# **Atlantic Richfield Company**

Paul G. Johnson
Operations Project Manager

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September 6, 2019

Jessica LaClair
Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, New York 12233-7016

RE: Monthly Progress Report, August 2019 Former Anaconda Plant (a.k.a. Harbor at Hastings Site) Site No. 3-60-022 Hastings-On-Hudson, New York

Dear Ms. LaClair:

Enclosed is the August 2019 Monthly Progress Report for the Former Anaconda Plant (a.k.a. Harbor at Hastings Site), New York State Department of Environmental Conservation (NYSDEC) Site No. 3-60-022, Hastings-on-Hudson, New York. This progress report has been prepared in accordance with Section XI of the AMENDED ORDER ON CONSENT and ADMINISTRATIVE SETTLEMENT between Atlantic Richfield Company and NYSDEC, dated November 6, 2013. The time period covered is August 1, 2019 through August 31, 2019.

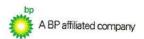
If you have any questions or comments on this submittal, please feel free to contact me at 630-731-4463.

Sincerely,

Paul G. Johnson

Operations Project Manager

Enclosure



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cc: 

Maureen Schuck, New York State Department of Health Francis Frobel, Hastings-On-Hudson Mark Chertok, Hastings-On-Hudson Karl Coplan, Pace/Riverkeeper Martha Gopal, Sovereign Consulting Inc. File

ecc: Jacquelyn Nealon, New York State Department of Health
Kevin Farrar, New York State Department of Environmental Conservation
Benjamin Conlon, Esq. New York State Department of Environmental Conservation,
Office of General Counsel
Jim Lucari, BP
Michael Daneker, Arnold & Porter

## FORMER ANACONDA WIRE AND CABLE PLANT SITE (a.k.a. HARBOR AT HASTINGS SITE) OU1 NYSDEC SITE 360022 MONTHLY PROGRESS REPORT 171

PREPARED BY:

**Atlantic Richfield Company** 

Paul Johnson

REPORTING PERIOD:

August 1, 2019 through August 31, 2019

## 1. PROGRESS MADE THIS REPORTING PERIOD:

DNAPL gauging and recovery was performed on August 5<sup>th</sup> and August 6<sup>th</sup>, 2019.
 HARW-2 and HARW-5 were gauged and pumped as required by the August 2011
 Design Basis Memorandum.

 LNAPL gauging and recovery was performed on August 5<sup>th</sup>, 2019 in accordance with the IRM Work Plan (Fluor Daniel GTI, December 1997), Fluor Daniel GTI correspondence to the NYSDEC dated May 18, 1998 and Atlantic Richfield correspondence with the NYSDEC on September 2, 2010.

# 2. UNANTICIPATED PROBLEM AREAS AND RECOMMENDED SOLUTIONS

None this reporting period.

## 3. PROBLEMS RESOLVED

None this reporting period.

## 4. DELIVERABLES SUBMITTED / RECEIVED

- August 2, 2019, Atlantic Richfield to NYSDEC: Hastings July 2019 Monthly Progress Report.
- August 26, 2019, Atlantic Richfield to NYSDEC, Modified Electronic Data Deliverables for September 2018 Emerging Contaminant Groundwater Sampling.

## 5. UPCOMING EVENTS / ACTIVITIES PLANNED

- The next three DNAPL gauging and recovery events are tentatively scheduled to occur the weeks of September 9<sup>th</sup>, October 7<sup>th</sup>, and November 4<sup>th</sup>, 2019.
- Continue the Water Tower LNAPL IRM activities, as allowable, in accordance with the IRM Work Plan (Fluor Daniel GTI, December 1997), Fluor Daniel GTI

correspondence to the NYSDEC dated May 18, 1998 and Atlantic Richfield correspondence with the NYSDEC on September 2, 2010. The upcoming LNAPL IRM events are tentatively scheduled to occur the week of November 4<sup>th</sup>, 2019, and the week of January 6<sup>th</sup>, 2020 in accordance with the schedule modification request, from monthly to quarterly, sent by Atlantic Richfield to NYSDEC on June 4, 2012, and the approval letter received from NYSDEC dated April 2, 2013.

## 6. KEY STAFFING

- Sovereign Consulting Inc.
- Parsons Environment and Infrastructure Group, Inc. (OM&M)
- Parsons Environment and Infrastructure Group, Inc. (Security)

## 7. PERCENTAGE COMPLETE

- DNAPL gauging and recovery ongoing
- LNAPL IRM ongoing

## 8. <u>DATA</u>

Final data not generated during this reporting period.

## 9. CITIZEN PARTICIPATION ACTIVITIES

None this reporting period.

## LIST OF ACRONYMS

Acronym

Description

**NYSDEC** 

New York

State Department

of Environmental

Conservation

LNAPL

Light Non-Aqueous Phase Liquid

DNAPL

Dense Non-Aqueous Phase Liquid

OU

Operable Unit

**IRM** 

Interim Remedial Measure

O&M

Operations and Maintenance

## **LIST OF REFERENCES**

FLUOR Daniel GTI, 1997. Draft Interim Remedial Measure Work Plan - Separate Phase Liquid Recovery. December.

TABLE I AUGUST DNAPL PUMPING SUMMARY (WEEK OF 8/5/2019) ATLANTIC RICHFIELD 1 RIVER STREET HASTINGS-ON-HUDSON, NEW YORK

Well ID	Well ID	Date Gauged/ Pumped		Installation Angle (deg)	Pre-Pumping Uncorrected Apparent Height (inches)	Pre-Pumping Corrected Apparent Height (inches)	Post-Pumping Uncorrected Apparent Height (inches)	Post-Pumping Corrected Apparent Height (inches)	Total Fluids Removed (gallons) <sup>4</sup>	Total DNAPL Removed (gallons) <sup>6</sup>	Post-Purging Distance of DNAPL Surface Below MS/Fill Interface (ft)
	0 /5 /2010 1	0	0	0	NA**	NA**	NA**	NA**	NA**		
HARW-1	8/3/2013		38.0	38.0	CHILD THE		42.0	7.6	4.5		
HARW-2	0/3/2013	0	38.0	NAME OF TAXABLE PARTY.	3.0	NA**	42.0	7.6	(0.000)		
33,00,003,003,000	8/6/2019		CO.	5.8	Water Park	TREMESE OF		NA**	3.8		
HARW-3	8/5/2019 2	16.5	6.0	5.8	NA**	NA**	NA**	NA .	5.0		
DARW-3	NA** 3		A THURSDAY	12.7	NA NA	AND DESCRIPTION OF THE PARTY OF			2.0		
HARW-4	8/5/2019 2	24.5	14.0	12.7	NA**	NA**	NA**	NA**	3.0		
HARW-4	NA** 3	24.5	DIATESTAN, USA	A SECTION AND ADDRESS OF	NA**	NA.					
	8/5/2019 2	5.0	63.0	57.8	<b>国的主义是</b>	THE REAL PROPERTY.	84.0	13.5	4.2		
HARW-5	8/6/2019	23.5			1.0	0.9					
Land Landson	8/5/2019		6.0	5.8			NA**	NA**	4.1		
HARW-6	NA**	14.0	JUNES AND		NA**	NA**					
	1000	2	20.0	20.0	CALL STRAIN	ALV SEE	NA**	NA**	3.0		
HARW-7	8/5/2019	- 0	20.0	MENTAL DELL'AND	NA**	NA**	INA.	NA	. 5.0		
	NA.	2	15.0	15.0	WALLES OF	ACTOR SELECT		NA**	3.5		
HARW-8	8/5/2019	- 0	15.0	13.0	NA**	NA**	NA**	NA***	3.3		
administration .	NA.		CHAPTER STATE	13.0	BETTER BETTER	THE REAL PROPERTY.	Coloniaus	process:	4.1		
HAOW-12A	0/3/2013	2 0	13.0	13.0	NA**	NA**	NA**	NA**	4.1		
TIMOW-12M	NA**	3	The Land of the	OWNERS COLD	IVA						

Total Gallons of DNAPL Removed:

21.1

<sup>1</sup>DNAPL not present, pumping not completed in this well

<sup>2</sup>Pre-pumping gauge date

<sup>3</sup>Post-pumping gauge date.

<sup>4</sup>Total gallons of fluid (DNAPL and groundwater) removed from well based on measurement in container.

<sup>5</sup>Represents the distance of the post-purging DNAPL material interface from the top of the MS/Fill interface.

<sup>6</sup>Unless otherwise noted, this column refers to the total volume of DNAPL removed based calculation of volume based on well diameter and height of DNAPL in the well,

\*DNAPL is present but is under 6-inches and discontinuous.

Apparent Height: refers to the distance between the DNAPL surface and the bottom of the well sump which includes all fluids (groundwater and DNAPL) in the matrix.

NA: Not Applicable

TABLE II SUMMARY OF DNAPL MEASUREMENTS NYSOEC #3-60-022 1 RIVER STREET HASTINGS-ON-HUDSON, NEW YORK

MW-12	Date Cumulative 10/9/2006 - 7/29/2010	Depth to Product (ft)	Product Apparent Height - Pre-pumping (ft)	Product Apparent Height - Post-pumping (ft)	Approximate Volume of Product Recovered (gallons) *	Days Elapsed Between Measurement Readings	Measurement Tool Used	Recovery Procedure User
					5.0			-
		TOTAL VOLUME R	ECOVERED TO DATE F	ROM MW-12 (GALLONS)	3.0			
			STATE OF BUILDING					
AOW-12A	Ounsulative 3/2/2009 - 12/10/2016				49.7		DMT*	
	1/16/2017 2/20/2017	42.0	1.6		And the second	37	DMT*	
	3/6/2017		DNAPL gauging of	or pumping not completed	due to adverse weather conditions		South	
	4/3/2017	42.3 42.2	1.3			49	DMT*	
	5/1/2017	42.1	1.5	-		28	DMT*	
	6/5/2017	42.3	1.3			28	DMT*	
	7/10/2017	42.3	1.3	-		35	DMT*	4
	8/7/2017	42.3	1,3		- :	35	DMT*	
	9/11/2017	42.5	1.1			28	DMT*	
	10/9/2017	42.3	1.3			35	DMT*	
- X	11/6/2017	42.3	1.3			28 28	DMT*	
	12/4/2017		DNAPL pumpin	g not required to be compl	eted (10 event requirement met)	20	DMT*	
3	1/8/2018	-	DNAPL gauging o	r pumping not completed of	due to adverse weather conditions		-	
	2/5/2018 3/5/2018	42.2	1.4	-		91	DMT*	
	4/2/2018	42.3 42.0	1.3		14	28	DMT*	
	5/7/2018	41.9	1.6		-	28	DMT*	
	6/5/2018	42.5	1.1			35	DMT*	
- 1	7/9/2018	42.2	1,4	-		29	DMT*	
	8/6/2018	42.3	1.3	-	- 1	34	DMT*	
	9/10/2018	42.3	1.3		-	28	DMT*	
100	10/1/2018	41.9	1.7		-	35	DMT <sup>4</sup>	
- 3	11/5/2018	42.9	0.8			21	DMT*	
3	12/10/2018	42.2	1.4			35 35	DMT*	
- 1	1/14/2019	42.9	0.7			35	DMT*	
	2/4/2019	42.3	1.3			21	DMT*	-
	3/11/2019	42.4	1.2			35	DMT*	
	4/1/2019	42.6	1.0			21	DMT*	
	5/6/2019	42.5	1.1			35	DMT*	
	6/3/2019	42.4	1.2		- 53	28	DMT*	
	8/5/2019	42.5	1.1			63	DMT*	
		TOTAL VOLUME RECOV	EDER TO DATE COOK	DAME AND AND LONG	49.7			
-		TOTAL POLUME RECOV	ERED TO DATE PROM	MACON-128 (BALLONSI)	49.7			
IARW-1	Cumulative 9/29/2010 - 12/10/2016				0.0			
	1/16/2017	No product detected	0.0		-	37	DMT*	
	2/20/2017		DNAPL gauging or	pumping not completed d	ue to adverse weather conditions		- Lower -	
	3/6/2017 4/3/2017	No product detected	0.0		12	49	DMT*	-
	5/1/2017	No product detected	0.0			28	DMT*	
	6/5/2017	No product detected	0.0			28	DMT*	
	7/10/2017	No product detected No product detected	0.0			35	DMT*	
	8/7/2017	No product detected	0.0			35	DMT*	
	9/11/2017	No product detected	0.0			28	DMT*	
	10/9/2017	No product detected	0.0			35 28	DMT*	- 2
	+ 11/6/2017	No product detected	0.0			28	DMY*	
	12/4/2017		DNAPL pumping	not required to be comple	ted (10 event requirement met)	28	DMT*	
-	1/8/2018		DNAPL gauging or	pumping not completed d	us to adverse weather conditions			
	2/5/2018	No product detected	0.0		and the second	91	DMT*	
	3/5/2018 4/2/2018	No product detected	0.0			28	DMT*	
1	5/7/2018	No product detected	0.0		- 2	28	DMT*	
-	6/5/2018	No product detected	0.0			35	DMT*	
	7/9/2018	No product detected	0.0		-	29	DMT*	
	8/6/2018	No product detected  No product detected	0.0			34	DMT*	
	9/10/2018	No product detected	0.0			28	DMT*	
	10/1/2018	No product detected	0.0	- :		35	DMT*	
	11/5/2018	No product detected	0.0		-	21	DMT*	-
1	12/10/2018	No product detected	0.0	- :		35	DWIT 1	
	1/14/2019	No product detected	0.0	- :		35	DMT*	
	2/4/2019	No product detected	0.0		- :	21	DMT*	
	3/11/2019	No product detected	0.0		- : -	35	DMT*	
	4/1/2019	No product detected	0.0			21	DMT*	
	5/6/2019	No product detected	0.0			35	DMT*	
		No product detected	0.0			28	DMT <sup>4</sup>	
	6/3/2019	NO brodatt cerected						
	6/3/2019 8/5/2019	No product detected	0.0					
		No product detected			0.0	63	DMT*	

SOVEREIGN CONSULTING INC.

