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May 22, 2020

Mr. Matthew Hubicki
Project Manager
NYSDEC
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7016

Re: Progress Report – April 2020
Polychrome West Site
City of Yonkers, Westchester County
NYSDEC BCP Site No. C360099

Dear Mr. Hubicki:

This Progress Report has been prepared by AKRF, Inc. (AKRF) on behalf of Avalon Yonkers Sun Sites, LLC (AVB) to summarize the work performed at the Polychrome West site [Brownfield Cleanup Program (BCP) Site No. C360099] located at 137-145 Alexander Street, Yonkers, New York (the Site) during the month of April 2020.

Community Air Monitoring Plan (CAMP) observations were as follows:

- No intrusive soil work occurred below the final cover system at the Site during the reporting period for the month of April 2020.
- On April 21 and 22, 2020, handheld equipment was used to monitor volatile organic compounds (VOCs), oxygen, and hydrogen sulfide (H2S) during dense non-aqueous phase liquid (DNAPL) coal tar removal activities, in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved Site Management Plan (SMP). Air monitoring was performed within the work zone. No VOC or H2S exceedances were recorded during the DNAPL removal activities.

Site Activities:

- During the month of April 2020, no on-Site excavation activities below the final cover system occurred. Building construction, general site work, and landscaping work were performed throughout this period.
- On April 15, 2020, NYSDEC requested via email that NAPL monitoring wells NW-5, NW-6, NW-8, NW-10, and NW-11 be gauged on a more frequent (weekly or bi-weekly) basis. Since receipt of this email, AKRF has performed weekly gauging of NAPL monitoring wells NW-5, NW-6, NW-8, NW-10, and NW-11.
- On April 21, 2020, AKRF completed the monthly gauging of the following groundwater monitoring and non-aqueous phase liquid (NAPL) recovery wells: MW-A, MW-B, MW-C, MW-D, MW-E, MW-F, NW-1, NW-3, NW-4, NW-5, NW-6, NW-7, NW-8, NW-9, NW-10, NW-10S, NW-11, and NW-12. DNAPL was detected in NW-5 (~7.23-ft.), NW-6 (~6.93-ft.), NW-8 (~4.05-ft.), NW-10 (~6.01-ft.),

and NW-11 (~1.12-ft.). NAPL recovery wells are equipped with 3-foot sumps. Monthly gauging results for the April 2020 reporting period are included in Table 1.

- On April 21, 2020, AKRF performed DNAPL removal activities with a 2-inch submersible pump and dedicated tubing at recovery wells NW-8 (~3 gallons) and NW-10 (~4 gallons). The recovered DNAPL was containerized in a Department of Transportation (DOT)-approved 55-gallon drum, labeled as hazardous waste, and staged on the PW Site in Grid Cell B1 (see Figure 2).
- On April 22, 2020, AKRF performed oversight during additional DNAPL removal, which was completed by Eastern Environmental of Manorville, New York (Eastern). Measurable DNAPL was removed from recovery wells NW-5 (~8 gallons), NW-6 (~8 gallons), and NW-11 (~4 gallons) utilizing a vacuum truck to apply vacuum on an internal 1-inch pipe within the respective recovery well. During this recovery event, DNAPL was pumped from recovery well NW-5 for approximately 2 hours. Due to poor recovery rates, time constraints, and the high viscosity DNAPL, the measurable post-pumping measurable thickness was greater than 6 inches (~3.44 feet). AKRF, in consultation with NYSDEC, are continuing to evaluate alternative long term recovery methods that would increase recovery rates and achieve post-pumping measurable thicknesses less than 6 inches. The recovered DNAPL was containerized in a DOT-approved 55-gallon drum, labeled as hazardous waste, and staged on-Site in Grid Cell B1 (see Figure 2) for off-site disposal at an appropriate receiving facility. Following DNAPL removal, the vacuum truck was decontaminated using a steam pressure washer with the decontamination fluids drummed on-Site.
- A total of 27 gallons of DNAPL was recovered during the reporting period, and 97.5 gallons of DNAPL have been recovered in total (year to date). DNAPL recovery totals are summarized in Table 2.
- On April 22, 2020, Eastern removed one drum of used personal protective equipment (PPE) and oily debris generated during previous NAPL gauging events. The drum was disposed of at Clean Waters of New York in Staten Island, New York. The final disposal manifests will be included in the PRR for 2020.
- On April 30, 2020, AKRF performed the weekly gauging of the following NAPL monitoring recovery wells: NW-5, NW-6, NW-8, NW-10, and NW-11. DNAPL was detected in NW-5 (~6.94-ft.), NW-6 (~4.51-ft.), NW-8 (~2.44-ft.), and NW-10 (~5.98-ft.). No measurable thickness of DNAPL was detected in NW-11. NAPL recovery wells are equipped with 3-foot sumps. The weekly gauging results conducted on April 30, 2020 are included in Table 1.
- AKRF anticipates to complete DNAPL gauging and removal in May 2020 using the same methods as described above while long term trends and alternate recovery methods are evaluated.
- No soil or stone was imported to the Site during the month of April.

