.d DFTPP Injection Date: 11/08/12
Instrument ID: HP18831 DFTPP Injection Time: 04:20

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	34.5
68	Less than 2.0% of mass 69	0.7 (1.62)1
69	Mass 69 relative abundance	43.5
70	Less than 2.0% of mass 69	0.28 (0.65)1
127	40.0 - 60.0% of mass 198	50.6
197	Less than 1.0% of mass 198	0.35
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.61
275	10.0 - 30.0% of mass 198	20.6
365	Greater than 1.00% of mass 198	2.25
441	Present, and less than mass 443	8.13
442	Greater than 40.0 % of mass 198	55.5
443	17.0 - 23.0% of mass 442	10.9 (19.6)2

1-Value is % mass 69

2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	STD3102 - SST30	hk0361.d	11/08/12	04:33
02	STD3102 - SST120	hk0362.d	11/08/12	04:58
03	STD3102 - SST5	hk0363.d	11/08/12	05:20
04	STD3102 - SST1	hk0364.d	11/08/12	05:43
05	STD3102 - SST5	hk0365.d	11/08/12	06:05
06	STD3102 - SST15	hk0366.d	11/08/12	06:28
07	STD3102 - SST50	hk0367.d	11/08/12	06:50
08	STD3102 - SST80	hk0368.d	11/08/12	07:13
09	8270MDL3102 - SST0.5	hk0369.d	11/08/12	07:35
10	PAHMDL3102 - SST0.1	hk0370.d	11/08/12	07:57
11	ICV2902 - SST050	hk0371.d	11/08/12	08:19
12	BASICV2432 - SST050	hk0372.d	11/08/12	08:42
13	SBLKWB306	hk0373.d	11/08/12	09:04
14	306WBLC	hk0374.d	11/08/12	09:27
15	306WBLCSD	hk0375.d	11/08/12	09:49
16	6841747	hk0376.d	11/08/12	10:11
17	6841748	hk0377.d	11/08/12	10:34
18	6841749	hk0378.d	11/08/12	10:56

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract: _____
Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____
Lab File ID: hk0360.d DFTPP Injection Date: 11/08/12
Instrument ID: HP18831 DFTPP Injection Time: 04:20

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	34.5
68	Less than 2.0% of mass 69	0.7 (1.62)1
69	Mass 69 relative abundance	43.5
70	Less than 2.0% of mass 69	0.28 (0.65)1
127	40.0 - 60.0% of mass 198	50.6
197	Less than 1.0% of mass 198	0.35
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.61
275	10.0 - 30.0% of mass 198	20.6
365	Greater than 1.00% of mass 198	2.25
441	Present, and less than mass 443	8.13
442	Greater than 40.0 % of mass 198	55.5
443	17.0 - 23.0% of mass 442	10.9 (19.6)2

1-Value is % mass 69 2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
19	6841750	hk0379.d	11/08/12	11:19
20	6841751	hk0380.d	11/08/12	11:41
21	6841752	hk0381.d	11/08/12	12:04
22	6841753	hk0382.d	11/08/12	12:26
23	6841754	hk0383.d	11/08/12	12:48
24	6841785	hk0384.d	11/08/12	13:11
25	6841786	hk0385.d	11/08/12	13:33
26	6841787	hk0386.d	11/08/12	13:56
27	6841788	hk0387.d	11/08/12	14:18
28	6841789	hk0388.d	11/08/12	14:41

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Lancaster Laboratories Contract: _____
Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____
Lab File ID: hk0390.d DFTPP Injection Date: 11/08/12
Instrument ID: HP18831 DFTPP Injection Time: 17:48

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	32.9
68	Less than 2.0% of mass 69	0.56 (1.32)1
69	Mass 69 relative abundance	42.0
70	Less than 2.0% of mass 69	0.11 (0.27)1
127	40.0 - 60.0% of mass 198	49.6
197	Less than 1.0% of mass 198	0.28
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.34
275	10.0 - 30.0% of mass 198	21.8
365	Greater than 1.00% of mass 198	2.12
441	Present, and less than mass 443	7.78
442	Greater than 40.0 % of mass 198	54.3
443	17.0 - 23.0% of mass 442	10.7 (19.7)2

1-Value is % mass 69

2-Value is % mass of 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	STD310 - SST30	hk0391.d	11/08/12	18:05
02	SBLKLF312	hk0392.d	11/08/12	18:43
03	312LFLCS	hk0393.d	11/08/12	19:06
04	6850737	hk0394.d	11/08/12	19:28
05	6850737MS	hk0395.d	11/08/12	19:51
06	6850737MSD	hk0396.d	11/08/12	20:13
07	6850738	hk0397.d	11/08/12	20:36
08	6850741	hk0398.d	11/08/12	20:58
09	6850744	hk0399.d	11/08/12	21:21
10	6850747	hk0400.d	11/08/12	21:43
11	6850750	hk0401.d	11/08/12	22:06
12	6850753	hk0402.d	11/08/12	22:28
13	6850756	hk0403.d	11/08/12	22:50
14	6850759	hk0404.d	11/08/12	23:13
15	6850764	hk0405.d	11/08/12	23:36
16	6850765	hk0406.d	11/08/12	23:58
17	6850770	hk0407.d	11/09/12	00:21
18	6850771	hk0408.d	11/09/12	00:44

page 1 of 21

FORM V SV

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4/5/13

6B
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract: _____
 Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____
 Instrument ID: HP18831 Calibration Date(s): 11/08/12 11/08/12
 Calibration Times: 04:33 07:13
 Min RRF for SPCC(%) = 0.050 Max %RSD for CCC(*) = 30%

LAB FILE ID: RRF0.5 = hk0363.d RRF1 = hk0364.d RRF5 = hk0365.d RRF15 = hk0366.d RRF30 = hk0361.d RRF50 = hk0367.d RRF80 = hk0368.d RRF120 = hk0362.d											
COMPOUND	RRF0.5	RRF1	RRF5	RRF15	RRF30	RRF50	RRF80	RRF120	RRF	% RSD	CAL. METHOD
1,4-Dioxane			0.651	0.619	0.585	0.662	0.669	0.633	0.637	5	AVG
N-Nitrosodimethylamine			0.920	0.939	0.889	1.084	1.099	1.077	1.001	10	AVG
Pyridine			1.787	1.673	1.716	1.785	1.854	1.834	1.775	4	AVG
2-Picoline			1.912	1.854	1.879	2.027	1.907	1.818	1.899	4	AVG
N-Nitrosomethylethylamine			0.896	0.956	0.900	0.965	0.951	0.921	0.932	3	AVG
Methyl methanesulfonate			0.873	0.895	0.890	0.968	0.938	0.921	0.914	4	AVG
N-Nitrosodiethylamine		0.760	0.833	0.851	0.870	0.932	0.909	0.886	0.863	7	AVG
Ethyl methanesulfonate		0.818	0.874	0.903	0.907	0.958	0.936	0.918	0.902	5	AVG
Benzaldehyde		1.442	1.492	1.464	1.035	1.265			1.340	14	AVG
Aniline		2.822	2.875	2.890	2.808	2.878	2.745	2.595	2.802	4	AVG
Phenol	*	2.471	2.488	2.513	2.488	2.634	2.517	2.212	2.475	5	AVG *
bis(2-Chloroethyl)ether		1.985	1.956	1.921	1.880	1.990	1.914	1.842	1.927	3	AVG
2-Chlorophenol		1.497	1.571	1.577	1.604	1.688	1.637	1.584	1.594	4	AVG
1,3-Dichlorobenzene		1.684	1.656	1.617	1.591	1.677	1.617	1.554	1.628	3	AVG
1,4-Dichlorobenzene	*	1.680	1.709	1.628	1.606	1.703	1.648	1.578	1.650	3	AVG *
Benzyl alcohol			1.100	1.204	1.177	1.211	1.158	1.133	1.164	4	AVG
1,2-Dichlorobenzene		1.503	1.581	1.546	1.503	1.563	1.516	1.469	1.526	3	AVG
2-Methylphenol		1.646	1.653	1.670	1.685	1.751	1.697	1.630	1.676	2	AVG
Indene			2.868	2.798	2.505	2.798	2.690	2.545	2.700	5	AVG
2,2'-oxybis(1-Chloropropane)		2.165	2.043	1.924	1.829	1.945	1.825	1.672	1.915	8	AVG
bis(2-Chloroisopropyl)ether		2.165	2.043	1.924	1.829	1.945	1.825	1.672	1.915	8	AVG
N-Nitrosopyrrolidine		0.920	0.887	0.946	0.956	0.990	0.938	0.809	0.921	6	AVG
Acetophenone		2.592	2.490	2.625	2.416	2.497	2.395	2.311	2.475	4	AVG
N-Nitroso-di-n-propylamine	#	1.655	1.436	1.441	1.409	1.395	1.264	1.152	1.393	11	AVG #
N-Nitrosomorpholine			0.916	0.884	0.968	0.996	0.948	0.823	0.923	7	AVG
4-Methylphenol		1.890	1.895	1.957	1.932	1.970	1.834	1.621	1.871	6	AVG
o-Toluidine		2.848	2.836	2.854	2.814	2.820	2.605	2.596	2.768	4	AVG
Hexachloroethane			0.676	0.647	0.640	0.677	0.675	0.613	0.655	4	AVG
Nitrobenzene		0.488	0.457	0.436	0.412	0.451	0.431	0.417	0.442	6	AVG
N-Nitrosopiperidine		0.204	0.206	0.206	0.205	0.216	0.209	0.205	0.207	2	AVG
Isophorone		0.910	0.865	0.847	0.831	0.877	0.844	0.833	0.858	3	AVG
2-Nitrophenol	*	0.151	0.158	0.165	0.170	0.195	0.195	0.194	0.176	11	AVG *
2,4-Dimethylphenol		0.399	0.410	0.405	0.404	0.423	0.401	0.389	0.404	3	AVG
O,O,O-triethylphosphorothioate			0.166	0.165	0.162	0.171	0.163	0.159	0.164	2	AVG
bis(2-Chloroethoxy)methane		0.545	0.537	0.526	0.508	0.524	0.511	0.487	0.520	4	AVG
Benzoic acid			0.165	0.184	0.198	0.211	0.220	0.231	0.202	12	AVG
2,4-Dichlorophenol	*	0.263	0.273	0.280	0.281	0.297	0.285	0.275	0.279	4	AVG *
1,2,4-Trichlorobenzene			0.319	0.304	0.297	0.315	0.307	0.295	0.306	3	AVG
Naphthalene	1.204	1.157	1.159	1.114	1.074	1.130	1.088	1.016	1.118	5	AVG
4-Chloroaniline		0.461	0.462	0.467	0.462	0.457	0.425	0.386	0.446	7	AVG
2,6-Dichlorophenol		0.265	0.273	0.268	0.272	0.277	0.263	0.249	0.267	3	AVG
Hexachloropropene			0.141	0.146	0.148	0.161	0.157	0.152	0.151	5	AVG
Hexachlorobutadiene	*	0.144	0.143	0.137	0.134	0.141	0.139	0.136	0.139	3	AVG *
Caprolactam			0.163	0.168	0.160	0.161	0.155	0.148	0.159	4	AVG
N-Nitrosodi-n-butylamine			0.413	0.310	0.304	0.314	0.298	0.285	0.321	14	AVG
4-Chloro-3-methylphenol	*	0.362	0.360	0.373	0.382	0.394	0.381	0.365	0.374	3	AVG *
Safrole			0.273	0.280	0.274	0.289	0.273	0.260	0.275	3	AVG
2-Methylnaphthalene	0.712	0.718	0.731	0.716	0.700	0.723	0.688	0.646	0.704	4	AVG
1-Methylnaphthalene	0.723	0.723	0.721	0.700	0.687	0.700	0.666	0.626	0.693	5	AVG
Hexachlorocyclopentadiene	#		0.124	0.154	0.180	0.211	0.216	0.237	0.187	23	1STDEG #
1,2,4,5-Tetrachlorobenzene		0.473	0.491	0.464	0.448	0.490	0.472	0.475	0.473	3	AVG
cis-Isosafrole			0.737	0.775	0.745	0.832	0.810	0.860	0.793	6	AVG