TABLE II SUMMARY OF DNAPL MEASUREMENTS NYSDEC #3-60-022 1 RIVER STREET HASTINGS-ON-HUDSON, NEW YORK

	Date	Depth to Product (ft)	Product Apparent Height - Pre-pumping (ft)	Product Apparent Height - Post-pumping (ft)	Approximate Volume of Product Recovered (gallons) *	Days Elapsed Between Measurement Readings	Measurement Tool Used	Recovery Procedure Use
RW-2	Cumulative 9/29/2010 - 12/10/2016	7.			711.4		S 200 100 100 100 100 100 100 100 100 100	
1000	1/18/2017	36.0	4.0	0.7	6.7	37	DMT*	double diaphragm pump
	2/20/2017		DNAPL gauging of	r pumping not completed	due to adverse weather conditions		mont.	de lete discharges arms
	3/6/2017	36.3	3.7	0.2	9,1	47	DMT*	double diaphragm pump
	4/3/2017	38.0	2.0	0.04	5.1	28	DMT	double diaphragm pump
	5/1/2017	38.4	1.6	-	-	28	DMT*	7 41 4 1
	6/5/2017	36.0	4.0	0.17	10.0	35	DMT*	double diaphragm pump
	7/10/2017	38.2	1.8			35	DMT*	
	8/8/2017	35.3	4.7	0	12.2	29	DMT*	double diaphragm pump
	9/11/2017	39.5	0.5			34	DMT*	
1	10/9/2017	36.9	3.1	0.2	7.6	28	DMT*	double diaphragm pump
	11/5/2017	39.0	1.0	S		28	DMT*	
	12/4/2017		DNAPL pumpin	a not required to be comp	leted (10 event requirement met)			-
	1/8/2018	T	DNAPL gauging	or pumping not completed	due to adverse weather conditions	V COLUMN	-	-
	2/5/2018	34.3	5.7	80.0	14.6	91	DMT*	double diaphragm pump
	3/5/2018	38.8	1,3			28	DMT*	
	4/3/2018	36.9	3.1	0	8.1	29	DMT*	double diaphragm pump
	5/7/2018	38.2	1.8			34	DMT*	
		36.6	3.4	0.17	8.5	29	DMT*	double diaphragm pump
	6/5/201B	38.5	1.5			34	DMT*	
	7/9/2018	37.5	2.5	0.3	5.7	28	DMT	double diaphragm pump
	8/6/2018	38.4	1.6	0.3		35	DMT*	,
	9/10/2018		2.5	0.08	6.3	21	DMT*	double diaphragm pump
	10/1/2018	37.5		0.00	- 03	35	DMT*	
	11/5/2018	40.0	0.0	0.00		35	DMT*	double diaphragm pump
	12/10/2018	38.0	2.0	0.08	5	35	DMT*	
	1/14/2019	38.8	1.3			21	DMT*	double disphragm pump
	2/4/2019	38.0	2.0	80.0	5	35	DMT*	Goodile disprilagili poin
	3/11/2019	38.8	1.2				DMT*	
	4/1/2019	38.5	1.5		1.	21	DMT*	de late disabassas access
	5/8/2018	36.8	3.2	0.25	7.6	35		double diaphragm pum
	6/3/2019	38.8	1.3	1000		28	DMT*	
	8/5/2019	36.8	3,2	0.25	7.6	63	DMT*	double diaphragm pump
		TOTAL VOLUME RE	COVERED TO DATE FR	OM HARW-2 (GALLONS				
W-J	Cumulative 10/14/2010 - 12/10/2016	TOTAL VOLUME RE	COVERED TO DATE FR	OM HARW 2 (GALLONS	832.5			
ew-3	Cumulative 10/14/2010 - 12/10/2016 1/16/2017	TOTAL VOLUME RE	1,6		25.3	37	OMT*	
2W-3	Cumulative 10/14/2010 - 12/10/2016 1/16/2017 2/20/2017	37,4	1,6 DNAPL gauging					
2W-3	1/16/2017	37.A 37.9	1,5 DNAFL gauging 1,1		25.3 due to adverse weather conditions	49	DMT*	:
2W-3	1/16/2017 2/20/2017	37.A 37.9 37.6	1,6 DNAPL gauging 1,1	or pumping not completes	25.3 due to adverse weather conditions	49 28	DMT <sup>4</sup>	
W-J	1/16/2017 2/20/2017 3/5/2017	37.A 37.9	1,5 DNAFL gauging 1,1		25.3 due to adverse weather conditions	49 28 28	DMT*	:
C-Wi	1/16/2017 2/20/2017 3/8/2017 4/3/2017 5/11/2017	37.A 37.9 37.6	1,6 DNAPL gauging 1,1	or pumping not completes	25.3 due to adverse weather conditions	49 28 28 35	DMT* DMT* DMT*	:
C-WI	11/6/2017 2/20/2017 3/6/2017 4/3/2017 5/11/2017 6/5/2017	37.4 37.9 37.6 37.7	1,6 DNAPL gauging 1,1 1,4 1,3	or pumping not completed	25.3 due to adverse weather conditions	49 28 28 35 35	DMT* DMT* DMT*	
C-WI	1/6/2017 2/20/2017 3/6/2017 4/3/2017 5/11/2017 6/5/2017 7/10/2017	37.4 37.9 37.6 37.7 37.7	1.6 DNAPL gauging 1.1 1.4 1.3	or pumping not completed	25.3 due to adverse weather conditions	49 28 28 35 35 35	DMT* DMT* DMT* DMT*	
W-J	11/6/2017 2/20/2017 3/6/2017 4/3/2017 5/11/2017 6/5/2017 7/10/2017	37.A 37.9 37.6 37.7 37.7 37.7	1,6 DNAPL gauging 1,1 1,4 1,3 1,3	or pumping not completed	25.3 due to adverse weather conditions	49 28 28 35 35 28 35	DMT <sup>4</sup> DMT <sup>4</sup> DMT <sup>4</sup> DMT <sup>4</sup> DMT <sup>4</sup> DMT <sup>4</sup>	
W-J	1/6/2017 2/20/2017 3/6/2017 4/3/2017 5/11/2017 6/5/2017 7/10/2017	37.4 37.5 37.6 37.7 37.7 37.7 37.3	1.5 DNAFL gauging 1.1 1.4 1.3 1.3 1.7	or pumping not completed	25.3 due to adverse weather conditions	49 28 28 33 35 35 28 35 28	DMT* DMT* DMT* DMT* DMT* DMT* DMT*	
rw-3	11/6/2017 22/20/2017 3/6/2017 4/3/2017 4/3/2017 6/5/2017 7/10/2017 8/1/2017 9/11/2017	37.4 37.9 37.6 37.7 37.7 37.3 37.6 37.2	1,5 DNAFL gauging 1,4 1,3 1,3 1,7 1,4 1,8 1,8 1,4	or pumping not completed	25.3 due to adverse wealther conditions	49 28 28 35 35 28 35	DMT <sup>4</sup> DMT <sup>4</sup> DMT <sup>4</sup> DMT <sup>4</sup> DMT <sup>4</sup> DMT <sup>4</sup>	
IW-3	11/6/2017 2/20/2017 3/6/2017 4/3/2017 5/11/2017 6/5/2017 7/1/10/2017 8/7/2017 9/11/2017 19/9/2017	37.4 37.9 37.6 37.7 37.7 37.3 37.6 37.6 37.2 37.6	1.6 DRAFL gauging 1.1 1.4 1.3 1.3 1.7 1.4 1.8 1.4 1.3 DNAFL gaugeing	er pumping not completed	25.3 due to adverse weather conditions.	49 28 28 35 35 35 28 35 28 28 28	DMT* DMT* DMT* DMT* DMT* DMT* DMT*	
IW-3	11/6/2017 2/20/2017 3/5/2017 4/3/2017 5/1/2017 6/5/2017 7/1/2017 8/1/2017 9/1/2017 19/1/2017 19/1/2017 11/6/2017	37.A 37.9 37.6 37.7 37.7 37.3 37.6 37.2 37.6 37.2	1.6 DRAFL gauging 1.1 1.4 1.3 1.3 1.7 1.4 1.8 1.4 1.3 DNAFL gaugeing	er pumping not completed	25.3 due to adverse wealther conditions	49 28 28 35 35 28 35 28 28 28	DMT*  DMT*  DMT*  DMT*  DMT*  DMT*  DMT*	
W-3	1146/2017 2/20/2017 38/2017 45/2017 85/2017 85/2017 75/2017 75/2017 95/10/2017 19/2017 19/2017 19/2017 19/2017	37.4 37.9 37.6 37.7 37.7 37.3 37.6 37.6 37.2 37.6	1.6 DRAFL gauging 1.1 1.4 1.3 1.3 1.7 1.4 1.8 1.4 1.3 DNAFL gaugeing	er pumping not completed	25.3 due to adverse weather conditions.	49 28 28 35 35 35 28 35 28 35 28	DMT*  DMT*  DMT*  DMT*  DMT*  DMT*  DMT*  DMT*	
w-3	11/6/2017 2/20/2017 3/5/2017 4/3/2017 5/1/2017 6/5/2017 7/1/2017 8/1/2017 19/1/2017 11/6/2017 11/6/2017 1/8/2016 2/5/2016	37.A 37.9 37.6 37.7 37.7 37.3 37.6 37.2 37.6 37.2	1.6 DENAPL gauging 1.1 1.4 1.3 1.3 1.7 1.4 1.8 1.4 1.3 DNAPL purisi	er pumping not completed	25.3 due to adverse weather conditions due to adverse weather conditions elected (10 event requirement rest) due to adverse weather conditions	28 28 29 35 35 35 28 35 28 28 28 28	DML,	
w-3	11/6/2017 2/20/2017 3/6/2017 4/3/2017 8/1/2017 8/1/2017 7/7/2017 8/1/2017 11/6/2017 11/6/2017 11/6/2017 12/6/2017 18/2016 2/5/2016	37.A 37.9 37.6 37.7 37.7 37.7 37.3 37.6 37.2 37.6 37.2 37.6 37.7	1.6  DNAFL gauging 1.1 1.4 1.3 1.3 1.7 1.4 1.8 1.4 1.3 ONAPL purging DNAPL gauging	er pumping not completed	25.3 due to adverse weather conditions.	49 28 28 35 35 35 28 32 28 28 28 28 28 28 28 28 28 28 28 28 28	DML,	double disphragm pur
W-3	11/6/2017 2/20/2017 3/6/2017 3/6/2017 4/3/2017 5/1/2017 6/5/2017 7/1/2017 9/1/2017 19/1/2017 19/1/2017 11/6/2017 1/6/2017 1/6/2018 2/5/2018 4/2/2018	37.A 37.9 37.6 37.7 37.7 37.3 37.6 37.2 37.6 37.7 37.5 37.5	1.5 DNAPL gauging 1.1 1.4 1.3 1.7 1.4 1.8 1.4 1.3 1.4 1.3 DNAPL pauging DNAPL pauging 1.5 1.8	or pumping not complete:	25.3 due to adverse weather conditions due to adverse weather conditions elected (10 event requirement rest) due to adverse weather conditions	49 28 28 35 35 35 28 23 22 28 4 91 28 22 28	DML,	double disphragm pur
W-3	1146/2017 2/20/2017 38/2017 4/3/2017 8/1/2017 8/1/2017 7/4/2017 9/1/2017 9/1/2017 19/1/2017 19/1/2017 19/1/2018 2/3/2018 4/2/2018	37.4 37.9 37.6 37.7 37.7 37.3 37.6 37.2 37.6 37.2 37.6 37.7 37.5 37.5 37.5 37.5	1.6 DNAF4_gauging 1.1 1.4 1.3 1.3 1.7 1.7 1.8 1.8 1.8 1.9 DNAP4_gauging 1.5 1.8 1.5 1.8	or pumping not complete:	25.3 due to adverse weather conditions	49 28 28 35 35 35 28 32 28 28 28 28 28 28 28 28 28 28 28 28 28	DML,	double disphragm pur
W-3	11/6/2017 2/20/2017 3/6/2017 4/1/2017 4/1/2017 4/1/2017 7/1/2017 9/1/1/2017 19/1/2017 19/1/2017 19/1/2017 19/1/2017 19/1/2017 19/1/2017 19/1/2018 4/2/2018 4/2/2018 5/7/2018	37.4 37.9 37.6 37.7 37.7 37.3 37.6 37.2 37.6 37.7 37.5 37.5 37.5 37.5 37.5 37.5 37.5 37.7	1.5 DNAFL gauging 1.1 1.1 1.2 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	or pumping not completes  property of the completes  property of the completes  or participated to be completed  or participated completes	25.3 due to adverse weather conditions	49 28 28 35 35 35 28 23 22 28 4 91 28 22 28	DML,	double disphragm pur
W-3	11/6/2017 2/20/2017 3/6/2017 3/6/2017 3/1/2017 8/1/2017 8/1/2017 8/1/2017 8/1/2017 11/6/2017 11/6/2017 11/6/2017 11/6/2018 2/2/2018 4/2/2018 5/7/2018 6/5/2018	37.4 37.9 37.6 37.7 37.7 37.3 37.3 37.3 37.5 37.5 37.5 37.5 37.5 37.5 37.5 37.5 37.5 37.7 38.6	1.5 DNAFE, gauging 1.1 1.4 1.3 1.3 1.7 1.7 1.4 1.3 1.7 1.7 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	or pumping not completes  grant required to be compared or participated to be completed.	25.3 due to adverse weather conditions	49 28 28 35 35 28 35 28 20 20 21 21 22 22 23 35 26 26 35 26 27 28 28 28 28 28 28 28 28 28 28 28 28 28	DMT*  DMT*  DMT*  DMT*  DMT*  DMT*  DMT*	double disphragm pur