The following work is planned for May:

- Grading activities with NYSDEC-approved Category 1 soil, ¾-inch gravel, and/or trap rock screenings;
- SSDS installation (finalizing vertical riser location and chase);
- NAPL recovery well weekly/monthly monitoring and monthly NAPL recovery; and
- Disposal, as needed, of recovered DNAPL (i.e., coal tar) and used PPE/field supplies.

If you have any questions or require additional information, please contact me at (914) 922-2387.

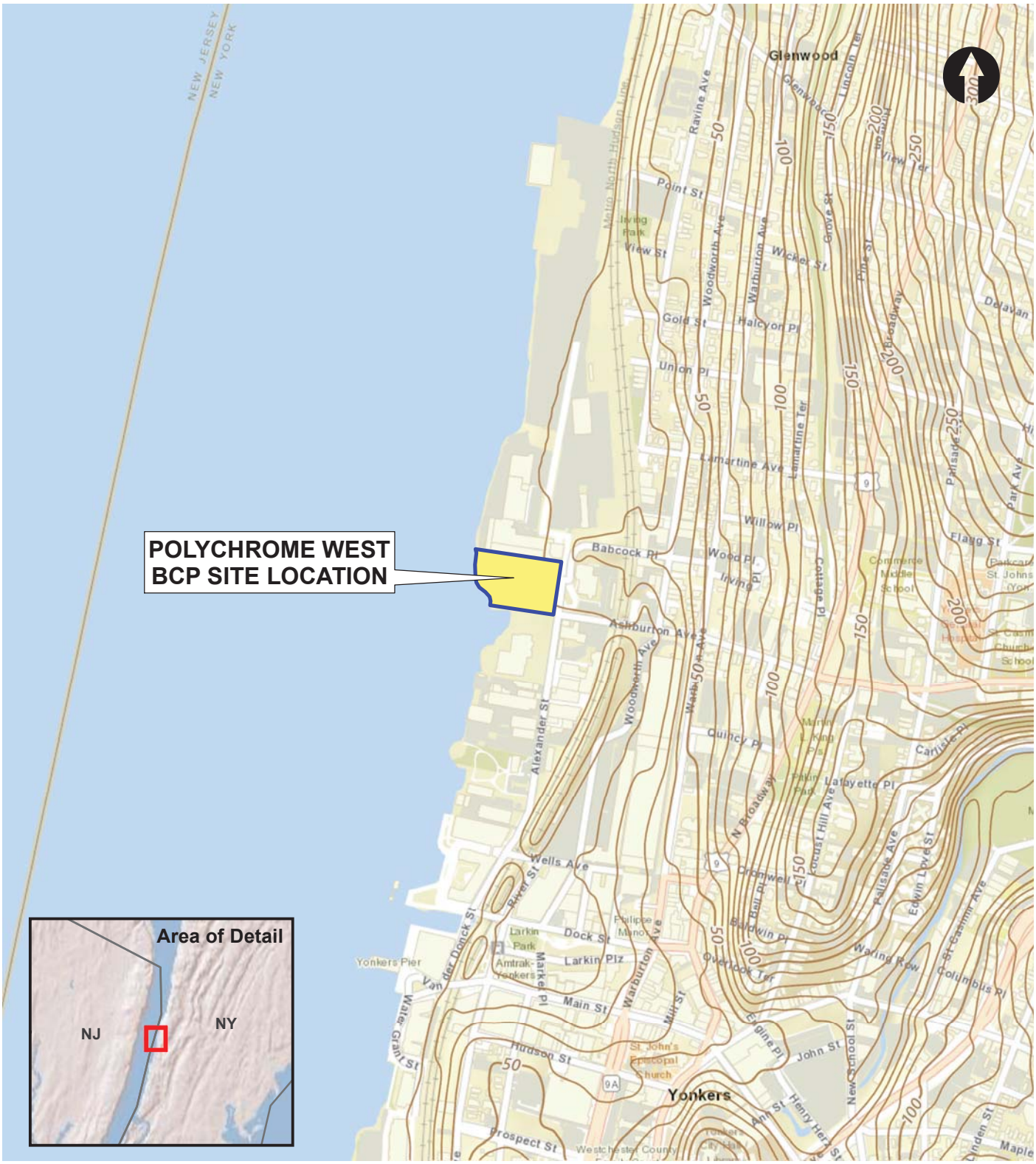
Sincerely,
AKRF, Inc.