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11-8-12

6C
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract: _____
 Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____
 Instrument ID: HP18831 Calibration Date(s): 11/08/12 11/08/12
 Calibration Times: 04:33 07:13
 Min RRF for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30%

LAB FILE ID:RRF0.5 = hk0363.d RRF30 = hk0361.d											RRF1 = hk0364.d RRF50 = hk0367.d	RRF5 = hk0365.d RRF80 = hk0368.d	RRF15 = hk0366.d RRF120 = hk0362.d		
COMPOUND	RRF0.5	RRF1	RRF5	RRF15	RRF30	RRF50	RRF80	RRF120	RRF	% RSD	CAL. METHOD				
2,4,6-Trichlorophenol	*	0.283	0.292	0.318	0.322	0.349	0.347	0.353	0.324	9	AVG				
2,4,5-Trichlorophenol		0.311	0.351	0.355	0.357	0.389	0.390	0.403	0.365	9	AVG				
trans-Isosafrole			0.563	0.554	0.552	0.587	0.570	0.579	0.568	2	AVG				
Isosafrole			0.501	0.493	0.491	0.523	0.508	0.515	0.505	2	AVG				
1,1'-Biphenyl		1.552	1.594	1.627	1.434	1.488	1.398	1.347	1.492	7	AVG				
2-Chloronaphthalene		1.024	1.038	1.315	1.014	1.134	1.385	1.373	1.183	14	AVG				
1-Chloronaphthalene		1.165	1.232	1.104	1.090	1.052	1.015	0.994	1.093	8	AVG				
Diphenyl ether		0.797	0.805	0.777	0.760	0.803	0.777	0.773	0.785	2	AVG				
2-Nitroaniline		0.339	0.349	0.385	0.401	0.445	0.442	0.449	0.402	11	AVG				
1,4-Naphthoquinone			0.473	0.497	0.490	0.511	0.493	0.472	0.489	3	AVG				
1,4-Dinitrobenzene			0.118	0.148	0.164	0.200	0.209	0.212	0.175	22	1STDEG				
Dimethylphthalate			1.386	1.356	1.322	1.386	1.340	1.337	1.354	2	AVG				
1,3-Dinitrobenzene			0.165	0.207	0.220	0.251	0.255	0.251	0.225	16	1STDEG				
2,6-Dinitrotoluene		0.233	0.277	0.301	0.305	0.329	0.325	0.323	0.299	11	AVG				
Acenaphthylene	1.738	1.672	1.762	1.716	1.704	1.793	1.754	1.715	1.732	2	AVG				
3-Nitroaniline		0.266	0.315	0.347	0.360	0.396	0.386	0.387	0.351	13	AVG				
Acenaphthene	* 1.252	1.215	1.234	1.199	1.167	1.235	1.186	1.164	1.206	3	AVG				
2,4-Dinitrophenol	#		0.057	0.077	0.082	0.110	0.132	0.137	0.099	32	1STDEG				
Pentachlorobenzene		0.413	0.403	0.394	0.389	0.415	0.409	0.409	0.405	2	AVG				
4-Nitrophenol	#		0.161	0.189	0.207	0.202	0.206	0.208	0.196	9	AVG				
Dibenzofuran		1.677	1.710	1.640	1.582	1.664	1.609	1.570	1.636	3	AVG				
2,4-Dinitrotoluene			0.334	0.380	0.388	0.431	0.432	0.428	0.399	10	AVG				
1-Naphthylamine			1.340	1.331	1.361	1.397	1.362	1.317	1.351	2	AVG				
2,3,4,6-Tetrachlorophenol		0.154	0.197	0.224	0.244	0.267	0.275	0.278	0.234	20	1STDEG				
2-Naphthylamine			1.341	1.329	1.382	1.408	1.339	1.245	1.341	4	AVG				
Diethylphthalate			1.443	1.408	1.386	1.427	1.399	1.396	1.410	2	AVG				
Thionazin			0.318	0.263	0.263	0.264	0.247	0.240	0.266	10	AVG				
Fluorene	1.435	1.416	1.433	1.373	1.339	1.378	1.316	1.260	1.369	4	AVG				
4-Chlorophenyl-phenylether		0.650	0.645	0.612	0.593	0.605	0.577	0.558	0.606	6	AVG				
5-Nitro-o-toluidine		0.305	0.385	0.400	0.404	0.445	0.435	0.427	0.400	12	AVG				
4-Nitroaniline		0.327	0.364	0.382	0.391	0.412	0.401	0.381	0.380	7	AVG				
4,6-Dinitro-2-methylphenol			0.062	0.076	0.084	0.113	0.123	0.115	0.096	26	1STDEG				
N-Nitrosodiphenylamine (1)	*	0.682	0.693	0.690	0.671	0.697	0.680	0.654	0.681	2	AVG				
1,2-Diphenylhydrazine		1.008	1.027	1.019	0.975	1.021	0.994	1.029	1.010	2	AVG				
Tetraethyldithiopyrophosphate			0.149	0.149	0.148	0.152	0.146	0.137	0.147	4	AVG				
1,3,5-Trinitrobenzene			0.035	0.049	0.055	0.079	0.086	0.086	0.065	33	1STDEG				
Diallate (peak 1)			0.490	0.488	0.476	0.505	0.492	0.470	0.487	3	AVG				
Phorate		0.661	0.726	0.762	0.746	0.826	0.816	0.557	0.728	13	AVG				
Phenacetin		0.432	0.466	0.464	0.472	0.490	0.465	0.438	0.461	4	AVG				
4-Bromophenyl-phenylether			0.194	0.186	0.187	0.193	0.190	0.185	0.189	2	AVG				
Diallate (peak 2)			0.320	0.306	0.304	0.325	0.318	0.277	0.308	6	AVG				
Hexachlorobenzene	0.182	0.183	0.180	0.177	0.172	0.181	0.179	0.178	0.179	2	AVG				
Dimethoate			0.403	0.414	0.401	0.410	0.383	0.325	0.389	9	AVG				
Diallate TRANS/CIS			0.447	0.443	0.433	0.460	0.448	0.422	0.442	3	AVG				
Atrazine		0.216	0.216	0.215	0.176	0.148	0.119		0.182	23	2NDDEG				
Pentachlorophenol	*		0.048	0.067	0.080	0.094	0.098	0.100	0.081	25	1STDEG				
Pentachloronitrobenzene			0.070	0.074	0.076	0.081	0.081	0.079	0.077	6	AVG				
4-Aminobiphenyl		0.709	0.716	0.717	0.682	0.635	0.575	0.487	0.646	14	AVG				
Pronamide		0.305	0.334	0.344	0.346	0.363	0.350	0.342	0.340	5	AVG				
Dinoseb			0.069	0.105	0.111	0.158	0.168	0.163	0.129	31	1STDEG				
Phenanthrene	1.326	1.298	1.254	1.208	1.161	1.202	1.167	1.093	1.214	6	AVG				
Anthracene	1.208	1.218	1.244	1.234	1.200	1.244	1.211	1.129	1.211	3	AVG				

+ %RSD is less than or equal to 20%; however, value rounds to 20.