W-3	11/6/2017 2/20/2017 38/2017 4/30/2017 4/30/2017 4/30/2017 4/30/2017 4/30/2017 4/30/2017 4/30/2017 4/30/2017 11/4/2017 11/4/2017 11/4/2017 11/4/2017 11/4/2018 4/3/2018 4/3/2018 5/5/2018 5/5/2018 6/5/2018	37.4 37.2 37.6 37.7 37.7 37.7 37.3 37.6 37.2 37.6 37.7 37.5 38.6 38.7 38.7 38.7	1.6 ONAPA, posping 1.1 1.4 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	or pumping and complete  property and complet	25.3 due to adverse weather conditions	49 28 28 35 35 26 28 28 28 28 28 28 28 28 29 28 29 28 29 28 29 28 28 28 28 28 28 28 28 28 28 28 28 28	DML,	double disphragim pur
W-3	11/6/2017 2/20/2017 3/6/2017 3/6/2017 3/1/2017 8/1/2017 8/1/2017 8/1/2017 11/6/2017 11/6/2017 11/6/2017 12/6/2017 12/6/2017 14/6/2017 14/6/2018 5/2018 4/2/2018 5/7/2018 6/5/2018 8/6/2018	37.4 37.9 37.6 37.7 37.7 37.3 37.3 37.3 37.5 37.7 37.7 37.5 37.7 37.5 37.7 37.5 37.7 38.6	1.5 DNAFF, gasying 1.1 1.4 1.3 1.3 1.7 1.7 1.4 1.3 1.7 1.7 1.4 1.5 1.7 1.6 1.6 1.6 1.7 1.7 1.7 1.8 1.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	or pumping not complete provinging not complete provinging not required to be comp provinging not complete provinging not complete	25.3 due to adverse weather conditions 3.5	49 28 28 35 35 28 35 28 28 29 29 29 29 29 35 20 20 35 20 20 35 35 20 20 35 20 20 35 35 20 20 20 20 20 20 20 20 20 20 20 20 20	DMT'	double disphragm pur
W-3	11/6/2017 2/20/2017 38/6/2017 4/3/2017 4/3/2017 4/3/2017 4/3/2017 4/3/2017 4/3/2017 4/3/2017 4/3/2017 4/3/2017 11/4/2017 11/4/2017 11/4/2017 11/4/2018 4/3/2018 4/3/2018 4/3/2018 5/3/2018 6/6/2018 9/1/2018 9/1/2018	37.4 37.6 37.9 37.7 37.7 37.7 37.3 37.6 37.2 37.6 37.7 37.5 38.6 38.7 39.7 38.6	1.6 0.00FL paying 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.	or pumping and completed	25.3  due to adverse weather conditions	49 28 28 35 35 28 28 28 28 35 35 35 28 35 35 35 35 35 35 35 35 35 35 35 35 35	DMI,	double disphragin pum
244-3	11/6/2017 2/20/2017 2/20/2017 3/5/2017 3/5/2017 4/3/2017 4/3/2017 6/5/2017 7/7/2021 6/5/2017 11/6/2017 11/6/2017 11/6/2017 11/6/2017 11/6/2017 11/6/2018 4/2/2018 4/2/2018 5/7/2018 6/5/2018 6/5/2018 6/5/2018 6/5/2018 6/6/2018 6/6/2018 6/6/2018	37.4 37.9 37.6 37.7 37.7 37.3 37.3 37.3 37.5 37.5 37.7 37.5 37.5 37.5 37.5 37.5 37.5 38.6 38.7 39.7 39.3	1.5 DNAFF, gasging 1.1 1.4 1.3 1.3 1.7 1.4 1.3 1.3 1.7 1.4 1.5 1.8 1.6 1.6 1.6 1.6 1.7 1.7 1.7 1.8 1.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	or pumping not complete provinging not complete provinging not required to be comp provinging not complete provinging not complete	25.3 due to adverse weather conditions 3.3	49 28 28 35 35 29 29 29 20 20 20 20 20 20 35 20 20 20 35 20 20 35 20 20 20 20 20 20 20 20 20 20 20 20 20	DMI,	double disphragin pum
24-3	11/6/2017 2/20/2017 38/6/2017 4/3/2017 4/3/2017 4/3/2017 4/3/2017 4/3/2017 4/3/2017 4/3/2017 4/3/2017 4/3/2017 11/4/2017 11/4/2017 11/4/2017 11/4/2018 4/3/2018 4/3/2018 4/3/2018 5/3/2018 6/6/2018 9/1/2018 9/1/2018	37.4 37.2 37.9 37.7 37.7 37.7 37.3 37.6 37.2 37.6 37.7 37.5 36.6 38.7 38.6 38.6 38.6	1.6 000FL 0009FL	or pumping and completed	25.3  due to adverse weather conditions	49 28 28 35 35 28 28 28 35 35 35 35 35 35 35 35 35 35 35 35 35	DMI,	double disphragin pum
C-W13	11/6/2017 2/20/2017 2/20/2017 3/5/2017 3/5/2017 4/3/2017 4/3/2017 6/5/2017 7/7/2021 6/5/2017 11/6/2017 11/6/2017 11/6/2017 11/6/2017 11/6/2017 11/6/2018 4/2/2018 4/2/2018 5/7/2018 6/5/2018 6/5/2018 6/5/2018 6/5/2018 6/6/2018 6/6/2018 6/6/2018	37.4 37.9 37.6 37.7 37.7 37.3 37.3 37.3 37.5 37.5 37.7 37.5 37.5 37.5 37.5 37.5 37.5 38.6 38.7 39.7 39.3	1.5 DNAFF, gasging 1.1 1.4 1.3 1.3 1.7 1.4 1.3 1.3 1.7 1.4 1.5 1.8 1.6 1.6 1.6 1.6 1.7 1.7 1.7 1.8 1.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	or pumping and completed	25.3 due to adverse weather conditions 3.3	49 28 28 35 35 35 35 35 35 35 35 35 35 35 35 35	DMT' DMT' DMT' DMT' DMT' DMT' DMT' DMT'	double disphragm pum
rw-3	11/6/2017 2/20/2017 2/20/2017 3/5/2017 3/5/2017 4/3/2017 4/3/2017 6/5/2017 7/7/2017 6/5/2017 7/7/2017 11/6/2017 11/6/2017 11/6/2017 12/6/2017 12/6/2017 13/6/2018 4/2/2018 4/2/2018 6/5/2018	37.4 37.2 37.9 37.7 37.7 37.7 37.3 37.6 37.2 37.6 37.7 37.5 36.6 38.7 38.6 38.6 38.6	1.6 000FL 0009FL	or pumping and completed	25.3 due to adverse weather conditions 3.3	49 28 28 35 35 28 28 28 35 35 35 35 35 35 35 35 35 35 35 35 35	DMT*	double disphregm pum
C-WI	11/6/2017 20/00017 38/00017 40/2017 40/2017 51/2017 51/2017 71/2017 71/2017 11/2017 11/2017 11/2017 11/2017 11/2017 11/2018 20/2018 40/2019 40/2019 40/2019 40/2019	37.4 37.2 37.9 37.9 37.7 37.7 37.3 37.6 37.2 37.6 37.7 37.5 36.6 36.7 38.7 38.6 38.6 38.6 38.6	1.6 000FL 0000FL	or pumping and completed	25.3 due to adverse weather conditions 3.3	49 28 28 35 35 35 35 35 35 35 35 35 35 35 35 35	DMT' DMT' DMT' DMT' DMT' DMT' DMT' DMT'	double disphragm pum
2W-3	11/6/2017 2/20/2017 2/20/2017 3/5/2017 3/5/2017 4/3/2017 4/3/2017 6/5/2017 7/7/2017 6/5/2017 7/7/2017 11/6/2017 11/6/2017 11/6/2017 11/6/2017 11/6/2017 11/6/2017 11/6/2017 11/6/2018 4/2/2018 4/2/2018 4/2/2018 6/5/2018 6/5/2018 6/5/2018 11/6/2018 11/6/2018 11/6/2018 11/6/2018 11/6/2018 11/6/2018 11/6/2018 11/6/2018	37.4 37.9 37.6 37.7 37.7 37.3 37.3 37.5 37.5 37.5 37.7 37.5 37.5 37.5 37.5 37.5 37.5 37.5 38.6 38.6 38.6 38.7 38.6 38.7 38.6 38.7 38.6 38.7 38.6 38.7 38.6 38.7 38.6 38.6 38.7 38.6 38.7 38.6 38.6 38.6 38.6 38.6 38.7 38.6	1.5 DNAPE, gauging 1.1 1.1 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	or pumping not completely provided to be completely or pumping not required to be comp or provided to be completely or consistent completely	25.3  due to adverse weather conditions  3.3	49 28 28 35 35 28 28 28 35 35 35 35 35 35 35 35 35 35 35 35 35	DMT*	double disphregm pum
24/-3	11/6/2017 20/00017 38/5017 40/2017 40/2017 40/2017 51/2017 51/2017 71/40/2017 11/40/2017 11/40/2017 11/40/2017 11/40/2017 11/40/2017 11/40/2017 11/40/2018 20/2018 40/2018 11/40/2018 11/40/2018 11/40/2018 11/40/2018 11/40/2018 11/40/2018 11/40/2018 11/40/2018 11/40/2018 11/40/2018 11/40/2018	37.4 37.2 37.2 37.2 37.7 37.7 37.3 37.6 37.2 37.6 37.7 37.5 36.6 38.7 38.7 38.6 38.7 38.7	1.6 000FL 0000FL	or pumping not complete or pumping not complete or pumping not complete or pumping not complete 0.3	25.3 due to adverse weather conditions 3.3	49 28 28 35 35 35 35 35 35 35 35 35 35 35 35 35	DMT' DMT' DMT' DMT' DMT' DMT' DMT' DMT'	double disphragm pum
74-3	11/6/2017 2/20/2017 2/20/2017 3/5/2017 3/5/2017 4/5/2017 4/5/2017 4/5/2017 4/5/2017 4/5/2017 4/5/2017 4/5/2017 4/5/2017 4/5/2017 4/5/2017 4/5/2017 4/5/2018	37.4 37.9 37.6 37.7 37.7 37.3 37.3 37.3 37.5 37.5 37.7 37.5 37.5 37.5 37.5 37.5 37.5 37.5 37.5 37.5 37.5 37.7 37.5 38.6 38.7 38.6 38.7 38.6 38.7 38.6 38.7 38.7 38.6 38.7 38.6 38.7 38.7 38.6 38.7	1.5 DNAPE, gauging 1.1 1.1 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	or pumping not complete or pumping not complete or pumping not complete or participated to be com or participated to be com or participated to be complete or participated to be completed	25.3 due to adverse weather conditions 3.3	49. 28. 28. 29. 35. 35. 35. 29. 29. 20.  61. 28. 29. 29. 29. 29. 29. 29. 29. 29. 29. 29	DMT' DMT' DMT' DMT' DMT' DMT' DMT' DMT'	double disphragm pum
14-3	11/6/2017 20/02017 20/02017 38/5/2017 40/2017 40/2017 51/5/2017 51/5/2017 77/6/2017 77/6/2017 18/6/2017 18/6/2017 18/6/2017 18/6/2017 18/6/2017 18/6/2018 26/2018 46/2018 46/2018 18/6/2018 18/6/2018 18/6/2018 11/6/2018	37.4 37.4 37.2 37.9 37.7 37.7 37.7 37.6 37.6 37.6 37.7 37.6 37.7 37.6 37.7 37.6 37.6 37.7 37.6 37.6 37.7 37.6 37.7 37.6 37.7 37.6 37.7 37.6 37.7 37.6 37.7 37.6 37.7 37.7 37.6 37.7 37.6 37.7 37.7 37.6 37.7 37.6 37.7 37.7 37.6 37.7 37.7 37.6 37.7 37.6 37.7 37.6 37.7 37.6 37.7 37.6 37.7 37.6 37.7 37.6 37.7 37.6 37.7 37.6 38.7	1.6 000FL 0000FL	or pumping not complete or pumping not complete or pumping not complete or participated to be com or participated to be com or participated to be complete or participated to be completed	25.3  due to adverse weather conditions  3.3	49 28 28 35 35 28 28 35 35 35 35 35 35 35 35 35 35 35 35 35	DMT*  DMT -  DMT	double disphragin pum
RW-3	11/6/2017 2/20/2017 2/20/2017 3/5/2017 3/5/2017 4/5/2017 4/5/2017 4/5/2017 4/5/2017 4/5/2017 4/5/2017 4/5/2017 4/5/2017 4/5/2017 4/5/2017 4/5/2017 4/5/2018	37.4 37.9 37.6 37.7 37.7 37.3 37.3 37.3 37.5 37.5 37.7 37.5 37.5 37.5 37.5 37.5 37.5 37.5 37.5 37.5 37.5 37.7 37.5 38.6 38.7 38.6 38.7 38.6 38.7 38.6 38.7 38.7 38.6 38.7 38.6 38.7 38.7 38.6 38.7	1.5 DNAPE, gauging 1.1 1.1 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	or pumping not complete or pumping not complete or pumping not complete or participated to be com or participated to be com or participated to be complete or participated to be completed	25.3 due to adverse weather conditions 3.3	49. 28. 28. 29. 35. 35. 35. 29. 29. 20.  61. 28. 29. 29. 29. 29. 29. 29. 29. 29. 29. 29	DMT*  DMT -  DMT	double disphragm pum

SOVEREIGN CONSULTING INC.

