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Mr. Justin Starr **01.05.2026**
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, New York, 12233

Re: DNAPL Monitoring/Recovery Pilot Study Summary Report
Former Excelsior Bag Site
159 Alexander Street, Yonkers, NY 10701
BCP Site: C360190

Dear Mr. Starr:

On behalf of Extell Hudson Waterfront LLC and Extell Hudson Waterfront I LLC (collectively, "the Volunteer"), AKRF, Inc. (AKRF) has prepared this *Dense Non-Aqueous Phase Liquid (DNAPL) Monitoring/Recovery Pilot Study Summary Report* (Report) for the Former Excelsior Bag Site located at 25, 35, and 45 Riverside Drive (f/k/a Alexander Street) in Yonkers, New York (the Site). The Site is also identified as Section 2, Block 2620, Lots 2, p/o 9, 10, 11, 12, Fisherman Way, Colman Way, and p/o Riverside Drive on the City of Yonkers Tax Map.

The purpose of this Report is to summarize the DNAPL Monitoring/Recovery Pilot Study (Pilot Study) field activities and results and provide preliminary recommendations for a modified remedy that incorporates containment and recovery of coal tar DNAPL. Following New York State Department of Environmental Conservation (NYSDEC) review and approval of this Report, AKRF and the Volunteer will prepare a Remedial Action Work Plan (RAWP) Modification Addendum Letter further detailing the proposed modified remedial design for full-scale containment and recovery for NYSDEC review and approval.

Background

In-Situ Solidification (ISS) was selected as the preferred remedy for treatment of the targeted ISS treatment material in the August 2023 RAWP approved by NYSDEC. However, due to unforeseen equipment refusal issues resulting from extensive subsurface obstructions encountered during pre-clearing and ISS mixing activities, it has become necessary to evaluate alternative remedial options to achieve the remedial action objectives (RAOs) outlined in the RAWP. In previous correspondence, NYSDEC has conceptually agreed with a proposed alternative emphasizing a containment, monitoring, and recovery remedial approach.

To support a containment, monitoring, and recovery remedial approach, AKRF prepared a DNAPL Monitoring/Recovery Pilot Study Work Plan (Work Plan) to collect preliminary data via installation of permanent DNAPL recovery wells in strategic locations to establish whether recoverable DNAPL is present, to identify the most effective areas and methods for long-term DNAPL monitoring and recovery, and to support the design of a full-scale containment and recovery remedial approach. The Pilot Study began with installation of the monitoring/recovery well network in March 2025 and ended in September 2025 following several gauging and recovery events, as detailed in this Report.

DNAPL Pilot Study Field Activities and Results

DNAPL Recovery Well Installation Activities

Between February and March 2025, AKRF installed ten (10) DNAPL monitoring/recovery wells (PS-NW-01 through PS-NW-10) in accordance with the NYSDEC-approved Work Plan. Eight wells (PS-NW-01

through PS-NW-08) were installed within the previously targeted ISS treatment area to monitor for the presence of recoverable DNAPL. Two wells (PS-NW-09 and PS-NW-10) were installed north and west, respectively, of the targeted ISS treatment area. Each DNAPL monitoring/recovery well was constructed as follows from bottom (lowest elevation) to top: a 5-foot long, 6-inch diameter, stainless-steel sump (installed within the Intermediate Confining Layer), followed by approximately 10 feet of 6-inch diameter 0.04-inch slotted stainless-steel screen, followed by 6-inch diameter stainless-steel riser to ground surface grade. Pea gravel was installed in the annulus within and 2 feet above the screen interval. Hydrated bentonite was installed surrounding the sump and the 2-foot interval immediately above the pea gravel (i.e., 2 to 4 feet above the screen interval). Grout was then installed to surface grade. Each DNAPL monitoring/recovery well was finished with a locking j-plug and either a flush mounted well cover (PS-NW-01 and PS-NW-02) or an approximately 3-foot "stickup" surrounded by a protective steel outer casing (PS-NW-03 through PS-NW-10).

Following installation, each DNAPL monitoring/recovery well was developed utilizing air lift and surging techniques to remove any accumulated fines and establish a hydraulic connection with the surrounding aquifer. Development continued until a minimum of three to five well volumes representative of the 10-foot section of slotted screen and 5-foot sump well interval were purged from the well. The DNAPL monitoring/recovery wells were surveyed by PS&S, a New York State-licensed surveyor.

The DNAPL monitoring/recovery well locations installed during the Pilot Study are shown on Figure 1. A summary of well construction details is provided in Table 1, and well construction logs are provided in Attachment A.

DNAPL Gauging Results

Following DNAPL monitoring/recovery well installation and development, AKRF performed an initial round of gauging in March 2025 and continued gauging activities through September 2025 at a frequency varying from daily to monthly. Baseline DNAPL thicknesses within the recovery wells ranged from non-detect at PS-NW-01, PS-NW-02, PS-NW-03, PS-NW-05, PS-NW-07, PS-NW-09, and PS-NW-10 to 14.0 feet at PS-NW-06. While no measurable DNAPL was recorded at PS-NW-05 and PS-NW-07 initially, DNAPL accumulation has been observed consistently at both recovery wells since the initial baseline readings. DNAPL thicknesses within PS-NW-04 through PS-NW-08 generally ranged between 4 and 16 feet, with thicknesses greater than 10 feet routinely observed at PS-NW-05, PS-NW-06, and PS-NW-08. No measurable DNAPL was reported at PS-NW-01, PS-NW-02, PS-NW-03, PS-NW-09, and PS-NW-10 throughout the duration of the Pilot Study.

The DNAPL gauging results are provided in Table 2.

DNAPL Recovery Results

Following initial baseline gauging, AKRF coordinated with multiple pump vendors to test various pumping technologies, which included: the ProActive Waterspout II submersible pump, ProActive Tornado submersible pump, QED AP4+ AutoPump automatic air-powered pump, Groundwater Innovations Buffalo Air Pump, QED LP1301 Pulse Pump, vacuum truck removal, and the Blackhawk V-2 pneumatic pump.

Pilot Study recovery events conducted in May 2025 included testing of the ProActive Waterspout II submersible pump, ProActive Tornado submersible pump, QED AP4+ AutoPump automatic air-powered pump, and Groundwater Innovations Buffalo Air Pump. Each pump exhibited equipment failures and/or insufficient recovery rates, which were attributed to the high viscosity and depth of the DNAPL. Based on these performance limitations, the pumps were determined to be technically impractical for full-scale implementation and were screened out from further Pilot Study testing.

DNAPL recovery using a vacuum truck was tested in June 2025 and successfully removed the DNAPL column within the recovery wells; however, removal via vacuum truck generated substantial quantities of excess waste in the form of entrained groundwater. The increase in waste volume and associated off-site

disposal costs would limit the long-term effectiveness of this approach. In addition, the excessive waste generation is inconsistent with NYSDEC's Green Sustainable Remediation (GSR) best management practices. Accordingly, vacuum truck removal was screened out from further Pilot Study testing.

DNAPL recovery events conducted between June 2025 and September 2025 included testing of the QED LP1301 Pulse Pump and Blackhawk V-2 Pneumatic Piston Pump (Model 102). The Blackhawk V-2 Pneumatic Piston Pump was tested on PS-NW-05 and PS-NW-06, which had documented DNAPL thicknesses generally ranging from 12 to 16 feet. The QED LP1301 Pulse Pump was tested on PS-NW-04 through PS-NW-08, which had documented DNAPL thicknesses generally ranging from 5 to 16 feet. Throughout several recovery events, the Blackhawk V-2 Pneumatic Piston Pump worked effectively without equipment failures and achieved recovery rates [greater than 1.0 gallons per minute (gpm)] that were capable of removing the full extent of the DNAPL column within the recovery well. In contrast, the QED LP1301 Pulse Pump exhibited lower recovery rates (less than 0.1 gpm) and generally could not remove the full extent of the DNAPL column over several hours of continuous operation; however, the pump exhibited consistent recovery rates over long durations without equipment failures.

Following removal of the DNAPL column from PS-NW-05 and PS-NW-06, DNAPL thickness measurements were obtained periodically to estimate DNAPL recharge rates. Maximum DNAPL recharge rates were generally below 0.1 gpm and decreased over time, which is consistent with a typical bail down recovery curve (e.g., semi-logarithmic decay). The DNAPL column generally returned to equilibrium (i.e., pre-removal DNAPL thickness) within 1 to 2 days following the removal event. AKRF also monitored adjacent wells during the Pilot Study recovery events and observed no measurable drawdown. This is likely attributable to the high viscosity of the DNAPL and slow recharge rates.

Pilot Study DNAPL recovery and recharge results are provided in the attached Table 2. Additionally, the QED LP1301 Pulse Pump and Blackhawk V-2 Pneumatic Pump product data sheets have been provided in Attachment B.

Investigation Derived Waste (IDW) Management

Investigation derived waste (IDW) generated during the Pilot Study was containerized in properly labeled Department of Transportation-approved 55-gallon drums for waste characterization sampling and off-site disposal at a permitted facility. Between June 2025 and October 2025, forty-six (46) 55-gallon drums containing well installation soil cuttings, nine (9) 55-gallon drums containing well development purged liquids, and twelve (12) 55-gallon drums containing spent personal protective equipment (PPE) and field supplies were transported by Brookside Environmental for off-site disposal as non-hazardous waste to Dale Transfer Corporation, located in West Babylon, NY. Additionally, approximately 4,612 gallons of non-hazardous well development purged liquids were transported by Brookside Environmental via vac truck for off-site disposal as non-hazardous waste to Advanced Waste Water Treatment (AWWT), located in Farmingdale, NY. As of the date of this Report, sixteen (16) 55-gallon drums containing recovered coal tar DNAPL remain staged on-site for future off-site disposal pending disposal facility approval. Disposal documentation, including facility approvals and manifest documentation, will be included in the Final Engineering Report (FER).

Modified Remedy Recommendations

Based on the results of the Pilot Study, preliminary recommendations for the design and implementation of the modified remedy emphasizing containment and recovery of coal tar DNAPL are provided below.

DNAPL Containment Area and Containment Wall Design Recommendations

As part of the modified remedial design, a containment wall is proposed along the western (downgradient) and southern (upgradient) portion of the on-Site DNAPL plume to prevent potential downgradient migration and migration onto the Site from upgradient sources, respectively. Based on the results of the

Pilot Study, the recommended area requiring containment (the "Containment Area") and design approach for the containment wall are detailed below.

- The lack of measurable DNAPL in PS-NW-09 and PS-NW-10 indicates that the northern and northeastern boundaries of the Containment Area are consistent with the previously targeted ISS treatment area and the areas to the north and west do not contain mobile/recoverable DNAPL.
- The lack of measurable DNAPL in PS-NW-01, PS-NW-02, and PS-NW-03 indicates that coal tar contamination documented in this area during previous investigations, and conservatively proposed for ISS treatment as part of the previously approved remedy (i.e., ISS Grid Cells A11 through A13, B11 through B13, D11, D12, E11, and E12), is not indicative of mobile and/or recoverable DNAPL and, therefore, does not warrant containment to achieve the RAOs outlined in the RAWP.
    - Accordingly, AKRF recommends refining the Containment Area to the portion of the previously targeted ISS footprint east of "Row E". This refinement will increase the cost-effectiveness of the proposed modified remedy and reduce the overall carbon footprint associated with implementation (consistent with GSR best management practices) while still achieving the RAOs established in the RAWP. The monitoring/recovery wells installed during the Pilot Study within this area (PS-NW-01 through PS-NW-03) will be retained in the full-scale remedial design for long-term monitoring (and periodic recovery, if necessary).
- The presence of DNAPL in PS-NW-06 and PS-NW-07 indicates that containment along the southern property boundary is necessary to prevent future migration from upgradient/cross gradient off-site sources to the south.
- A significant portion of the western perimeter of the proposed Containment Area was previously stabilized with ISS columns completed during previous remedial efforts. Accordingly, AKRF recommends utilizing these perimeter ISS columns for containment purposes, in conjunction with supplemental containment measures, to achieve the RAOs established for the Site. This includes installation of additional containment wall measures along the western and southern boundaries of the Containment Area, as shown on Figure 2. The supplemental containment measures will tie into the existing ISS columns, as well as the Intermediate Confining Layer, to complete a contiguous barrier along the western (downgradient) and southern (upgradient) portion of the Containment Area to prevent potential downgradient migration as well as migration onto the Site from upgradient source(s), respectively.
    - Supplemental containment measures are anticipated to be constructed using either a network of secant piles and/or a cement slurry barrier wall. Performance specifications for the containment wall will be detailed further in the forthcoming RAWP Modification Addendum Letter.

The ISS columns previously completed along the western and southern boundaries, as well as the areas requiring supplemental containment measures that will collectively serve as the containment wall for the full-scale modified remedy, are shown on Figure 2.

DNAPL Monitoring/Recovery Well Network Recommendations

As part of the modified remedial design, a network of recovery wells is proposed to provide sufficient coverage for DNAPL recovery within the Containment Area. Based on the results of the Pilot Study, recommendations for the full-scale DNAPL monitoring/recovery well network are presented below.

- AKRF recommends retaining PS-NW-04 through PS-NW-08 for future use as recovery wells within the Containment Area. Furthermore, AKRF recommends installing an additional four (4) monitoring/recovery wells (RA-NW-08R, and RA-NW-11 through RA-NW-13) within the Containment Area to provide sufficient coverage for long-term recovery of the Containment Area as

further detailed below. The locations of the existing and recommended additional monitoring/recovery wells are shown on Figure 2.

  - Collectively, nine (9) monitoring/recovery wells within the Containment Area will be initially utilized to provide sufficient coverage by targeting localized low points of the Intermediate Confining Layer within the Containment Area. As DNAPL generally sinks within the water column to the deepest portions of the confining layer, mobile/recoverable DNAPL will continue to migrate toward these low points over the duration of recovery events. As further detailed below, the monitoring/recovery wells RA-NW-08 and RA-NW-08R will both be utilized as part of the full-scale DNAPL monitoring/recovery well network in the near-term; however, the long-term purpose of RA-NW-08R is to serve as a future replacement well for PS-NW-08, which is anticipated to require decommissioning following completion of the remedy due to inaccessibility issues (i.e., finished apartments) that are anticipated following construction of Building E.
  - No monitoring wells are recommended for decommissioning during implementation of the remedy and initial near-term operation of the DNAPL monitoring/recovery well network under the future Site Management Plan (SMP); however, it is anticipated that PS-NW-08 will fall within future Building E residential space and, therefore, will be infeasible to retain following future development. Accordingly, AKRF recommends positioning one of the four proposed additional monitoring/recovery wells (denoted "RA-NW-08R" on Figure 2) just outside of the Building E footprint (approximately 20 feet south of PS-NW-08). As the bottom of the Intermediate Confining Area is generally flat and/or sloping to the south in the northern portion of the Containment Area, RA-NW-08R is anticipated to provide sufficient coverage of the northern portion of the Containment Area following future decommissioning of PS-NW-08. As development of Building E is not anticipated to occur until after the remedy is complete, both PS-NW-08 and RA-NW-08R will be operated as part of the full-scale DNAPL monitoring/recovery well network under the SMP until future development of Building E occurs and PS-NW-08 is eventually decommissioned.
  - As requested by NYSDEC, AKRF completed a rough order of magnitude estimate to approximate the quantity of recoverable DNAPL within the Containment Area at the Site. As presented in Attachment C, the calculations indicate that roughly 32,800 gallons of recoverable DNAPL are present within the Containment Area. Based on the Pilot Study results and additional assumptions detailed in Attachment C, AKRF concludes that the recommended monitoring/recovery well network detailed herein is sufficient to achieve the RAOs established for the Site.

- The Blackhawk V-2 Pneumatic Pump (or similar model) is recommended for long-term recovery at the Site, particularly for wells actively producing significant quantities of DNAPL. The QED LP1301 Pulse Pump is recommended as a supplemental alternative for recovery wells with limited thicknesses of recoverable DNAPL and/or as a backup for wells requiring recovery at lower frequencies. Recovery system details and operational recommendations (i.e., frequency of pumping events) will be detailed in the forthcoming RAWP Modification Addendum Letter.
- AKRF recommends retaining PS-NW-01 through PS-NW-03, PS-NW-09, PS-NW-10 and four (4) additional wells (RA-NW-14 through RA-NW-17) to be installed downgradient of the Containment Area to monitor the effectiveness of the remedy.
- As noted in the NYSDEC-approved August 2023 RAWP, one (1) deep monitoring/recovery well (RA-NW-18) will be installed in the southeast corner of the Site to monitor coal tar impacts encountered above the Deep Confining Layer.

Following NYSDEC review and approval of this Report, including concurrence with the Modified Remedy Recommendations, AKRF and the Volunteer will prepare and submit a RAWP Modification Addendum

Letter further detailing the proposed full-scale containment and recovery modified remedial design for NYSDEC review.

If you have any questions, comments or concerns regarding this DNAPL Pilot Study Summary Report, please contact Marc Godick at (914) 922-2356 or Scott Capoizzo at (914) 922-2354.

Sincerely,
AKRF, Inc.