(1) Cannot be separated from Diphenylamine

6C
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

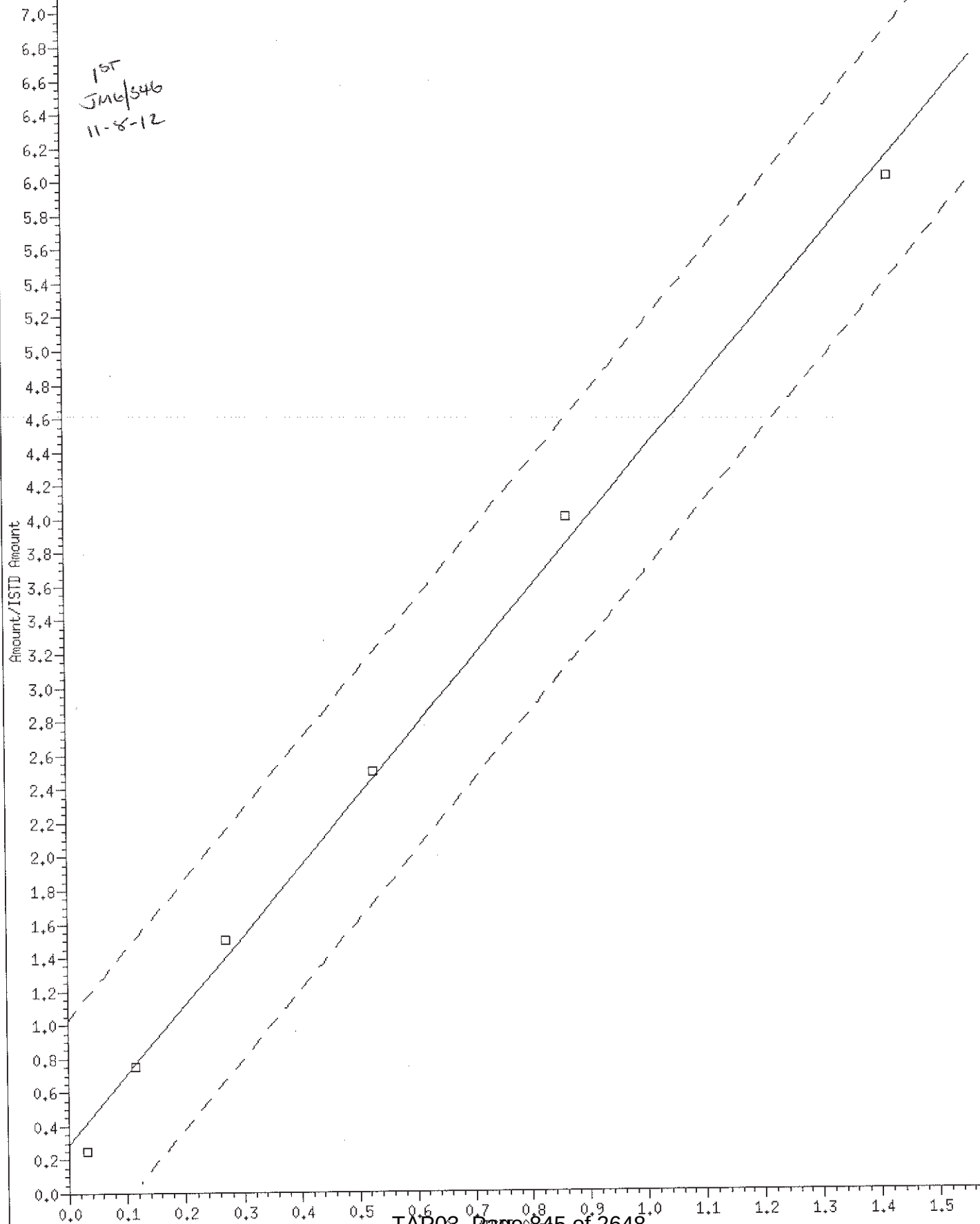
Lab Name: Lancaster Laboratories Contract: _____
 Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____
 Instrument ID: HP18831 Calibration Date(s): 11/08/12 11/08/12
 Calibration Times: 04:33 07:13
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LAB FILE ID: RRF0.5 = hk0363.d RRF1 = hk0364.d RRF5 = hk0365.d RRF15 = hk0366.d RRF30 = hk0361.d RRF50 = hk0367.d RRF80 = hk0368.d RRF120 = hk0362.d											
COMPOUND	RRF0.5	RRF1	RRF5	RRF15	RRF30	RRF50	RRF80	RRF120	RRF	% RSD	CAL. METHOD
Carbazole		1.166	1.129	1.116	1.101	1.136	1.099	1.034	1.112	4	AVG
Methyl parathion			0.201	0.256	0.262	0.288	0.277	0.239	0.254	12	AVG
Di-n-butylphthalate			1.375	1.404	1.406	1.436	1.399	1.305	1.388	3	AVG
Parathion			0.128	0.159	0.170	0.191	0.190	0.178	0.169	14	AVG
4-Nitroquinoline-1-oxide			0.037	0.059	0.073	0.095	0.098		0.072	36	1STDEG
Isodrin		0.132	0.128	0.127	0.126	0.132	0.129	0.123	0.128	2	AVG
Fluoranthene	* 1.180	1.185	1.176	1.149	1.158	1.178	1.163	1.099	1.161	2	AVG
Benzidine			0.720	0.745	0.744	0.750	0.682	0.608	0.708	8	AVG
Pyrene	1.252	1.191	1.165	1.125	1.089	1.126	1.099	1.085	1.141	5	AVG
p-Dimethylaminoazobenzene		0.189	0.197	0.211	0.214	0.229	0.221	0.217	0.211	7	AVG
Chlorobenzilate		0.310	0.353	0.361	0.366	0.381	0.370	0.363	0.358	6	AVG
3,3'-Dimethylbenzidine			0.580	0.622	0.628	0.674	0.620	0.589	0.619	5	AVG
Butylbenzylphthalate			0.546	0.553	0.552	0.568	0.549	0.537	0.551	2	AVG
2-Acetylaminofluorene			0.352	0.406	0.439	0.469	0.466	0.468	0.433	11	AVG
3,3'-Dichlorobenzidine			0.314	0.318	0.326	0.334	0.319	0.315	0.321	2	AVG
4,4'-Methylenebis(2-Chloroani			0.159	0.168	0.170	0.175	0.164	0.161	0.166	4	AVG
Benzo(a)anthracene	0.878	0.894	0.959	0.921	0.904	0.919	0.893	0.886	0.907	3	AVG
Chrysene	0.880	0.922	0.951	0.926	0.891	0.928	0.892	0.887	0.910	3	AVG
bis(2-Ethylhexyl)phthalate			0.742	0.744	0.751	0.768	0.737	0.726	0.745	2	AVG
6-Methylchrysene			0.624	0.616	0.625	0.641	0.629	0.622	0.626	1	AVG
Di-n-octylphthalate	*		1.721	1.849	1.916	2.052	1.953	1.819	1.885	6	AVG
Dibenz(a,h)acridine			0.813	0.819	0.862	0.925	0.917	0.914	0.875	6	AVG
Dibenz(a,j)acridine			0.877	0.871	0.876	0.943	0.929	0.908	0.900	3	AVG
7,12-Dimethylbenz[a]anthracene		0.502	0.521	0.548	0.561	0.604	0.591	0.572	0.557	7	AVG
Benzo(b)fluoranthene	1.163	1.213	1.196	1.258	1.253	1.464	1.426	1.467	1.305	10	AVG
Quinoline			0.759	0.760	0.771	0.784	0.753	0.678	0.751	5	AVG
Benzo(k)fluoranthene	1.262	1.265	1.340	1.319	1.270	1.227	1.199	1.033	1.239	8	AVG
Benzo(a)pyrene	* 1.084	1.175	1.134	1.182	1.178	1.263	1.235	1.170	1.178	5	AVG
3-Methylcholanthrene		0.489	0.528	0.540	0.566	0.592	0.584	0.563	0.552	6	AVG
NDPA as diphenylamine			0.693	0.690	0.671	0.697	0.680	0.654	0.681	2	AVG
Indeno(1,2,3-cd)pyrene	1.097	1.072	1.162	1.148	1.170	1.251	1.230	1.210	1.168	5	AVG
Dibenz(a,h)anthracene	0.913	0.922	0.991	0.975	0.979	1.038	1.025	0.994	0.980	4	AVG
Benzo(g,h,i)perylene	1.000	0.908	0.973	0.960	0.986	1.051	1.043	1.032	0.994	5	AVG
2-Fluorophenol			1.494	1.470	1.456	1.557	1.515	1.455	1.491	3	AVG
Phenol-d5			2.180	2.231	2.216	2.294	2.183	2.026	2.188	4	AVG
Phenol-d6			2.180	2.231	2.216	2.294	2.183	2.026	2.188	4	AVG
Nitrobenzene-d5			0.427	0.420	0.410	0.442	0.426	0.409	0.422	3	AVG
2-Fluorobiphenyl			1.292	1.226	1.180	1.225	1.169	1.162	1.209	4	AVG
2,4,6-Tribromophenol			0.104	0.112	0.118	0.126	0.126	0.129	0.119	8	AVG
Terphenyl-d14			0.708	0.689	0.669	0.685	0.676	0.666	0.682	2	AVG
Average %RSD 7											

4,6-Dinitro-2-methylphenol and 4-Nitrophenol are at 10 ng/ul in the 5 standard.
 Benzidine Levels in the 5,15,30,50,80,120 standards are 15,45,90,150,240,360 ng/ul, respectively.
 Benzoic acid, Pentachlorophenol and 2,4-Dinitrophenol are at 15 ng/ul, 30 ng/ul,40 ng/ul in the 5,15,30 standards.