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TABLE II SUMMARY OF DNAPL MEASUREMENTS NYSDEC #3-60-022 1 RIVER STREET HASTINGS-ON-HUDSON, NEW YORK

	Date	Depth to Product (ft)	Product Apparent Height - Pre-pumping (ft)	Product Apparent Height - Post-pumping (ft)	Approximate Volume of Product Recovered (gallons) *	Days Elapsed Between Measurement Readings	Measurement Tool Used	Paraman Property of the
RW-4	Cumulative 10/14/2010 - 12/10/2016				202 3	-	Useu	Recovery Procedure Use
	1/16/2017	39.3	1.7		- A	37	DMT*	
	2/20/2017		DNAPL gauging of	r pumping not completed	due to adverse weather conditions		DMT*	
	3/6/2017	39.5	1.5			49	DMT*	
	4/4/2017	38.5	2.5	0.2	6.1	29	DMT*	double disphragm pump
	5/1/2017	40.3	8.0			27	DMT*	оссоло стеривадии разпр
	6/5/2017	40.3	8.0	- 100		35	DMT*	
		39.9	1.1	-		35	DMT*	
	8/7/2017	39.9	1.1			28	DMT*	
	9/11/2017	39.6	1.4	-		35	DMT*	
	11/6/2017	39.8	1.2	-	-	28	DMT*	
	12/4/2017	39.4	1,6	-		28	DMT	
	1/8/2018		DNAPL pumping	not required to be compl	eted (10 event requirement met)			
	2/5/2018	20.7 I	LINAPL gauging o	r pumping not completed of	due to adverse weather conditions			
3	3/5/2018	39.3	1.7	-	4	91	DMT*	
- 3	4/2/2018		1.1			28	DMT*	
	5/8/2018	39.3	1.7	- "	144	28	DMT*	
- 5		38.8	2.2	0.1	5.4	36	DMT*	double diaphragm pump
3.	6/5/2018	40.8	0.2	- On-	-	28	DMT*	account on processing parties
	7/9/2018	40.8	0.2	-		34	DMT*	
	8/6/2018	40.8	0.3	-	-	28	DMT*	
- 3	9/10/2018	40.8	0.2	-		35	DMT*	
1 8	10/1/2018	40.5	0.5	-	-	21	DMT*	
3	11/5/2018	40.5	0.5	-		35	DMT <sup>4</sup>	
- 3	12/10/2018	40.4	0.6	-	the state of the s	35	DMT*	
- 1	1/14/2019	40.4	0.6			35	DMT*	
	2/4/2019	40.4	0.6	-	-	21	DMT*	
- 3	3/11/2019	40.3	8.0	-		35	DMT*	
2	4/1/2019	39.8	1.2	-		21	DMT*	
3	5/6/2019	40.0	1.0			35	DMT*	
	6/3/2019	40,0	1.0		-	28	DMT <sup>4</sup>	
	8/5/2019	39.8	1.2		-	63	DMT <sup>4</sup>	
		TOTAL VOLUME REC	OVERED TO DATE FRO	M HARW-4 (GALLONS)	213.8			
RW-5	Cumulative 7/18/2011 - 12/10/2016	- 1		- 7	800.2			
	1/17/2017	35.2	5.1	0.2	14.1	37	DMT <sup>4</sup>	
								double disphragm pump
1	2/20/2017		DNAPL gauging or	pumping not completed d	ue to adverse weather conditions.			
	3/6/2017	37.2	3.1	pumping not completed d 0.1	ue to adverse weather conditions 8.7	48		-
	3/6/2017 4/4/2017	37.2 35.3	3.1 5.0	0.1 0.0	8.7	48	DMT '	double disphragm pump
	3/6/2017 4/4/2017 5/2/2017		3.1	0.1	8.7 12.9	29	DMT*	double disphragm pump double disphragm pump
	3/6/2017 4/4/2017 5/2/2017 6/5/2017	35.3	3.1 5.0	0.1 0.0 0.0	8.7 12.9 15.7	29 28	DMT*	double disphragm pump double disphragm pump double disphragm pump
	3/6/2017 4/4/2017 5/2/2017 6/5/2017 7/11/2017	35.3 34.3 35.3 35.0	5.0 6.0	0.1 0.0 0.0 0.1	8.7 12.9 15.7 12.8	29 28 34	DMT* DMT* DMT*	double diaphragm pump double diaphragm pump double diaphragm pump double diaphragm pump
	3/6/2017 4/4/2017 5/2/2017 6/5/2017 7/11/2017 8/7/2017	35.3 34.3 35.3	3.1 5.0 6.0 5.0	0.1 0.0 0.0	8.7 12.9 15.7 12.8 13.7	29 28 34 36	DMT* DMT* DMT* DMT*	double disphragm pump double disphragm pump double disphragm pump double disphragm pump double disphragm pump
	3/6/2017 4/4/2017 5/2/2017 6/5/2017 7/11/2017 8/7/2017 9/11/2017	35.3 34.3 35.3 35.0 35.0 34.6	3.1 5.0 6.0 5.0 5.3	0.1 0.0 0.0 0.1 0.1	8.7 12.9 15.7 12.8 13.7 12.8	29 28 34 36 27	DMT*  DMT*  DMT*  DMT*  DMT*	double disphragm pump double disphragm pump double disphragm pump double disphragm pump double disphragm pump double disphragm pump
	3/8/2017 4/4/2017 5/2/2017 6/5/2017 7/11/2017 9/11/2017 9/11/2017	35.3 34.3 35.3 35.0 35.0	3.1 5.0 6.0 5.0 5.3 5.0	0.1 0.0 0.0 0.1 0.1 0.1	8.7 12.9 15.7 12.8 13.7 12.8 14.1	29 28 34 36 27 35	DMT*  DMT*  DMT*  DMT*  DMT*	double disphragm pump double disphragm pump double disphragm pump double disphragm pump double disphragm pump double disphragm pump double disphragm pump
	3/6/2017 44/2017 5/2/2017 6/5/2017 7/11/2017 8/7/2017 9/11/2017 10/9/2017 11/6/2017	35.3 34.3 35.3 35.0 35.0 34.6	3.1 5.0 6.0 5.0 5.3 5.0 5.7 4.7 4.3	0.1 0.0 0.0 0.1 0.1 0.1 0.3 0.0	8.7 12.9 15.7 12.8 13.7 12.6 14.1 12.2	29 28 34 36 27 35 28	DMT '	double disphragm pump double disphragm pump
	38/2017 44/2017 5/2/2017 6/5/2017 7/11/2017 8/7/2017 9/1/2017 10/9/2017 11/6/2017 12/4/2017	35.3 34.3 35.3 35.0 35.3 34.6 35.6	3.1 5.0 6.0 5.0 5.3 5.0 5.7 4.7 4.3 0NAPL pumping	0.1 0.0 0.0 0.1 0.1 0.1 0.3 0.0 0.0 not received to be comple	8.7 12.9 15.7 12.8 13.7 12.8 14.1 12.2 11.3	29 28 34 36 27 35	DMT*  DMT*  DMT*  DMT*  DMT*	double disphragm pump double disphragm pump
	38/2017 44/2017 5/2017 6/5/2017 6/5/2017 7/11/2017 8/7/2017 9/11/2017 11/6/2017 12/4/2017 1/8/2016	35.3 34.3 35.3 35.0 35.0 35.2 34.6 35.6 36.0	3.1 5.0 6.0 5.0 5.3 5.0 5.7 4.7 4.3 DNAPL pumping DNAPL gauging or	0.1 0.0 0.0 0.1 0.1 0.1 0.3 0.0 0.0 not received to be comple	8.7 12.9 15.7 12.8 13.7 12.8 14.1 12.2 11.3	29 28 34 36 27 35 28	DMT '	double disphragm pump double disphragm pump
	38/2017 44/2017 5/2/2017 6/5/2017 7/11/2017 8/7/2017 6/11/2017 10/9/2017 11/5/2017 12/4/2017 1/6/2018	35.3 34.3 35.3 35.0 35.0 35.3 34.6 35.6 36.0	3.1 5.0 6.0 5.0 5.3 5.0 5.7 4.7 4.3 DNAPL pumping DNAPL gauging or 5.5	0.1 0.0 0.0 0.1 0.1 0.1 0.3 0.0 0.0 not received to be comple	8.7 12.9 15.7 12.8 13.7 12.6 14.1 12.2	29 28 34 36 27 35 28	DMT ' DMT ' DMT ' DMT '	double disphragm pump dauble disphragm pump double disphragm pump
	38/2017 44/2017 5/22017 6/5/2017 6/5/2017 7/11/2017 8/7/2017 9/11/2017 10/9/2017 118/2017 118/2017 148/2018 2/4/2018 2/4/2018 3/4/2018	35.3 34.3 35.3 35.0 35.0 35.0 35.0 35.6 36.0	3.1 5.0 6.0 5.0 5.3 5.0 5.7 4.7 4.3 DNAPL pumping ONAPL gauging or 5.5	0.1 0.0 0.0 0.1 0.1 0.1 0.1 0.3 0.0 0.0 not required to be completed of 4.0	8.7 12.9 15.7 12.8 13.7 12.8 14.1 12.2 14.1 12.2 16d (10 event requirement met) us to adverse weather conditions	29 28 34 36 27 35 28 28	DMT' DMT' DMT' DMT' DMT' DMT' DMT' DMT'	double disphrages pump dauble disphrages pump double disphrages pump
	38/2017 44/017 44/017 5/2/017 6/5/017 6/5/017 7/11/0017 8/7/017 6/11/0017 10/9/0017 11/5/0017 11/5/0017 12/4/0017 16/5/018 26/6/016 38/0016 4/5/016	35.3 34.3 35.3 35.0 35.0 35.0 34.6 35.6 36.0	3.1 5.0 6.0 5.0 5.3 5.0 5.7 4.7 4.3 ONAPL pumping ONAPL pumping ONAPL 50.0 5.5 5.0 5.0	0.1 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.3 0.0 0.0 not required to be completed of 4.0	8.7 12.9 15.7 12.8 13.7 12.8 14.1 14.1 12.2 11.3 represent requirement ment) to to adverse weather coorditions 3.9 12.8	29 28 34 36 27 35 28 28 28	DMT' DMT' DMT' DMT' DMT' DMT' DMT' DMT'	double disphragm pump dauble disphragm pump double disphragm pump
	38/2017 44/2017 5/22017 6/5/2017 6/5/2017 7/11/2017 8/7/2017 9/11/2017 10/5/2017 11/5/2017 11/5/2017 12/4/2018 2/4/2018 4/4/2018 5/6/2018	35.3 35.3 35.3 35.0 35.6 35.6 36.0 34.8 35.3 36.3 36.3 36.3 35.3	3.1 5.0 6.0 5.9 5.3 5.0 5.7 4.7 4.3 0NAPL pumping ONAPL pauging or 5.5 5.0	0.1 0.0 0.0 0.1 0.1 0.1 0.1 0.3 0.0 0.0 not required to be completed of 4.0	8.7 12.9 15.7 12.8 13.7 12.8 14.1 12.2 11.3 10d (10 event regularment met) us to adverse weather conditions	29 28 34 36 37 35 28 28 28 28 28 28	DMT' DMT' DMT' DMT' DMT' DMT' DMT' DMT'	double disphragm pump double disphragm pump
	38/2017 44/017 44/017 5/2/017 6/5/017 6/5/017 7/11/0017 8/7/017 8/11/0017 10/9/0017 11/5/0017 11/5/0017 11/5/0017 11/5/0017 11/5/0017 11/5/0018 5/6/016 5/6/0018 6/6/0018	35.3 34.3 35.3 35.0 35.0 35.0 34.6 35.6 36.0 34.8 35.3 35.3 35.3 36.3 36.4	3.1 5.0 6.0 5.0 5.3 5.0 5.7 4.7 4.3 ONAPL pumping ONAPL pumping ONAPL 50.0 5.5 5.0 5.0	0.1 0.0 0.0 0.1 0.1 0.1 0.3 0.0 0.0 0.0 not required to be completed of 4.0 0.1	8.7 12.9 15.7 12.8 15.7 12.8 13.7 12.8 13.7 12.8 13.7 12.8 14.1 12.1 12.8 14.1 12.2 14.1 12.2 14.1 12.2 14.1 12.2 14.1 12.2 14.1 12.2 14.1 12.3 14	29 28 34 36 27 35 28 28 28 28	DMT'  DMT'  DMT'  DMT'  DMT'  DMT'  DMT'  DMT'	double disphragm pump double disphragm pump
	38/2017 48/2017 48/2017 58/2017 68/2017 7711/2017 87/2017 91/10/2017 10/90/2017 11/6/2017 12/4/2017 13/4/2017 13/4/2016 58/2018 58/2018 58/2018 58/2018	35.3 35.3 35.0 35.0 35.6 35.6 36.0 34.6 35.6 36.3 35.3 36.3 36.3 36.3 36.3 36	3.1 5.0 6.0 5.0 5.3 5.0 5.7 4.7 4.3 0NAPL pumping ONAPL gauging or 5.5 5.0 4.0 3.9	0.1 0.0 0.0 0.1 0.1 0.1 0.1 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	8.7 12.9 15.7 12.8 13.7 12.8 14.1 12.2 11.3 10d (10 event requirement met) ue to adverte weather conditions 12.6 9.8	29 28 34 36 36 27 35 28 28 28 29 20 35 35 28 28 28 28 28 28 28 28 28 28 28 28 28	DMT'  DMT'  DMT'  DMT'  DMT'  DMT'  DMT'  DMT'  DMT'	double disphragm pump double disphragm pump
	38/2017 44/017 44/017 5/2/017 6/5/017 6/5/017 7/11/0017 8/7/017 8/11/0017 19/9/0017 11/5/017 11/5/017 11/5/017 11/5/017 11/5/017 11/5/018 38/016 4/5/018 6/5/018 6/5/018 6/7/016	35.3 34.3 35.3 35.0 35.0 35.0 35.6 35.6 36.0 34.6 35.6 36.3 36.3 36.3 36.3 36.4 35.6 36.4	3.1 5.0 6.0 5.0 5.3 5.0 5.7 4.7 4.3 DNAPL pumping ONAPL gauging or 5.5 5.0 4.0 5.2	0.1 0.0 0.0 0.1 0.1 0.1 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0	8.7 12.9 15.7 12.8 15.7 12.8 13.7 12.8 13.7 12.8 14.1 12.2 14.1 12.2 11.3 16.0 (10 event regionment met) us to galvertie weather conditions 3 2.8 9.8 9.8	29 28 34 34 39 27 27 28 28 28 28 28 29 20 55 26 29 20 34	DMI'	double disphragm pump double disphragm pump