Patrick McHugh, P.E.
Environmental Engineer

Encl.: Figure 1 – Site Location Map
Figure 2 – Site Plan with Reference Grid
Figure 3 – NAPL Recovery & Groundwater Monitoring Well Location Plan
Table 1 – Polychrome West Well Gauging Table
Table 2 – Polychrome West DNAPL Recovery Totals

cc (electronic copy only): Kevin Carpenter – NYSDEC
Scott Deyette – NYSDEC
Sarita Wagh – NYSDOH
Glen Moran – AVB
Christopher Reynolds – AVB
Jon Vogel – AVB
Michael Simpson – AVB
Barry White – AVB
Scott Caporizzo – AKRF
Marc Godick – AKRF
Steve Grens – AKRF
Rebecca Kinal – AKRF

ATTACHMENTS



Service Layer Credits: ESRI Worlwide Street Map data; 2019.

Map Source - BCP Site Boundary from Paulus, Sokolowski and Sartor Architecture & Engineering, P.C.
Stamped Survey Drawing Titled "Environmental Easement Area" - dated May 31, 2019.

0 800 1,600
SCALE IN FEET

AKRF
34 S. Broadway #401, White Plains, NY 10601

Polychrome West
NYSDEC Site (BCP #C360099)
Yonkers, New York

SITE LOCATION MAP

DATE
12/19/2019

PROJECT NO.
180017

FIGURE
1

LEGEND

PROJECT SITE BOUNDARY

A
1
ALPHANUMERIC GRID

0 40 80 160

SCALE IN FEET

Aerial Source:
2014 New York Statewide Digital Orthoimagery.