72 Hexachlorocyclopentadiene

Curve Type: Linear By-Response
Amt = 0.2902619 + Rsp/0.2437685
R²: 0.9964202

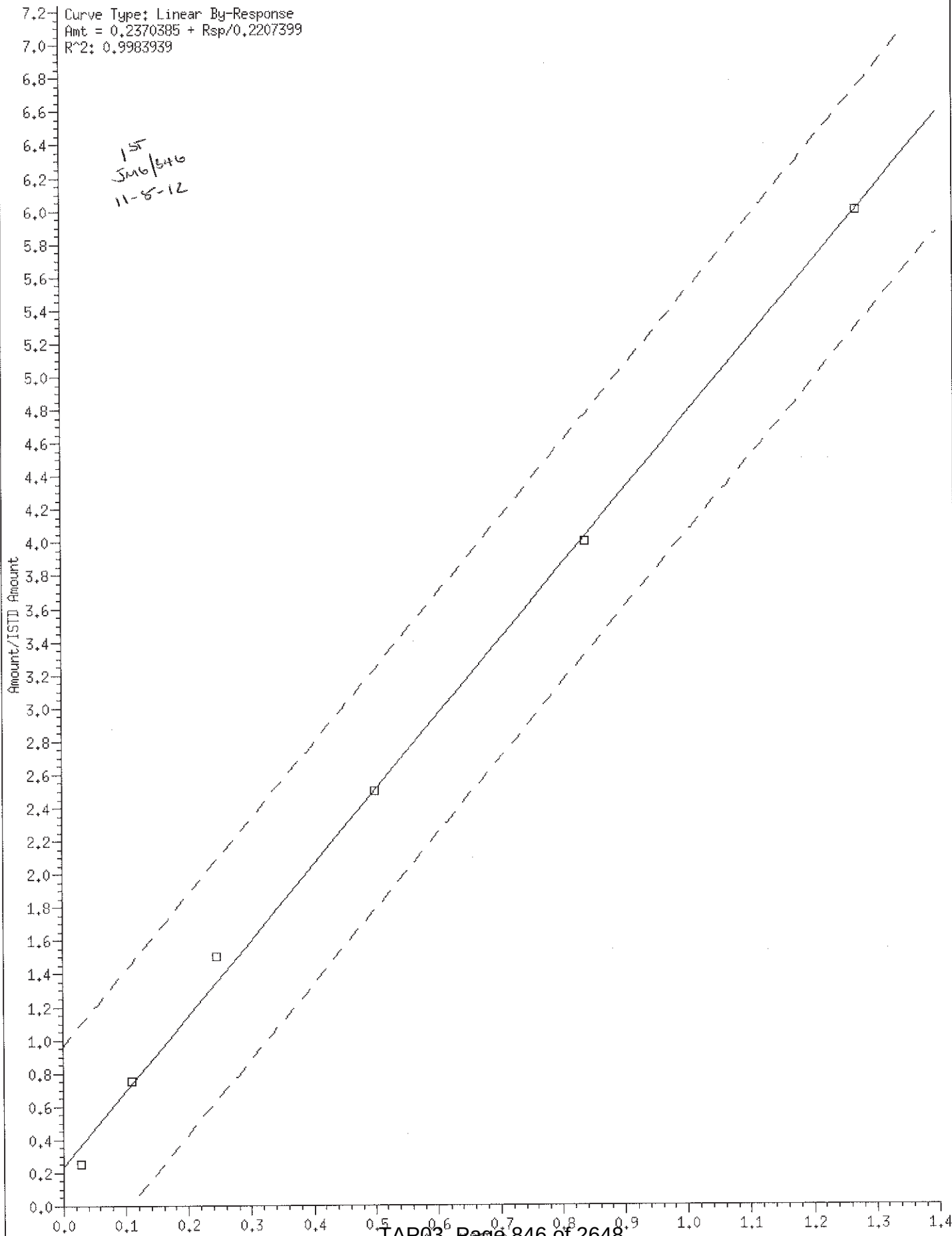


91 1,4-Dinitrobenzene

Curve Type: Linear By-Response
 Amt = 0.2370385 + Rsp/0.2207399
 R²: 0.9983939

15
 5m6/546
 11-8-12

Amount/ISTD Amount

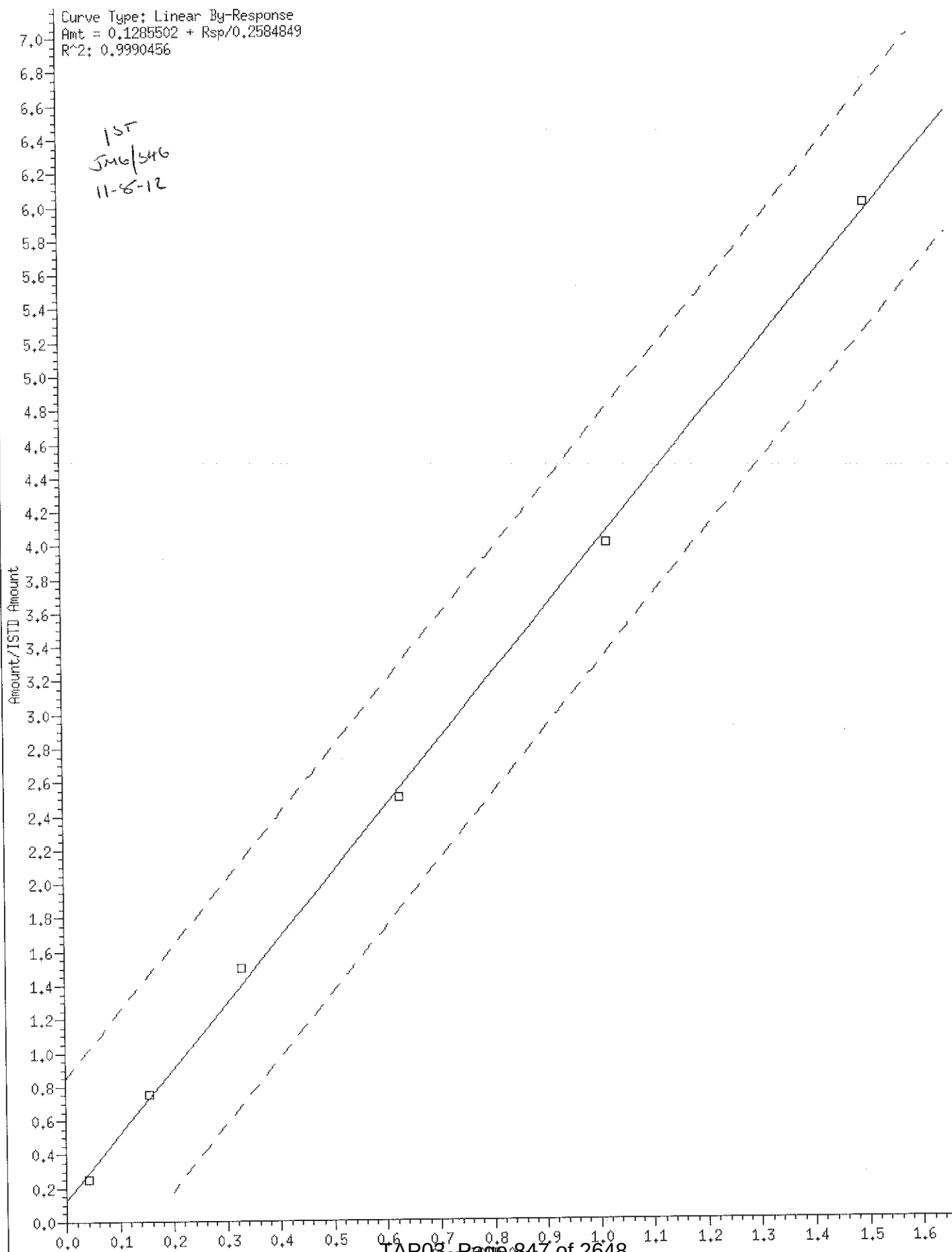


93 1,3-Dinitrobenzene

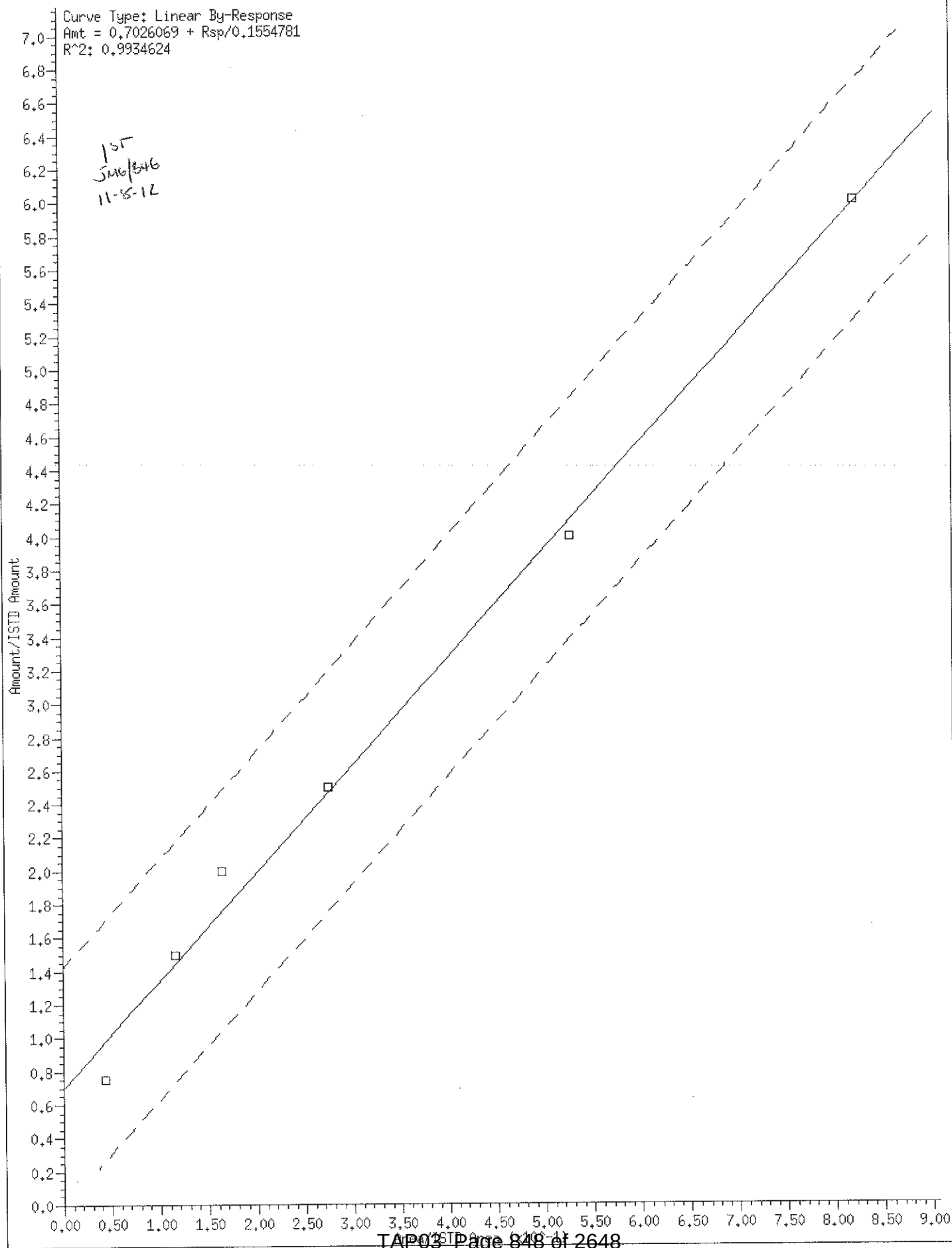
Curve Type: Linear By-Response
 Amt = 0.1285502 + Rsp/0.2584849
 R²: 0.9990456