	38/2017 48/2017 48/2017 52/2017 63/2017 7711/2017 87/2017 91/10/2017 10/90/2017 11/5/2017 11/5/2017 12/4/2017 15/5/2018 4/4/2018 65/2018 65/2018 67/2018 67/2018	35.3 34.3 35.3 35.0 35.0 35.0 35.0 35.0 35.6 36.0 34.6 35.3 36.3 35.3 36.3 35.1 36.4 35.6 36.6	3.1 5.0 6.0 5.0 5.3 5.0 5.7 4.7 4.3 0NAPL pumping ONAPL gauging or 5.5 5.0 4.0 5.2 3.9	0.1 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1	8.7 12.9 15.7 12.8 15.7 12.8 13.7 12.8 13.7 12.8 14.1 12.2 14.1 14.1 12.2 11.3 14.5 14.5 14.5 15.5 abvertes segaror coordions segaror coordions segaror segaro	29 28 34 36 27 55 25 28 29 29 20 34 34 29	DMT' DMT' DMT' DMT' DMT' DMT' DMT' DMT'	double disphragm pump double disphragm pump
	38/2017 44/2017 5/2/2017 6/5/2017 6/5/2017 7/11/2017 8/7/2017 9/11/2017 10/5/2017 10/5/2017 10/5/2017 10/5/2017 10/5/2018 6/5/2018 6/5/2018 6/7/2018 6/7/2018 6/7/2018 6/7/2018 6/7/2018	35.3 34.3 35.3 35.0 35.0 35.0 35.6 35.6 36.0 34.6 35.6 36.3 36.3 36.3 36.3 36.4 35.6 36.4	3.1 5.0 6.0 5.0 5.3 5.7 4.7 4.3 ONAPL pumping ONAPL gauging or 5.5 5.0 4.0 5.2 3.9 4.5	0.1 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.3 0.0 0.0 0.0 0.1 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	8.7 12.9 15.7 12.8 15.7 12.8 13.7 12.8 13.7 12.8 14.1 12.2 14.1 14.1 12.2 11.3 14.5 14.5 14.5 15.5 abvertise segaraneous metal) to to abvertise segaraneous metal) to to abvertise segaraneous segaran	29 28 34 34 39 27 35 28 28 28 28 29 20 34 29 34 29	DMT*	double disphragm pump double disphragm pump
	38/2017 48/2017 48/2017 52/2017 63/2017 7711/2017 87/2017 91/10/2017 11/5/2017 11/5/2017 11/5/2017 11/5/2017 11/5/2017 11/5/2017 11/5/2018 65/2018 65/2018 65/2018 67/2018 67/2018 61/2018 61/2018 61/2018 61/2018 61/2018 61/2018 61/2018 61/2018 61/2018 61/2018 61/2018 61/2018 61/2018 61/2018	35.3 34.3 35.3 35.5 35.0 35.0 35.0 35.0 35.6 35.6 35.6 36.0 34.8 35.3 36.3 35.3 36.3 35.1 36.4 36.4 36.6 36.6 36.7 36.6	3.1 5.0 6.0 5.0 5.3 5.0 5.7 4.7 4.7 4.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6	0.1 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.3 0.0 not required to be completed of 4.0 0.1 0.3 0.0 0.0 0.0 0.1 0.1 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	8.7 12.9 15.7 12.9 15.7 12.9 15.7 12.9 15.7 12.6 15.7 12.6 15.7 12.6 15.6 15.6 15.6 15.6 15.6 15.6 15.6 15	20 28 34 36 27 55 28 28 29 29 29 34 34 20 34 20 34	DMT* DMT* DMT* DMT* DMT* DMT* DMT* DMT*	double disphragm pump double disphragm pump
	38/2017 44/2017 5/2/2017 6/5/2017 6/5/2017 7/11/2017 8/7/2017 9/11/2017 10/9/2017 11/5/2017 11/5/2017 14/5/2018 6/5/2018	35.3 34.3 35.3 35.0 35.0 35.3 34.6 35.6 35.6 35.3	3.1 5.0 6.0 5.0 5.3 5.0 5.7 4.7 4.3 DNAP, pumping or 0NAP, gauging or 5.5 5.0 4.0 5.2 3.9 4.5 4.5 4.6 4.6 4.6 4.6 4.6 4.6 4.6 4.6 4.6 4.6	0.1 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.3 0.0 0.0 not required to be completed of 0.1 0.1 0.1 0.1 0.1 0.0 0.0 0.1 0.1 0.1	8.7 12.9 15.7 12.8 15.7 12.8 13.7 12.8 13.7 12.8 14.1 12.2 14.1 14.1 12.2 11.3 14.5 14.5 14.5 15.5 abvertise segaraneous metal) to to abvertise segaraneous metal) to to abvertise segaraneous segaran	29 28 34 36 36 27 35 55 28  92 28 34 34 34 34 34	DMT* OMT* OMT* OMT* OMT* OMT* OMT* OMT* O	double disphragm pump double disphragm pump
	38/2017 44/2017 44/2017 5/2/2017 6/3/2017 7/11/2017 8/7/2017 8/11/2017 10/9/2017 11/8/2017 11/8/2017 11/8/2017 12/4/2017 18/2018 5/6/2018 6/6/2018 6/6/2018 6/7/2018 6/7/2018 6/7/2018 6/7/2018 6/7/2018 6/7/2018 6/7/2018 11/5/2018 11/5/2018 11/5/2018	35.3 34.3 35.3 35.5 35.0 35.0 35.0 35.0 35.6 35.6 35.6 36.0 34.8 35.3 36.3 35.3 36.3 35.1 36.4 36.4 36.6 36.6 36.7 36.6	3.1 5.0 6.0 5.0 5.3 5.0 5.7 4.7 4.3 4.3 4.3 6.3 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	0.1 0.0 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1	8.7 12.9 15.7 12.9 15.7 12.8 15.7 12.8 15.7 12.8 15.7 12.8 15.7 12.8 15.7 12.8 15.7 12.8 15.7 12.8 15.7 12.8 15.7 12.8 15.7 12.8 15.7 15.7 15.7 15.7 15.7 15.7 15.7 15.7	20 28 34 36 27 55 28 28 28 29 20 30 34 34 20 34 34 34 34 34 34 34 36 36	DMT*	double disphragm pump double disphragm pump
	38/2017 44/2017 5/2/2017 6/5/2017 6/5/2017 7/11/2017 8/7/2017 9/11/2017 11/6/2017 11/6/2017 11/6/2017 11/6/2017 11/6/2018 8/6/2018	35.3 34.3 35.3 35.0 35.0 35.3 34.6 35.6 35.6 35.3	3.1 5.0 6.0 5.0 5.3 5.7 4.7 4.3 5.0 6.0 5.7 4.3 5.0 6.0 5.7 4.3 5.0 6.0 5.7 4.7 4.7 4.7 4.7 5.0 5.0 5.0 5.7 4.7 4.7 4.7 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	0.1 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1	8.7 12.9 15.7 12.8 13.7 12.8 13.7 12.8 14.1 12.2 12.2 12.2 11.3 14.1 12.2 12.3 13.3 14.1 12.3 13.3 14.1 13	29 28 34 36 36 27 35 55 28 28 29 20 34 34 34 34 34 34 34	DMT*	double disphragm pump double disphragm pump
	38/2017 44/2017 44/2017 5/2/2017 6/3/2017 7/11/2017 8/7/2017 8/11/2017 10/9/2017 11/8/2017 11/8/2017 11/8/2017 12/4/2017 18/2018 5/6/2018 6/6/2018 6/6/2018 6/7/2018 6/7/2018 6/7/2018 6/7/2018 6/7/2018 6/7/2018 6/7/2018 11/5/2018 11/5/2018 11/5/2018	35.3 34.3 35.3 35.0 35.0 35.0 35.0 35.0 35.0 35.0 35.0 35.0 35.3 35.4 35.4 35.5	3.1 5.0 6.0 5.0 5.0 5.0 5.0 5.0 6.0 6.0 7 4.7 4.7 4.7 4.7 4.7 4.7 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	0.1 0.0 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1	8.7 12.9 15.7 12.9 15.7 12.9 15.7 12.9 15.7 12.8 13.7 12.8 13.7 12.8 13.7 12.8 13.7 12.8 13.7 12.8 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7	20 28 34 36 27 35 28 28 28 28 28 28 28 29 34 34 34 34 22 34 34 34 34 34 34 34 34 34 34 34 34 34	DMT' OMT' OMT' OMT' OMT' OMT' OMT' OMT' O	double disphragm pump double disphragm pump
	38/2017 44/2017 5/2/2017 6/5/2017 6/5/2017 7/11/2017 8/7/2017 9/11/2017 11/6/2017 11/6/2017 11/6/2017 11/6/2017 11/6/2018 8/6/2018	353 3 343 355 3 356 3 35	3.1 5.0 6.0 5.0 5.3 5.7 4.7 4.3 5.0 6.0 5.7 4.3 5.0 6.0 5.7 4.3 5.0 6.0 5.7 4.3 5.0 6.0 5.7 4.3 5.0 6.0 5.7 4.7 4.3 5.0 6.0 5.0 5.0 5.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6	0.1 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1	8.7 12.9 15.7 12.8 13.7 12.8 13.7 12.8 14.1 12.2 12.2 12.2 11.3 14.1 12.2 12.3 13.3 14.1 12.2 13.3 14.1 12.2 13.3 14.1 13.3 14.1 13.3 14.1 13.3 14.1 13.3 14.1 13.3 14.1 13.3 14.1 13.3 14.1 14.1	29 28 34 36 36 27 35 35 28 28 28 30 30 30 28 30 30 30 30 30 31 30 31 31 32 32 33 34 35 36 36 37 38 38 38 39 39 30 30 30 30 30 30 30 30 30 30 30 30 30	DMT*	double disphragm pump double disphragm pump
	38/2017 44/2017 44/2017 5/2/2017 6/3/2017 7/11/2017 8/7/2017 8/11/2017 10/9/2017 11/8/2017 11/8/2017 11/8/2017 11/8/2017 11/8/2017 11/8/2017 11/8/2018 3/8/2018 6/3/2018 6/3/2018 6/3/2018 6/3/2018 6/3/2018 6/3/2018 11/3/2018 11/3/2018 11/3/2018 11/3/2018 11/3/2018 11/3/2018 11/3/2018 11/3/2018 11/3/2018 11/3/2018 11/3/2018 11/3/2018 11/3/2018 11/3/2018 11/3/2018 11/3/2018 11/3/2018	35.3 34.3 35.5 35.0 35.0 34.6 35.6 35.6 35.6 35.6 35.3 36.3	3.1 5.0 6.0 5.0 5.5 5.5 6.5 7 4.7 4.7 4.7 4.7 4.7 4.7 4.7 4.7 4.7 4	0.1 0.0 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1	8.7 12.9 15.7 12.9 15.7 12.9 15.7 12.9 15.7 12.8 13.7 12.8 13.7 12.8 13.7 12.8 13.7 12.8 13.7 12.8 13.7 13.7 13.7 13.7 13.7 13.7 13.7 13.7	29 28 34 36 27 35 28 28 28 28 28 28 28 28 28 28 28 28 28	DMT' OMT' OMT' OMT' OMT' OMT' OMT' OMT' O	double disphragm pump double disphragm pump
	38/2017 44/2017 44/2017 5/2/2017 6/5/2017 6/5/2017 7/11/2017 8/7/2017 9/11/2017 10/9/2017 11/6/2017 11/6/2017 11/6/2017 11/6/2017 11/6/2018 8/6/2018	353 3 343 355 3 356 3 357 3 356 3 357 3 35	31 50 60 30 33 33 53 57 47 43 DNAP, pumping 57 68 59 59 59 59 59 59 59 59 59 59	0.1 0.0 0.0 0.0 0.1 0.1 0.1 0.1 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	8.7 12.9 15.7 12.8 13.7 12.8 13.7 12.8 14.1 12.2 12.2 11.3 16d (10 event requirement met) 10 to 0 abverse weather conditions 19.8 19.8 19.8 19.8 19.7 19.7 19.9 10.2 10.2 10.2 10.2 10.4 5.4 9.4 9.4 9.4 9.4	29 28 34 36 27 35 35 28 28 29 20 20 20 35 20 30 30 20 30 30 30 30 30 30 30 30 30 30 30 30 30	DMT*  DMT*	double disphragm pump double disphragm pump
	38/2017 44/2017 44/2017 5/2/2017 6/3/2017 7/11/2017 8/7/2017 8/11/2017 10/9/2017 11/8/2017 11/8/2017 11/8/2017 11/8/2017 11/8/2017 11/8/2018 3/8/2018 3/8/2018 4/3/2018 4/3/2018 6/7/2018 6/7/2018 11/3/2018	35.3 34.3 35.5 35.0 35.0 34.6 35.6 35.6 35.6 35.6 35.3 36.3	3.1 5.0 6.0 5.0 5.3 5.5 5.5 5.7 4.7 4.7 4.7 4.7 5.5 5.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5	0.1 0.0 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1	8.7 12.9 15.7 12.9 15.7 12.8 13.7 12.8 13.7 12.8 13.7 12.8 13.7 12.8 13.7 12.8 13.7 12.8 13.7 12.8 13.7 12.8 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13	29 28 34 36 27 35 28 28 28 28 28 28 28 28 28 28 28 28 28	DMT* OMT* OMT* OMT* OMT* OMT* OMT* OMT* O	double disphragm pump double disphragm pump
	38/2017 44/2017 44/2017 5/2/2017 6/5/2017 6/5/2017 7/11/2017 8/7/2017 9/11/2017 10/5/2017 11/5/2017 11/5/2017 11/5/2017 11/5/2018 2/6/2018 6/6/2018 6/7/2018 6/7/2018 11/5/2018	35.3 34.3 35.3 35.0 35.0 35.0 35.0 35.0 36.0	3.1 5.0 6.0 5.0 5.3 5.7 4.7 4.7 4.7 5.7 5.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6.7 6	0.1 0.0 0.0 0.0 0.1 0.1 0.1 0.1 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	8.7 12.9 15.7 12.8 13.7 12.8 13.7 12.8 14.1 12.2 12.2 11.3 16d (10 event requirement met) 10 to 0 abverse weather conditions 19.8 19.8 19.8 19.8 19.7 19.7 19.9 10.2 10.2 10.2 10.2 10.4 5.4 9.4 9.4 9.4 9.4	29 28 34 36 27 35 35 28 28 29 20 20 20 35 20 30 30 20 30 30 30 30 30 30 30 30 30 30 30 30 30	DMT*  DMT*	double disphragm pump double disphragm pump