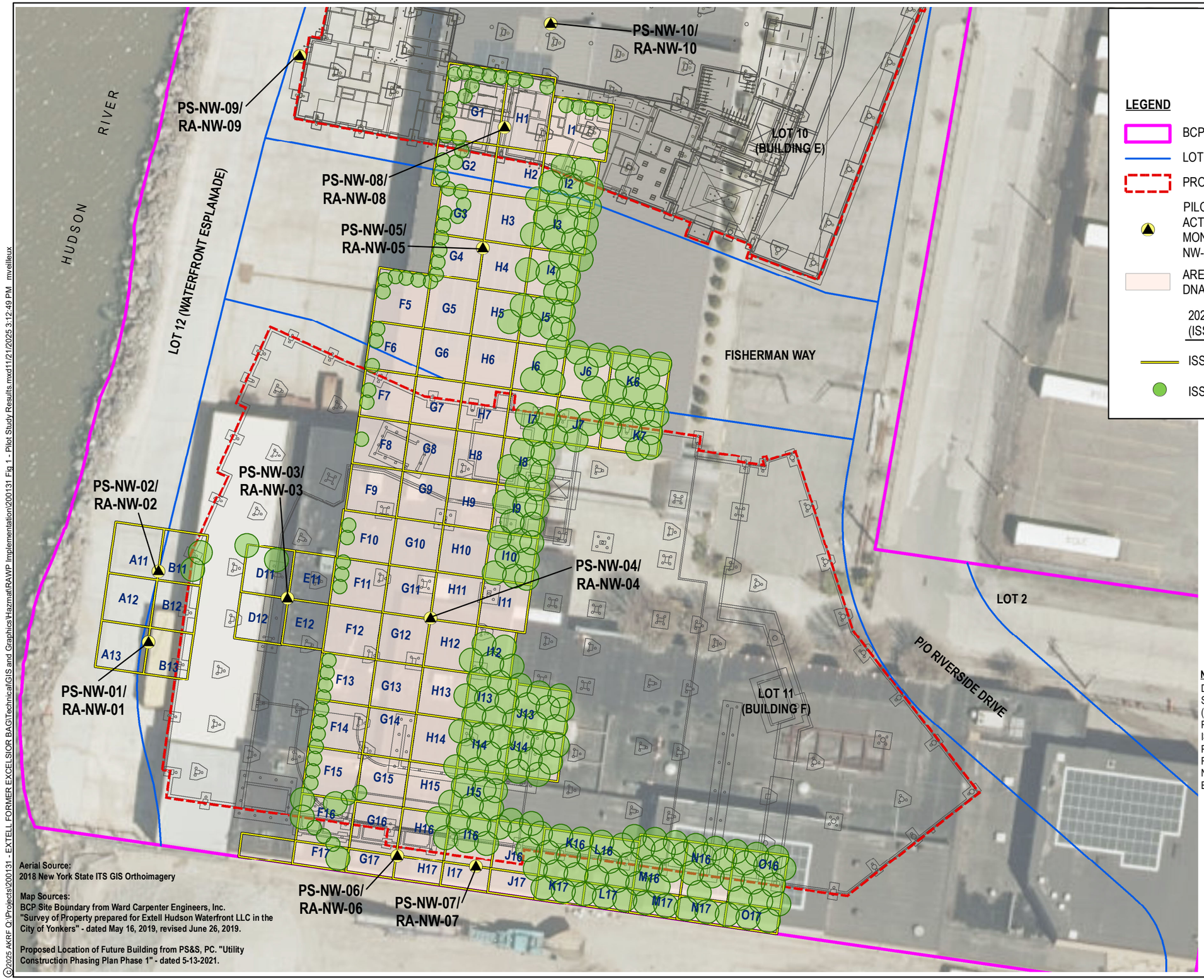
Marc S. Godick, LEP
Senior Vice President

Scott Caporizzo
Senior Technical Director

Encl.: Figure 1 – DNAPL Monitoring/Recovery Pilot Study Results
Figure 2 – Conceptual Full-Scale Containment Wall and Recovery Well Network
Table 1 – DNAPL Monitoring/Recovery Well Construction Summary Table
Table 2 – DNAPL Gauging Results
Attachment A – DNAPL Monitoring/Recovery Well Construction Logs
Attachment B – Pump Specification Sheets
Attachment C – Preliminary DNAPL Volume Calculations

cc (electronic copy only):
Sarah Saucier/ Gerald Pratt – NYSDEC
Angela Martin – NYSDOH
Moshe Botnick/Yehuda Borg/Moshe Zieleniec/Omer Veig – Extell
Claire Bearden/Pat McHugh/Rebecca Kinal – AKRF

FIGURES



LEGEND

- BCP SITE BOUNDARY
- LOT LINES
- PROPOSED LOCATION OF FUTURE BUILDING
- PILOT STUDY / FUTURE REMEDIAL ACTION INTERMEDIATE DNAPL MONITORING/RECOVERY WELL LOCATION (PS-NW-XX/RA-NW-XX)
- AREA WITH DOCUMENTED RECOVERABLE DNAPL
- 2024 RAWP IMPLEMENTATION (ISS TREATMENT RESULTS)
- ISS GRID
- ISS TREATMENT COLUMN (COMPLETED)

NOTES:

DNAPL: DENSE NON-AQUEOUS PHASE LIQUID
SIR #2: SUPPLEMENTARY INVESTIGATION REPORT #2 (DECEMBER 2022)
RAWP: REMEDIAL ACTION WORK PLAN (AUGUST 2023)
ISS: IN-SITU SOLIDIFICATION
PS: PILOT STUDY
RA: REMEDIAL ACTION
NW: NAPL MONITORING/RECOVERY WELL
BCP: BROWNFIELD CLEANUP PROGRAM

0 40 80
SCALE IN FEET

Aerial Source:
2018 New York State ITS GIS Orthoimagery

Map Sources:
BCP Site Boundary from Ward Carpenter Engineers, Inc. "Survey of Property prepared for Extell Hudson Waterfront LLC in the City of Yonkers" - dated May 16, 2019, revised June 26, 2019.

Proposed Location of Future Building from PS&S, PC. "Utility Construction Phasing Plan Phase 1" - dated 5-13-2021.

akrf
440 Park Avenue South, New York, NY 10016

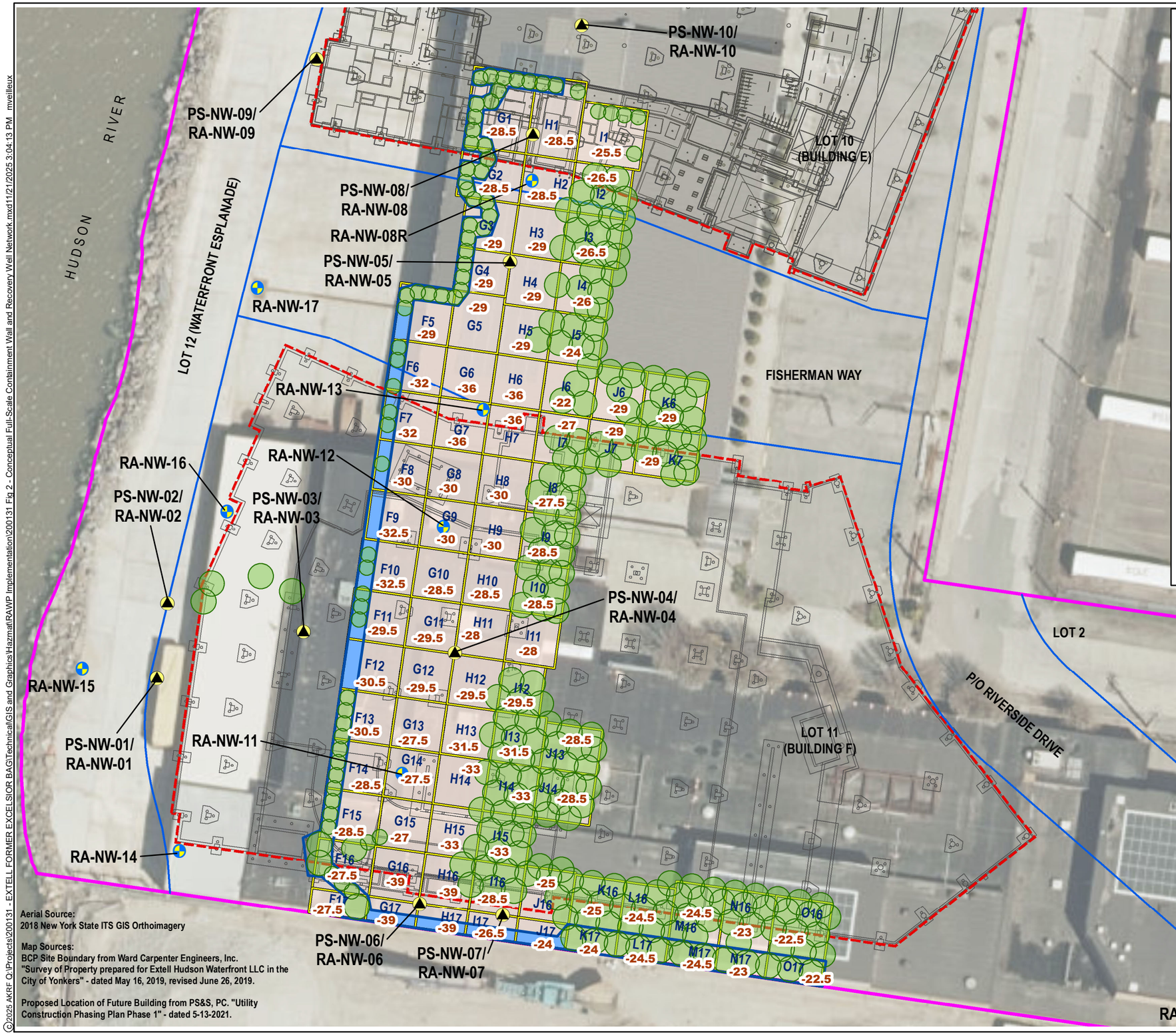
FORMER EXCELSIOR BAG
Yonkers, New York

DNAPL MONITORING/RECOVERY PILOT STUDY RESULTS

DATE
11/21/2025

PROJECT NO.
200131

FIGURE
1



LEGEND

- BCP SITE BOUNDARY
- LOT LINES
- PROPOSED LOCATION OF FUTURE BUILDING
- PILOT STUDY / FUTURE REMEDIAL ACTION INTERMEDIATE DNAPL MONITORING/RECOVERY WELL LOCATION (PS-NW-XX/RA-NW-XX)
- FUTURE REMEDIAL ACTION INTERMEDIATE DNAPL MONITORING/RECOVERY WELL (RA-NW-XX)
- FUTURE REMEDIAL ACTION DEEP DNAPL MONITORING/RECOVERY WELL LOCATION (RA-NW-XX)
- CONTAINMENT AREA (AREA WITH DOCUMENTED RECOVERABLE DNAPL)
- EXTENT OF PROPOSED CONTAINMENT WALL

2024 RAWP IMPLEMENTATION (ISS TREATMENT RESULTS)

- DNAPL CONTAINMENT GRID CELL
- -xx RAWP BOTTOM OF ISS ELEVATION (FEET, NAVD88)
- ISS TREATMENT COLUMN (COMPLETED)
- SUPPLEMENTAL CONTAINMENT WALL MEASURES

NOTES:
DNAPL: DENSE NON-AQUEOUS PHASE LIQUID
SIR #2: SUPPLEMENTARY INVESTIGATION REPORT #2 (DECEMBER 2022)
RAWP: REMEDIAL ACTION WORK PLAN (AUGUST 2023)
ISS: IN-SITU SOLIDIFICATION
PS: PILOT STUDY
RA: REMEDIAL ACTION
NW: NAPL MONITORING/RECOVERY WELL
BCP: BROWNFIELD CLEANUP PROGRAM

0 40 80
SCALE IN FEET

Aerial Source:
2018 New York State ITS GIS Orthoimagery

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BCP Site Boundary from Ward Carpenter Engineers, Inc. "Survey of Property prepared for Extell Hudson Waterfront LLC in the City of Yonkers" - dated May 16, 2019, revised June 26, 2019.

Proposed Location of Future Building from PS&S, PC. "Utility Construction Phasing Plan Phase 1" - dated 5-13-2021.

akrf
440 Park Avenue South, New York, NY 10016

FORMER EXCELSIOR BAG
Yonkers, New York

CONCEPTUAL FULL-SCALE CONTAINMENT WALL AND RECOVERY WELL NETWORK

DATE
11/21/2025

PROJECT NO.
200131

FIGURE
2

TABLES

Table 1 - DNAPL Monitoring/Recovery Well Construction Summary Table
DNAPL Monitoring/Recovery Pilot Study Summary Report - Former Excelsior Bag Site

					Feet Below TOC					Elevation - NAVD88				
DNAPL Monitoring/ Recovery Well ID	Installation Date	Diameter (inches)	Ground Surface Elevation (NAVD88)	Top of Casing (TOC) (NAVD88)	Well Installation Depth / Bottom of Sump	Bottom of Screened Interval	Top of Screened Interval	Top of Pea Gravel	Top of Bentonite Layer	Well Installation Depth / Bottom of Sump	Bottom of Screened Interval	Top of Screened Interval	Top of Pea Gravel	Top of Bentonite Layer
PS-NW-01	2/24/2025	6	5.66	5.39	39.95	34.95	24.95	22.95	20.95	-34.56	-29.56	-19.56	-17.56	-15.56
PS-NW-02	3/12/2025	6	5.46	5.06	39.95	34.95	24.95	22.95	20.95	-34.89	-29.89	-19.89	-17.89	-15.89
PS-NW-03	3/11/2025	6	5.31	8.36	41.40	36.40	26.40	24.40	22.40	-33.04	-28.04	-18.04	-16.04	-14.04
PS-NW-04	2/28/2025	6	5.90	8.86	37.08	32.08	22.08	20.08	18.08	-28.22	-23.22	-13.22	-11.22	-9.22
PS-NW-05	3/10/2025	6	6.49	9.24	44.00	39.00	29.00	27.00	25.00	-34.76	-29.76	-19.76	-17.76	-15.76
PS-NW-06	2/25/2025	6	6.48	9.19	46.60	41.60	31.60	29.60	27.60	-37.41	-32.41	-22.41	-20.41	-18.41
PS-NW-07	2/27/2025	6	6.53	9.30	37.92	32.92	22.92	20.92	18.92	-28.62	-23.62	-13.62	-11.62	-9.62
PS-NW-08	3/5/2025	6	6.62	9.41	45.85	40.85	30.85	28.85	26.85	-36.44	-31.44	-21.44	-19.44	-17.44
PS-NW-09	3/4/2025	6	5.82	8.79	42.50	37.50	27.50	25.50	23.50	-33.71	-28.71	-18.71	-16.71	-14.71
PS-NW-10	3/3/2025	6	7.40	10.31	39.10	34.10	24.10	22.10	20.10	-28.79	-23.79	-13.79	-11.79	-9.79

Notes:

1. Well depths shown correspond to the post-development gauging (2nd baseline) measurements obtained at each well location.
2. All well were constructed using 6-inch stainless steel materials. Each well contains a 5-foot sump below a 10-foot section of 40-slot stainless steel screened interval. Hydrated bentonite chips were used surrounding the 5-foot sump and above the pea gravel filter pack surrounding the screened interval.
3. Wells were surveyed by PS&S, a NYS-licensed surveyor, on 5/28/25.
4. ft bg = depth feet below grade
5. Stick-up protective casing installed 3 feet above existing ground surface
6. PS-NW-01 and PS-NW-02 were installed with flush with the surface grade. PS-NW-03 through PS-NW-10 were installed with approximately 3-foot stickups, surrounded by a outer protective steel casing.

akrf

PS-NW-01 Gauging/Recovery

Job No:	200131	**Client:**	Extell Hudson Waterfront Development LLC
Project Location:	159 Alexander St, Yonkers, NY	**Gauged By:**	AKRF, Inc.

Date:	Gauging Data					Recovery Data				Comments, Notes, Observations, Etc.
	Time:	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	DNAPL Thickness (Ft.)	Start Time:	Stop Time:	Volume Purged (Gallons)	Flow Rate (Gallons/Min.)	
3/6/2025	9:30	6.38	ND	37.30	NA					Pre-development gauging - no DNAPL observed
3/11/2025						9:30	11:00	100.00	1.111	Well development (air-lift w/ surge block) - purged fluids observed to be groundwater with no DNAPL impacts
3/12/2025	9:15	6.91	ND	40.00	NA					Post-development gauging (1st baseline) - no DNAPL observed
3/25/2025	9:10	4.25	ND	39.95	NA					Post-development gauging (2nd baseline) - no DNAPL observed
5/7/2025	8:50	4.14	ND	39.90	NA					Periodic gauging event readings - no DNAPL observed (recovery not necessary)
5/14/2025	8:51	5.35	ND	40.00	NA					Periodic gauging event readings - no DNAPL observed (recovery not necessary)
5/21/2025	8:15	3.93	ND	40.02	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
6/4/2025	7:33	4.59	ND	39.99	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
6/11/2025	8:33	5.32	ND	39.84	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
6/25/2025	7:44	5.57	ND	40.04	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
8/19/2025	9:56	4.18	ND	**40.04**	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
9/11/2025	NM	5.38	ND	**40.04**	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
9/17/2025	NM	4.57	ND	39.73	NA					Periodic gauging - no DNAPL observed (recovery not necessary)

Bold Total depth assumed from previous
NA Not Applicable
ND Non-Detect
NM Not Measured/Recorded

akrf

PS-NW-02 Gauging/Recovery

Job No:	200131	**Client:**	Extell Hudson Waterfront Development LLC
Project Location:	159 Alexander St, Yonkers, NY	**Gauged By:**	AKRF, Inc.

Date:	Gauging Data					Recovery Data				Comments, Notes, Observations, Etc.
	Time:	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	DNAPL Thickness (Ft.)	Start Time:	Stop Time:	Volume Purged (Gallons)	Flow Rate (Gallons/Min.)	
3/14/2025	7:45	5.99	ND	39.70	NA					Pre-development gauging - no DNAPL observed
3/14/2025						9:00	10:00	75.00	1.250	Well development (air-lift w/ surge block) - purged fluids observed to be groundwater with no DNAPL impacts
3/14/2025	10:00	18.99	ND	40.50	NA					Post-development gauging (1st baseline) - no DNAPL observed
3/25/2025	8:55	4.02	ND	39.95	NA					Post-development gauging (2nd baseline) - no DNAPL observed
5/7/2025	8:40	3.99	ND	39.90	NA					Periodic gauging event readings - no DNAPL observed (recovery not necessary)
5/14/2025	8:45	5.03	ND	39.80	NA					Periodic gauging event readings - no DNAPL observed (recovery not necessary)
5/21/2025	8:10	3.96	ND	39.78	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
6/4/2025	7:31	4.12	ND	39.79	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
6/11/2025	8:26	4.86	ND	38.77	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
6/25/2025	7:40	5.14	ND	39.80	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
8/19/2025	9:43	3.79	ND	**39.80**	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
9/11/2025	NM	4.76	ND	**39.80**	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
9/17/2025	NM	5.20	ND	39.94	NA					Periodic gauging - no DNAPL observed (recovery not necessary)

Bold Total depth assumed from previous
NA Not Applicable
ND Non-Detect
NM Not Measured/Recorded

akrf

PS-NW-03 Gauging/Recovery

Job No:	200131	**Client:**	Extell Hudson Waterfront Development LLC
Project Location:	159 Alexander St, Yonkers, NY	**Gauged By:**	AKRF, Inc.

Date:	Gauging Data					Recovery Data				Comments, Notes, Observations, Etc.
	Time:	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	DNAPL Thickness (Ft.)	Start Time:	Stop Time:	Volume Purged (Gallons)	Flow Rate (Gallons/Min.)	
3/13/2025	8:30	10.11	ND	40.66	NA					Pre-development gauging - DNAPL globules were observed on the bottom of the oil-water interface probe and tape, however, no measurable thickness was recorded.
3/14/2025						8:00	9:00	100.00	1.667	Well development (air-lift w/ surge block) - purged fluids were observed to contain DNAPL globules, however, it was not feasible to segregate DNAPL from groundwater removed during development.
3/14/2025	10:30	15.99	ND	41.54	NA					Post-development gauging (1st baseline) - DNAPL globules were observed on the oil-water interface probe and tape, however, no measurable thickness was recorded.
3/25/2025	11:10	8.48	ND	41.40	NA					Post-development gauging (2nd baseline) - no DNAPL observed
5/7/2025	8:55	7.28	ND	41.35	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
5/14/2025	8:59	7.56	ND	41.44	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
5/21/2025	8:20	7.57	ND	41.35	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
6/4/2025	7:35	7.92	ND	41.39	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
6/11/2025	8:37	7.61	ND	41.44	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
6/25/2025	7:50	7.62	ND	41.44	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
8/19/2025	8:54	7.47	ND	**41.44**	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
9/11/2025	NM	8.76	ND	**41.44**	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
9/17/2025	NM	8.91	ND	41.41	NA					Periodic gauging - no DNAPL observed (recovery not necessary)

Bold Total depth assumed from previous
NA Not Applicable
ND Non-Detect
NM Not Measured/Recorded

akrf

PS-NW-04 Gauging/Recovery

Job No:	200131	**Client:**	Extell Hudson Waterfront Development LLC
Project Location:	159 Alexander St, Yonkers, NY	**Gauged By:**	AKRF, Inc.