AKRF

440 Park Avenue South, New York, NY 10016

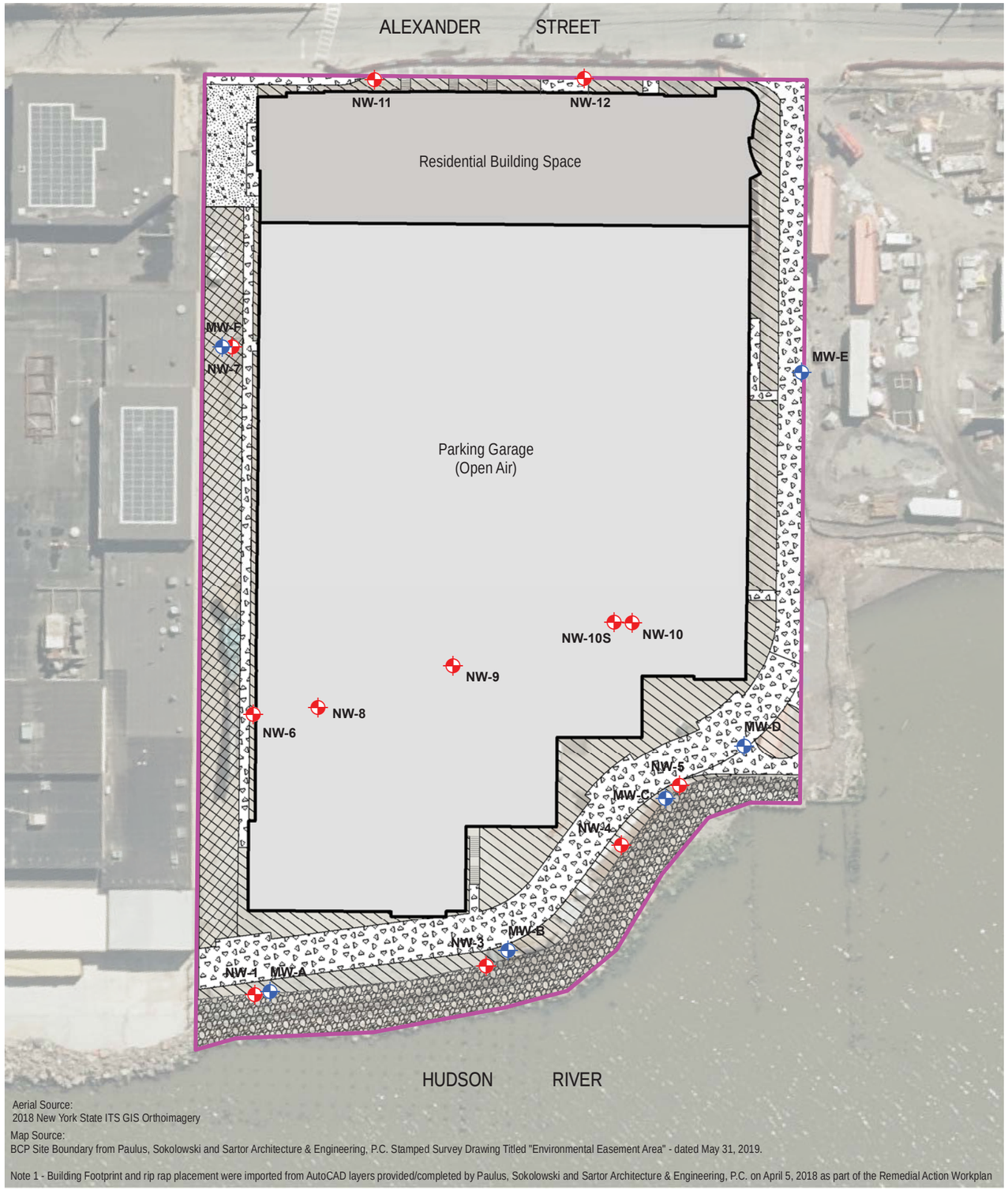
Polychrome West Site
BCP Site C360099
Yonkers, New York

SITE PLAN WITH REFERENCE GRID

DATE

PROJECT NO.
40566

FIGURE
2



Aerial Source:
2018 New York State ITS GIS Orthoimagery

Map Source:
BCP Site Boundary from Paulus, Sokolowski and Sartor Architecture & Engineering, P.C. Stamped Survey Drawing Titled "Environmental Easement Area" - dated May 31, 2019.

Note 1 - Building Footprint and rip rap placement were imported from AutoCAD layers provided/completed by Paulus, Sokolowski and Sartor Architecture & Engineering, P.C. on April 5, 2018 as part of the Remedial Action Workplan

LEGEND

- BCP SITE
- RESIDENTIAL BUILDING
- PARKING GARAGE (OPEN
- ESPLANADE
- GRASS PAVER
- ASPHALT
- LANDSCAPED
- RIP RAP
- NAPL RECOVERY WELL
- GROUNDWATER MONITORING WELL LOCATION (SHALLOW NAPL RECOVERY)