SOVEREIGN CONSULTING INC.

TABLE II SUMMARY OF DNAPL MEASUREMENTS NYSDEC 43-50-022 1 RIVER STREET HASTINGS-ON-HUDSON, NEW YORK

		Depth to Product (R)	Product Apparent Height - Pre-pumping (ft)	Product Apparent Height - Post-pumping (ft)	Approximate Volume of Product Recovered (gallons) *	Days Elepsed Between Measurement Readings	Measurement Tool Used	Recovery Procedure Use
2000	Date Cumulative 7/19/2011 - 12/10/2016	Depin to Product (in)	Fre-possping (v)	1 oac-pumping (iv)	0.0			
RW-6	1/16/2017	40.0	0.8			37	DMT*	
	2/20/2017	40.0	DNAPL gauging of	y pumping not completed	due to adverse weather conditions	State of the State	-	-
	3/6/2017	40.0	0.8		Section and an experience of	49	DMT*	-
	4/3/2017	40.1	0.8			28	DMT*	
	5/1/2017	40.1	0.7			28	DMT*	
	6/5/2017	40.3	0.5			35	DMT*	-
	7/10/2017	40.2	0.6			35	DMT*	-
	8/7/2017	40.3	0.5			28	DMT*	
	9/11/2017	40.0	8.0			35	DMT*	-
	10/9/2017	39.9	0.9			28	DMT*	-
	11/6/2017	39.8	1.0	Company of the Company		28	DMT*	
	12/4/2017		DNAPL pumpin	g not required to be comp	leted (10 event requirement met)			
	1/8/2018			or pumping not completed	due to adverse weather conditions		DMT*	
	2/5/2018	40.0	8.0	-	-	91 28	DMT*	
	3/5/2018	40.7	0.1		-	28	DMT*	
	4/2/2018	40.1	0.8		-	35	DMT*	
	5/7/2018	40.1	0.7			29	DMT*	
	6/5/2018	40.1	0.8			34	DMT*	
	7/9/2018	40.1	0.7			28	DMT*	- 2
	8/6/2018	39.9	0.9	-	- :	35	DMT*	
	9/10/2018	40.1	0.8			21	DMT*	
	10/1/2018	40.1	8.0			35	DMT*	
	11/5/2018	40.7	0.1	- :		35	DMT*	
	12/10/2018	40.1	0.7			35	DMT <sup>4</sup>	-
	1/14/2019	40.1	0.7	-		21	DMT*	
	2/4/2019	40.1	0.4			35	DMT*	
	3/11/2019		0.5	-		21	DMT*	
	4/1/2019	40.3	0.5			35	DMT*	25
	5/6/2019	40.3	0.5	- :		28	DMT*	
	6/3/2019	40.3	0.5			63	DMT*	
	8/5/2019	The second second			0.0			
		TOTAL VOLUME RE	COVERED TO DATE FR	OU HARW-6 (GALLONS	0.0			
	7,000	The second second second	Carried Control of the					
RW-7	Cumulative 7/18/2011 - 12/10/2016				482.1		purt <sup>4</sup>	double dischman num
RW-7	1/17/2017	37.3	4.8	0.1	12.2	37	DMT <sup>4</sup>	double diaphragm pum
RW-7	1/17/2017 2/20/2017		DNAPL gauging					double disphragm pum
RW-7	1/17/2017 2/20/2017 3/6/2017	41.0	DNAPL gauging 1.0		12.2	48	DMT*	double diaphragm pum
RW-7	1/17/2017 2/20/2017 3/6/2017 4/3/2017	41.0 40.5	DNAPL gauging 1.0 1.5	or pumping not completed	12.2 due to adverse weather conditions	48 28	DMT*	
RW-7	1/17/2017 2/20/2017 3/8017 4/3/2017 5/1/2017	41.0 40.5 38.0	DNAPL gauging 1.0 1.5 4.0		12.2	48. 28 28	DMT*	
RW-7	1/17/2017 2/20/2017 3/6/2017 4/3/2017 5/1/2017 8/5/2017	41.0 40.5 38.0 40.5	DNAPL gauging 1.0 1.5 4.0 1.5	or pumping not completed	12.2 due to adverse weather conditions	48 28 28 35	DMT* DMT* DMT* DMT*	double disphragm pum
RW-7	1/17/2017 2/20/2017 3/6/2017 4/3/2017 5/1/2017 8/5/2017 7/10/2017	41.0 40.5 38.0 40.5 40.0	DNAPL gauging 1.0 1.5 4.0 1.5 2.0	or pumping not completed	12.2 due to adverse weather conditions	48 28 28 35 35	DMT* DMT* DMT* DMT* DMT*	double disphragm pum
RW-7	1172017 2/20/2017 3/8/2017 4/3/2017 5/1/2017 8/5/2017 7/1/2017 8/7/2017	41.0 40.5 38.0 40.5 40.0 41.5	DNAPL gauging 1.0 1.5 4.0 1.5 2.0 0.5	or pumping not completed	12.2 due to adverse weather conditions	48 28 28 35 35 28	DMT* DMT* DMT* DMT* DMT* DMT*	double disphragm pum
RW-7	1172/017 2/20/2017 3/8/2017 4/3/2017 4/3/2017 8/1/2017 7/10/2017 8/7/2017 9/11/2017	41.0 40.5 38.0 40.5 40.0 41.5 40.3	DNAPL gauging 1.0 1.5 4.0 1.5 2.0 0.5	or pumping not completed	12.2 due to adverse weather conditions - 10.0	48 28 28 35 35 28 35 28	DMT* DMT* DMT* DMT* DMT*	double diaphragm pum double diaphragm pum
RW-7	1177/2017 2/20/2017 38/2017 4/3/2017 5/1/2017 9/5/2017 7/10/2017 9/11/2017 10/9/2017	41.0 40.5 38.0 40.5 40.0 41.5 40.3 40.3	DNAPL gauging 1.0 1.5 4.0 1.5 2.0 0.5 1.8	or pumping not completed  0.2  0.2  -	12.2 due to adverse weather conditions.	48 28 28 35 35 28	DMT* DMT* DMT* DMT* DMT* DMT*	double diaphragm pum double diaphragm pum
RW-7	1177/2017 2/20/2017 38/2017 4/2/2017 8/1/2017 8/1/2017 8/1/2017 9/1/2017 9/1/2017 10/9/2017 11/8/2017	41.0 40.5 38.0 40.5 40.0 41.5 40.3	DNAPL gauging 1.0 1.5 4.0 1.5 2.0 0.5 1.8 1.8 4.3 DNAPL numbi	or pumping not completed  0.2  0.2  0.0  0.0  no not required to be come	12.2 due to adverse weather conditions  10.0  4.8  11.3  Jaieted (10 event requirement enet)	48 28 28 35 35 28 35 28 28 28	DMT* DMT* DMT* DMT* DMT* DMT* DMT* DMT*	double disphragm pum double disphragm pum
RW-7	11/7/2017 2/20/2017 3/8/2017 4/3/2017 5/1/2017 8/5/2017 7/10/2017 9/11/2017 10/5/2017 11/6/2017 11/6/2017	41.0 40.5 38.0 40.5 40.0 41.5 40.3 40.3	DNAPL gauging 1.0 1.5 4.0 1.5 2.0 0.5 1.8 1.8 4.3 DNAPL numbi	or pumping not completed  0.2  0.2  0.0  0.0  no not required to be come	12.2 due to adverse weather conditions  10.0  4.8  11.3  Jaieted (10 event requirement enet)	48 28 28 35 35 28 36 28 28	DMT* DMT* DMT* DMT* DMT* DMT* DMT* DMT*	double disphragm pum double disphragm pum
RW-7	1417/2017 2000/017 38/2017 40/2017 54/2017 54/2017 74/2017 74/2017 95/2017 14/2017 12/4/2017 12/4/2017 18/2018	41.0 40.5 38.0 40.5 40.0 41.5 40.3 40.3	DNAPL gauging 1.0 1.5 4.0 1.5 2.0 0.5 1.8 1.8 4.3 DNAPL pumpi DNAPL gauging 2.7	or pumping not completed 0.2 0.2 0.2 0.2 0.0 p not required to be come or pumping not completed	12.2 due le adverse weather conditions 10.0 due le adverse weather conditions 10.0 due le deve	48 28 28 35 35 26 35 26 35 28	DMT*  DMT*  DMT*  DMT*  DMT*  DMT*	double diaphragm pum double diaphragm pum double diaphragm pum
RW-7	11/7/2017 2/20/2017 3/8/2017 4/3/2017 5/1/2017 8/5/2017 7/10/2017 9/11/2017 10/5/2017 11/6/2017 11/6/2017	41.0 40.5 38.0 40.5 40.0 41.5 40.3 40.3 37.7	DNAPL gauging 1.0 1.5 4.0 1.5 2.0 0.5 1.8 1.8 4.3 DNAPL pumpi	or pumping not completed  0.2  0.2  0.0  0.0  no not required to be come	12.2 due to adverse weather conditions  10.0  4.8  11.3  Jaieted (10 event requirement enet)	46, 28, 28, 35, 35, 28, 28, 28, 28, 28, 28, 29, 29, 29, 29, 29, 29, 29, 29, 29, 29	DMT* DMT* DMT* DMT* DMT* DMT* DMT* DMT*	double diaphragm pum double diaphragm pum double diaphragm pum
RW-7	11/7/2017 2/20/2017 38/2017 4/2017 5/1/2017 8/1/2017 7/1/2017 9/1/2017 9/1/2017 10/2017 11/6/2017 11/6/2017 18/2018 2/5/2016	41.0 40.5 38.0 40.5 40.0 41.5 40.3 40.3 37.7	DNAPL gauging 1.0 1.5 4.0 1.5 2.0 0.5 1.8 1.8 4.3 ONAPL pumpi DNAPL psuging 2.7 3.5 1.0	or pumping not completed  0.2  0.2  0.2  0.0  10  10  10  10  10  10  10  10  1	12.2 due to adverse weather conditions. 10.0 4.8 11.3 saleted (10 event requirement met)	46 28 28 35 35 26 35 28 28 28 28 27	DMT*  DMT*  DMT*  DMT*  DMT*	doubte disphragm pum doubte disphragm pum doubte disphragm pum doubte disphragm pum doubte disphragm pum
RW-7	11/7/2017 2/20/2017 3/8/2017 4/20/217 5/1/2017 8/5/2017 7/10/2017 9/11/2017 9/11/2017 11/2017 11/2017 11/2019 11/2017 11/2019 12/5/2016 3/8/2018	41.0 40.5 38.0 40.5 40.5 40.0 41.5 40.3 37.7	DNAPL gauging 1.0. 1.5 4.0 1.5 2.0 0.5 1.8 4.3 ONAPL pumpi DNAPL gauging 2.7 3.5	or pumping not completed 0.2 0.2 0.2 0.2 0.0 p not required to be come or pumping not completed	12.2 due to adverse weather conditions.  10.0 4.8 4.9 11.3 Selected (10 event requirement met) cive to adverse weather conditions. 8.3 5.0	46. 28 28 35 35 26 28 28 28 28 28 28 28 28 28 28 28 28 28	DMT*	doubte disphragm pum doubte disphragm pum doubte disphragm pum doubte disphragm pum doubte disphragm pum
RW-7	11/7/2017 200/2017 38/2017 4/2017 5/1/2017 8/1/2017 7/1/2017 9/1/2017 10/2017 11/6/2017 11/6/2017 18/2018 2/5/2018 4/2/2018	41.0 40.5 38.0 40.5 40.0 41.5 40.3 37.7 39.3 39.5 41.0	DNAPL gauging 1.0 1.5 4.0 1.5 2.0 0.5 1.8 1.8 4.3 ONAPL pumpi DNAPL psuging 2.7 3.5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	or pumping not completed  0.2  0.2  0.2  0.0  10  10  10  10  10  10  10  10  1	12.2 due to adverse weather conditions. 10.0 4.8 11.3 saleted (10 event requirement met)	46, 28 28 35 35 28 35 28 28 28 28 28 28 28 28 28 28 28 28 28	DMT*	doubte disphragm pum doubte disphragm pum doubte disphragm pum doubte disphragm pum doubte disphragm pum
RW-7	11/7/2017 2/20/2017 38/2017 4/20/217 5/1/2017 8/5/2017 7/1/20217 9/1/2017 9/1/2017 10/6/2017 10/6/2017 12/4/2017 13/4/2018 3/8/2018 5/8/2018	41.0 40.5 38.0 40.5 40.0 41.5 40.3 37.7 39.3 38.5 41.0 40.0 41.5	DNAPL gauging	or pumping not controlleted  0.2  0.2  0.2  0.3  on the required to be completed or pumping not controlled o	12.2 due lo adverse weather conditions 10.0 4.8	46 28 28 35 35 35 36 28 28 28 28 28 28 28 35 35 35 35 35 35 36 28 28 28 28 30 30 30 30 30 30 30 30 30 30 30 30 30	DMT* DMT* DMT* DMT* DMT* DMT* DMT* DMT*	double disphragin pum double disphragin pum double disphragin pum double disphragin pum double disphragin pum double disphragin pum