Date:	Gauging Data					Recovery Data				Comments, Notes, Observations, Etc.
	Time:	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	DNAPL Thickness (Ft.)	Start Time:	Stop Time:	Volume Purged (Gallons)	Flow Rate (Gallons/Min.)	
3/6/2025	10:30	11.90	33.40	37.40	4.00					Pre-development gauging - DNAPL observed
3/14/2025						12:30	15:00	90.00	0.600	Well development (air-lift w/ surge block) - purged fluids were observed to be a mix of DNAPL and groundwater (was not feasible to segregate during development)
3/14/2025	15:00	12.40	28.71	43.71	15.00					Post-development gauging (1st baseline) - DNAPL observed
3/25/2025	11:30	8.29	29.98	37.08	7.10					Post-development gauging (2nd baseline) - DNAPL observed
5/7/2025	11:50	7.99	30.56	39.58	9.02					Periodic gauging (pre-recovery) - DNAPL observed
5/7/2025						12:15	15:00	10.00	0.061	Recovery stopped prior to drawdown of full DNAPL column due to slow recovery/pump failure (ProActive Waterspout II).
5/7/2025	15:00	7.99	33.28	39.58	6.30					Periodic gauging (post-recovery) - DNAPL observed
5/15/2025	8:20	8.00	29.96	36.86	7.40					Periodic gauging (pre-recovery) - DNAPL observed
5/15/2025						8:40	10:40	10.00	0.083	Recovery stopped prior to drawdown of full DNAPL column due to slow recovery/pump failure (ProActive Tornado).
5/15/2025	10:45	7.95	27.76	36.86	9.10					Periodic gauging (post-recovery) - DNAPL observed
6/4/2025	12:10	8.51	30.47	37.17	6.70					Periodic gauging (pre-recovery) - DNAPL observed
6/4/2025						12:28	12:38	10.00	1.000	Recovery conducted via vac truck. Purging stopped after purged fluids appeared to switch from DNAPL to groundwater.
6/4/2025	12:50	8.43	36.67	37.17	0.50					Periodic gauging (post-recovery) - DNAPL observed below 0.5 ft.
6/25/2025	12:05	8.43	30.80	38.85	8.05					Periodic gauging - DNAPL observed
8/19/2025	8:46	8.58	31.11	**39.97**	8.86					Periodic gauging - DNAPL observed
8/28/2025	7:30	9.09	31.20	**39.97**	8.77					Periodic gauging - DNAPL observed
8/28/2025	10:45	9.09	31.20	**39.97**	8.77					Periodic gauging (pre-recovery) - DNAPL observed
8/28/2025						10:45	15:20	1.99	0.007	Pilot test DNAPL removal event with QED LP 1301 pump; recharge and discharge settings set at 3 min & 30 sec, respectively
8/28/2025	11:15	9.01	31.25	**39.97**	8.72					Gauging Reading During Pumping
8/28/2025	11:45	9.03	31.18	**39.97**	8.79					Gauging Reading During Pumping
8/28/2025	12:15	8.92	31.51	**39.97**	8.46					Gauging Reading During Pumping
8/28/2025	12:45	8.85	31.59	**39.97**	8.38					Gauging Reading During Pumping
8/28/2025	13:15	8.84	31.44	**39.97**	8.53					Gauging Reading During Pumping
8/28/2025	13:45	8.81	31.28	**39.97**	8.69					Gauging Reading During Pumping
8/28/2025	14:15	8.77	31.49	**39.97**	8.48					Gauging Reading During Pumping
8/28/2025	14:45	8.73	31.76	**39.97**	8.21					Gauging Reading During Pumping
8/28/2025	15:15	8.73	31.46	**39.97**	8.51					Gauging Reading During Pumping
9/4/2025	8:00	8.69	31.40	**39.97**	8.57					Periodic gauging (pre-recovery) - DNAPL observed

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PS-NW-04 Gauging/Recovery

Job No:	200131	Client:	Extell Hudson Waterfront Development LLC
Project Location:	159 Alexander St, Yonkers, NY	Gauged By:	AKRF, Inc.

Date:	Gauging Data					Recovery Data				Comments, Notes, Observations, Etc.
	Time:	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	DNAPL Thickness (Ft.)	Start Time:	Stop Time:	Volume Purged (Gallons)	Flow Rate (Gallons/Min.)	
9/4/2025						9:20	15:15	3.19	0.009	Pilot test DNAPL removal event with QED LP 1301 pump; recharge and discharge settings set at 3 min & 30 sec, respectively
9/4/2025	9:35	8.44	31.25	**39.97**	8.72					Gauging Reading During Pumping
9/4/2025	10:05	8.43	31.20	**39.97**	8.77					Gauging Reading During Pumping
9/4/2025	10:35	8.62	31.52	**39.97**	8.45					Gauging Reading During Pumping
9/4/2025	11:05	8.67	31.43	**39.97**	8.54					Gauging Reading During Pumping
9/4/2025	11:35	8.69	31.50	**39.97**	8.47					Gauging Reading During Pumping
9/4/2025	12:05	8.74	31.71	**39.97**	8.26					Gauging Reading During Pumping
9/4/2025	12:35	8.80	31.45	**39.97**	8.52					Gauging Reading During Pumping
9/4/2025	13:05	8.79	31.96	**39.97**	8.01					Gauging Reading During Pumping
9/4/2025	13:35	9.00	31.22	**39.97**	8.75					Gauging Reading During Pumping
9/4/2025	14:05	9.01	31.30	**39.97**	8.67					Gauging Reading During Pumping
9/4/2025	14:35	9.00	31.35	**39.97**	8.62					Gauging Reading During Pumping
9/4/2025	15:05	8.98	31.40	**39.97**	8.57					Gauging Reading During Pumping
9/4/2025	15:35	8.95	31.45	**39.97**	8.52					Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	16:05	8.98	31.52	**39.97**	8.45					Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	16:35	9.01	31.55	**39.97**	8.42					Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	17:05	9.04	31.36	**39.97**	8.61					Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	17:35	8.90	31.40	**39.97**	8.57					Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	18:05	8.78	31.58	**39.97**	8.39					Periodic gauging (post-recovery) - DNAPL observed
9/11/2025	11:10	8.55	31.50	**39.97**	8.47					Periodic gauging (pre-recovery) - DNAPL observed
9/11/2025						11:10	15:30	6.16	0.024	Pilot test DNAPL removal event with QED LP 1301 pump; recharge and discharge settings set at 2.5 min & 30 sec, respectively
9/11/2025	12:30	8.34	31.98	**39.97**	7.99					Gauging Reading During Pumping
9/11/2025	13:00	8.21	32.80	**39.97**	7.17					Gauging Reading During Pumping
9/11/2025	13:30	8.20	32.80	**39.97**	7.17					Gauging Reading During Pumping
9/11/2025	14:00	8.20	32.80	**39.97**	7.17					Gauging Reading During Pumping
9/11/2025	14:30	8.18	32.70	**39.97**	7.27					Gauging Reading During Pumping
9/11/2025	15:00	8.10	32.75	**39.97**	7.22					Gauging Reading During Pumping
9/11/2025	15:30	8.09	32.75	**39.97**	7.22					Gauging Reading During Pumping
9/17/2025	9:15	8.40	31.15	**39.97**	8.82					Periodic gauging (pre-recovery) - DNAPL observed

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PS-NW-04 Gauging/Recovery

Job No:	200131	**Client:**	Extell Hudson Waterfront Development LLC
Project Location:	159 Alexander St, Yonkers, NY	**Gauged By:**	AKRF, Inc.

Date:	Gauging Data					Recovery Data				Comments, Notes, Observations, Etc.
	Time:	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	DNAPL Thickness (Ft.)	Start Time:	Stop Time:	Volume Purged (Gallons)	Flow Rate (Gallons/Min.)	
9/17/2025	9:30	8.40	31.15	**39.97**	8.82					Periodic gauging (pre-recovery) - DNAPL observed
9/17/2025						9:30	13:30	6.15	0.026	Pilot test DNAPL removal event with QED LP 1301 pump; recharge and discharge settings set at 3 min & 30 sec, respectively
9/17/2025	10:00	8.40	31.60	**39.97**	8.37					Gauging Reading During Pumping
9/17/2025	11:00	8.70	32.10	**39.97**	7.87					Gauging Reading During Pumping
9/17/2025	11:30	8.70	32.05	**39.97**	7.92					Gauging Reading During Pumping
9/17/2025	12:00	8.70	32.00	**39.97**	7.97					Gauging Reading During Pumping
9/17/2025	12:30	8.64	32.77	**39.97**	7.20					Gauging Reading During Pumping
9/17/2025	13:00	8.70	32.35	**39.97**	7.62					Gauging Reading During Pumping
9/17/2025	13:30	8.75	32.70	**39.97**	7.27				**Recharge**	Gauging Reading During Pumping
9/17/2025	14:00	8.75	32.68	**39.97**	7.29				*0.001*	Periodic gauging (post-recovery) - DNAPL observed
9/17/2025	14:30	8.75	32.60	**39.97**	7.37				*0.004*	Periodic gauging (post-recovery) - DNAPL observed
9/17/2025	15:00	8.80	32.10	**39.97**	7.87				*0.024*	Periodic gauging (post-recovery) - DNAPL observed
9/17/2025	15:30	8.78	32.05	**39.97**	7.92				*0.002*	Periodic gauging (post-recovery) - DNAPL observed
9/17/2025	16:00	8.75	32.00	**39.97**	7.97				*0.002*	Periodic gauging (post-recovery) - DNAPL observed
9/17/2025	16:30	8.70	31.80	**39.97**	8.17				*0.010*	Periodic gauging (post-recovery) - DNAPL observed
9/17/2025	17:00	5.70	31.68	**39.97**	8.29				*0.006*	Periodic gauging (post-recovery) - DNAPL observed
9/17/2025	17:30	8.56	31.54	**39.97**	8.43				*0.007*	Periodic gauging (post-recovery) - DNAPL observed
9/17/2025	18:00	8.54	31.50	**39.97**	8.47				*0.002*	Periodic gauging (post-recovery) - DNAPL observed

Underlined Assumed pump depth, approximate
Bold Readings taken from secondary casing (elevated), total depth assumed from previous
Italics Recharge rate after a pumping event (gal/min)
NA Not Applicable
ND Non-Detect
NM Not Measured/Recorded

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PS-NW-05 Gauging/Recovery

Job No:	200131	**Client:**	Extell Hudson Waterfront Development LLC
Project Location:	159 Alexander St, Yonkers, NY	**Gauged By:**	AKRF, Inc.

Date:	Gauging Data					Recovery Data				Comments, Notes, Observations, Etc.
	Time:	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	DNAPL Thickness (Ft.)	Start Time:	Stop Time:	Volume Purged (Gallons)	Flow Rate (Gallons/Min.)	
3/12/2025	9:30	15.82	ND	32.85	ND					Pre-development gauging - DNAPL globules observed on oil-water interface probe
3/14/2025						11:00	12:00	100.00	1.667	Well development (air-lift w/ surge block) - purged fluids were observed to be a mix of DNAPL and groundwater (was not feasible to segregate during development)
3/14/2025	13:15	21.33	40.80	44.15	3.35					Post-development gauging (1st baseline) - DNAPL observed
3/25/2025	11:45	8.54	30.58	44.00	13.42					Post-development gauging (2nd baseline) - DNAPL observed
5/9/2025	8:00	8.44	30.92	43.92	13.00					Periodic gauging (pre-recovery) - DNAPL observed
5/9/2025						8:55	11:00	7.50	0.060	Recovered fluids included a mixture of DNAPL (~5.5 gallons) and groundwater (~2 gallons) in an attempt to troubleshoot pump productivity/increase flow rate - recovery stopped prior to drawdown of full DNAPL column due to slow recovery/pump failure (ProActive Waterspout II).
5/9/2025	11:00	8.46	30.42	43.92	13.50					Periodic gauging (post-recovery) - DNAPL observed
5/15/2025	8:55	8.29	31.00	43.90	12.90					Periodic gauging (pre-recovery) - DNAPL observed
5/15/2025						9:47	11:47	8.00	0.067	Recovery stopped prior to drawdown of full DNAPL column due to slow recovery/pump failure (ProActive Tornado).
5/15/2025	12:06	8.26	32.70	44.00	12.30					Periodic gauging (post-recovery) - DNAPL observed
6/4/2025	11:00	8.76	31.16	43.96	12.80					Periodic gauging (pre-recovery) - DNAPL observed.
6/4/2025						11:16	11:26	34.00	3.400	Recovered fluids appeared to contain 50/50 ratio of DNAPL and groundwater. Removal completed by vacuum truck.
6/4/2025	11:40	8.76	32.01	43.96	11.95					Periodic gauging (post-recovery) - DNAPL observed, however, it may be due to well agitation rather than measurable DNAPL
6/25/2025	11:56	8.99	31.30	44.70	13.40					Periodic gauging - DNAPL observed
8/20/2025	8:08	9.43	32.08	43.92	11.84					Periodic gauging (pre-recovery) - DNAPL observed
8/20/2025						11:40	13:20	3.44	0.034	Pilot test DNAPL removal event with QED LP 1301 pump; recharge and discharge settings set at 3 min & 30 sec, respectively
8/20/2025	11:50	8.83	31.31	43.92	12.61					Gauging Reading During Pumping
8/20/2025	12:00	8.63	31.41	43.92	12.51					Gauging Reading During Pumping
8/20/2025	12:10	8.76	31.77	43.92	12.15					Gauging Reading During Pumping
8/20/2025	12:20	8.65	31.98	43.92	11.94					Gauging Reading During Pumping
8/20/2025	12:30	8.65	31.71	43.92	12.21					Gauging Reading During Pumping
8/20/2025	12:40	8.65	31.70	43.92	12.22					Gauging Reading During Pumping
8/20/2025	12:50	9.09	31.95	43.92	11.97					Gauging Reading During Pumping
8/20/2025	13:00	8.91	31.60	43.92	12.32					Gauging Reading During Pumping
8/20/2025	13:10	8.93	31.82	43.92	12.10					Gauging Reading During Pumping
8/20/2025	13:20	9.10	31.88	43.92	12.04					Gauging Reading During Pumping
8/22/2025	11:40	7.83	31.98	43.96	11.98					Periodic gauging (pre-recovery) - DNAPL observed

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PS-NW-05 Gauging/Recovery

Job No:	200131	**Client:**	Extell Hudson Waterfront Development LLC
Project Location:	159 Alexander St, Yonkers, NY	**Gauged By:**	AKRF, Inc.

Date:	Gauging Data					Recovery Data				Comments, Notes, Observations, Etc.
	Time:	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	DNAPL Thickness (Ft.)	Start Time:	Stop Time:	Volume Purged (Gallons)	Flow Rate (Gallons/Min.)	
8/22/2025	14:00	8.01	31.39	43.96	12.57					Periodic gauging (pre-recovery) - DNAPL observed
8/22/2025						14:00	15:20	2.05	0.026	Pilot test DNAPL removal event with QED LP 1301 pump; recharge and discharge settings set at 3 min & 30 sec, respectively
8/22/2025	14:10	8.00	31.20	43.96	12.76					Gauging Reading During Pumping
8/22/2025	14:20	8.01	31.50	43.96	12.46					Gauging Reading During Pumping
8/22/2025	14:59	8.11	31.81	43.96	12.15					Gauging Reading During Pumping
8/22/2025	15:20	8.19	31.55	43.96	12.41					Gauging Reading During Pumping
9/11/2025	9:30	9.65	32.05	***45.00***	12.95					Blackhawk v102 pump installed, new total depth is ~45 below ground surface. Periodic gauging (pre-recovery) - DNAPL observed
9/11/2025	11:40	9.65	36.00	***45.00***	9.00					Periodic gauging (pre-recovery) - DNAPL observed
9/11/2025						11:40	12:00	24.63	1.232	Recovery via Blackhawk v102 pump. Pumping rate of 6 strokes/minute.
9/11/2025	11:50	9.68	42.74	***45.00***	2.26					Gauging Reading During Pumping
9/11/2025	12:00	6.56	43.50	***45.00***	1.50				**Recharge**	Periodic gauging (post-recovery)
9/11/2025	12:15	9.55	42.50	***45.00***	2.50				*0.098*	Periodic gauging (post-recovery) - DNAPL observed
9/11/2025	12:45	9.45	39.60	***45.00***	5.40				*0.142*	Periodic gauging (post-recovery) - DNAPL observed
9/11/2025	13:15	9.45	38.40	***45.00***	6.60				*0.059*	Periodic gauging (post-recovery) - DNAPL observed
9/11/2025	13:45	9.40	38.15	***45.00***	6.85				*0.012*	Periodic gauging (post-recovery) - DNAPL observed
9/11/2025	14:15	9.38	37.45	***45.00***	7.55				*0.034*	Periodic gauging (post-recovery) - DNAPL observed
9/11/2025	14:45	9.35	37.00	***45.00***	8.00				*0.022*	Periodic gauging (post-recovery) - DNAPL observed
9/11/2025	15:15	9.35	36.80	***45.00***	8.20				*0.010*	Periodic gauging (post-recovery) - DNAPL observed
9/11/2025	15:45	9.38	35.10	***45.00***	9.90				*0.083*	Periodic gauging (post-recovery) - DNAPL observed
9/17/2025	9:15	9.70	32.65	***45.00***	12.35					Periodic gauging (pre-recovery) - DNAPL observed
9/17/2025	10:15	9.70	32.65	***45.00***	12.35					Periodic gauging (pre-recovery) - DNAPL observed
9/17/2025						10:15	10:40	30.07	1.504	Recovery via Blackhawk v102 pump. Pumping rate of 6 strokes/minute.
9/17/2025	10:25	9.76	38.76	***45.00***	6.24					Gauging Reading During Pumping
9/17/2025	10:35	9.72	40.38	***45.00***	4.62					Gauging Reading During Pumping
9/17/2025	10:40	9.74	43.50	***45.00***	1.50					Gauging Reading During Pumping
9/17/2025	11:10	9.70	ND	***45.00***	NA				**Recharge**	Periodic gauging (post-recovery)
9/17/2025	11:40	9.75	39.90	***45.00***	5.10				*0.088*	Periodic gauging (post-recovery) - DNAPL observed
9/17/2025	12:10	9.74	39.47	***45.00***	5.53				*0.021*	Periodic gauging (post-recovery) - DNAPL observed

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PS-NW-05 Gauging/Recovery

Job No:	200131	**Client:**	Extell Hudson Waterfront Development LLC
Project Location:	159 Alexander St, Yonkers, NY	**Gauged By:**	AKRF, Inc.