0 30 60 120

SCALE IN FEET

AKRF
440 Park Avenue South, New York, NY 10016

Polychrome West
NYSDEC Site (BCP #C360099)
Yonkers, New York

NAPL RECOVERY & GROUNDWATER MONITORING WELL LOCATION PLAN

DATE
12/19/2019

PROJECT NO.
180017

FIGURE
3

Table 1
Polychrome West
Yonkers, NY
Well Gauging Measurements

Well ID	Date:	Time:	Depth to LNAPL (Ft.)	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	LNAPL Thickness (Ft.)	DNAPL Thickness (Ft.)	Comments
MW-A	1/9/2020	12:09	ND	8.35	ND	13.10	NA	NA	
	2/19/2020	10:00	ND	7.38	ND	13.11	NA	NA	
	3/25/2020	8:50	ND	7.39	ND	14.22	NA	NA	
	4/21/2020	8:22	ND	6.52	ND	13.18	NA	NA	
MW-B	1/9/2020	13:34	ND	11.39	ND	14.73	NA	NA	
	2/19/2020	10:00	ND	10.37	ND	14.71	NA	NA	
	3/25/2020	8:40	ND	10.52	ND	14.73	NA	NA	
	4/21/20	8:30	ND	9.82	ND	14.71	NA	NA	
MW-C	1/9/2020	12:08	ND	12.38	ND	18.52	NA	NA	
	2/19/2020	10:00	ND	12.02	ND	17.96	NA	NA	
	3/25/2020	8:30	ND	11.74	ND	18.02	NA	NA	
	4/21/2020	8:37	ND	10.83	ND	17.75	NA	NA	
MW-D	1/9/2020	16:06	ND	11.16	ND	17.83	NA	NA	
	2/19/2020	10:00	ND	10.41	ND	17.89	NA	NA	
	3/25/2020	8:25	ND	10.65	ND	18.11	NA	NA	
	4/21/2020	8:41	ND	10.37	ND	17.90	NA	NA	
MW-E	1/9/2020	16:03	ND	12.22	ND	15.39	NA	NA	
	2/19/2020	10:00	ND	7.84	ND	12.59	NA	NA	Well cut down to pavement level
	3/25/2020	8:20	ND	8.63	ND	12.58	NA	NA	
	4/21/2020	8:15	ND	7.77	ND	12.60	NA	NA	
MW-F	1/9/2020	15:55	ND	12.09	ND	20.04	NA	NA	
	2/19/2020	10:00	ND	12.07	ND	20.09	NA	NA	
	3/25/2020	8:55	ND	9.53	ND	17.79	NA	NA	
	4/21/2020	8:10	ND	9.38	ND	17.79	NA	NA	
NW-1	1/9/2020	12:47	ND	8.4	ND	20.55	NA	NA	
	2/19/2020	11:30	ND	7.75	ND	20.39	NA	NA	
	3/25/2020	9:45	ND	7.02	ND	20.48	NA	NA	
	4/21/2020	9:07	ND	6.23	ND	20.50	NA	NA	
NW-3	1/9/2020	12:52	ND	10.84	ND	35.31	NA	NA	
	2/19/2020	11:30	ND	10.21	ND	35.95	NA	NA	
	3/25/2020	9:50	ND	9.04	ND	35.33	NA	NA	
	4/21/2020	9:10	ND	8.32	ND	35.48	NA	NA	
NW-4	1/9/2020	13:44	ND	11.82	ND	45.89	NA	NA	
	2/19/2020	11:30	ND	11.08	ND	46.26	NA	NA	
	3/25/2020	9:55	ND	11.10	ND	46.48	NA	NA	
	4/21/2020	10:00	ND	10.64	ND	45.71	NA	NA	
NW-5	**1/9/2020**	**10:00**	**ND**	**12.04**	**32.86**	**39.97**	**NA**	**7.11**	**Pre-pumping measurement. ~ 7 gallons removed**
	1/9/2020	**13:36**	**ND**	**12.84**	**ND**	**38.45**	**NA**	**NA**	**Post-pumping measurement.**
	1/10/2020	10:30	ND	11.29	ND	38.39	NA	NA	
	1/10/2020	12:53	ND	12.53	ND	40.38	NA	NA	
	2/19/2020	**13:00**	**ND**	**12.33**	**33.39**	**40.38**	**NA**	**6.99**	**Pre-pumping measurement**
	2/21/2020	**13:05**	**ND**	**12.33**	**ND**	**40.38**	**NA**	**NA**	**Post-pumping measurement ~7.5 gallons removed**
	3/25/2020	**12:00**	**ND**	**11.75**	**33.05**	**40.38**	**NA**	**7.33**	**Pre-pumping measurement**
	3/26/2020	**9:00**	**ND**	**11.75**	**37.6**	**37.80**	**NA**	**NA**	**Post-pumping measurement ~7.5 gallons removed**
	4/21/2020	**11:20**	**ND**	**10.52**	**33.15**	**40.38**	**NA**	**7.23**	**Pre-pumping measurement**
	4/22/2020	**14:30**	**ND**	**NA**	**36.50**	**39.94**	**NA**	**3.44**	**Post-pumping measurement ~8 gallons removed**
	4/30/2020	10:30	ND	NA	33.00	39.94	NA	6.94	
NW-6	**1/9/2020**	**10:05**	**ND**	**10.82**	**32.21**	**38.87**	**NA**	**6.66**	**Pre-pumping measurement. ~2 gallons removed**
	1/9/2020	**10:41**	**ND**	**10.83**	**ND**	**38.89**	**NA**	**NA**	**Post-pumping measurement.**
	1/10/2020	12:50	ND	10.26	ND	39.23	NA	NA	
	1/10/2020	15:00	ND	10.46	ND	39.55	NA	NA	
	2/19/2020	**13:00**	**ND**	**10.42**	**32.24**	**39.55**	**NA**	**7.31**	**Pre-pumping measurement**
	2/21/2020	**13:05**	**ND**	**10.42**	**ND**	**39.55**	**NA**	**NA**	**Post-pumping measurement ~7.5 Gal. removed**
	3/25/2020	**11:30**	**ND**	**8.88**	**31.18**	**38.53**	**NA**	**7.35**	**Well cut down prior to 3/25/20. Pre-pumping measurement.**
	3/26/2020	**10:00**	**ND**	**8.88**	**ND**	**38.53**	**NA**	**NA**	**Post-pumping measurement ~7.5 gallons removed**
	4/21/2020	**11:02**	**ND**	**8.45**	**31.60**	**38.53**	**NA**	**6.93**	**Pre-pumping measurement**