RW-7	11/7/2017 2000/2017 38/2017 40/2017 40/2017 51/2017 51/2017 51/2017 10/2017 11/2017 11/2017 11/2017 11/2017 11/2019 11/2019 11/2019 11/2019 11/2019 11/2019 11/2019 11/2019 11/2019 11/2019 11/2019 11/2019 11/2019 11/2019 11/2019 11/2019	41.0 40.5 38.0 40.5 40.0 41.5 40.3 37.7 39.5 98.5 41.0 40.3 39.7 41.0 40.3 40.3 39.5 40.0 41.0 40.3 40.3 40.3 40.3 40.3 40.3 40.5 40.5 40.5 40.5 40.5 40.5 40.5 40.5	DNAPL gausing 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	or pumping not completed  0.2  0.2  0.2  0.0  0.0  on not required to be completed or pumping not completed  0.3  0.1	12.2 due lo adverse weather conditions.  10.0 4.8 4.8 1.1 11.3 leaded (10 event requirement earl) due to adverse weather conditions.  6.3 5.0 5.0 6.5	46, 28, 28, 28, 35, 35, 26, 35, 26, 28, 28, 28, 28, 28, 28, 28, 28, 28, 28	DMT* DMT* DMT* DMT* DMT* DMT* DMT* DMT*	double disphragin pum double disphragin pum double disphragin pum double disphragin pum double disphragin pum double disphragin pum
RW-7	11/7/2017 2/20/2017 38/2017 4/20/217 4/20/217 5/1/2017 5/1/2017 7/1/2017 7/1/2017 9/1/2017 11/2017 11/2017 11/2017 11/2017 11/2017 11/2017 11/2018 2/2018 5/2018 5/2018	41.0 40.5 38.0 40.5 40.0 41.5 40.3 40.3 40.3 37.7 39.5 41.0 41.0 41.0 41.1 39.4 41.0	ONAPL purping 1.5 of 1.	or pumping not completed  0.2  0.2  0.2  0.2  0.0  0.7  0.0  0.0	12.2 due lo adverse weather conditions 10.0 4.8 4.8 4.8 4.8 5.0 10.0 11.3 soleted (10 execut requirement met) Cus 15 adverse weather conditions 8.3 8.3 5.0 6.5	46 20 20 20 35 35 35 35 35 35 36 26 26 20 20 20 20 20 20 20 20 20 20 20 20 20	DMI, DMI, DMI, DMI, DMI, DMI, DMI, DMI,	double disphragin pum double disphragin pum double disphragin pum double disphragin pum double disphragin pum double disphragin pum double disphragin pum
RW-7	11/7/2017 200/2017 38/2017 48/2017 48/2017 48/2017 55/2017 55/2017 18/2017 18/2017 11/2017 11/2017 11/2017 12/2017 12/2017 18/2017 18/2017 18/2017 18/2018 20/2018 56/2018 5/2018	41.0 40.5 38.0 40.5 40.0 41.5 40.3 37.7 39.5 39.5 41.0 40.1 39.4 41.0 40.1 41.0 40.1 41.0 40.1 40.1 40	DNAP, purping 1.5 at 1.	or pumping not controlleted  0.2  0.2  0.2  0.3  on the required to be completed or pumping not controlled o	12.2 due lo adverse weather conditions.  10.0 4.8 4.8 1.1 due to adverse weather conditions.  10.0 4.8 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5	46, 28, 28, 35, 35, 26, 35, 26, 28, 28, 28, 28, 28, 28, 28, 28, 28, 28	DML,  DML,	double disphragin pum double disphragin pum double disphragin pum double disphragin pum double disphragin pum double disphragin pum double disphragin pum
RW-7	11/17/2017 2/20/2017 38/2017 38/2017 4/20/217 5/1/2017 5/1/2017 5/1/2017 7/1/2017 9/11/2017 11/2017 11/2017 11/2017 11/2017 11/2017 12/2017 12/2017 12/2017 12/2017 12/2017 13/2017 12/2018 5/2018 5/2018 6/2018 6/2018 6/2018 6/2018 1/2018 6/2018	41.0 40.5 38.0 40.5 40.5 40.5 40.3 37.7 39.3 38.5 41.0 40.0 40.0 40.0 40.0 40.0 40.0 40.0	CHAPL purples 1.0 1.5 4.0 1.5 4.0 1.5 2.0 3.3 3.3 4.3 CHAPL pumple GNAPL pumple GNA	or pumping not completed  0.2  0.2  0.0  0.0  0.0  0.0  0.0  0.	12.2 due to adverse weather conditions 10.0 4.8 4.8 4.8 4.8 4.8 4.9 4.9 4.9 4.9 4.9 4.9 4.9 4.9 4.9 4.9	46 26 28 35 35 35 26 28 29 29 29 29 29 29 29 29 29 29 35 35 35 35 36 28 28 28 36 37 38 38 38 38 38 38 38 38 38 38 38 38 38	DML, DML, DML, DML, DML, DML, DML, DML,	double disphragin pum double disphragin pum
RW-7	11/7/2017 200/2017 38/2017 40/2017 40/2017 40/2017 45/2017 55/2017 71/40/2017 10/6/2017 11/6/2017 11/6/2017 12/4/2017 18/2019 201/2017 18/2018 201/2018 40/2018 56/2018 67/2018	41.0 40.5 38.0 40.5 40.0 41.5 40.3 37.7 39.5 39.5 41.0 40.1 41.0 40.1 41.0 40.1 41.0 40.1 41.0 40.1 40.1	DNAPL purping 1.0 1.5 4.0 1.5 4.0 1.5 2.0 0.5 1.8 1.8 1.8 1.8 1.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	or pumping not completed  0.2  0.2  0.2  0.2  0.0  0.7  0.0  0.0	12.2 due to adverse weather conditions.  10.0	46, 28, 28, 28, 35, 35, 26, 26, 35, 26, 28, 28, 28, 28, 28, 28, 28, 28, 28, 28	DML,  DML,	double disphragin pum double disphragin pum double disphragin pum double disphragin pum double disphragin pum double disphragin pum double disphragin pum
RW-7	11/17/2017 2/20/2017 2/20/2017 3/8/2017 4/20/2017 5/1/2017 5/1/2017 5/1/2017 7/1/2017 9/1/2017 10/2017 11/2017 11/2017 11/2017 11/2017 12/2018 2/20/2018 5/20/2018 6/20/2018 6/20/2018 6/20/2018 6/20/2018 11/20/2018 11/20/2018 11/20/2018 11/20/2018 11/20/2018 11/20/2018	41.0 40.5 38.0 40.5 40.5 41.5 41.5 37.7 39.3 38.5 41.6 40.0 41.1 41.1 41.1 41.0 40.0 40.0 40.0	DNAP, purping 1.5 1.5 4.0 1.5 4.0 1.5 0.5 0.5 0.5 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7	or pumping not completed	12.2 due to adverse weather conditions 10.0 4.8 4.8 4.8 4.8 4.8 4.9 4.9 4.9 4.9 4.9 4.9 4.9 4.9 4.9 4.9	46 28 28 35 35 25 26 28 28 29 20 20 20 20 20 20 20 20 20 20 20 20 20	DMI,  DMI,	double disphragin pum double disphragin pum
RW-7	1417/2017 200/2017 38/2017 40/2017 40/2017 51/2017 51/2017 71/2017 71/2017 11/2017 11/2017 11/2017 12/2017 12/2017 15/2018 25/2018 40/2018 40/2018 66/2018 66/2018 61/2018 61/2018 11/2018	41.0 40.5 38.0 40.5 40.0 41.5 40.3 37.7 39.3 38.5 40.0 41.9 40.0 41.9 41.0 40.0 41.0 40.0 41.0 40.0 41.0 40.0 41.0 40.0 41.0 40.0 41.0 40.0 41.0 40.0 40	DNAPL purping 1.0 1.5 4.0 1.5 4.0 1.5 2.0 0.5 1.8 1.8 1.8 1.8 1.9 0.9 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	or pumping not completed  0.2  0.2  0.2  0.2  0.0  0.0  0.0  0.	12.2 due to adverse weather conditions.  10.0	46, 28, 28, 28, 35, 35, 26, 26, 35, 26, 28, 28, 28, 28, 28, 28, 28, 28, 28, 28	DML,  DML,	double disphragin pum double disphragin pum
RW-7	1417/2017 2620/2017 38/2017 38/2017 46/2017 46/2017 51/2017 51/2017 51/2017 11/2017 11/2017 11/2017 11/2017 11/2018 56/2018 56/2018 56/2018 66/2018 67/2018 61/2018	41.0 40.5 38.0 40.5 40.5 40.5 41.5 30.3 37.7 39.3 38.5 41.0 40.0 41.1 41.1 41.1 41.1 41.1 41.1	DNAP, purple 1.5 1.5 4.0 1.5 4.0 1.5 0.5 0.5 0.5 0.5 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7	or pumping not completed  0.2  0.2  0.9  0.9  0.9  0.9  0.9  0.9	12.2 due to adverse weather conditions 10.0 4.8 4.8 2-2 stelled (10 event requirement met) Cuo to adverse weather conditions 8.3 5.0 6.5 6.5	46 28 28 35 35 28 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20	DWI,  DWI,	double disphragin pum double disphragin pum
RW-7	11/7/2017 2000/2017 38/2017 40/2017 40/2017 51/2017 51/2017 51/2017 71/2017 71/2017 71/2017 11/2017 11/2017 11/2017 11/2017 11/2018 2/2018 40/2018 58/2018 58/2018 65/2018 65/2018 11/2018 11/2018 11/2018 11/2018	41.0 40.5 38.0 40.5 40.0 41.5 40.3 37.7 39.3 38.5 41.0 40.0 41.9 40.0 41.9 41.0 40.0 41.0 40.0 40.0 40.0 40.0 40.0	DNAPL purping 1.0 1.5 4.0 1.5 4.0 1.5 2.0 0.5 1.8 1.8 1.8 1.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	or pumping not completed  0.2  0.2  0.2  0.2  0.3  0.0  0.0  0.0	12.2 due to adverse weather conditions.  10.0	46, 28, 28, 28, 35, 35, 26, 35, 26, 28, 28, 28, 28, 28, 28, 28, 28, 28, 28	DML,  DML,	double disphragin pum double disphragin pum
RW-7	1417/2017 2000/2017 38/2017 38/2017 40/2017 40/2017 40/2017 40/2017 40/2017 40/2017 40/2017 40/2017 114/2017 114/2017 114/2017 114/2018 40/2018 40/2018 60/2018 60/2018 61/2018	41.0 40.5 38.0 40.5 40.5 40.5 41.5 39.7 39.3 38.5 41.0 40.0 41.1 40.1 41.1 41.1 40.6 40.0 40.0 40.0 40.0 40.0 40.0 40.0	DNAP, purple 1.5 1.5 4.0 1.5 4.0 1.5 0.5 0.5 0.5 0.5 0.5 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7	or pumping not completed	12.2 due lo adverse weather conditions.  10.0	46, 28, 28, 28, 28, 28, 28, 28, 28, 28, 28	DML, DML, DML, DML, DML, DML, DML, DML,	double disphragin pum double disphragin pum
RW-7	11/1/2017 2000017 3800017 4000017 400017 51/2017 51/2017 85/2017 71/10/2017 91/10/2017 91/10/2017 11/20/2017 11/20/2017 11/20/2017 11/20/2017 11/20/2017 11/20/2017 11/20/2018 20/20/2018 40/20/2018 59/20/2018 65/20/2018 11/20/2018 11/20/2018 91/20/2018 91/20/2018 91/20/2018 91/20/2018 91/20/2018 91/20/2018 91/20/2018 91/20/2018 91/20/2018 91/20/2018 91/20/2018 91/20/2018 91/20/2018 91/20/2018 91/20/2018 91/20/2018 91/20/2018	410 40.5 30.0 40.5 40.5 40.5 40.3 37.7 39.3 39.5 41.0 40.0 41.1 39.4 41.0 40.0 40.0 41.0 40.0 40.0 40.0 40	(INAPL_pusping) (INAPL_pusping) (Inaplication) (Ina	or pumping not completed  0.2  0.2  0.2  0.2  0.3  0.0  0.0  0.0	12.2 due to adverse weather conditions 10.0 4.8 4.8 2-2 stelled (10 event requirement met) Cuo to adverse weather conditions 8.3 5.0 6.5 6.5	46 28 28 35 35 36 36 36 36 36 36 36 36 36 36 36 36 36	DML, DML, DML, DML, DML, DML, DML, DML,	double disphragin pum double disphragin pum
RW-7	1417/2017 2000/2017 38/2017 38/2017 40/2017 40/2017 40/2017 40/2017 40/2017 40/2017 40/2017 40/2017 114/2017 114/2017 114/2017 114/2018 40/2018 40/2018 60/2018 60/2018 61/2018	41.0 40.5 38.0 40.5 40.5 40.5 41.5 39.7 39.3 38.5 41.0 40.0 41.1 40.1 41.1 41.1 40.6 40.0 40.0 40.0 40.0 40.0 40.0 40.0	DNAP, purple 1.5 1.5 4.0 1.5 4.0 1.5 0.5 0.5 0.5 0.5 0.5 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7	or pumping not completed	12.2 due lo adverse weather conditions.  10.0	46, 28, 28, 28, 28, 28, 28, 28, 28, 28, 28	DML, DML, DML, DML, DML, DML, DML, DML,	double disphragin pum double disphragin pum