Date:	Gauging Data					Recovery Data				Comments, Notes, Observations, Etc.
	Time:	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	DNAPL Thickness (Ft.)	Start Time:	Stop Time:	Volume Purged (Gallons)	Flow Rate (Gallons/Min.)	
9/17/2025	12:40	9.75	38.08	***45.00***	6.92				*0.068*	Periodic gauging (post-recovery) - DNAPL observed
9/17/2025	13:10	9.80	37.32	***45.00***	7.68				*0.037*	Periodic gauging (post-recovery) - DNAPL observed
9/17/2025	13:40	9.80	36.45	***45.00***	8.55				*0.043*	Periodic gauging (post-recovery) - DNAPL observed
9/17/2025	14:10	9.80	36.10	***45.00***	8.90				*0.017*	Periodic gauging (post-recovery) - DNAPL observed
9/17/2025	14:40	9.85	35.45	***45.00***	9.55				*0.032*	Periodic gauging (post-recovery) - DNAPL observed
9/17/2025	15:10	9.88	34.95	***45.00***	10.05				*0.024*	Periodic gauging (post-recovery) - DNAPL observed
9/17/2025	15:40	9.85	34.55	***45.00***	10.45				*0.020*	Periodic gauging (post-recovery) - DNAPL observed
9/17/2025	16:10	9.85	34.22	***45.00***	10.78				*0.016*	Periodic gauging (post-recovery) - DNAPL observed
9/17/2025	16:40	9.75	33.80	***45.00***	11.20				*0.021*	Periodic gauging (post-recovery) - DNAPL observed
9/17/2025	17:10	9.78	33.44	***45.00***	11.56				*0.018*	Periodic gauging (post-recovery) - DNAPL observed
9/17/2025	17:40	9.75	33.50	***45.00***	11.50					Periodic gauging (post-recovery) - DNAPL observed
9/17/2025	18:10	9.65	33.55	***45.00***	11.45					Periodic gauging (post-recovery) - DNAPL observed

Underlined Assumed pump depth, approximate
Bold Datum change to Blackhawk Sample Port (TOC + 2'), total depth assumed from previous
Italics Recharge rate after a pumping event (gal/min)
NA Not Applicable
ND Non-Detect
NM Not Measured/Recorded

akrf

PS-NW-06 Gauging/Recovery

Job No:	200131	Client:	Extell Hudson Waterfront Development LLC
Project Location:	159 Alexander St, Yonkers, NY	Gauged By:	AKRF, Inc.

Date:	Gauging Data					Recovery Data				Comments, Notes, Observations, Etc.
	Time:	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	DNAPL Thickness (Ft.)	Start Time:	Stop Time:	Volume Purged (Gallons)	Flow Rate (Gallons/Min.)	
3/6/2025	11:00	7.00	29.70	43.70	14.00					Pre-development gauging - DNAPL observed
3/10/2025						13:00	14:30	8.00	0.089	Well development (day 1) (air-lift w/ surge block) - purged approximately 8 gallons of DNAPL. Cascade to continue recovery on 3/11/2025.
3/11/2025						13:30	15:00	80.00	0.889	Well development (day 2) (air-lift w/ surge block) - purged fluids were observed to be a mix of DNAPL and groundwater (was not feasible to segregate during development)
3/11/2025	15:30	14.11	36.28	43.78	7.50					Post-development gauging (1st baseline) - DNAPL observed
3/25/2025	11:15	8.34	30.55	46.60	16.05					Post-development gauging (2nd baseline) - DNAPL observed
5/9/2025	13:00	8.21	29.72	46.54	16.82					Periodic gauging (pre-recovery) - DNAPL observed
5/9/2025						13:20	15:20	6.00	0.050	Recovery stopped prior to drawdown of full DNAPL column due to slow recovery/pump failure (ProActive Waterspout II).
5/9/2025	15:20	8.50	31.14	46.54	15.40					Periodic gauging (post-recovery) - DNAPL observed
5/14/2025	12:15	8.01	30.48	46.53	16.05					Periodic gauging (pre-recovery) - DNAPL observed
5/14/2025						12:20	14:20	5.50	0.046	Recovery stopped prior to drawdown of full DNAPL column due to slow recovery/pump failure (ProActive Waterspout II).
5/14/2025	14:30	8.15	30.56	46.53	15.97					Periodic gauging (post-recovery) - DNAPL observed
5/21/2025	9:00	8.04	30.45	46.65	16.20					Recovery of DNAPL failed due to pump failure. No DNAPL was recovered (QED AP4+ AutoPump).
6/4/2025	8:10	9.85	29.93	46.62	16.69					Periodic gauging (pre-recovery) - DNAPL observed.
6/4/2025						8:25	8:40	100.00	6.667	Recovery stopped after 15 minutes of purging. It appears that a mix of groundwater and DNAPL was purged. Removal was completed via vacuum truck.
6/4/2025	9:00	8.82	30.12	46.62	16.50					Periodic gauging (post-recovery) - DNAPL observed, however, it may be due to well agitation rather than measurable DNAPL
6/11/2025	9:20	8.36	31.49	46.59	15.10					Recovery of DNAPL failed due to pump failure. No DNAPL was recovered (Buffalo Air-Lift Pump).
6/25/2025	9:00	8.72	29.70	46.55	16.85					Periodic gauging (pre-recovery) - DNAPL observed.
6/25/2025						11:20	13:05	7.00	0.067	Recovery conducted via QED LP1301 pump. Pumping stoped after approx. 2 hours.
6/25/2025	13:30	8.71	30.66	46.55	15.89					Periodic gauging (post-recovery) - DNAPL observed
8/18/2025	13:09	9.02	30.07	46.55	16.48					Pre-Pump Installation Measurement, Total Depth Assumed same as 6/25/2025
8/18/2025	15:25	10.39	35.87	***48.58***	12.71					Pump Installed - Gauging from Sample Port (2' above TOC)
8/18/2025						15:25	15:45	24.00	1.200	Recovery via Blackhawk v102 pump. Pumping stroke rate ranged from 11 strokes/minute down to 8 strokes/minute. Pump installed ~41' below TOC.
8/18/2025	15:29	10.42	39.05	***48.58***	9.53					Gauging Reading During Pumping
8/18/2025	15:35	10.34	43.69	***48.58***	4.89					Gauging Reading During Pumping
8/19/2025	9:40	9.53	30.71	***48.58***	17.87					Pre-Pumping Event Gauging Reading from Sample Port (2' above TOC)
8/19/2025						9:40	10:20	22.60	0.565	Recovery via Blackhawk v102 pump. Pumping rate of 6 strokes/minute.
8/19/2025	9:50	9.54	34.56	***48.58***	14.02					Gauging Reading During Pumping

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PS-NW-06 Gauging/Recovery

Job No:	200131	**Client:**	Extell Hudson Waterfront Development LLC
Project Location:	159 Alexander St, Yonkers, NY	**Gauged By:**	AKRF, Inc.

Date:	Gauging Data					Recovery Data				Comments, Notes, Observations, Etc.
	Time:	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	DNAPL Thickness (Ft.)	Start Time:	Stop Time:	Volume Purged (Gallons)	Flow Rate (Gallons/Min.)	
8/19/2025	10:00	9.54	37.31	***48.58***	11.27					Gauging Reading During Pumping

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PS-NW-06 Gauging/Recovery

Job No:	200131	Client:	Extell Hudson Waterfront Development LLC
Project Location:	159 Alexander St, Yonkers, NY	Gauged By:	AKRF, Inc.

Date:	Gauging Data					Recovery Data				Comments, Notes, Observations, Etc.
	Time:	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	DNAPL Thickness (Ft.)	Start Time:	Stop Time:	Volume Purged (Gallons)	Flow Rate (Gallons/Min.)	
8/19/2025	10:10	9.54	42.44	***48.58***	6.14					Gauging Reading During Pumping
8/19/2025	10:20	9.49	43.57	***48.58***	5.01				**Recharge**	Periodic gauging (post-recovery) - DNAPL observed
8/19/2025	12:20	9.87	40.51	***48.58***	8.07				*0.037*	Periodic gauging (post-recovery) - DNAPL observed
8/19/2025	13:00	10.08	39.44	***48.58***	9.14				*0.039*	Periodic gauging (post-recovery) - DNAPL observed
8/19/2025	14:45	10.11	38.05	***48.58***	10.53				*0.019*	Periodic gauging (post-recovery) - DNAPL observed
8/19/2025	15:40	10.23	37.84	***48.58***	10.74				*0.006*	Periodic gauging (post-recovery) - DNAPL observed
8/22/2025	14:00	9.30	33.40	***48.58***	15.18					Periodic gauging (pre-recovery) - DNAPL observed
8/22/2025						14:00	15:12	22.60	0.314	Recovery via Blackhawk v102 pump. Pumping rate of 6 strokes/minute.
8/22/2025	15:30	9.69	43.57	***48.58***	5.01				**Recharge**	Periodic gauging (post-recovery)
8/22/2025	16:30	9.81	42.15	***48.58***	6.43				*0.035*	Periodic gauging (post-recovery) - DNAPL observed
8/28/2025	9:00	10.49	33.04	***48.58***	15.54					Periodic gauging (pre-recovery) - DNAPL observed
8/28/2025						12:00	12:30	32.27	1.070	Recovery via Blackhawk v102 pump. Pumping rate of 6 strokes/minute.
8/28/2025	12:10	10.29	36.59	***48.58***	11.99					Gauging Reading During Pumping
8/28/2025	12:20	10.23	44.00	***48.58***	4.58					Gauging Reading During Pumping
8/28/2025	12:30	10.19	43.57	***48.58***	5.01				**Recharge**	Periodic gauging (post-recovery)
8/28/2025	13:35	10.02	42.05	***48.58***	6.53				*0.034*	Periodic gauging (post-recovery) - DNAPL observed
8/28/2025	14:45	9.88	41.40	***48.58***	7.18				*0.014*	Periodic gauging (post-recovery) - DNAPL observed
8/28/2025	15:15	9.83	40.54	***48.58***	8.04				*0.042*	Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	8:20	9.81	32.90	***48.58***	15.68					Periodic gauging (pre-recovery) - DNAPL observed
9/4/2025						9:20	9:45	32.48	1.300	Recovery via Blackhawk v102 pump. Pumping rate of 6 strokes/minute.
9/4/2025	9:30	9.80	43.30	***48.58***	5.28					Gauging Reading During Pumping
9/4/2025	9:45	9.79	43.57	***48.58***	5.01				**Recharge**	Periodic gauging (post-recovery)
9/4/2025	10:15	9.78	42.50	***48.58***	6.08				*0.052*	Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	10:45	9.70	41.50	***48.58***	7.08				*0.049*	Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	11:15	9.89	40.90	***48.58***	7.68				*0.029*	Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	11:45	10.08	40.00	***48.58***	8.58				*0.044*	Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	12:15	10.00	39.90	***48.58***	8.68				*0.005*	Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	12:45	10.01	38.90	***48.58***	9.68				*0.049*	Periodic gauging (post-recovery) - DNAPL observed

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PS-NW-06 Gauging/Recovery

Job No:	200131	**Client:**	Extell Hudson Waterfront Development LLC
Project Location:	159 Alexander St, Yonkers, NY	**Gauged By:**	AKRF, Inc.

Date:	Gauging Data					Recovery Data				Comments, Notes, Observations, Etc.
	Time:	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	DNAPL Thickness (Ft.)	Start Time:	Stop Time:	Volume Purged (Gallons)	Flow Rate (Gallons/Min.)	
9/4/2025	13:15	10.03	38.45	***48.58***	10.13				*0.022*	Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	13:45	10.10	38.30	***48.58***	10.28				*0.007*	Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	14:15	10.27	38.10	***48.58***	10.48				*0.010*	Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	14:45	10.30	37.80	***48.58***	10.78				*0.015*	Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	15:15	10.30	37.00	***48.58***	11.58				*0.039*	Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	15:45	10.31	36.50	***48.58***	12.08				*0.024*	Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	16:15	10.33	35.95	***48.58***	12.63				*0.027*	Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	16:45	10.32	35.60	***48.58***	12.98				*0.017*	Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	17:17	10.20	35.50	***48.58***	13.08				*0.005*	Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	17:45	10.22	35.21	***48.58***	13.37				*0.015*	Periodic gauging (post-recovery) - DNAPL observed
9/11/2025	NM	9.81	32.90	**48.58**	15.68					Periodic gauging - no DNAPL observed (recovery not necessary)

Underlined Assumed pump depth, approximate
Bold Datum change to Blackhawk Sample Port (TOC + 2'), total depth assumed from previous
Italics Recharge rate after a pumping event (gal/min)
NA Not Applicable
ND Non-Detect
NM Not Measured/Recorded

akrf

PS-NW-07 Gauging/Recovery

Job No:	200131	**Client:**	Extell Hudson Waterfront Development LLC
Project Location:	159 Alexander St, Yonkers, NY	**Gauged By:**	AKRF, Inc.

Date:	Gauging Data					Recovery Data				Comments, Notes, Observations, Etc.
	Time:	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	DNAPL Thickness (Ft.)	Start Time:	Stop Time:	Volume Purged (Gallons)	Flow Rate (Gallons/Min.)	
3/6/2025	9:00	11.25	ND	38.40	ND					Pre-development gauging - evidence of DNAPL impacts not observed
3/11/2025						11:30	13:00	100.00	1.111	Well development (air-lift w/ surge block) - purged fluids observed to be groundwater with no DNAPL impacts
3/12/2025	9:00	11.22	ND	37.80	ND					Post-development gauging (1st baseline) - DNAPL globules were observed on the oil-water interface probe and tape, however, no measurable thickness was recorded.
3/25/2025	10:46	8.71	35.86	37.92	2.06					Post-development gauging (2nd baseline) - DNAPL observed
5/7/2025	8:55	8.40	30.35	37.85	7.50					Periodic gauging (pre-recovery) - DNAPL observed
5/7/2025						9:25	11:11	12.00	0.113	Recovery stopped following transition from DNAPL to water in recovered fluids (ProActive Waterspout II).
5/7/2025	11:25	8.17	36.00	37.85	1.85					Periodic gauging (post-recovery) - DNAPL observed
5/14/2025	10:00	8.80	29.79	37.89	8.10					Periodic gauging (pre-recovery) - DNAPL observed
5/14/2025						10:05	11:55	12.00	0.109	Recovery stopped following transition from DNAPL to water in recovered fluids (ProActive Waterspout II).
5/14/2025	12:10	8.07	ND	37.89	ND					Periodic gauging (post-recovery) - No measurement DNAPL thickness observed.
6/4/2025	13:10	9.38	29.00	38.00	9.00					Periodic gauging (pre-recovery) - DNAPL observed.
6/4/2025						13:30	13:40	40.00	4.000	Recovery conducted via vac truck. Purging stopped after purged fluids appeared to switch from DNAPL to groundwater.
6/4/2025	14:00	9.40	37.50	38.00	0.50					Periodic gauging (post-recovery) - DNAPL observed below 0.5 ft.
6/25/2025	8:30	9.01	30.30	37.90	7.60					Periodic gauging (pre-recovery) - DNAPL observed.
6/25/2025						9:00	10:55	6.00	0.052	Recovery conducted via QED LP1301 pump. Pumping stoped after approx. 2 hours.
6/25/2025	11:35	8.65	33.20	37.90	4.70					Periodic gauging (post-recovery) - DNAPL observed
8/28/2025	7:30	10.32	33.40	**38.86**	5.46					Periodic gauging - DNAPL observed
8/28/2025	10:45	10.32	33.40	**38.86**	5.46					Periodic gauging (pre-recovery) - DNAPL observed
8/28/2025						10:45	15:20	2.35	0.009	Pilot test DNAPL removal event with QED LP 1301 pump; recharge and discharge settings set at 3 min & 30 sec, respectively
8/28/2025	11:15	10.25	33.61	**38.86**	5.25					Gauging Reading During Pumping
8/28/2025	11:45	10.03	35.47	**38.86**	3.39					Gauging Reading During Pumping
8/28/2025	12:15	9.49	33.76	**38.86**	5.10					Gauging Reading During Pumping
8/28/2025	12:45	9.85	34.83	**38.86**	4.03					Gauging Reading During Pumping
8/28/2025	13:15	9.78	34.76	**38.86**	4.10					Gauging Reading During Pumping
8/28/2025	13:45	9.74	35.05	**38.86**	3.81					Gauging Reading During Pumping
8/28/2025	14:15	9.45	34.44	**38.86**	4.42					Gauging Reading During Pumping
8/28/2025	14:45	9.54	34.71	**38.86**	4.15					Gauging Reading During Pumping
8/28/2025	15:15	9.51	34.61	**38.86**	4.25					Gauging Reading During Pumping

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PS-NW-07 Gauging/Recovery

Job No:	200131	Client:	Extell Hudson Waterfront Development LLC
Project Location:	159 Alexander St, Yonkers, NY	Gauged By:	AKRF, Inc.

Date:	Gauging Data					Recovery Data				Comments, Notes, Observations, Etc.
	Time:	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	DNAPL Thickness (Ft.)	Start Time:	Stop Time:	Volume Purged (Gallons)	Flow Rate (Gallons/Min.)	
9/4/2025	8:15	9.43	34.84	**38.86**	4.02					Periodic gauging (pre-recovery) - DNAPL observed
9/4/2025	9:30	9.39	34.75	**38.86**	4.11					Gauging During Active Recory at NW-06 (adjacent)
9/4/2025	9:45	9.38	34.60	**38.86**	4.26					Gauging During Active Recory at NW-06 (adjacent)
9/4/2025	10:15	9.40	34.20	**38.86**	4.66					Gauging During Active Recory at NW-06 (adjacent)
9/4/2025	10:45	9.45	33.80	**38.86**	5.06					Gauging During Active Recory at NW-06 (adjacent)
9/4/2025	11:15	9.58	34.15	**38.86**	4.71					Gauging During Active Recory at NW-06 (adjacent)
9/4/2025	11:45	9.66	33.10	**38.86**	5.76					Gauging During Active Recory at NW-06 (adjacent)
9/4/2025	12:15	9.75	33.55	**38.86**	5.31					Periodic gauging (pre-recovery) - DNAPL observed
9/4/2025						12:15	15:15	1.20	0.007	Pilot test DNAPL removal event with QED LP 1301 pump; recharge and discharge settings set at 3 min & 30 sec, respectively
9/4/2025	12:45	9.80	33.60	**38.86**	5.26					Gauging Reading During Pumping
9/4/2025	13:15	9.99	34.25	**38.86**	4.61					Gauging Reading During Pumping
9/4/2025	13:45	10.00	34.37	**38.86**	4.49					Gauging Reading During Pumping
9/4/2025	14:15	10.05	34.80	**38.86**	4.06					Gauging Reading During Pumping
9/4/2025	14:45	9.90	34.20	**38.86**	4.66					Gauging Reading During Pumping
9/4/2025	15:15	10.10	34.55	**38.86**	4.31					Gauging Reading During Pumping
9/4/2025	15:45	10.07	34.23	**38.86**	4.63					Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	16:15	10.03	34.67	**38.86**	4.19					Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	16:45	9.97	34.55	**38.86**	4.31					Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	17:15	9.75	34.81	**38.86**	4.05					Periodic gauging (post-recovery) - DNAPL observed
9/4/2025	17:45	9.78	34.55	**38.86**	4.31					Periodic gauging (post-recovery) - DNAPL observed
9/11/2025	11:00	9.50	33.20	**38.86**	5.66					Periodic gauging (pre-recovery) - DNAPL observed
9/11/2025	11:10	9.50	33.20	**38.86**	5.66					Periodic gauging (pre-recovery) - DNAPL observed
9/11/2025						11:10	15:30	11.49	0.044	Pilot test DNAPL removal event with QED LP 1301 pump; recharge and discharge settings set at 2.5 min & 30 sec, respectively
9/11/2025	12:30	9.15	34.95	**38.86**	3.91					Gauging Reading During Pumping
9/11/2025	13:10	9.00	35.00	**38.86**	3.86					Gauging Reading During Pumping
9/11/2025	13:30	8.90	35.20	**38.86**	3.66					Gauging Reading During Pumping
9/11/2025	14:00	8.90	37.38	**38.86**	1.48					Gauging Reading During Pumping
9/11/2025	14:30	8.90	38.31	**38.86**	0.55					Gauging Reading During Pumping
9/17/2025	9:15	9.10	32.45	**38.86**	6.41					Periodic gauging (pre-recovery) - DNAPL observed

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PS-NW-07 Gauging/Recovery

Job No:	200131	Client:	Extell Hudson Waterfront Development LLC
Project Location:	159 Alexander St, Yonkers, NY	Gauged By:	AKRF, Inc.