1ST
 JMG/546
 11-8-12

Amount/ISTD Amount



100 2,4-Dinitrophenol

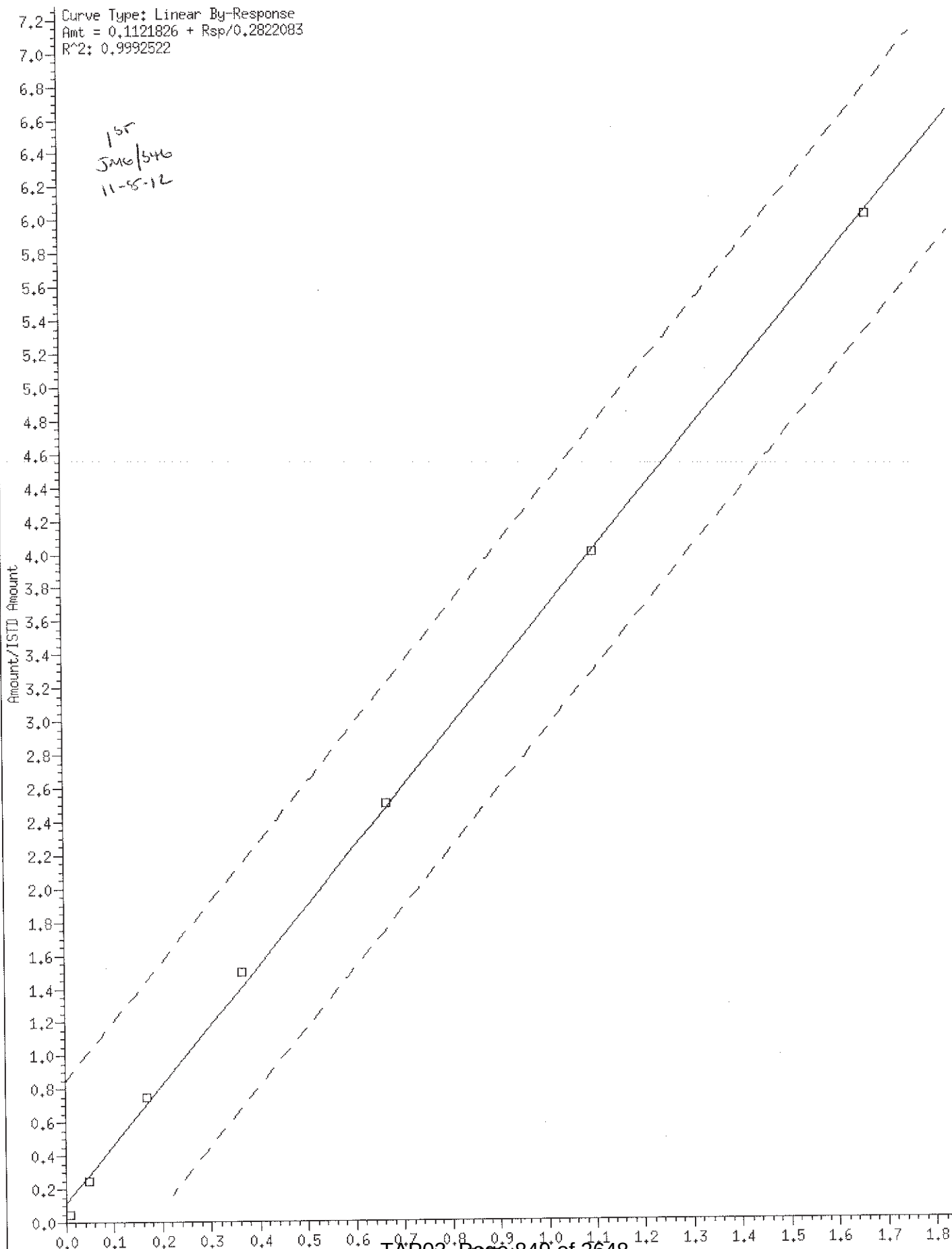


107 2,3,4,6-Tetrachlorophenol

Curve Type: Linear By-Response
 Amt = 0.1121826 + Rsp/0.2822083
 R^2: 0.9992522

155
 JMC/S46
 11-5-12

Amount/ISTD Amount

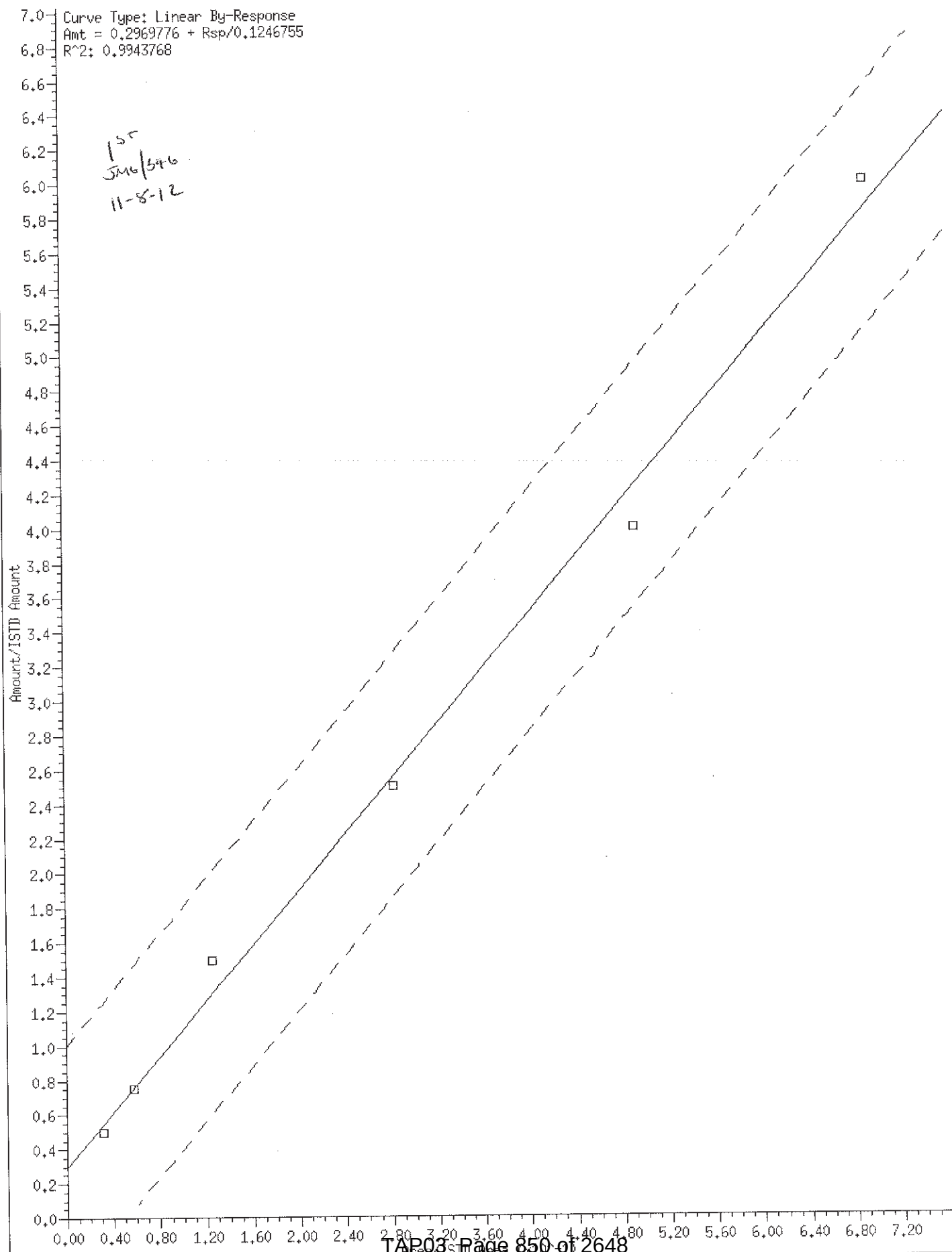


115 4,6-Dinitro-2-methylphenol

Curve Type: Linear By-Response
 Amt = 0.2969776 + Rsp/0.1246755
 R^2: 0.9943768

15r
 Jm6/5+6
 11-8-12

Amount/ISTD Amount

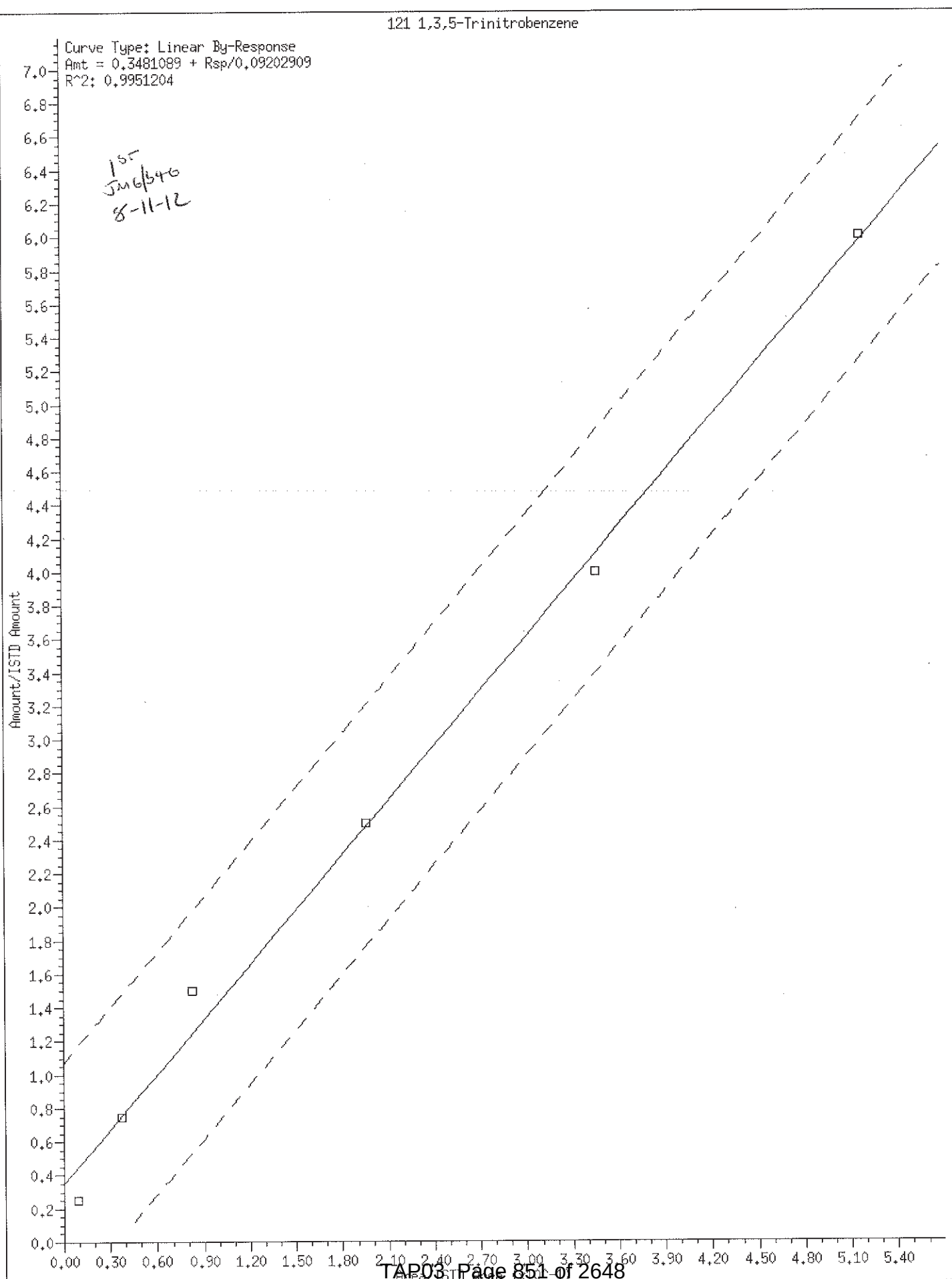


121 1,3,5-Trinitrobenzene

Curve Type: Linear By-Response
 Amt = 0.3481089 + Rsp/0.09202909
 R²: 0.9951204

15-
 JMG/b46
 8-11-12

Amount/ISTD Amount



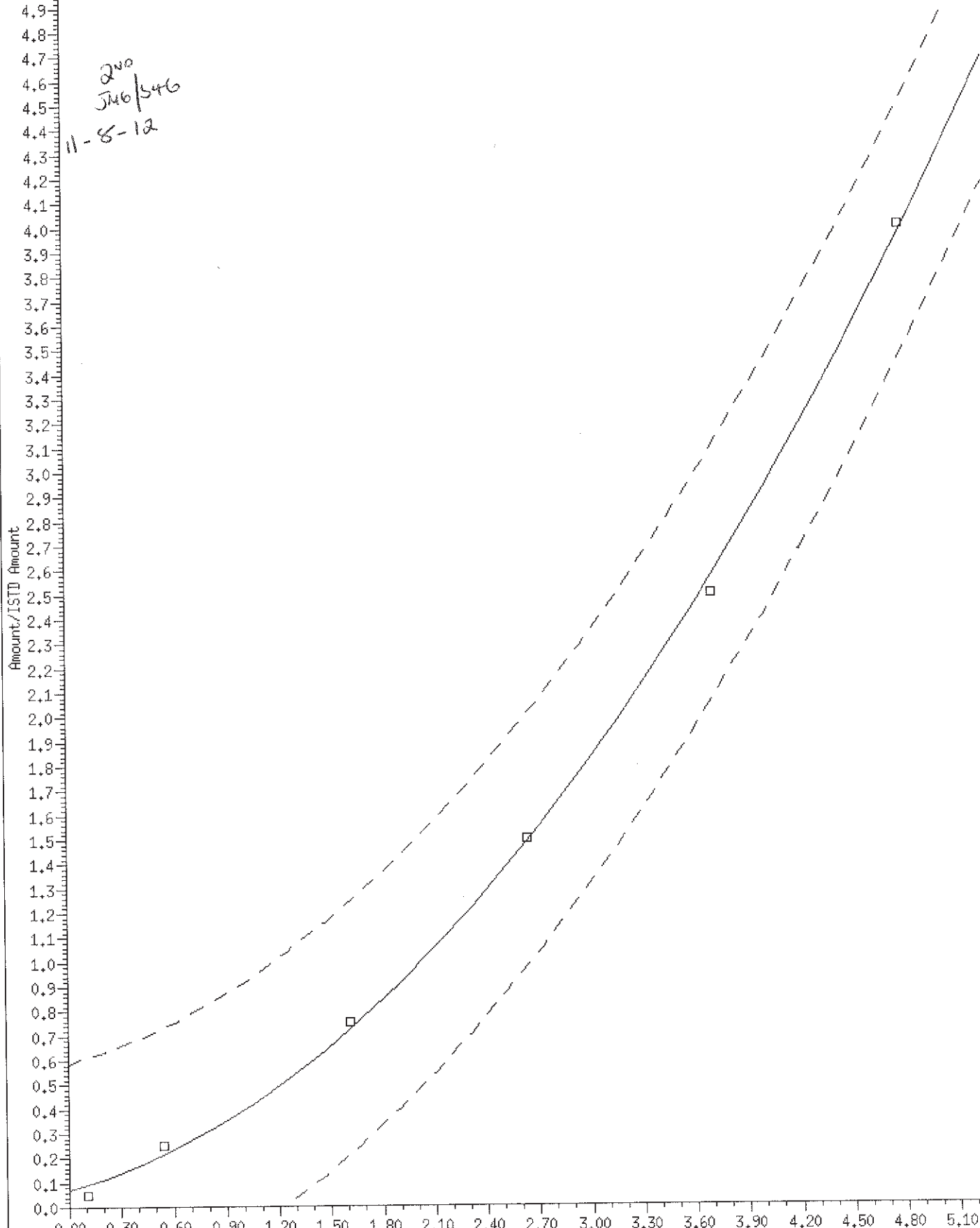
130 Atrazine

Curve Type: Quadratic By-Response
 Amt = $0.0690528 + 1.976966 \times \text{Rsp} + 12.92218 \times \text{Rsp}^2$
 $R^2: 0.9991449$