TABLE II SUMMARY OF DNAPL MEASUREMENTS NYSDEC 83-60-022 I RIVER STREET HASTINGS-ON-HUDSON, NEW YORK

HARW-8	Date	Depth to Product (ft)	Product Apparent Height - Pre-pumping (ft)	Product Apparent Height - Post-pumping (ft)	Approximate Volume of Product Recovered (gallons) *	Days Elapsed Between Measurement Readings	Measurement Tool	
S-WRAH	Cumulative 7/19/2011 - 12/10/2016	. 1664	The second secon		18.0	measurement resumps	Used	Recovery Procedure Used
	1/18/2017	40.8	2.2	0.2	5.2	37	DMT <sup>4</sup>	
	2/20/2017		DNAPL gauging o	r pumping not completed	due to adverse weather conditions	- 31		
	3/6/2017	41.7	1.3			47	DMT*	-
	4/3/2017	42.5	0.5			28	DMT*	
	5/1/2017	42.3	0.7			28	DMI.	
	6/5/2017	42.3	0.7			35	DMT*	
	7/10/2017	42.3	0.7			35	DMT*	
100	8/7/2017	42.1	0.9			28		-
	9/11/2017	41.7	1.3			35	DMT*	
	10/9/2017	42.2	0.8				DMT*	
	11/6/2017	41.8	1.2		-	28	DMT*	
	12/4/2017				eted (10 event requirement met)	28	DMT*	
	1/8/2018		DNAPL gauging o	pumping not completed	due to adverse weather conditions			(4)
	2/5/2018	41.7	1.3		and the state of t			
	3/5/2018	41.3	1.7			91	DMT*	- 2
	4/2/2018	41.1	1.9			28	DMT*	
	5/8/2018	41.0	2.0	0.6		28	DMT*	
	6/5/2018	42.5	0.5	0.6	3.7	36	DMT*	double diaphragm pump
100	7/9/2018	42.5	0.5			28	DMT*	
1	8/6/2018	42.3	0.7			34	DMT*	
	9/10/2018	42.1	0.9	-		28	DMT*	
	10/1/2018	42.0	1.0		-	35	DMT*	
	11/5/2018	42.1	0.9			21	DMT*	
	12/10/2018	41.7	1.3		*	35	DMT*	
	1/14/2019	41.5				35	DMT*	
	2/4/2019	41.5	1.5	4		35	DMT*	-
	3/11/2019	41.3	1,5			21	DMT*	
	4/2/2019	41.0	1.7			35	DMT*	
	5/6/2019		2.0	0.3	4.6	22	DMT*	double diaphragm pump
	6/3/2019	42.3	0.7			34	DMT*	sociale deprivagin purip
	8/5/2019	42.2	0.8			28	DMT*	
- 1	01312019	41.8	1.3			63	DMT*	
		TOTAL VOLUME RECO	OVERED TO DATE FRO	M HARW-S (GALLONS)	31.3			

TOTAL VOLUME RECOVERED TO DATE FROM ALL WELLS (GALLONS)

2812.4

HARW-5 Angle from Verticat: 23.5 ° Vertical Depth to Yop of Screen: 27 ft Vertical Depth to Bottom: 40.3 ft

HAOW: \$2A Depth to Top of Screen: 28.6 ft Depth to Bottom: 43.6 ft

For historical reference to past ONAPL measurement events prior to January 2017, please refer to the January 2018 monthly report submitted to NYSDEC on 5 February 2018.

For historical reference to past CNAPL, measurement events prior to animary 2017, presser peter to the annuary 2018 monitary report summitted to NY-DUBL: on a Petruary 2018.

DMT = CNAPL, Measurement Tod, consisting of a copport tubing handle, a spacer section to prevent the probe from contacting the sides of the well riser, and an ai-drivead rod probe to extend into the DNAPL.

Reserved.

3 Volume of product recovered by downwell pump is settinated by approximating the volume of certainged to the drum and additional product in tubing and on pump.

Volume of product recovered by blace is estimated using the salar volume and number of times balled.

Volume of product recovered by blace is estimated using the salar volume and number of times balled.

Volume of product recovered by blace is estimated using the salar volume and number of times balled.

Volume of product recovered by socials disphasement plates pumping apparent height of product incovered by declaration velocity.

4.48 depth and biodises values for HANV-0, HANV-4 HANV-6 and MARV-8 are provided as vertical equivalents of the field measurements. Based on the angle of the installed well.

SOVEREIGN CONSULTING INC.

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## FORMER ANACONDA WIRE AND CABLE PLANT SITE (a.k.a. HARBOR AT HASTINGS SITE) OU1 NYSDEC SITE 360022 MONTHLY PROGRESS REPORT 171

PREPARED BY: Atlantic Richfield Company

**Paul Johnson** 

REPORTING PERIOD: August 1, 2019 through August 31, 2019

### 1. PROGRESS MADE THIS REPORTING PERIOD:

- DNAPL gauging and recovery was performed on August 5<sup>th</sup> and August 6<sup>th</sup>, 2019. HARW-2 and HARW-5 were gauged and pumped as required by the August 2011 Design Basis Memorandum.
- LNAPL gauging and recovery was performed on August 5<sup>th</sup>, 2019 in accordance with the IRM Work Plan (Fluor Daniel GTI, December 1997), Fluor Daniel GTI correspondence to the NYSDEC dated May 18, 1998 and Atlantic Richfield correspondence with the NYSDEC on September 2, 2010.

### 2. UNANTICIPATED PROBLEM AREAS AND RECOMMENDED SOLUTIONS

• None this reporting period.

### 3. PROBLEMS RESOLVED

None this reporting period.

### 4. <u>DELIVERABLES SUBMITTED / RECEIVED</u>

- August 2, 2019, Atlantic Richfield to NYSDEC: *Hastings July 2019 Monthly Progress Report*.
- August 26, 2019, Atlantic Richfield to NYSDEC, Modified Electronic Data Deliverables for September 2018 Emerging Contaminant Groundwater Sampling.

### 5. <u>UPCOMING EVENTS / ACTIVITIES PLANNED</u>

- The next three DNAPL gauging and recovery events are tentatively scheduled to occur the weeks of September 9<sup>th</sup>, October 7<sup>th</sup>, and November 4<sup>th</sup>, 2019.
- Continue the Water Tower LNAPL IRM activities, as allowable, in accordance with the IRM Work Plan (Fluor Daniel GTI, December 1997), Fluor Daniel GTI

correspondence to the NYSDEC dated May 18, 1998 and Atlantic Richfield correspondence with the NYSDEC on September 2, 2010. The upcoming LNAPL IRM events are tentatively scheduled to occur the week of November 4<sup>th</sup>, 2019, and the week of January 6<sup>th</sup>, 2020 in accordance with the schedule modification request, from monthly to quarterly, sent by Atlantic Richfield to NYSDEC on June 4, 2012, and the approval letter received from NYSDEC dated April 2, 2013.

### 6. KEY STAFFING

- Sovereign Consulting Inc.
- Parsons Environment and Infrastructure Group, Inc. (OM&M)
- Parsons Environment and Infrastructure Group, Inc. (Security)

### 7. PERCENTAGE COMPLETE

- DNAPL gauging and recovery ongoing
- LNAPL IRM ongoing

### 8. DATA

• Final data not generated during this reporting period.

### 9. CITIZEN PARTICIPATION ACTIVITIES

• None this reporting period.

## LIST OF ACRONYMS

Acronym Description

NYSDEC New York State Department of Environmental

Conservation

LNAPL Light Non-Aqueous Phase Liquid

DNAPL Dense Non-Aqueous Phase Liquid

OU Operable Unit

IRM Interim Remedial Measure

O&M Operations and Maintenance

### **LIST OF REFERENCES**

<u>FLUOR Daniel GTI, 1997. Draft Interim Remedial Measure Work Plan – Separate Phase Liquid Recovery. December.</u>