Date:	Gauging Data					Recovery Data				Comments, Notes, Observations, Etc.
	Time:	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	DNAPL Thickness (Ft.)	Start Time:	Stop Time:	Volume Purged (Gallons)	Flow Rate (Gallons/Min.)	
9/17/2025	9:30	9.10	32.45	**38.86**	6.41					Periodic gauging (pre-recovery) - DNAPL observed
9/17/2025						9:30	11:00	9.96	0.111	Pilot test DNAPL removal event with QED LP 1301 pump; recharge and discharge settings set at 3 min & 30 sec, respectively
9/17/2025	10:00	9.30	38.27	**38.86**	0.59					Gauging Reading During Pumping
9/17/2025	11:00	9.50	ND	**38.86**	NA					Gauging Reading During Pumping
9/17/2025	11:30	9.45	ND	**38.86**	NA					Gauging Reading During Pumping
9/17/2025	12:00	9.70	ND	**38.86**	NA					Gauging Reading During Pumping
9/17/2025	12:30	9.72	ND	**38.86**	NA					Gauging Reading During Pumping
9/17/2025	13:00	9.75	ND	**38.86**	NA					Gauging Reading During Pumping
9/17/2025	13:30	9.90	ND	**38.86**	NA					Gauging Reading During Pumping
9/17/2025	14:00	9.90	ND	**38.86**	NA					Gauging Reading During Pumping
9/17/2025	14:30	9.92	ND	**38.86**	NA					Gauging Reading During Pumping
9/17/2025	15:00	9.88	ND	**38.86**	NA					Gauging Reading During Pumping
9/17/2025	15:30	9.88	ND	**38.86**	NA					Gauging Reading During Pumping
9/17/2025	16:00	9.85	ND	**38.86**	NA					Gauging Reading During Pumping
9/17/2025	16:30	9.80	ND	**38.86**	NA					Gauging Reading During Pumping
9/17/2025	17:00	9.70	ND	**38.86**	NA					Gauging Reading During Pumping
9/17/2025	17:30	9.50	ND	**38.86**	NA					Gauging Reading During Pumping
9/17/2025	18:00	9.45	ND	**38.86**	NA					Gauging Reading During Pumping

Underlined Assumed pump depth, approximate
Bold Readings taken from secondary casing (elevated), total depth assumed from previous
Italics Recharge rate after a pumping event (gal/min)
NA Not Applicable
ND Non-Detect
NM Not Measured/Recorded

akrf

PS-NW-08 Gauging/Recovery

Job No:	200131	Client:	Extell Hudson Waterfront Development LLC
Project Location:	159 Alexander St, Yonkers, NY	Gauged By:	AKRF, Inc.

Date:	Gauging Data					Recovery Data				Comments, Notes, Observations, Etc.
	Time:	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	DNAPL Thickness (Ft.)	Start Time:	Stop Time:	Volume Purged (Gallons)	Flow Rate (Gallons/Min.)	
3/10/2025	7:45	10.20	33.80	42.80	9.00					Pre-development gauging - DNAPL observed
3/10/2025						10:30	12:00	100.00	1.111	Well development (air-lift w/ surge block) - approximately 15 gallons of DNAPL was purged/segregated during initial development efforts followed by approximately 85 gallons of groundwater mixed with DNAPL (was not feasible to segregate remaining fluids during development).
3/10/2025	15:00	19.49		47.20						Post-development gauging (1st baseline) - DNAPL observed but unable to measure DNAPL thickness (likely due to well disturbance during development activities).
3/25/2025	12:00	8.84	30.65	45.85	15.20					Post-development gauging (2nd baseline) - DNAPL observed
5/9/2025	10:35	8.52	29.42	45.82	16.40					Periodic gauging (pre-recovery) - DNAPL observed
5/9/2025						11:07	12:20	10.00	0.137	Recovered fluids included a mixture of DNAPL (~6 gallons) and groundwater (~4 gallons) in an attempt to troubleshoot pump productivity/increase flow rate - recovery stopped due to slow recovery rates/pump failure (ProActive Waterspout II).
5/9/2025	12:20	9.02	32.92	45.42	12.90					Periodic gauging (post-recovery) - DNAPL observed
5/15/2025	10:25	8.50	31.18	45.88	14.70					Periodic gauging (pre-recovery) - DNAPL observed
5/15/2025						11:13	13:45	3.00	0.020	In an attempt to troubleshoot pump productivity/increase flow rate purging was stopped at 12:04 and the pump was raised - recovery was resumed at 12:21 and was stopped at 13:45 prior to drawdown of full DNAPL column due to slow recovery/pump failure (ProActive Tornado).
5/15/2025	13:50	8.42	32.98	45.88	12.90					Periodic gauging (post-recovery) - DNAPL observed
6/4/2025	10:10	8.91	31.01	45.71	14.70					Periodic gauging (pre-recovery) - DNAPL observed.
6/4/2025						10:35	10:50	21.00	1.400	Recovery conducted via vac truck. Purging stopped after purged fluids appeared to switch from DNAPL to groundwater.
6/4/2025	11:00	8.95	45.21	45.71	0.50					Periodic gauging (post-recovery) - DNAPL observed below 0.5 ft.
6/25/2025	11:49	9.82	34.09	45.75	11.66					Periodic gauging (pre-recovery) - DNAPL observed.
6/25/2025						13:55	14:55	5.00	0.083	Recovery conducted via QED LP1301 pump. Pumping stoped after approx. 1 hour.
6/25/2025	13:55	6.19	34.70	45.75	11.05					Periodic gauging (post-recovery) - DNAPL observed
8/19/2025	8:12	9.75	33.36	45.88	12.52					Pre-Pumping Event Gauging Reading
8/19/2025	9:29	9.49	33.02	45.88	12.86					Pre-Pumping Event Gauging Reading, QED Pump Installed 2' from Bottom of Well (43.88' bgs)
8/19/2025						9:29	10:00	1.70	0.055	Pilot test DNAPL removal event with QED LP 1301 pump; recharge and discharge settings set at 2 min & 30 sec, respectively
8/19/2025	10:00	9.81	39.31	45.88	6.57				**Recharge**	Gauging Reading During Pumping
8/19/2025	11:53	9.50	33.15	45.88	12.73				*0.080*	Pre-Pumping Event Gauging Reading, QED Pump Installed 2' from Bottom of Well (43.88' bgs); Recovery Reading from Test 1 on 8/19/2025.
8/19/2025						11:53	12:53	5.20	0.087	Pilot test DNAPL removal event with QED LP 1301 pump; recharge and discharge settings set at 2 min & 30 sec, respectively
8/19/2025	11:58	9.59	34.62	45.88	11.26					Gauging Reading During Pumping
8/19/2025	12:03	9.61	34.74	45.88	11.14					Gauging Reading During Pumping
8/19/2025	12:08	9.74	35.03	45.88	10.85					Gauging Reading During Pumping

akrf

PS-NW-08 Gauging/Recovery

Job No:	200131	Client:	Extell Hudson Waterfront Development LLC
Project Location:	159 Alexander St, Yonkers, NY	Gauged By:	AKRF, Inc.

Date:	Gauging Data					Recovery Data				Comments, Notes, Observations, Etc.
	Time:	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	DNAPL Thickness (Ft.)	Start Time:	Stop Time:	Volume Purged (Gallons)	Flow Rate (Gallons/Min.)	
8/19/2025	12:13	9.73	35.20	45.88	10.68					Gauging Reading During Pumping
8/19/2025	12:18	9.89	35.19	45.88	10.69					Gauging Reading During Pumping
8/19/2025	12:23	9.56	35.47	45.88	10.41					Gauging Reading During Pumping
8/19/2025	12:28	10.00	35.54	45.88	10.34					Gauging Reading During Pumping
8/19/2025	12:33	9.60	35.63	45.88	10.25					Gauging Reading During Pumping
8/19/2025	12:38	9.55	35.85	45.88	10.03					Gauging Reading During Pumping
8/19/2025	12:43	9.66	36.11	45.88	9.77					Gauging Reading During Pumping
8/19/2025	12:48	9.60	36.36	45.88	9.52					Gauging Reading During Pumping
8/19/2025	12:53	10.13	36.43	45.88	9.45					Gauging Reading During Pumping
8/19/2025	12:58	9.87	36.64	45.88	9.24					Gauging Reading During Pumping
8/19/2025						12:58	13:54	1.70	0.030	Pilot test DNAPL removal event with QED LP 1301 pump; recharge and discharge settings set at 4 min & 30 sec, respectively
8/19/2025	13:03	9.59	36.55	45.88	9.33					Gauging Reading During Pumping
8/19/2025	13:08	9.64	36.85	45.88	9.03					Gauging Reading During Pumping
8/19/2025	13:13	9.58	36.77	45.88	9.11					Gauging Reading During Pumping
8/19/2025	13:18	9.57	36.45	45.88	9.43					Gauging Reading During Pumping
8/19/2025	13:23	9.68	36.86	45.88	9.02					Gauging Reading During Pumping
8/19/2025	13:38	10.26	37.82	45.88	8.06					Gauging Reading During Pumping
8/19/2025	13:43	9.82	36.91	45.88	8.97					Gauging Reading During Pumping
8/19/2025	13:48	9.97	36.63	45.88	9.25					Gauging Reading During Pumping
8/19/2025	13:59	10.17	37.53	45.88	8.35					Periodic gauging (post-recovery) - DNAPL observed
8/19/2025	14:05	10.13	37.39	45.88	8.49					Periodic gauging (post-recovery) - DNAPL observed
8/19/2025	14:07	10.38	37.81	45.88	8.07					Periodic gauging (post-recovery) - DNAPL observed
8/19/2025	14:12	10.41	37.04	45.88	8.84					Periodic gauging (post-recovery) - DNAPL observed
8/19/2025	14:18	10.42	37.21	45.88	8.67					Periodic gauging (post-recovery) - DNAPL observed
8/19/2025	14:24	10.47	37.34	45.88	8.54					Periodic gauging (post-recovery) - DNAPL observed

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PS-NW-08 Gauging/Recovery

Job No:	200131	**Client:**	Extell Hudson Waterfront Development LLC
Project Location:	159 Alexander St, Yonkers, NY	**Gauged By:**	AKRF, Inc.

Date:	Gauging Data					Recovery Data				Comments, Notes, Observations, Etc.
	Time:	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	DNAPL Thickness (Ft.)	Start Time:	Stop Time:	Volume Purged (Gallons)	Flow Rate (Gallons/Min.)	

Bold Total depth assumed from previous
NA Not Applicable
ND Non-Detect
NM Not Measured/Recorded

akrf

PS-NW-09 Gauging/Recovery

Job No:	200131	**Client:**	Extell Hudson Waterfront Development LLC
Project Location:	159 Alexander St, Yonkers, NY	**Gauged By:**	AKRF, Inc.

Date:	Gauging Data					Recovery Data				Comments, Notes, Observations, Etc.
	Time:	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	DNAPL Thickness (Ft.)	Start Time:	Stop Time:	Volume Purged (Gallons)	Flow Rate (Gallons/Min.)	
3/6/2025	9:30	7.29	ND	39.97	NA					Pre-development readings - no DNAPL observed
3/6/2025						10:30	11:30	80.00	1.333	Well development (day 1) (submersible pump)- purged fluids observed to be groundwater with no DNAPL impacts - significant sediment build-up observed. Cascade to conduct remaining well development utilizing airlift + surge block techniques
3/7/2025						10:00	11:30	35.00	0.389	Well development (day 2) (air-lift w/ surge block) - purged fluids observed to be groundwater with no DNAPL impacts
3/7/2025	14:30	21.11	ND	42.50	NA					Post-development gauging (1st baseline) - no DNAPL observed
3/25/2025	8:45	8.11	ND	42.50	NA					Post-development gauging (2nd baseline) - no DNAPL observed
5/7/2025	8:27	8.04	ND	42.46	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
5/14/2025	8:35	8.12	ND	42.47	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
5/21/2025	8:05	7.95	ND	42.52	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
6/4/2025	7:20	7.92	ND	42.52	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
6/11/2025	8:19	7.87	ND	42.54	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
6/25/2025	7:35	8.00	ND	42.51	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
8/19/2025	8:35	7.97	ND	**NM**	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
9/11/2025	NM	8.89	ND	**NM**	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
9/17/2025	NM	7.60	ND	42.55	NA					Periodic gauging - no DNAPL observed (recovery not necessary)

Bold Total depth assumed from previous
NA Not Applicable
ND Non-Detect
NM Not Measured/Recorded

akrf

PS-NW-10 Gauging/Recovery

Job No:	200131	**Client:**	Extell Hudson Waterfront Development LLC
Project Location:	159 Alexander St, Yonkers, NY	**Gauged By:**	AKRF, Inc.

Date:	Gauging Data					Recovery Data				Comments, Notes, Observations, Etc.
	Time:	Depth to Water (Ft.)	Depth to DNAPL (Ft.)	Total Depth (Ft.)	DNAPL Thickness (Ft.)	Start Time:	Stop Time:	Volume Purged (Gallons)	Flow Rate (Gallons/Min.)	
3/7/2025	8:30	10.60	ND	38.22	NA					Pre-development readings - no DNAPL observed
3/7/2025						13:30	15:00	50.00	0.556	Well development (day 1) (air-lift w/ surge block) - purged fluids observed to be groundwater with no DNAPL impacts
3/10/2025						8:30	9:30	35.00	0.583	Well development (day 2) (air-lift w/ surge block) - purged fluids observed to be groundwater with no DNAPL impacts
3/10/2025	9:00		ND	39.10	NA					Post-development gauging (1st baseline) - no DNAPL observed; depth to water reading inadvertently not obtained
3/25/2025	8:30	9.70	ND	39.00	NA					Post-development gauging (2nd baseline) - no DNAPL observed
5/7/2025	8:15	9.42	ND	38.95	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
5/14/2025	8:20	9.52	ND	39.00	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
5/21/2025	8:00	9.65	ND	39.05	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
6/4/2025	7:15	9.71	ND	38.99	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
6/11/2025	8:15	8.58	ND	39.00	ND					Periodic gauging - no DNAPL observed (recovery not necessary)
6/25/2025	7:30	9.86	ND	39.00	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
8/19/2025	8:26	10.19	ND	**NM**	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
9/11/2025	NM	11.03	ND	**NM**	NA					Periodic gauging - no DNAPL observed (recovery not necessary)
9/17/2025	NM	9.36	ND	38.93	NA					Periodic gauging - no DNAPL observed (recovery not necessary)

Bold Total depth assumed from previous
NA Not Applicable
ND Non-Detect
NM Not Measured/Recorded

ATTACHMENTS

ATTACHMENT A
DNAPL MONITORING/RECOVERY WELL CONSTRUCTION LOGS

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 1 of 3	PS-NW-01	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	43°F, Partly Cloudy
Logged by:	B. Quinn, AKRF

Drilling

Start Time: 1300 | Finish Time: 1350

Date: 2/24/25

Top of Casing Elevation: 5.39'

Surface Condition: Asphalt (Flush Mount Finish)

Depth (feet)	Well Construction	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1	6" steel well casing: 0 to 25' below surface grade. Grout: 0 to 21' below surface grade	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6		N/A	N/A	N/A	N/A	N/A	N/A	N/A
11		N/A	N/A	N/A	N/A	N/A	N/A	N/A
15								

Notes: Groundwater Depth Indicator

Groundwater measured at 6.91 feet below grade in PS-NW-01 following well installation and development.

Monitoring/Recovery Well installed to 40 feet below surface grade.

PS-NW-01 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 40' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 41 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 2 of 3	PS-NW-01	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	43°F, Partly Cloudy
Logged by:	B. Quinn, AKRF

Drilling
Start Time: 1300 | Finish Time: 1350
Date: 2/24/25

Top of Casing Elevation: 5.39'
Surface Condition: Asphalt (Flush Mount Finish)

Depth (feet)	Well Construction	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
16		N/A	N/A	N/A	N/A	N/A	N/A	N/A
17								
18								
19								
20								
21	Hydrated betonite: 21' to 23' below surface grade.	96"	Black SILT, little Clay	Creosote-like	Wet	ND	ND	None
22								
23								
24	Pea gravel: 23' to 35' below surface grade.							
25								
26	6" steel well screen: 25' to 35' below surface grade.		Black SILT, some Clay	Creosote-like	Wet	ND	ND	None
27								
28								
29								
30								

Notes: Groundwater Depth Indicator

Groundwater measured at 6.91 feet below grade in PS-NW-01 following well installation and development.

Monitoring/recovery well installed to 40 feet below surface grade.

PS-NW-01 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 40' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 41 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 3 of 3	PS-NW-01	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	43°F, Partly Cloudy
Logged by:	B. Quinn, AKRF

Drilling

Start Time: 1300 | Finish Time: 1350

Date: 2/24/25

Top of Casing Elevation: 5.39'

Surface Condition: Asphalt (Flush Mount Finish)

Depth (feet)	Well Construction	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
31		96	Top 39": Black CLAY, some Silt	None	Wet	ND	ND	None
32								
33								
34								
35			Bottom 57": Grey CLAY, trace Organics (shells)	None	Wet	ND	ND	None
36	6" steel sump: 35' to 40' below surface grade.							
37								
38								
39								
40								
41								
42								
43								
44								
45								

Notes: Groundwater Depth Indicator

Groundwater measured at 6.91 feet below grade in PS-NW-01 following well installation and development.

Monitoring/recovery well installed to 40 feet below surface grade.

PS-NW-01 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 40' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 41 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 1 of 3	PS-NW-02	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	48 °F, Partly Cloudy
Logged by:	B. Quinn, AKRF

Drilling

Start Time: 1130 | Finish Time: 1300

Date: 3/12/25

Top of Casing Elevation: 5.06'

Surface Condition: Asphalt (Flush Mount Finish)

Depth (feet)	Well Construction	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1–15	6" steel well casing: 0 to 25' below surface grade. Grout: 0 to 21' below surface grade	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes: Groundwater Depth Indicator

Groundwater measured at 4.02 feet below grade in PS-NW-02 following well installation and development.

Monitoring/recovery well installed to 40 feet below surface grade.