2nd
 J46/S46

11-8-12

Amount/ISTD Amount

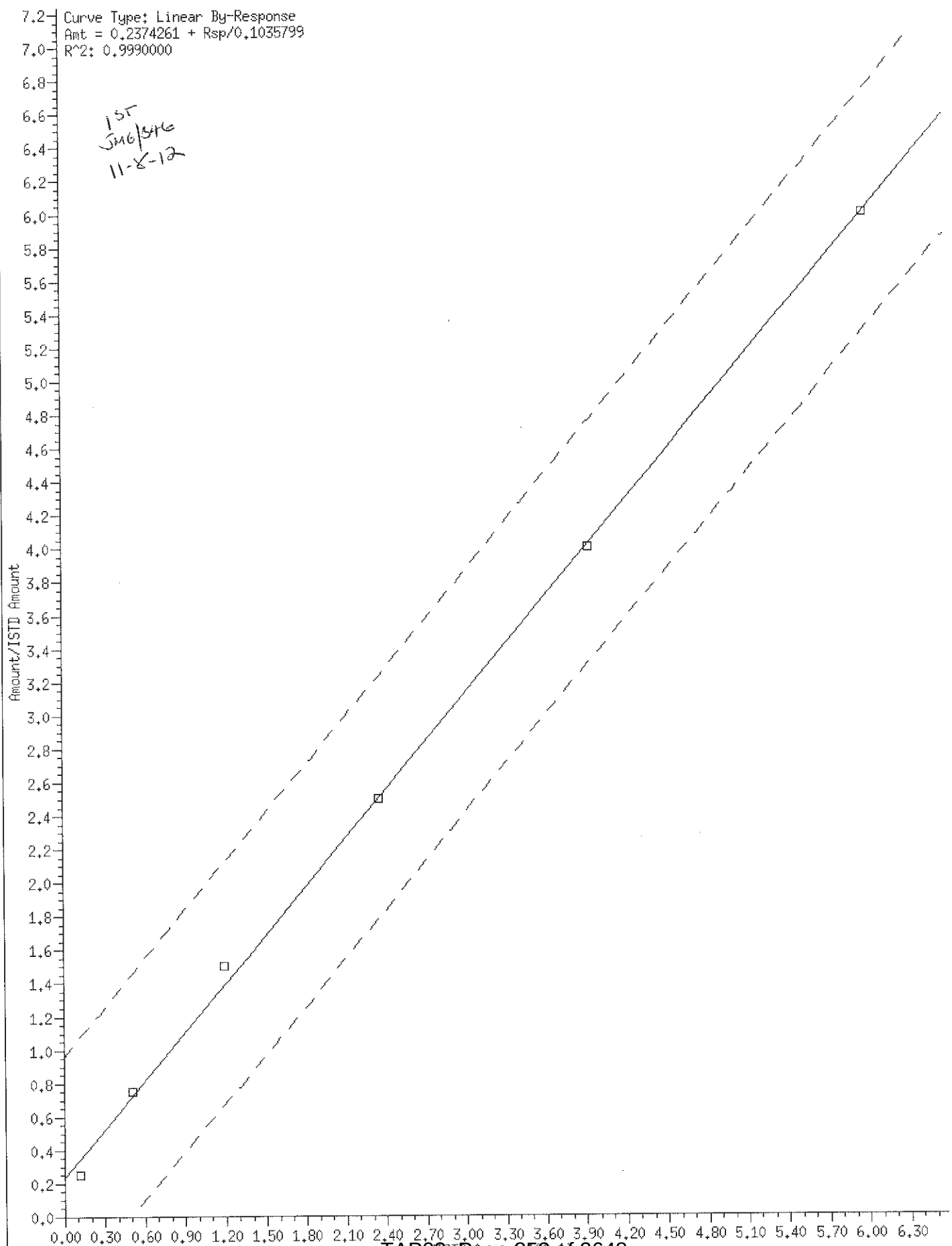


131 Pentachlorophenol

Curve Type: Linear By-Response
 Amt = 0.2374261 + Rsp/0.1035799
 R²: 0.9990000

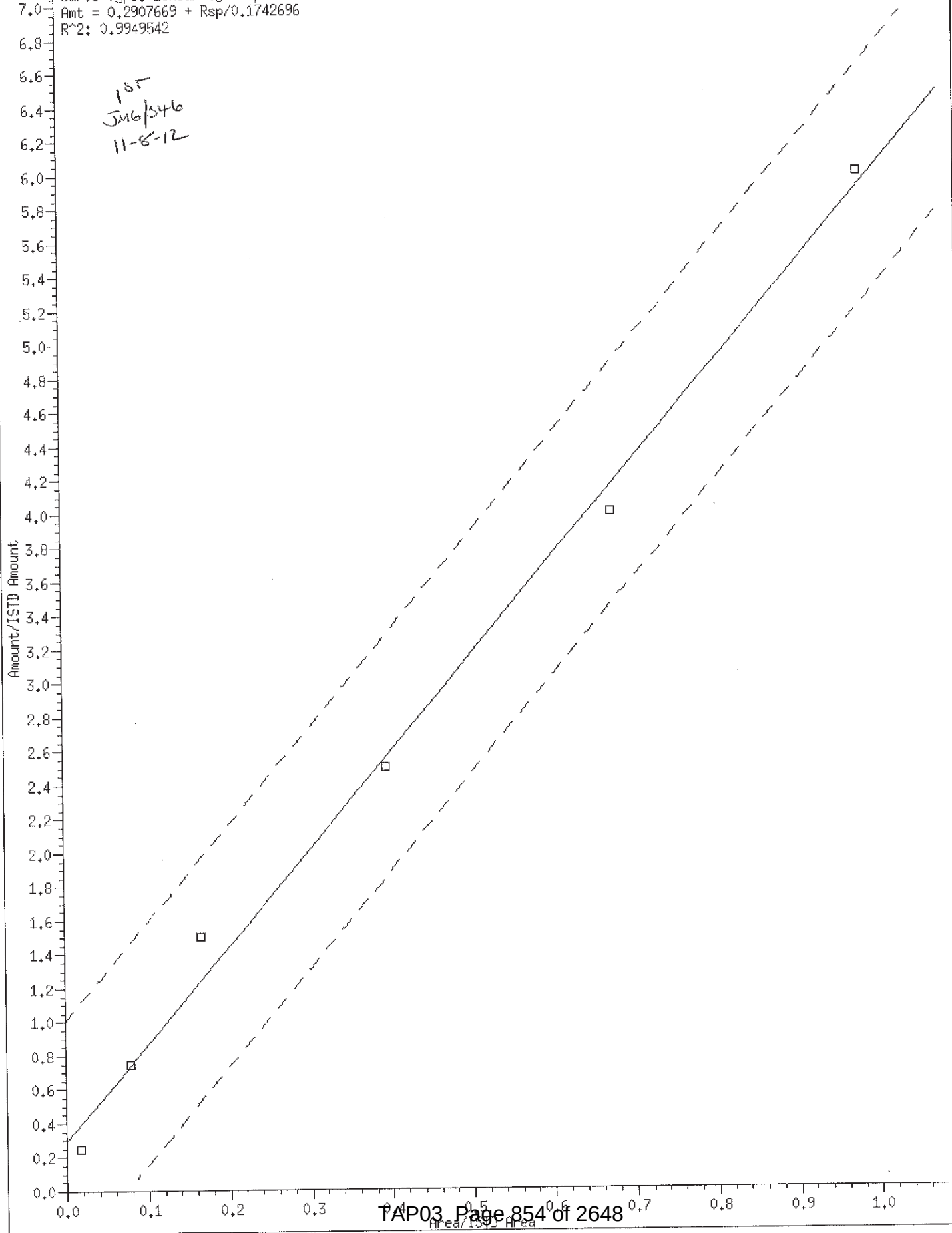
1st
 Smg/Std
 11-8-12

Amount/ISTD Amount

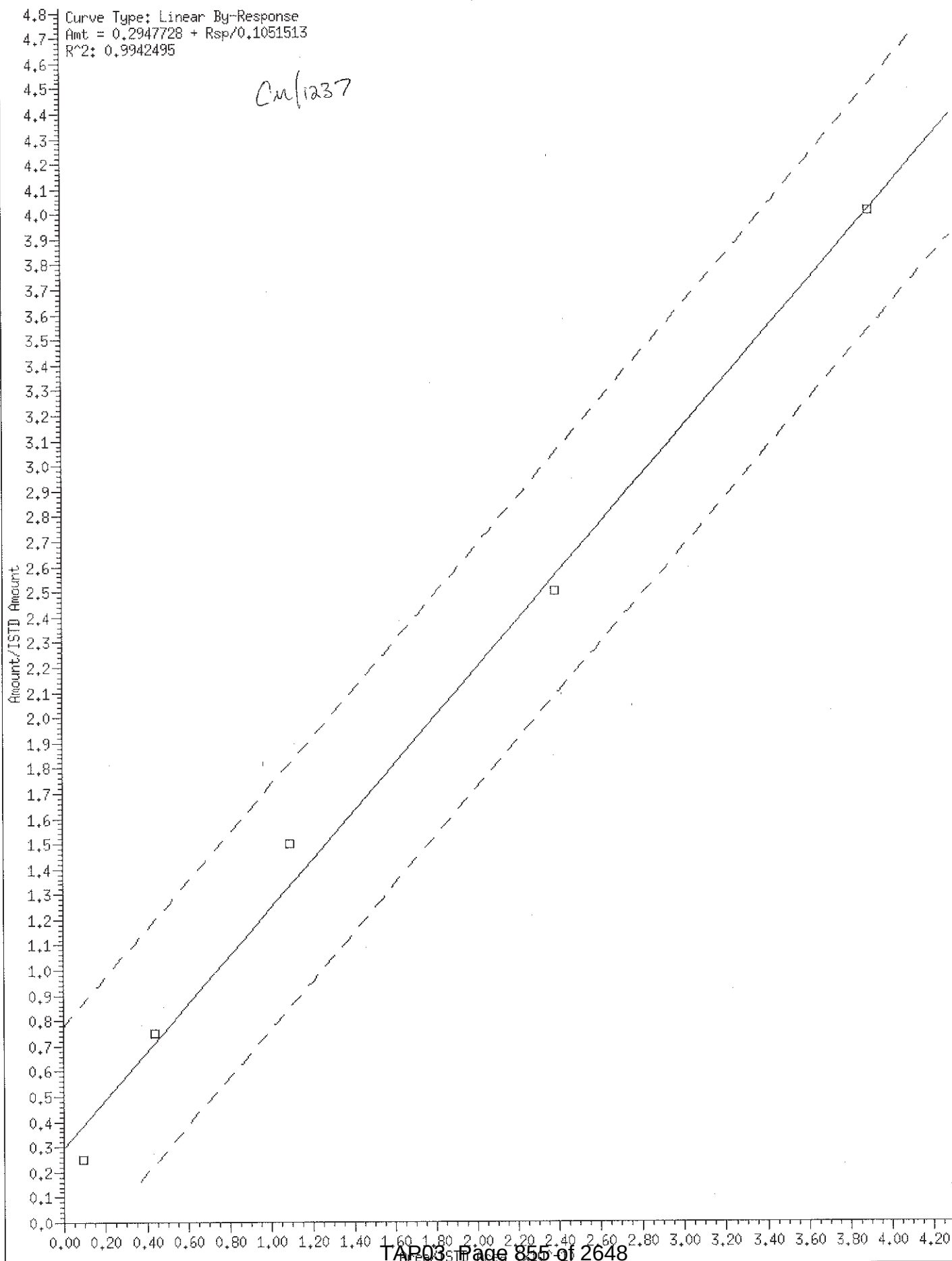


Curve Type: Linear By-Response
Amt = 0.2907669 + Rsp/0.1742696
R²: 0.9949542

1st
JMG/S46
11-8-12



144 4-Nitroquinoline-1-oxide



Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

```

/chem/HP18831.i/12nov08.b/hk0361.d SSTD030
/chem/HP18831.i/12nov08.b/hk0362.d SSTD120
/chem/HP18831.i/12nov08.b/hk0363.d SSTD0.5
/chem/HP18831.i/12nov08.b/hk0364.d SSTD001
/chem/HP18831.i/12nov08.b/hk0365.d SSTD005
/chem/HP18831.i/12nov08.b/hk0366.d SSTD015
/chem/HP18831.i/12nov08.b/hk0367.d SSTD050
/chem/HP18831.i/12nov08.b/hk0368.d SSTD080
  
```

Area Summary

File ID:
=====

Internal Standard Name	hk0361.d	hk0362.d	hk0363.d	hk0364.d	hk0365.d	hk0366.d	hk0367.d	hk0368.d	Avg. Area	%RSD
1,4-Dichlorobenzene-d4	125738	152845	150272	121595	127168	131570	148239	138331	136970	9
Naphthalene-d8	583334	672533	642977	527688	545966	593043	667285	619465	606536	9
Acenaphthene-d10	353241	360932	387134	318808	318297	352677	384450	350059	353200	7
Phenanthrene-d10	610660	615617	713947	577268	558070	603639	656157	587971	615416	8
Pyrene-d10	670674	630855	811050	662167	623446	659918	704196	632668	674372	9
Perylene-d12	451578	429037	565867	447205	438793	438952	455751	408916	454512	10

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:
=====

Internal Standard Name	hk0361.d	hk0362.d	hk0363.d	hk0364.d	hk0365.d	hk0366.d	hk0367.d	hk0368.d
1,4-Dichlorobenzene-d4	5.287	5.287	5.282	5.282	5.281	5.282	5.288	5.287
Naphthalene-d8	6.517	6.523	6.512	6.512	6.517	6.517	6.517	6.523
Acenaphthene-d10	8.225	8.231	8.219	8.219	8.219	8.219	8.225	8.225
Phenanthrene-d10	9.670	9.682	9.665	9.665	9.665	9.671	9.671	9.676
Pyrene-d10	11.052	11.058	11.046	11.046	11.046	11.052	11.052	11.058
Perylene-d12	13.657	13.663	13.657	13.652	13.657	13.657	13.663	13.663

Comments:

Page 1 of 1

Report generated on 11/08/2012 at 07:45

Jim Frank
11-8-2012

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS

LAB CODE: LANCAS

INSTRUMENT: HP18831

Method: SW-846 8270C

File ID: hk0371.d

ICV SAMPLE ID: ICV2902

BATCH: 12NOV08026

Sample Name: SST050

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
1,4-Dioxane	50.00	55.82	12	20	YES
N-Nitrosodimethylamine	50.00	58.97	18	20	YES
Pyridine	50.00	51.33	3	20	YES
2-Picoline	50.00	51.46	3	20	YES
N-Nitrosomethylethylamine	50.00	48.31	-3	20	YES
Methyl methanesulfonate	50.00	53.43	7	20	YES
N-Nitrosodiethylamine	50.00	50.32	1	20	YES
Ethyl methanesulfonate	50.00	50.10	0	20	YES
Aniline	50.00	50.98	2	20	YES
Phenol	50.00	52.59	5	20	YES
bis(2-Chloroethyl)ether	50.00	49.75	-1	20	YES