	4/22/2020	**11:15**	**ND**	**9.15**	**ND**	**35.69**	**NA**	**NA**	**Post-pumping measurement ~8 Gal. removed**
	4/30/2020	10:30	ND	NA	34.02	38.53	NA	4.51	
NW-7	1/9/2020	14:50	ND	9.59	ND	22.08	NA	NA	
	2/19/2020	11:30	ND	9.55	ND	22.99	NA	NA	
	3/25/2020	9:40	ND	9.37	ND	23.19	NA	NA	Well cut down prior to 3/25/20.
	4/21/2020	9:00	ND	9.19	ND	23.11	NA	NA	
NW-8	1/9/2020	14:36	ND	11.41	33.81	36.20	NA	2.39	
	1/10/2020	**12:50**	**ND**	**10.43**	**35.70**	**36.20**	**NA**	**0.50**	**Pre-pumping measurement. ~1.5 gallons removed**
	1/10/2020	**14:10**	**ND**	**10.61**	**ND**	**36.25**	**NA**	**NA**	**Post-pumping measurement.**
	1/10/2020	15:35	ND	10.9	ND	36.34	NA	NA	
	2/19/2020	**14:30**	**ND**	**10.93**	**31.64**	**36.34**	**NA**	**4.70**	**Pre-pumping measurement**
	2/19/2020	**16:30**	**ND**	**10.86**	**ND**	**36.34**	**NA**	**NA**	**Post-pumping measurement ~4.5 gallons removed**
	3/25/2020	**13:00**	**ND**	**9.81**	**32.42**	**36.30**	**NA**	**3.88**	**Pre-pumping measurement**
	3/25/2020	**13:30**	**ND**	**9.81**	**ND**	**36.30**	**NA**	**NA**	**Post-pumping measurement ~4 gallons removed**
	4/21/2020	**14:05**	**ND**	**9.87**	**32.59**	**32.64**	**NA**	**4.05**	**Pre-pumping measurement**
	4/21/2020	**14:55**	**ND**	**NA**	**ND**	**36.64**	**NA**	**NA**	**Post-pumping measurement ~3 gallons removed**
	4/30/2020	10:30	ND	NA	34.20	36.64	NA	2.44	
NW-9	1/9/2020	14:40	ND	11.6	ND	33.78	NA	NA	
	2/19/2020	11:30	ND	10.77	ND	34.17	ND	ND	
	3/25/2020	10:00	ND	10:45	ND	33.73	ND	ND	
	4/21/2020	10:10	ND	10.52	ND	33.80	ND	ND	
NW-10	1/9/2020	15:02	ND	11.67	28.12	33.58	NA	5.46	
	1/10/2020	**11:00**	**ND**	**10.64**	**27.80**	**33.90**	**NA**	**6.10**	**Pre-pumping measurement. ~6 gallons removed.**
	1/10/2020	**11:25**	**ND**	**10.64**	**ND**	**33.80**	**NA**	**NA**	**Post-pumping measurement.**
	1/10/2020	15:30	ND	10.86	ND	33.80	NA	NA	
	2/19/2020	**13:30**	**ND**	**11.00**	**27.39**	**33.80**	**NA**	**6.41**	**Pre-pumping measurement**
	2/19/2020	**15:00**	**ND**	**11.14**	**ND**	**33.80**	**NA**	**NA**	**Post-pumping measurement ~4.5 gallons removed**
	3/25/2020	**14:00**	**ND**	**10.00**	**28.04**	**33.91**	**NA**	**5.87**	**Pre-pumping measurement**
	3/25/2020	**13:45**	**ND**	**10.00**	**ND**	**33.91**	**NA**	**NA**	**Post-pumping measurement ~5 gallons removed**
	4/21/2020	**12:38**	**ND**	**9.86**	**27.90**	**33.91**	**NA**	**6.01**	**Pre-pumping measurement**
	4/21/2020	**13:50**	**ND**	**NA**	**ND**	**33.78**	**NA**	**NA**	**Post-pumping measurement ~4 gallons removed**
	4/30/2020	10:30	ND	NA	27.80	33.78	NA	5.98	
NW-10S	1/9/2020	15:00	ND	11.15	ND	18.11	NA	NA	
	2/19/2020	11:30	ND	10.6	ND	17.99	NA	NA	
	3/25/2020	9:35	ND	10.59	ND	18.03	NA	NA	
	4/21/20	9:15	ND	10.25	ND	18.06	NA	NA	
NW-11	**1/9/2020**	**9:07**	**ND**	**6.06**	**17.51**	**24.37**	**NA**	**6.86**	**Pre-pumping measurement. ~ 3 gallons removed**
	1/9/2020	**9:36**	**ND**	**9.03**	**ND**	**24.81**	**NA**	**NA**	**Post-pumping measurement.**
	1/10/2020	9:50	ND	6.07	ND	24.38	NA	NA	
	1/10/2020	14:50	ND	6.04	ND	24.39	NA	NA	
	2/19/2020	**13:00**	**ND**	**5.96**	**22.31**	**24.39**	**NA**	**2.08**	**Pre-pumping measurement**
	2/21/2020	**9:50**	**ND**	**5.96**	**ND**	**24.39**	**NA**	**NA**	**Post-pumping measurement ~3 gallons removed**
	3/25/2020	11:05	ND	5.98	ND	24.52	NA	NA	
	3/26/2020	10:05	ND	5.98	24.2	24.6	NA	0.4	**Pumping not completed (less than 0.5 feet of DNAPL)**
	4/21/2020	**10:16**	**ND**	**5.80**	**23.48**	**24.6**	**NA**	**1.12**	**Pre-pumping measurement**
	4/22/2020	**10:15**	**ND**	**8.53**	**ND**	**26.68**	**NA**	**NA**	**Post-pumping measurement ~4 gallons removed**
	4/30/2020	10:30	ND	NA	ND	26.68	NA	NA	
NW-12	1/9/2020	12:01	ND	6.98	ND	24.21	NA	NA	
	2/19/2020	11:30	ND	6.89	ND	23.94	NA	NA	
	3/25/2020	10:10	ND	13.75	ND	20.95	NA	NA	Well cut down prior to 3/25/20.
	4/21/2020	9:20	ND	3.61	ND	21.09	NA	NA	