PS-NW-02 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 40' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 40 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 2 of 3	PS-NW-02	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	48 °F, Partly Cloudy
Logged by:	B. Quinn, AKRF

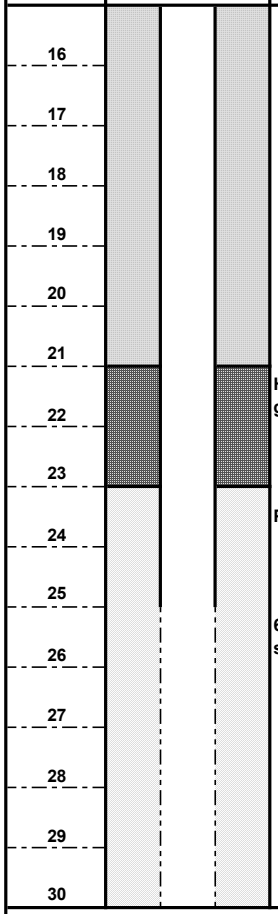
Drilling

Start Time: 1130 | Finish Time: 1300

Date: 3/12/25

Top of Casing Elevation: 5.06'

Surface Condition: Asphalt (Flush Mount Finish)



Depth (feet)	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
16-30 (Well Construction)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-23	52	Top 12": Brown SILT, little Gravel, Organics	Creosote-like	Wet	0.7	Minor sheen	None
23-25		Middle 25": Black SILT	Wet	Wet	0.4	ND	None
25-26		Bottom 15": Black-Grey SILT, little Clay	Creosote-like	ND	ND	ND	None
26-28	63	Top 13": Black SILT, little fine Gravel, Organics (wood)	Creosote-like	Wet	0.5	Minor sheen	None
27-28		Bot 50": Black SILT, some Clay	Creosote-like	Wet	0.2	ND	None

Notes: Groundwater Depth Indicator

Groundwater measured at 4.02 feet below grade in PS-NW-02 following well installation and development.

Monitoring/recovery well installed to 40 feet below surface grade.

PS-NW-02 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 40' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 40 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 3 of 3	PS-NW-02	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	48 °F, Partly Cloudy
Logged by:	B. Quinn, AKRF

Drilling
Start Time: 1130 | Finish Time: 1300
Date: 3/12/25

Top of Casing Elevation: 5.06'
Surface Condition: Asphalt (Flush Mount Finish)

Depth (feet)	Well Construction	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
31		54	Top 42": Black SILT, little Clay	Creosote-like	Wet	ND	ND	None
32								
33								
34			Mid 8": Black SILT, some Clay, little fine Gravel, trace Organics (shells)	None	Wet	ND	ND	None
35			Bottom 4": Grey CLAY, trace Organics (shells)	None	Wet	ND	ND	None
36	6" steel sump: 35' to 40' below surface grade.	62	Grey CLAY, trace Organics (shells)	None	Wet	ND	ND	None
37								
38								
39								
40								
41								
42								
43								
44								
45								

Notes: Groundwater Depth Indicator

Groundwater measured at 4.02 feet below grade in PS-NW-02 following well installation and development.

Monitoring/recovery well installed to 40 feet below surface grade.

PS-NW-02 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 40' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 40 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 1 of 3	PS-NW-03	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	51°F, Sunny
Logged by:	B. Quinn, AKRF

Drilling

Start Time: 1100 | **Finish Time: 1240**

Date: 3/11/25

Top of Casing Elevation: 8.36'

Surface Condition: Soil (Approx. 3' Stick-up)

Depth (feet)	Well Construction	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1–5	**6" steel well casing: 0 to 23' below surface grade.** **Grout: 0 to 19' below surface grade.**	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6–10		N/A	N/A	N/A	N/A	N/A	N/A	N/A
11–15		N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes: **Groundwater Depth Indicator**

Groundwater measured at 8.48 feet below grade in PS-NW-03 following well installation and development.

Monitoring/recovery well installed to 38 feet below surface grade.

PS-NW-03 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 40' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 40 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 2 of 3	PS-NW-03	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	51°F, Sunny
Logged by:	B. Quinn, AKRF

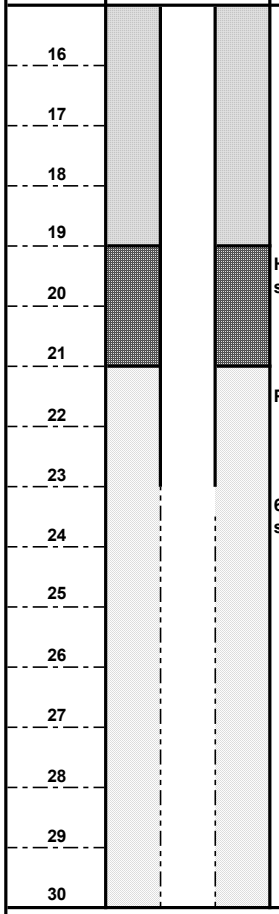
Drilling

Start Time: 1100 | **Finish Time: 1240**

Date: 3/11/25

Top of Casing Elevation: 8.36'

Surface Condition: Soil (Approx. 3' Stick-up)



Depth (feet)	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
16-30	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20-22	50	Top 10": COBBLES, some fine Gravel	Creosote-like	Wet	0.6	ND	None
22-24		Bottom 40": ORGANICS, trace Silt	None	Wet	19.6	ND	None
25-26	59	Top 15": Brown SILT, some Organics (wood)	Coal tar-like	Wet	8.0	Light coating / sheen	None
27-28		Mid 18": Black SILT, little Clay	Coal tar-like	Wet	13.6	ND	None
29-30		Bottom 26": Black-Grey SILT, some Clay	Coal tar-like	Wet	8.5	ND	None

Notes: **Groundwater Depth Indicator**

Groundwater measured at 8.48 feet below grade in PS-NW-03 following well installation and development.

Monitoring/recovery well installed to 38 feet below surface grade.

PS-NW-03 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 40' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 40 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 3 of 3	PS-NW-03	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	51°F, Sunny
Logged by:	B. Quinn, AKRF

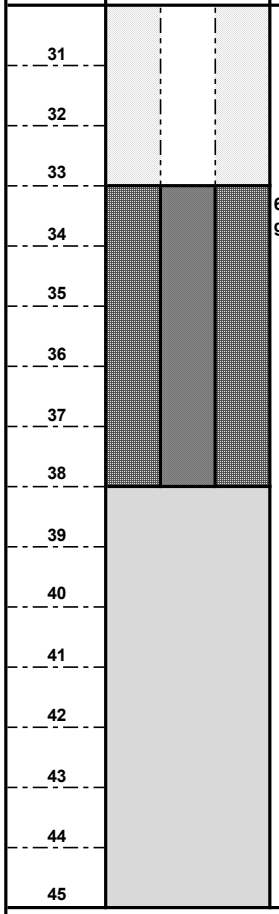
Drilling

Start Time: 1100 | **Finish Time: 1240**

Date: 3/11/25

Top of Casing Elevation: 8.36'

Surface Condition: Soil (Approx. 3' Stick-up)



Depth (feet)	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
31–33	48	Middle 21": Black CLAY, some Silt	None	Wet	1.5	ND	None
33–38		Bottom 27": Grey CLAY, trace Organics (shells)	None	Wet	ND	ND	None
38–40	62	Grey CLAY, trace Organics (shells)	None	Wet	ND	ND	None
40–45							

Notes: **Groundwater Depth Indicator** ▼

Groundwater measured at 8.48 feet below grade in PS-NW-03 following well installation and development.

Monitoring/recovery well installed to 38 feet below surface grade.

PS-NW-03 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 40' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 40 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 1 of 3	PS-NW-04	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	45°F, Sunny
Logged by:	B. Quinn, AKRF

Drilling

Start Time: 0900 | Finish Time: 1045

Date: 2/28/25

Top of Casing Elevation: 8.86'

Surface Condition: Soil (Approx. 3' Stick-up)

Depth (feet)	Well Construction	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1–15	6" steel well casing: 0 to 25.5' below surface grade. Grout: 0 to 21.5' below surface grade.	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes: Groundwater Depth Indicator

Groundwater measured at 8.29 feet below grade in PS-NW-04 following well installation and development.

Monitoring/recovery well installed to 40.5 feet below surface grade.

PS-NW-04 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 40.5' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 40.5 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 2 of 3	PS-NW-04	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	45°F, Sunny
Logged by:	B. Quinn, AKRF

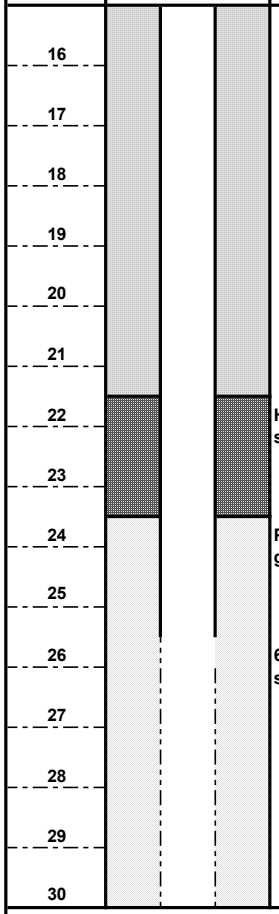
Drilling

Start Time: 0900 | Finish Time: 1045

Date: 2/28/25

Top of Casing Elevation: 8.86'

Surface Condition: Soil (Approx. 3' Stick-up)



Depth (feet)	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
16-30	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-24	30	Top 15": COBBLES, some fine Gravel, Organics (wood), little Brick	Creosote-like	Wet	0.6	Light sheen	None
24-25		Bottom 15": ORGANICS (wood), some Cobbles, little fine Gravel, Sand	Creosote-like	Wet	0.6	Light sheen	None
25-27	24	ORGANICS (wood), trace Silt	Coal tar-like	Wet	43.7	ND (25' to 27') / Light to medium coating (27' to 30')	None

Notes:

Groundwater Depth Indicator

Groundwater measured at 8.29 feet below grade in PS-NW-04 following well installation and development.

Monitoring/recovery well installed to 40.5 feet below surface grade.

PS-NW-04 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 40.5' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 40.5 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 3 of 3	PS-NW-04	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	45°F, Sunny
Logged by:	B. Quinn, AKRF

Drilling

Start Time: 0900 | Finish Time: 1045

Date: 2/28/25

Top of Casing Elevation: 8.86'

Surface Condition: Soil (Approx. 3' Stick-up)

Depth (feet)	Well Construction	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
31		49	Top 41": Black SILT, little Clay, trace Sand	Coal tar-like	Wet	6.0	Saturated	None
32								
33								
34			Bottom 8": Black SILT, little Orgnaics (wood), trace fine Gravel	Coal tar-like	Wet	8.0	Saturated	None
35								
36	6" steel sump: 35.5' to 40.5' below surface grade.	60	CLAY, trace Organics (shells)	ND	Wet	ND	ND	None
37								
38								
39								
40								
41								
42								
43								
44								
45								

Notes:

Groundwater Depth Indicator

Groundwater measured at 8.29 feet below grade in PS-NW-04 following well installation and development.

Monitoring/recovery well installed to 40.5 feet below surface grade.

PS-NW-04 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 40.5' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 40.5 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 1 of 3	PS-NW-05	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	51°F, Sunny
Logged by:	B. Quinn, AKRF

Drilling

Start Time: 1030 | Finish Time: 1300

Date: 3/10/25

Top of Casing Elevation: 9.24'

Surface Condition: Soil (Approx. 3' Stick-up)

Depth (feet)	Well Construction	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1–5	6" steel well casing: 0 to 25.5' below surface grade. Grout: 0 to 21.5' below surface grade.	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6–10		N/A	N/A	N/A	N/A	N/A	N/A	N/A
11–15		N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

Groundwater Depth Indicator

Groundwater measured at 8.54 feet below grade in PS-NW-05 following well installation and development.

Monitoring/recovery well installed to 40.5 feet below surface grade.

PS-NW-05 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 45' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 45 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 1 of 3	PS-NW-05	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	51°F, Sunny
Logged by:	B. Quinn, AKRF

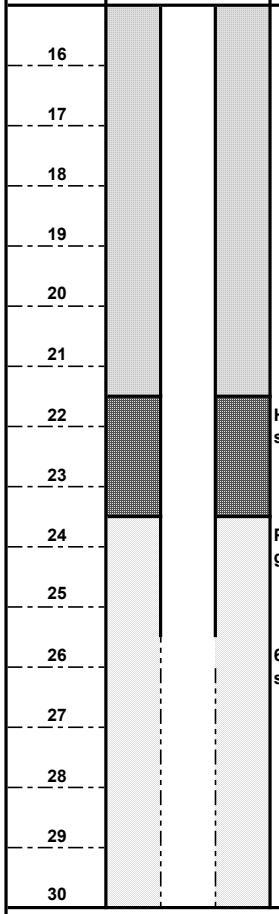
Drilling

Start Time: 1030 | Finish Time: 1300

Date: 3/10/25

Top of Casing Elevation: 9.24'

Surface Condition: Soil (Approx. 3' Stick-up)



Depth (feet)	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
16–30	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21–23	41	Top 7": Brown SAND, little Silt, fine Gravel	Creosote-like	Wet	ND	ND	None
		Bottom 34": ORGANICS, trace Silt	Creosote-like	Wet	ND	ND	None
25–28	54	Top 12": Fine GRAVEL, trace Sand, Brick	Coal tar-like	Wet	21.1	ND	None
		Bottom 42": ORGANICS (Wood)	Coal tar-like	Wet	47.1	Light coating	None

Notes: Groundwater Depth Indicator

Groundwater measured at 8.54 feet below grade in PS-NW-05 following well installation and development.

Monitoring/recovery well installed to 40.5 feet below surface grade.

PS-NW-05 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 45' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 45 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 1 of 3	PS-NW-05	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	51°F, Sunny
Logged by:	B. Quinn, AKRF

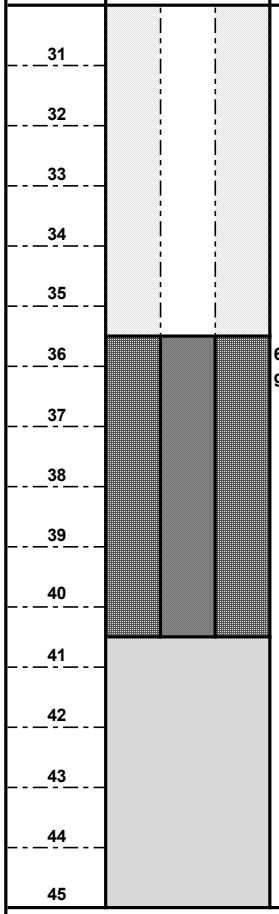
Drilling

Start Time: 1030 | **Finish Time: 1300**

Date: 3/10/25

Top of Casing Elevation: 9.24'

Surface Condition: Soil (Approx. 3' Stick-up)



6" steel sump: 35.5' to 40.5' below surface grade.

Depth (feet)	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
31	50	Top 10": Fine GRAVEL	Coal tar-like	Wet	ND	Heavy coating	None
32		Mid 16": Black SILT, some Organics (wood)	Coal tar-like	Wet	224.4	Saturated	None
33		Bottom 20": Black SILT, little Organics (wood)	Coal tar-like	Wet	ND	ND	None
34		Bottom 4": Black SILT, little Clay	ND	Wet	ND	ND	None
35	62	Grey CLAY, trace Organics (shells, wood)	ND	Wet	ND	ND	None
36							
37							
38							
39							
40	30	Grey CLAY, trace Organics (shells, wood)	ND	Wet	ND	ND	None
41							
42							
43							
44							
45							

Notes: **Groundwater Depth Indicator**

Groundwater measured at 8.54 feet below grade in PS-NW-05 following well installation and development.

Monitoring/recovery well installed to 40.5 feet below surface grade.

PS-NW-05 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 45' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 45 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 1 of 3	PS-NW-06	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	46°F, Partly Cloudy
Logged by:	B. Quinn, AKRF

Drilling
Start Time: 1120 | Finish Time: 1430
Date: 2/25/25

Top of Casing Elevation: 9.19'
Surface Condition: Soil (Approx. 3' Stick-up)

Depth (feet)	Well Construction	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1–15	6" steel well casing: 0 to 29' below surface grade. Grout: 0 to 25' below surface grade.	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
Groundwater Depth Indicator

Groundwater measured at 8.34 feet below grade in PS-NW-06 following well installation and development.

Monitoring/recovery well installed to 44 feet below surface grade.

PS-NW-06 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 45' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 45 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 2 of 3	PS-NW-06	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	46°F, Partly Cloudy
Logged by:	B. Quinn, AKRF

Drilling

Start Time: 1120 | Finish Time: 1430

Date: 2/25/25

Top of Casing Elevation: 9.19'

Surface Condition: Soil (Approx. 3' Stick-up)

Depth (feet)	Well Construction	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
16		N/A	N/A	N/A	N/A	N/A	N/A	N/A
17								
18								
19								
20								
21		0	No recovery	N/A	N/A	N/A	N/A	None
22								
23								
24								
25	Hydrated bentonite: 25' to 27' below surface grade							
26								
27		0	No recovery	N/A	N/A	N/A	N/A	None
28	Pea gravel: 27' to 39' below surface grade.							
29								
30	6" steel well screen: 29' to 39' below surface grade.							

Notes:

Groundwater Depth Indicator

Groundwater measured at 8.34 feet below grade in PS-NW-06 following well installation and development.

Monitoring/recovery well installed to 44 feet below surface grade.

PS-NW-06 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 45' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 45 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 3 of 3	PS-NW-06	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	46°F, Partly Cloudy
Logged by:	B. Quinn, AKRF

Drilling
Start Time: 1120 | Finish Time: 1430
Date: 2/25/25

Top of Casing Elevation: 9.19'
Surface Condition: Soil (Approx. 3' Stick-up)

Depth (feet)	Well Construction	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
31		24	Top 12": Grey SILT, little Sand	Coal tar-like	Wet	8.9	Lightly coated	None
32								
33								
34			Bottom 12": Grey SILT, some Sand, trace C	Coal tar-like	Wet	11.6	Saturated	None
35		43	Top 18": Black SILT, little fine Gravel	Coal tar-like	Wet	87.4	Saturated	None
36								
37								
38			Mid 6": Black SILT, little fine Gravel	Coal tar-like	Wet	52.0	Heavily coated	None
39								
40	6" steel sump: 39' to 44' below surface grade.		Bottom 19": Grey CLAY, little Silt	None	Wet	0.5	ND	None
41		45	Grey CLAY, little Silt, trace Organics (wood, shells)	None	Wet	ND	ND	None
42								
43								
44								
45								

Notes: Groundwater Depth Indicator

Groundwater measured at 8.34 feet below grade in PS-NW-06 following well installation and development.

Monitoring/recovery well installed to 44 feet below surface grade.

PS-NW-06 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 45' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 45 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 1 of 3	PS-NW-07	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	48°F, Partly Cloudy
Logged by:	B. Quinn, AKRF

Drilling

Start Time: 0820 | Finish Time: 1000

Date: 2/27/25

Top of Casing Elevation: 9.30'

Surface Condition: Soil (Approx. 3' Stick-up)

Depth (feet)	Well Construction	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1–5	6" steel well casing: 0 to 25.5' below surface grade. Grout: 0 to 21.5' below surface grade.	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6–10		N/A	N/A	N/A	N/A	N/A	N/A	N/A
11–15	▼	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

Groundwater Depth Indicator ▼

Groundwater measured at 8.71 feet below grade in PS-NW-07 following well installation and development.

Monitoring/recovery well installed to 40.5 feet below surface grade.