2-Chlorophenol	50.00	52.44	5	20	YES
1,3-Dichlorobenzene	50.00	52.45	5	20	YES
1,4-Dichlorobenzene	50.00	52.77	6	20	YES
Benzyl alcohol	50.00	53.59	7	20	YES
1,2-Dichlorobenzene	50.00	52.86	6	20	YES
2-Methylphenol	50.00	52.11	4	20	YES
2,2'-oxybis(1-Chloropropane	50.00	48.60	-3	20	YES
bis(2-Chloroisopropyl)ether	50.00	48.60	-3	20	YES
N-Nitrosopyrrolidine	50.00	50.28	1	20	YES
Acetophenone	50.00	50.63	1	20	YES
N-Nitroso-di-n-propylamine	50.00	50.31	1	20	YES
N-Nitrosomorpholine	50.00	50.20	0	20	YES
4-Methylphenol	50.00	52.90	6	20	YES
o-Toluidine	50.00	50.33	1	20	YES
Hexachloroethane	50.00	51.20	2	20	YES
Nitrobenzene	50.00	50.09	0	20	YES
N-Nitrosopiperidine	50.00	50.49	1	20	YES
Isophorone	50.00	48.77	-2	20	YES
2-Nitrophenol	50.00	55.78	12	20	YES
2,4-Dimethylphenol	50.00	52.31	5	20	YES
O,O,O-triethylphosphorothio	50.00	51.00	2	20	YES
bis(2-Chloroethoxy)methane	50.00	50.51	1	20	YES
Benzoic acid	50.00	54.09	8	20	YES
2,4-Dichlorophenol	50.00	53.89	8	20	YES
1,2,4-Trichlorobenzene	50.00	52.84	6	20	YES
Naphthalene	50.00	50.71	1	20	YES

NC = Could not calculate

Comments:

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS

LAB CODE: LANCAS

INSTRUMENT: HP18831

Method: SW-846 8270C

File ID: hk0371.d

ICV SAMPLE ID: ICV2902

BATCH: 12NOV08026

Sample Name: SSTD050

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
4-Chloroaniline	50.00	53.79	8	20	YES
2,6-Dichlorophenol	50.00	50.69	1	20	YES
Hexachloropropene	50.00	53.18	6	20	YES
Hexachlorobutadiene	50.00	52.10	4	20	YES
N-Nitrosodi-n-butylamine	50.00	46.92	-6	20	YES
4-Chloro-3-methylphenol	50.00	51.97	4	20	YES
Safrole	50.00	50.28	1	20	YES
2-Methylnaphthalene	50.00	54.37	9	20	YES
1-Methylnaphthalene	50.00	52.19	4	20	YES
Hexachlorocyclopentadiene	100.00	96.19	-4	20	YES
1,2,4,5-Tetrachlorobenzene	50.00	52.63	5	20	YES
2,4,6-Trichlorophenol	50.00	54.56	9	20	YES
2,4,5-Trichlorophenol	50.00	54.53	9	20	YES
Isosafrole	50.00	50.24	0	20	YES
1,1'-Biphenyl	50.00	52.28	5	20	YES
2-Chloronaphthalene	50.00	60.09	20	20	YES
Diphenyl ether	50.00	53.93	8	20	YES
2-Nitroaniline	50.00	55.66	11	20	YES
1,4-Naphthoquinone	62.50	63.53	2	20	YES
1,4-Dinitrobenzene	50.00	50.11	0	20	YES
Dimethylphthalate	50.00	50.13	0	20	YES
1,3-Dinitrobenzene	50.00	51.41	3	20	YES
2,6-Dinitrotoluene	50.00	54.63	9	20	YES
Acenaphthylene	50.00	53.66	7	20	YES
3-Nitroaniline	50.00	56.72	13	20	YES
Acenaphthene	50.00	50.51	1	20	YES
2,4-Dinitrophenol	50.00	47.80	-4	20	YES
Pentachlorobenzene	50.00	50.02	0	20	YES
4-Nitrophenol	50.00	50.49	1	20	YES
Dibenzofuran	50.00	52.32	5	20	YES
2,4-Dinitrotoluene	50.00	52.47	5	20	YES
1-Naphthylamine	100.00	98.14	-2	20	YES
2,3,4,6-Tetrachlorophenol	50.00	55.92	12	20	YES
2-Naphthylamine	100.00	97.62	-2	20	YES
Diethylphthalate	50.00	50.04	0	20	YES
Thionazin	50.00	46.60	-7	20	YES
Fluorene	50.00	49.71	-1	20	YES