Notes: **Pre/post pumping event readings are bolded.**
LNAPL - Light Non-Aqueous Phase Liquid
DNAPL - Dense Non-Aqueous Phase Liquid
NA - Not Applicable

Table 2
Polychrome West
Yonkers, NY
DNAPL Recovery Totals

Recovery Event	DNAPL Recovered Volume (gal)												Disposal Info		
	NW-1	NW-3	NW-4	NW-5	NW-6	NW-7	NW-8	NW-9	NW-10	NW-11	NW-12	Monthly Total	Date Generated	Off-Site Disposal Date	Disposal Location
Jan-20	NA	NA	NA	7	2	NA	1.5	NA	6	3	NA	19.5	1/9 -1/10/20	2/21/2020	Veolia ES
Feb-20	NA	NA	NA	7.5	7.5	NA	4.5	NA	4.5	3	NA	27	2/19 and 2/21/20	2/21/2020	Veolia ES
Mar-20	NA	NA	NA	7.5	7.5	NA	4	NA	5	NA	NA	24	3/25 and 3/26/20	Pending	Pending
Apr-20	NA	NA	NA	8	8	NA	3	NA	4	4	NA	27	4/21 and 4/22/20	Pending	Pending
										TOTAL TO DATE:		**97.5**	gallons		

Notes: **DNAPL - Dense Non-Aqueous Phase Liquid**
NA - Not Applicable