PS-NW-07 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 45' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 45 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 2 of 3	PS-NW-07	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	48°F, Partly Cloudy
Logged by:	B. Quinn, AKRF

Drilling

Start Time: 0820 | Finish Time: 1000

Date: 2/27/25

Top of Casing Elevation: 9.30'

Surface Condition: Soil (Approx. 3' Stick-up)

Depth (feet)	Well Construction	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
16		N/A	N/A	N/A	N/A	N/A	N/A	N/A
17								
18								
19								
20								
21		0	No Recovery	N/A	N/A	N/A	N/A	None
22	Hydrated bentonite 23.5' to 21.5' below surface grade							
23								
24	Pea gravel: 23.5' to 35.5' below surface grade	18	Top 9": COBBLES, some Organics (wood), trace Silt, Sand	Creosote-like	ND	4.1	Light sheen	None
25								
26	6" steel well screen: 25.5' to 35.5' below surface grade.							
27								
28			Bottom 9" ORGANICS (wood), trace Sand, Silt	Creosote-like	ND	7.4	Light sheen	None
29								
30								

Notes: Groundwater Depth Indicator

Groundwater measured at 8.71 feet below grade in PS-NW-07 following well installation and development.

Monitoring/recovery well installed to 40.5 feet below surface grade.

PS-NW-07 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 45' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 45 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

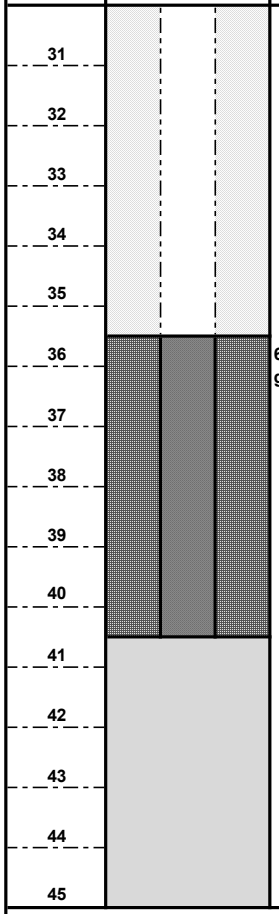
TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 3 of 3	PS-NW-07	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	48°F, Partly Cloudy
Logged by:	B. Quinn, AKRF

Drilling
Start Time: 0820 | Finish Time: 1000
Date: 2/27/25

Top of Casing Elevation: 9.30'
Surface Condition: Soil (Approx. 3' Stick-up)



6" steel sump: 35.5' to 40.5' below surface grade.

Depth (feet)	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
31–35		Top 8": COBBLES, some fine Gravel, trace Organics	Coal tar-like	Wet	8.1	Heavy coating	None
	50	Mid 32": Grey SILT, some Clay, trace Sand	ND	Wet	9.2	Heavy coating	None
		Bottom 10": Grey SILT, some fine Gravel	Coal tar-like	Wet	4.7	Heavy coating	None
36–40	24	Grey CLAY, trace Organics (shells)	ND	Wet	ND	ND	None
41–45	45	Grey CLAY, trace Organics (shells)	ND	Wet	ND	ND	None

Notes: Groundwater Depth Indicator

Groundwater measured at 8.71 feet below grade in PS-NW-07 following well installation and development.

Monitoring/recovery well installed to 40.5 feet below surface grade.

PS-NW-07 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 45' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 45 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 1 of 3	PS-NW-08	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	51°F, Mostly Cloudy
Logged by:	B. Quinn, AKRF

Drilling

Start Time: 1400 | Finish Time: 1450

Date: 3/5/25

Top of Casing Elevation: 9.41'

Surface Condition: Soil (Approx. 3' Stick-up)

Depth (feet)	Well Construction	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1–15	6" steel well casing: 0 to 28.5' below surface grade. Grout: 0 to 24.5' below surface grade.	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

Groundwater Depth Indicator

Groundwater measured at 8.84 feet below grade in PS-NW-08 following well installation and development.

Monitoring/recovery well installed to 43.5 feet below surface grade.

PS-NW-08 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 44' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 44 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 2 of 3	PS-NW-08	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	51°F, Mostly Cloudy
Logged by:	B. Quinn, AKRF

Drilling

Start Time: 1400 | **Finish Time: 1450**

Date: 3/5/25

Top of Casing Elevation: 9.41'

Surface Condition: Soil (Approx. 3' Stick-up)

Depth (feet)	Well Construction	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
16		N/A	N/A	N/A	N/A	N/A	N/A	N/A
17								
18								
19								
20								
21		0	No recovery	Coal tar-like on drill rods	N/A	N/A	Coal tar sheen on drill rods	None
22								
23								
24								
25	Hydrated bentonite: 24.5' to 26.5' below surface grade	0	No recovery	Coal tar-like on drill rods	N/A	N/A	Heavy coal tar staining on drill rods	None
26								
27	Pea gravel: 26.5' to 38.5' below surface grade.							
28								
29	6" steel well screen: 28.5' to 38.5' below surface grade.							
30								

Notes: **Groundwater Depth Indicator**

Groundwater measured at 8.84 feet below grade in PS-NW-08 following well installation and development.

Monitoring/recovery well installed to 43.5 feet below surface grade.

PS-NW-08 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 44' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 44 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

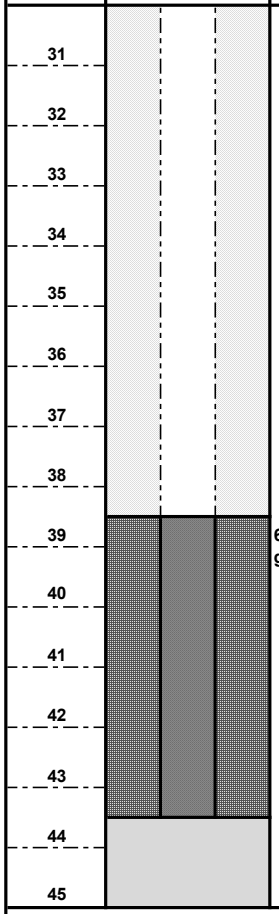
TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 3 of 3	PS-NW-08	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	51°F, Mostly Cloudy
Logged by:	B. Quinn, AKRF

Drilling
Start Time: 1400 | Finish Time: 1450
Date: 3/5/25

Top of Casing Elevation: 9.41'
Surface Condition: Soil (Approx. 3' Stick-up)



Depth (feet)	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
31–38	57	Top 7": Black SILT, some Organics	Coal tar-like	Wet	6.1	Saturated	None
		Mid 25": Black SILT, some Clay, trace Organics (shells)	Coal tar-like	Wet	0.2	Minor sheen	None
		Bottom 25": Grey CLAY	Coal tar-like	Wet	0.2	ND	None
38–39	53	Top 32": Black SILT, some Clay, little Organics (wood), fine Gravel	Coal tar-like	Wet	13.3	Light coating	None
		Bottom 21": Grey CLAY	ND	Wet	ND	ND	None
39–44	64	Grey CLAY, some Organics (shells)	ND	Wet	ND	ND	None

Notes: Groundwater Depth Indicator

Groundwater measured at 8.84 feet below grade in PS-NW-08 following well installation and development.

Monitoring/recovery well installed to 43.5 feet below surface grade.

PS-NW-08 was drilled continuously to 20' below grade. Soil logging was performed from 20' to 44' below grade. No soil samples were collected for laboratory analysis.

End of soil boring at 44 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 1 of 3	PS-NW-09	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	42°F, Cloudy
Logged by:	B. Quinn, AKRF

Drilling

Start Time: 1330 | **Finish Time: 1510**

Date: 3/4/25

Top of Casing Elevation: 8.79'

Surface Condition: Soil (Approx. 3' Stick-up)

6" steel well casing: 0 to 24' below surface grade.

Grout: 0 to 20' below surface grade.

Depth (feet)	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1–5	0	No Recovery	N/A	N/A	N/A	N/A	N/A
6–10	57	Top 11": Brown SAND, some fine Gravel	None	Wet	ND	ND	None
		Middle 14": CONCRETE, little Sand	None	Wet	ND	ND	
		Middle 22": Brown fine GRAVEL, little Sand, trace Silt	None	Wet	ND	ND	
		Bottom 20": CONCRETE	None	Wet	ND	ND	
11–15	53	Top 30": GRAVEL, some Cobbles, trace Sand	None	Wet	ND	ND	None
		Bottom 23': CONCRETE	None	Wet	ND	ND	

Notes:

Groundwater Depth Indicator

Groundwater measured at 8.11 feet below grade in PS-NW-09 following well installation and development.

Monitoring/recovery well installed to 39 feet below surface grade.

No soil samples were collected for laboratory analysis.

End of soil boring at 40 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 2 of 3	PS-NW-09	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	42°F, Cloudy
Logged by:	B. Quinn, AKRF

Drilling

Start Time: 1330 | Finish Time: 1510

Date: 3/4/25

Top of Casing Elevation: 8.79'

Surface Condition: Soil (Approx. 3' Stick-up)

Depth (feet)	Well Construction	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
16		50	Top 44": CONCRETE, trace fine Gravel	None	Wet	ND	ND	None
17								
18								
19			Bottom 6": Fine GRAVEL, little Sand	None	Wet	ND	ND	
20	Hydrated bentonite: 20' to 22' below surface grade.	63	Top 23": Black SILT, little fine Gravel, little Clay	Creosote-like	Wet	ND	ND	None
21								
22	Pea gravel: 22' to 34' below surface grade.		Bottom 40": Black CLAY, Some Silt, trace Coal, Soot	Creosote-like	Wet	ND	ND	
23								
24	6" steel well screen: 24'-34' below surface grade.	64	Top 30": Black SILT, some Clay	Creosote-like	Wet	ND	ND	None
25								
26								
27								
28			Bottom 34": Black CLAY, some Silt	Creosote-like	Wet	ND	ND	
29								
30								

Notes: Groundwater Depth Indicator ▽

Groundwater measured at 8.11 feet below grade in PS-NW-09 following well installation and development.

Monitoring/recovery well installed to 39 feet below surface grade.

No soil samples were collected for laboratory analysis.

End of soil boring at 40 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 3 of 3	PS-NW-09	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	42°F, Cloudy
Logged by:	B. Quinn, AKRF

Drilling

Start Time: 1330 | **Finish Time: 1510**

Date: 3/4/25

Top of Casing Elevation: 8.79'

Surface Condition: Soil (Approx. 3' Stick-up)

Depth (feet)	Well Construction	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
31		61	Top 44": Black SILT, some Clay	Creosote-like	Wet	ND	ND	None
32								
33								
34			Bottom 17": Black-Grey CLAY	Creosote-like	Wet	ND	ND	
35	6" steel sump: 34' to 39' below surface grade							
36		64	Grey CLAY, trace Organics (shells)	None	Wet	ND	ND	None
37								
38								
39								
40								
41								
42								
43								
44								
45								

Notes: **Groundwater Depth Indicator** ▽

Groundwater measured at 8.11 feet below grade in PS-NW-09 following well installation and development.

Monitoring/recovery well installed to 39 feet below surface grade.

No soil samples were collected for laboratory analysis.

End of soil boring at 40 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 1 of 3	PS-NW-10	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	30°F, Sunny
Logged by:	B. Quinn, AKRF

Drilling

Start Time: 1240 | **Finish Time: 1430**

Date: 3/3/25

Top of Casing Elevation: 10.31'

Surface Condition: Soil (Approx. 3' Stick-up)

6" steel well casing: 0 to 20.5' below surface grade.

Grout: 0 to 16.5' below surface grade.

Depth (feet)	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
1		Top 21": CONCRETE	None	Dry	ND	ND	
2	34	Mid 7": BROWN SAND, SILT, trace fine Gravel	None	Dry	ND	ND	None
3							
4							
5		Bottom 6": Black fine GRAVEL, little Sand	None	Dry	ND	ND	
6		Top 39": Black fine GRAVEL, little Sand	Creosote-like	Wet	ND	ND	
7	51	Mid 6": Brown SAND, some fine Gravel, trace Brick, Silt	None	Wet	0.2	ND	None
8							
9							
10		Bottom 6": Black fine GRAVEL	None	Wet	ND	ND	
11		Top 32": Black fine GRAVEL. little Sand	Creosote-like	Wet	ND	ND	
12	38						None
13							
14							
15		Bottom 6": Grey SAND, little Silt, fine Gravel	Creosote-like	Wet	ND	ND	

Notes: **Groundwater Depth Indicator**

Groundwater measured at 9.70 feet below grade in PS-NW-10 following well installation and development.

Monitoring/recovery well installed to 35.5 feet below surface grade.

No soil samples were collected for laboratory analysis.

End of soil boring at 40 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 2 of 3	PS-NW-10	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	30°F, Sunny
Logged by:	B. Quinn, AKRF

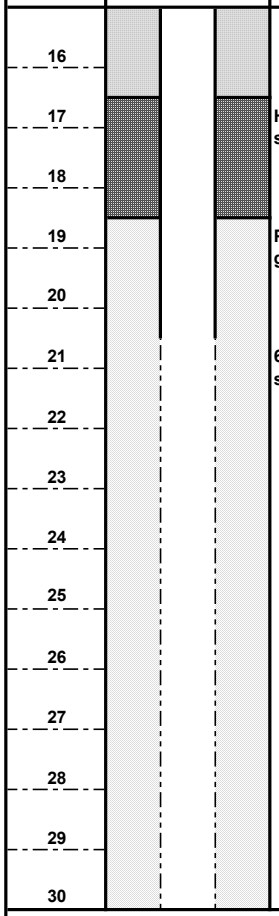
Drilling

Start Time: 1240 | **Finish Time: 1440**

Date: 3/3/25

Top of Casing Elevation: 10.31'

Surface Condition: Soil (Approx. 3' Stick-up)



Depth (feet)	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
16	39	Top 26": Black fine GRAVEL, some Cobbles, trace Brick, Organics (wood)	None	Wet	ND	ND	None
17							
18							
19		Bottom 23": SILT, some Clay	None	Wet	ND - 0.2	ND	
20	54	Top 34": Grey-Black CLAY, some Silt	Creosote-like	Wet	ND	ND	None
21							
22		Mid 6": Black SAND, trace Gravel, Silt	Creosote-like	Wet	ND	ND	
23							
24		Bottom 14": SILT, trace Organics (loose wood)	Creosote-like	Wet	3 - 5	ND	
25	46	Black SAND, little silt, trace fine gravel	Creosote-like	Wet	ND - 0.2	Minor sheen	None
26							
27							
28							
29							
30							

Notes:

Groundwater Depth Indicator

Groundwater measured at 9.70 feet below grade in PS-NW-10 following well installation and development.

Monitoring/recovery well installed to 35.5 feet below surface grade.

No soil samples were collected for laboratory analysis.

End of soil boring at 40 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

TEMPORARY SOIL BORING AND WELL INSTALLATION LOG	Former Excelsior Bag 159 Alexander St, Yonkers, NY AKRF Project Number: 200131	Groundwater Monitoring Well ID: Sheet 3 of 3	PS-NW-10	Soil Boring ID:	N/A

akrf
440 Park Avenue South, 7th Floor
New York, NY 10016

Drilling Method:	Sonic Rig
Sampling Method:	10' Plastic Liners
Driller:	Cascade
Weather:	30°F, Sunny
Logged by:	B. Quinn, AKRF

Drilling

Start Time: 1240 | **Finish Time: 1440**

Date: 3/3/25

Top of Casing Elevation: 10.31'

Surface Condition: Soil (Approx. 3' Stick-up)

6" steel sump: 30.5' to 35.5' below surface grade.

Depth (feet)	Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID	NAPL	Soil Samples Collected for Laboratory Analysis
31	56	Grey CLAY, trace Organics (shells)	None	Wet	ND	ND	None
32							
33							
34							
35							
36	58	Grey CLAY, trace Organics (shells)	None	Wet	ND	ND	None
37							
38							
49							
40							
41							
42							
43							
44							
45							

Notes: **Groundwater Depth Indicator**

Groundwater measured at 9.70 feet below grade in PS-NW-10 following well installation and development.

Monitoring/recovery well installed to 35.5 feet below surface grade.

No soil samples were collected for laboratory analysis.

End of soil boring at 40 feet below surface grade.

PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected N/A = not applicapble

Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.

ATTACHMENT B
PUMP SPECIFICATION SHEETS

Pulse Pump® System

2" Pulse Pump

Cleanup well conditions can be downright hostile: powerful solvents, strong acids, caustic bases, corrosive chlorides. That's why QED makes the Pulse Pump® series (our basic gas displacement pumps) in a variety of proven materials that won't just survive, but will deliver years of trouble-free performance.

Every Pulse Pump model has only two moving parts downwell: high-clearance, self-cleaning ball check valves. This simplicity keeps them working when high solids, viscosity, or chemical attack cause other pumps to clog or break down. An external controller is required to control the alternating pressurization and venting cycles for the pump.

The Pulse Pump design is especially suited for sinking hydrocarbons (DNAPL) recovery, which is often complicated by high viscosity and/or extremely aggressive solvents. Intrinsically safe Pulse Pump systems are fast and easy to install, with no electrical connections at the wellhead.

Flow optimization is simple too; rugged, dependable pumps and controllers (the solar/AC powered C100M and the all-pneumatic L360) deliver reliable operation without needing frequent attention or repair.

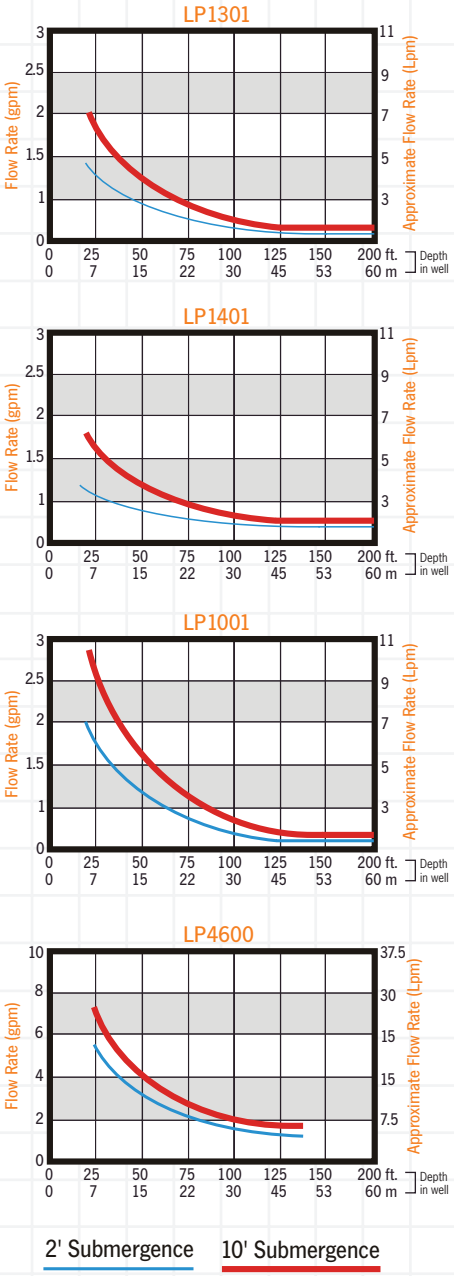
Even in the harshest environments, they just keep working – in the most demanding ground water cleanup, leachate collection, and sinking layer recovery applications.

Warranty

Pulse Pumps are warranted for one (1) year.