NC = Could not calculate

Comments:

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS

LAB CODE: LANCAS

INSTRUMENT: HP18831

Method: SW-846 8270C

File ID: hk0371.d

ICV SAMPLE ID: ICV2902

BATCH: 12NOV08026

Sample Name: SSTD050

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
4-Chlorophenyl-phenylether	50.00	49.89	0	20	YES
5-Nitro-o-toluidine	50.00	52.97	6	20	YES
4-Nitroaniline	50.00	53.85	8	20	YES
4,6-Dinitro-2-methylphenol	50.00	53.08	6	20	YES
N-Nitrosodiphenylamine	50.00	53.77	8	20	YES
1,2-Diphenylhydrazine	50.00	52.03	4	20	YES
Tetraethyldithiopyrophospha	50.00	50.45	1	20	YES
1,3,5-Trinitrobenzene	50.00	48.18	-4	20	YES
Diallate (peak 1)	37.50	42.80	14	20	YES
Phorate	50.00	54.93	10	20	YES
Phenacetin	50.00	51.93	4	20	YES
4-Bromophenyl-phenylether	50.00	52.36	5	20	YES
Diallate (peak 2)	12.50	10.86	-13	20	YES
Hexachlorobenzene	50.00	51.65	3	20	YES
Dimethoate	50.00	46.80	-6	20	YES
Diallate TRANS/CIS	50.00	54.69	9	20	YES
Pentachlorophenol	50.00	51.54	3	20	YES
Pentachloronitrobenzene	50.00	53.11	6	20	YES
4-Aminobiphenyl	50.00	68.93	38	20	NO*
Pronamide	50.00	53.06	6	20	YES
Dinoseb	50.00	49.18	-2	20	YES
Phenanthrene	50.00	48.33	-3	20	YES
Anthracene	50.00	51.23	2	20	YES
Carbazole	50.00	52.57	5	20	YES
Methyl parathion	50.00	54.53	9	20	YES
Di-n-butylphthalate	50.00	52.35	5	20	YES
Parathion	50.00	55.65	11	20	YES
4-Nitroquinoline-1-oxide	550.00	2935.05	434	20	NO*
Isodrin	50.00	49.93	0	20	YES
Fluoranthene	50.00	52.36	5	20	YES
Benzidine	250.00	233.99	-6	20	YES
Pyrene	50.00	50.21	0	20	YES
p-Dimethylaminoazobenzene	50.00	52.41	5	20	YES
Chlorobenzilate	50.00	55.79	12	20	YES
3,3'-Dimethylbenzidine	50.00	48.57	-3	20	YES
Butylbenzylphthalate	50.00	50.63	1	20	YES
2-Acetylaminofluorene	50.00	51.07	2	20	YES

NC = Could not calculate

Comments: *Non-CCC, <50% OK

31957
4/14/12

Lancaster Laboratories, Inc.
Semi Volatile Initial Calibration Verification

LAB NAME: LANCASTER LABS

LAB CODE: LANCAS

INSTRUMENT: HP18831

Method: SW-846 8270C

File ID: hk0371.d

ICV SAMPLE ID: ICV2902

BATCH: 12NOV08026

Sample Name: SST050

COMPOUND NAME	TRUE CONC.	ACTUAL CONC.	% DRIFT	%D window	INSPEC
3,3'-Dichlorobenzidine	50.00	50.06	0	20	YES
4,4'-Methylenebis(2-Chloroa	50.00	47.89	-4	20	YES
Benzo(a)anthracene	50.00	50.29	1	20	YES
Chrysene	50.00	50.43	1	20	YES
bis(2-Ethylhexyl)phthalate	50.00	51.18	2	20	YES
Di-n-octylphthalate	50.00	52.56	5	20	YES
7,12-Dimethylbenz[a]anthrac	50.00	55.65	11	20	YES
Benzo(b)fluoranthene	50.00	50.65	1	20	YES
Benzo(k)fluoranthene	50.00	54.68	9	20	YES
Benzo(a)pyrene	50.00	52.60	5	20	YES
3-Methylcholanthrene	50.00	49.37	-1	20	YES
Indeno(1,2,3-cd)pyrene	50.00	52.80	6	20	YES
Dibenz(a,h)anthracene	50.00	52.64	5	20	YES
Benzo(g,h,i)perylene	50.00	52.02	4	20	YES
6-Methylchrysene	50.00	49.26	-1	20	YES
Dibenz(a,h)acridine	50.00	43.61	-13	20	YES
Dibenz(a,j)acridine	50.00	51.68	3	20	YES
Quinoline	50.00	49.95	0	20	YES
Indene	50.00	45.02	-10	20	YES

NC = Could not calculate

Comments:

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract: _____

Lab Code: LANCAS Case No.: _____ SAS No.: _____ SDG No.: _____

Instrument ID: HP18831 Calibration Date: 11/08/12 Time: 18:05

Lab File ID: hk0391.d Init. Calib. Date(s): 11/08/12 11/08/12

Init. Calib. Times(s): 04:33 07:13

Min RRF for SPCC(#) = 0.050

Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF30	ACTUAL CONC.	TRUE CONC.	% DRIFT
=====	=====	=====	=====	=====	=====
1,4-Dioxane	0.637	0.657	30.940	30.0	3
N-Nitrosodimethylamine	1.001	0.993	29.750	30.0	-1
Pyridine	1.775	1.686	28.510	30.0	-5
2-Picoline	1.900	1.808	28.550	30.0	-5
N-Nitrosomethylethylamine	0.932	0.873	28.120	30.0	-6
Methyl methanesulfonate	0.914	0.842	27.650	30.0	-8
N-Nitrosodiethylamine	0.863	0.832	28.920	30.0	-4
Ethyl methanesulfonate	0.902	0.843	28.050	30.0	-6
Benzaldehyde	1.340	0.892	19.980	30.0	-33
Aniline	2.802	2.612	27.970	30.0	-7
* Phenol	2.475	2.335	28.300	30.0	-6*
bis(2-Chloroethyl) ether	1.927	1.779	27.700	30.0	-8
2-Chlorophenol	1.594	1.518	28.580	30.0	-5
1,3-Dichlorobenzene	1.628	1.558	28.720	30.0	-4
* 1,4-Dichlorobenzene	1.650	1.595	29.000	30.0	-3*
Benzyl alcohol	1.164	1.051	27.090	30.0	-10
1,2-Dichlorobenzene	1.526	1.466	28.830	30.0	-4
2-Methylphenol	1.676	1.527	27.330	30.0	-9
Indene	2.701	2.413	26.800	30.0	-11
2,2'-oxybis(1-Chloropropane)	1.915	1.630	25.530	30.0	-15
bis(2-Chloroisopropyl) ether	1.915	1.630	25.530	30.0	-15
N-Nitrosopyrrolidine	0.921	0.847	27.590	30.0	-8
Acetophenone	2.475	2.137	25.910	30.0	-14
# N-Nitroso-di-n-propylamine	1.393	1.217	26.210	30.0	-13#
N-Nitrosomorpholine	0.923	0.831	27.020	30.0	-10
4-Methylphenol	1.871	1.734	27.790	30.0	-7
o-Toluidine	2.768	2.505	27.150	30.0	-10
Hexachloroethane	0.655	0.625	28.660	30.0	-4
Nitrobenzene	0.442	0.419	28.440	30.0	-5
N-Nitrosopiperidine	0.207	0.194	28.020	30.0	-7
Isophorone	0.858	0.763	26.670	30.0	-11
* 2-Nitrophenol	0.176	0.187	31.960	30.0	7*
2,4-Dimethylphenol	0.404	0.391	29.010	30.0	-3
O,O,O-triethylphosphorothioate	0.164	0.161	29.430	30.0	-2
bis(2-Chloroethoxy) methane	0.520	0.476	27.490	30.0	-8
Benzoic acid	0.202	0.216	42.840	40.0	7

CM/1237

11-8-12

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Init. Calib. Times(s): 04:33 07:13

Max %Drift for CCC(*) = 20%

COMPOUND	RRF	RRF30	ACTUAL CONC.	TRUE CONC.	% DRIFT
* 2,4-Dichlorophenol	0.279	0.273	29.360	30.0	-2*
1,2,4-Trichlorobenzene	0.306	0.306	29.940	30.0	0
Naphthalene	1.118	1.070	28.730	30.0	-4
4-Chloroaniline	0.446	0.424	28.560	30.0	-5
2,6-Dichlorophenol	0.267	0.264	29.690	30.0	-1
Hexachloropropene	0.151	0.145	28.940	30.0	-4
* Hexachlorobutadiene	0.139	0.140	30.180	30.0	1*
Caprolactam	0.159	0.132	24.830	30.0	-17
N-Nitrosodi-n-butylamine	0.321	0.271	25.380	30.0	-15
* 4-Chloro-3-methylphenol	0.374	0.334	26.840	30.0	-11*
Safrole	0.275	0.268	29.250	30.0	-2
2-Methylnaphthalene	0.704	0.668	28.440	30.0	-5
1-Methylnaphthalene	0.693	0.646	27.960	30.0	-7
# Hexachlorocyclopentadiene	0.187	0.161	25.600	30.0	-15#
1,2,4,5-Tetrachlorobenzene	0.473	0.491	31.150	30.0	4
cis-Isosafrole	0.793	0.800	3.330	3.3	1
* 2,4,6-Trichlorophenol	0.324	0.337	31.260	30.0	4*
2,4,5-Trichlorophenol	0.365	0.368	30.250	30.0	1
trans-Isosafrole	0.568	0.565	26.570	26.7	0
Isosafrole	0.505	0.503	29.850	30.0	0
1,1'-Biphenyl	1.492	1.501	30.180	30.0	1
2-Chloronaphthalene	1.183	1.405	35.620	30.0	19
1-Chloronaphthalene	1.093	1.069	29.350	30.0	-2
Diphenyl ether	0.785	0.792	30.300	30.0	1
2-Nitroaniline	0.402	0.408	30.490	30.0	2
1,4-Naphthoquinone	0.489	0.473	29.000	30.0	-3
1,4-Dinitrobenzene	0.175	0.184	29.790	30.0	-1
Dimethylphthalate	1.354	1.245	27.590	30.0	-8
1,3-Dinitrobenzene	0.225	0.227	28.930	30.0	-4
2,6-Dinitrotoluene	0.299	0.298	29.960	30.0	0
Acenaphthylene	1.732	1.704	29.510	30.0	-2
3-Nitroaniline	0.351	0.355	30.300	30.0	1
* Acenaphthene	1.207	1.165	28.960	30.0	-3*
# 2,4-Dinitrophenol	0.099	0.114	43.350	40.0	8#
Pentachlorobenzene	0.405	0.400	29.690	30.0	-1
# 4-Nitrophenol	0.196	0.194	29.840	30.0	-1#