Pulse Pump Flow Rates

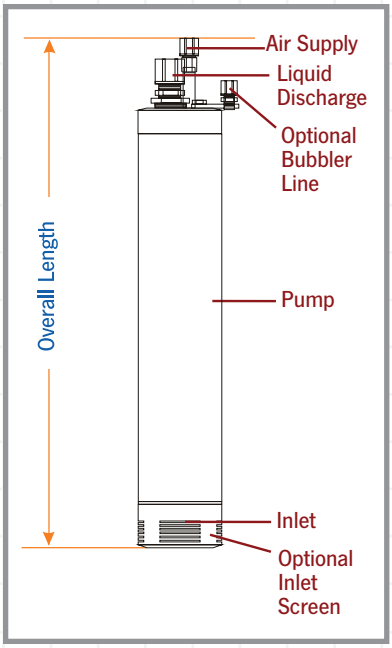
Note on flow curves: 100 psi (700 kPa) drive air supplied for all pumps.



Advantages

1. **Only 2 moving parts downwell for reliable operation even in high solids and the thickest liquids.**
2. **Ultimate resistance to chemical attack. Durable materials and simple, rugged construction.**
3. **Economical, low-maintenance performance in sinking layer recovery and other tough applications.**
4. **Easy-to-use digital control of pump discharge and refill cycles.**

Pulse Pump® System



Specifications

	Pulse Pump 2 in.		Pulse Pump 4 in.	
Model No.	**LP1301**	**LP 1401**	**LP1001**	**LP 4600**
Pump Type	Pneumatic Displacement	Pneumatic Displacement	Pneumatic Displacement	Pneumatic Displacement
Inlet	Bottom*	Bottom*	Bottom*	Bottom*
OD	1.66 in. (42 mm)	1.25 in. (32 mm)	2.88 in. (73 mm)	2.88 in. (73 mm)
Length	20 in. (51 cm)	20 in. (51 cm)	15.5 in. (39.4 cm)	49.5 in. (126 cm)
Weight	2 lbs. (.9 kg)	1.5 lbs. (.7 kg)	3 lbs. (1.4 kg)	8 lbs. (3.6 kg)
Materials	Stainless steel, PTFE	Brass	PVC	PVC
Fittings: Type / Materials	Compression / SS	Barb / Brass	Compression / Nylon	Barb / Nylon
Sizes: Liquid Discharge	1/2 in. (13 mm)	1/2 in. (13 mm)	3/4 in. (19 mm)	3/4 in. (19 mm)
Air Supply	3/8 in. (9 mm)	3/8 in. (9 mm)	1/2 in. (13 mm)	1/2 in. (13 mm)
Pump Stroke	.09 gal. (350 mL)	.08 gal. (300 mL)	.17 gal. (650 mL)	.53 gal. (2,000 mL)
Operating Pressure Range	40-100 psi (275-700 kPa)	40-100 psi (275-700 kPa)	40-100 psi (275-700 kPa)	40-100 psi (275-700 kPa)
Maximum Depth	230 ft. (70 m)	230 ft. (70 m)	230 ft. (70 m)	230 ft. (70 m)
***Maximum Flow Rate**	2 gpm (7.5 Lpm) 2,880 gpd (10,900 Lpd)	1.8 gpm (6.8 Lpm) 2,592 gpd (9,810 Lpd)	3 gpm (11.4 Lpm) 4,320 gpd (16,350 Lpd)	7.5 gpm (28 Lpm) 10,800 gpd (40,880 Lpd)
Minimum Submergence	< 1 ft. (< 30 cm)	< 1 ft. (< 30 cm)	< 1 ft. (< 30 cm)	< 1 ft. (< 30 cm)
Density of Pumped Liquid	Any	Any	Any	Any
Cap Sizes	2, 4, 5, 6, and 8 in.** (50, 100, 125, 150 and 200 mm)	2, 4, 5, 6, and 8 in.** (50, 100, 125, 150 and 200 mm)	4, 5, 6, and 8 in.** (100, 125, 150 and 200 mm)	2, 4, 5, 6, and 8 in.** (100, 125, 150 and 200 mm)

* Top Inlet Can also available.

** Other sizes available by special order.

*** gpm = gallons per minute, gpd = gallons per day, Lpm = liters per minute, Lpd = liters per day

C100M Pump Controller

The C100M Digital Controller is solar-powered and provides advanced operational capabilities at an economical price. Easy-to-use digital control of pump discharge and refill cycles and programmed OFF times make it convenient to optimize LNAPL recovery to match site conditions.

L360 Controller

The L360 Cycle Controller provides rugged, all-pneumatic control of pump cycle times for the Programmable Genie and Pulse Pump. The L360 is especially suited to sites where no electronics are allowed, or where pump cycle rates exceed the limits of the C100M in solar mode. The L370 LevelMate can be used with the L360 to shut off the system when the well level drops below the set point.

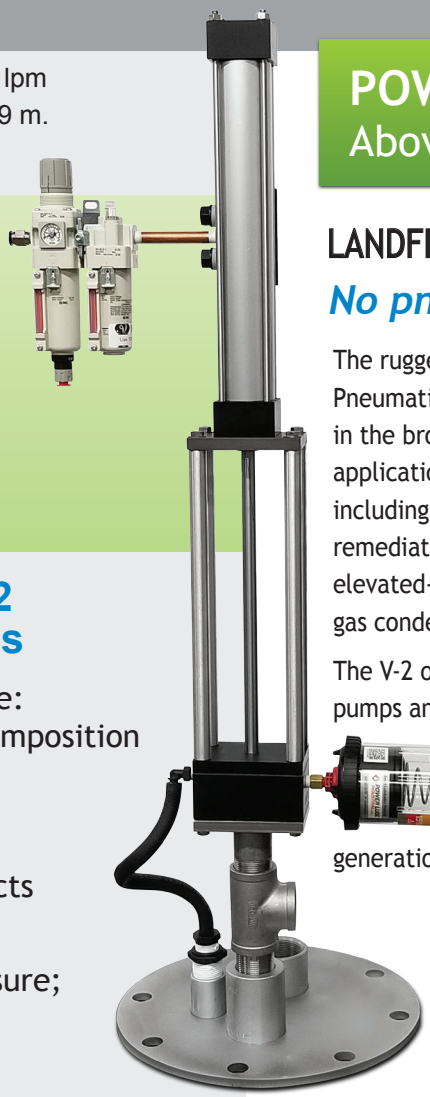
P.O. Box 3726 Ann Arbor, MI 48106 USA **800-624-2026** **F 734-995-1170** info@qedenv.com www.qedenv.com

630.469.4916
www.blackhawkco.com

V-2 Pneumatic Piston Pump™

PRODUCT OVERVIEW

- Flow range: To 11 US gpm; 41.6 lpm
- Operational depth: To 555 ft., 169 m.
- Any-size well casing



APPLICATIONS

- Landfill leachate and methane gas wells
- Elevated temperatures
- Chemically aggressive
- DNAPL/LNAPL
- Bio-reactive, crusty, foamy
- Deep, angled wells
- Harsh environments

POWER & VERSATILITY
Above-Ground Motor

LANDFILLS, REMEDIATION, ELEVATED-TEMP WELLS

No pneumatic air in well or discharge

The rugged, dependable V-2 Pneumatic Piston Pump™ excels in the broadest range of pumping applications and environments, including NAPL recovery and remediation, landfill leachate, elevated-temperature to 350° F, gas condensate & dewatering.

The V-2 operates in winter and pumps any flowable liquid or semi-solid at any angle, a next-generation advantage over electric submersibles and forced-air-push technologies.

By design, all pneumatic air enters and exits the pump driver above surface grade - no air is allowed in the well or sump. No oxygen contacts the fluid being discharged.

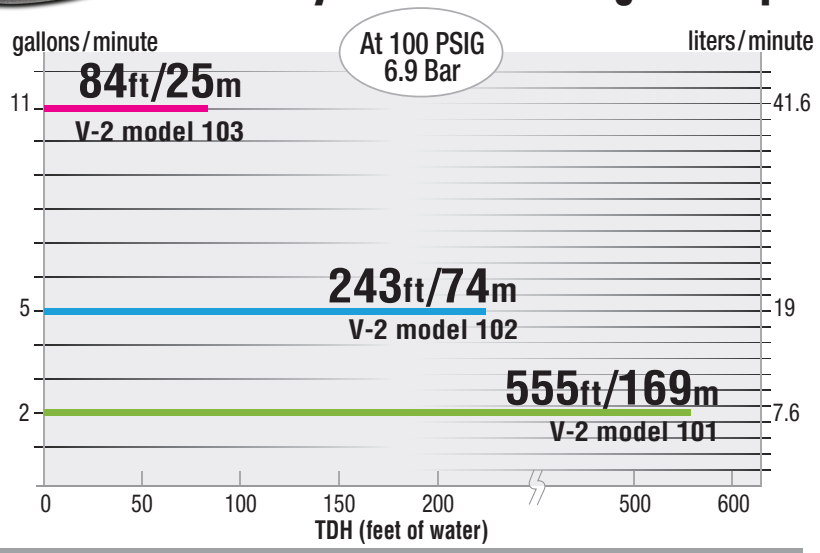
Models are available in three sizes to match flow, depth and air-consumption specifications. All can be customized with specialized materials of construction for site requirements.

10 Advantages of V-2 Over Air-Push Pumps

1. Pumps anything flowable: ET, viscous, unknown composition
2. Power and drive motor cleanly above wellhead
3. No pneumatic air contacts discharge, well fluids
4. Indifferent to well pressure; pumps dry
5. Less-frequent servicing, no pump pulling
6. Rugged, reliable materials adaptable to site needs
7. Operator-controlled rates avoid over-pumping
8. Operates at any angle to horizontal
9. Above-ground mechanicals safer for workers
10. Eco friendly; no hazardous gas forced into atmosphere

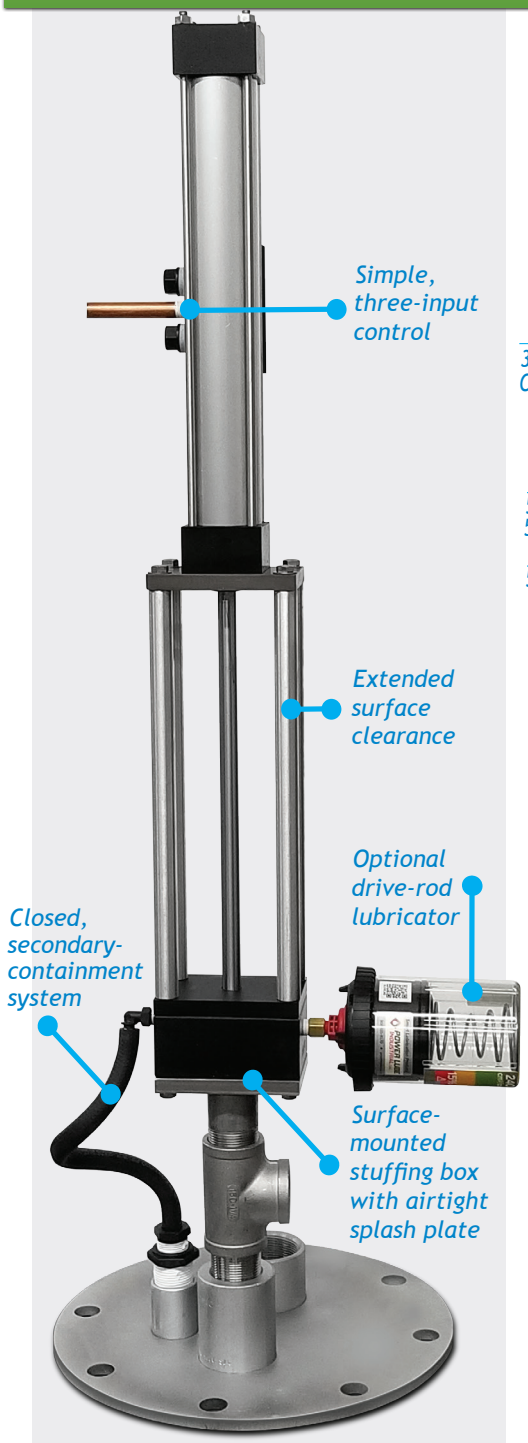
See how a piston pump works:
blackhawkco.com/how-blackhawk-solar-linear-rod-piston-pumps-work

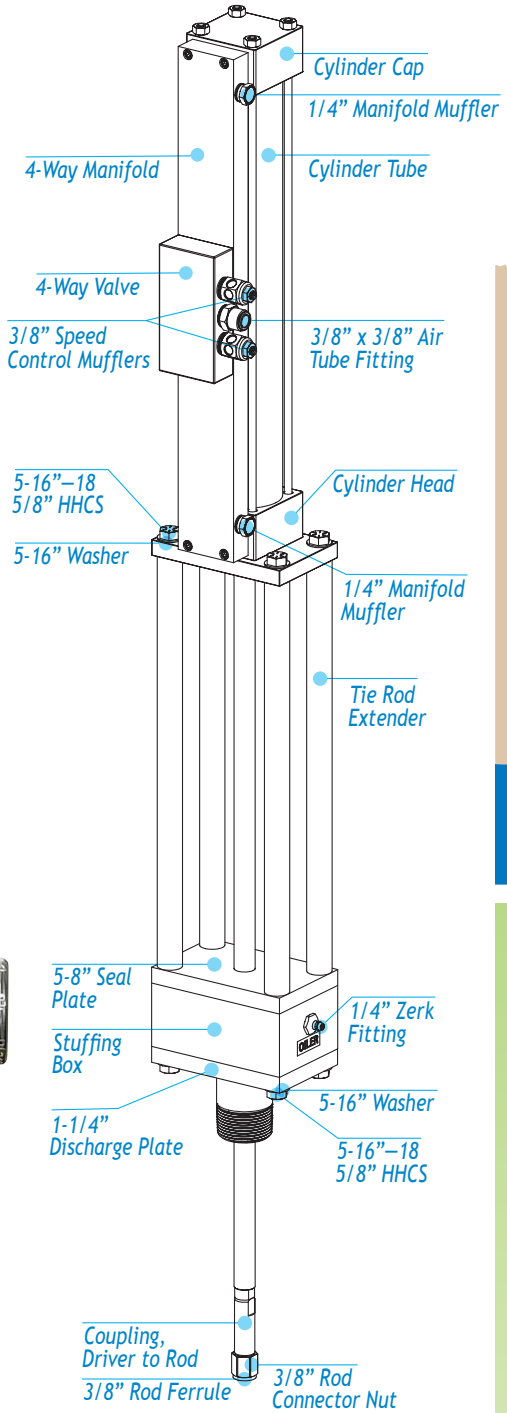
Steady Flows to Submergence Depth

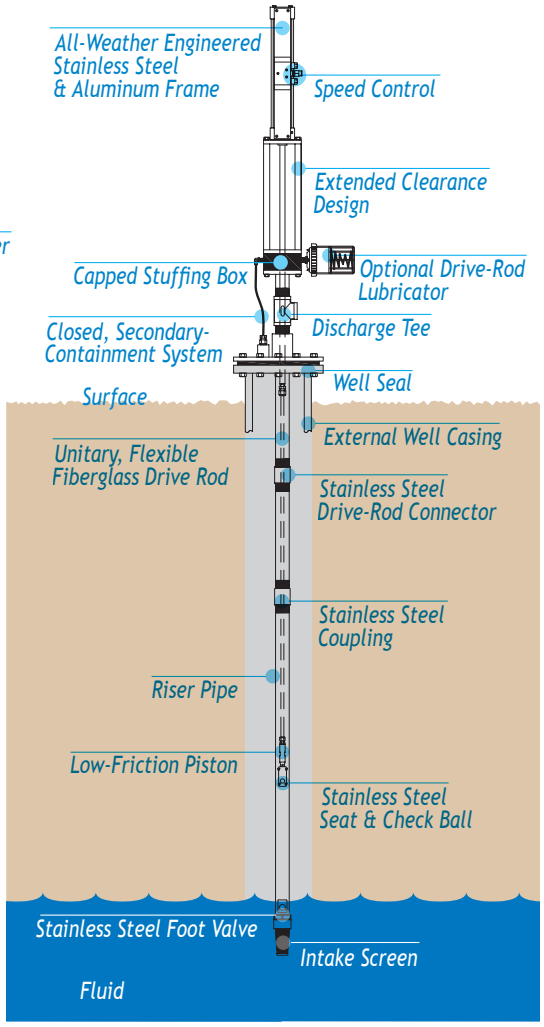


V-2 Pneumatic Piston Pump™

POWER & VERSATILITY
Above-Ground Motor







New Technologies in Fluid Management

Blackhawk is the originator and No. 1 manufacturer of above-wellhead, positive-displacement piston pumps - advanced technology refined by more than 25 years of customer-driven improvements.

Our low-flow reciprocating piston pumps are the standard for reliability and durability in landfills, remediation sites, elevated-temperature sites and other difficult pumping environments.

Visit www.blackhawkco.com to see why motors above the wellhead mean less-costly, more compliant, safer operations.

The best-performing environmental pump in the business

BLACKHAWK TECHNOLOGY COMPANY

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www.blackhawkco.com | info@blackhawkco.com

ATTACHMENT C
PRELIMINARY DNAPL VOLUME CALCULATIONS

ATTACHMENT C - PRELIMINARY DNAPL VOLUME CALCULATIONS

C360190 - Former Excelsior Bag DNAPL Monitoring/Recovery Pilot Study Summary Report

Recoverable DNAPL Calculation			
Description	Quantity	Unit	Notes
Length	350	FT	*Approximate length of Containment Area*
Width:	50	FT	*Approximate width of Containment Area*
Containment Area:	17,500	SF	
Average DNAPL Thickness:	5	FT	*Estimated based on current DNAPL thicknesses (above sump)*
Assumed Effective Porosity:	**20%**		*Assumed, based on soil media type (historic fill)*
Assumed Percent of Recoverable DNAPL:	**25%**		*Professional judgement based on similar NAPL recovery projects*
Calculated Recoverable DNAPL:	4,375	CF	
Calculated Recoverable DNAPL:	32,800	gal	

Annual DNAPL Recovery Rate			
Description	Quantity	Unit	Notes
Active Recovery Wells	9		*Based on DNAPL Summary Report Recommendations*
DNAPL Recovery (per event/well)	15	gal	*Approximately ~1.5 gallons per foot of DNAPL within well column*
DNAPL Recovery (total per event)	135	gal	
DNAPL Recovery Frequency	1	per week	
DNAPL Recovery (total per year)	7,020	gal	

DNAPL Recovery Timeline			
Year	Recovered (gal per year)	Cumulative Recovery (gal)	Notes
Year 1	7020	7020	*1. Calculations assume a 20% loss in recovery per year as DNAPL recovery rates are anticipated to reduce over time.*
Year 2	5620	12640	
Year 3	4500	17140	*2. DNAPL recovery timeline is based upon the inputs above, actual DNAPL recovery rates will are subject to change based upon field conditions throughout the Containment Area and the overall design and operational procedures defined in the future SMP.*
Year 4	3600	20740	
Year 5	2880	23620	
Year 6	2300	25920	
Year 7	1840	27760	*3. These calculations should be considered preliminary/for discussion purposes only. Additional investigation (e.g., geotechnical, environmental, etc.) would be required to further refine the DNAPL recovery rates and timeline.*
Year 8	1470	29230	
Year 9	1180	30410	
Year 10	940	31350	
Year 11	750	32100	*4. While these calculations are preliminary, it suggests that DNAPL recovery and containment are an appropriate remedial strategy as mobile DNAPL would be removed from the Site within an approximately 15-year period.*
Year 12	600	32700	
Year 13	100	32800	

Inputs

CF Cubic Foot

FT Feet

gal Gallon

SF Square Feet