May 17, 2022

Ms. Nicole L. Hinze
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

RE: ADDENDUM TO REMEDIAL INVESTIGATION WORK PLAN
Former Rickett's Dry Cleaner – Site # 546058
2017-2019 DOUBLEDAY AVENUE, BALLSTON SPA, NEW YORK
(HRP # DEC1002.P3)

Dear Ms. Hinze:

On February 27, 2020, HRP Associates, Inc. (HRP) was authorized to complete this New York State Department of Environmental Conservation (NYSDEC) Work Assignment (WA) No. 2 (D009808-02) for Remedial Investigation/Feasibility Study (RI/FS) at the Former Rickett's Dry Cleaner Site, located at 2017-2019 Doubleday Avenue, Ballston Spa, New York (the Site). The Site location is depicted on **Figure 1**.

HRP has completed the initial phase of the investigation in accordance with the RI Work Plan dated July 15, 2020. During this initial phase of RI work, the source area of Site contamination, which is suspected to exist beneath the former dry-cleaning building, was not accessible due to the building's dilapidated condition and the presence of friable asbestos. In March 2022, demolition of the Site building was completed, allowing for additional investigation within the building footprint.

The purpose of this letter is to outline the proposed additional RI work. The work is to be completed in general accordance with the RI Work Plan, including the site-specific field activities plan (FAP), Health and Safety Plan (HASP), Quality Assurance Project Plan (QAPP), as well as HRP's generic FAP, HASP, and QAPP.

Based on our analysis of Site data collected to date, field observations made during and following the demolition of the Site building, and discussions with NYSDEC HRP, proposes additional investigation tasks be completed as outlined below. Proposed investigation locations are depicted on **Figure 2**. Sample types and locations are summarized on **Table 1** and sample QA/QC details (analyses, containers, hold times etc.) are summarized on **Table 2**.

Investigation, Environmental Sampling, and Implementation

HRP proposes the following field activities be completed in general accordance with the RI Work Plan dated July 15, 2020:

- Collect surface water samples from up to seven locations, including samples from each of the previously sampled locations (S-1 and S-2), any additional sources of surface water and/or groundwater seeps identified within the building footprint, and

one or more surface water locations downstream of S-2. Up to 10 surface water samples (7 site samples, 1 duplicate, 1 matrix spike [MS], one matrix spike duplicate [MSD]) should be analyzed for total compound list (TCL) volatile organic compounds (VOCs) +10 by Method 8260. In addition, up to 6 surface water samples (3 site samples, 1 duplicate, 1 MS and 1 MSD) be analyzed for an expanded list of parameters including:

  - TCL semivolatile organic compounds (SVOCs) +20 by EPA Method 8270
  - Target Analyte List (TAL) metals by EPA Method 6010B
  - Total mercury by EPA Method 7471A
  - TCL polychlorinated biphenyls (PCBs) by EPA Method 8082
  - TCL chlorinated herbicides, pesticides by EPA Method 8081B
  - Per- and polyfluoroalkyl substances (PFAS) analyte list compounds by modified EPA Method 537
  - 1,4-dioxane by EPA Method 8270 SIM

Proposed surface water sampling locations are depicted on **Figure 2**.

- Collect up to five sediment/sludge samples (2 site samples, 1 duplicate, 1 MS, 1 MSD) to be analyzed for TCL VOCs +10 by Method 8260 and PFAS analyte list compounds by modified EPA Method 537. The sediment/sludge samples should be collected from the vault found on the northern portion of the building footprint (near the loading dock) and the sump located on the southern portion of the building footprint, near the former laundromat area. Proposed sediment/sludge sample locations are depicted on **Figure 2**.
- Call in Underground Utility Clearance through NYS Code Rule 753/Dig Safe System.
- Complete a new Ground Penetrating Radar (GPR) survey to locate utilities and/or obstructions in the ground that may affect the locations of soil borings and/or monitoring well.
- Investigate potential sources of identified groundwater contamination by installing up to 22 onsite soil borings. Soil borings should be installed to a depth of 15 ft bg. The majority of soil borings will be installed through the slab of the former dry cleaning building. In addition, one soil boring will be installed through the slab of the former car wash and one soil boring will be installed in the rear of the former dry cleaner building, near TP-4 where elevated concentrations of PFAS were previously detected in soil. Proposed soil boring locations are depicted on **Figure 2**.
- Collect up to three soil samples from each boring for laboratory analysis. At each boring, one sample should be collected from surface soil, or soil immediately beneath the concrete slab. A second soil sample should be collected from the approximate depth of the groundwater table interface. A third soil sample may be collected for analysis based on observed indications of contamination (PID readings, odor, staining, etc.). Up to 75 soil samples (66 site samples, 3 duplicates, 3 matrix spike [MS] and 3 matrix spike duplicates [MSD]) be analyzed for TCL VOCs +10 via Method 8260. Up to 18 soil samples (14 site samples, 1 duplicate, 1 MS, 1 MSD, 1 field blank)

will be analyzed for PFAS via modified EPA Method 537.1. Seven of the 22 borings will be selected for PFAS sampling, including the proposed boring in the footprint of the former car wash and the proposed boring in the rear of the former dry cleaner building, near TP-4. At each of the seven borings selected for PFAS analysis, one soil sample will be collected from the surface, or immediately under the slab, and one soil sample will be collected at the water table. In addition, up to 10 soil samples (7 site samples, 1 duplicate, 1 MS and 1 MSD) be analyzed for an expanded list of parameters including:

  - TCL SVOCs +20 by EPA Method 8270
  - TAL metals by EPA Method 6010B
  - Total mercury by EPA Method 7471A
  - TCL PCBs by EPA Method 8082
  - TCL chlorinated herbicides, pesticides by EPA Method 8081B

- Install up to four permanent overburden groundwater monitoring wells. Based on the results of field screening, up to four of the 20 soil borings should be converted into monitoring wells installed to an estimated depth of 20 ft bg. The wells should be constructed of 2-inch PVC with PVC slotted screens, and screened across the water table with an appropriately sized sand pack. The wells should be installed using flush-mounted protective casings and locking covers or a locking protective steel stick-up as appropriate. Proposed monitoring well locations are depicted on **Figure 2**. Final locations will be determined in the field based on results of field screening.
- Develop the four monitoring wells a minimum of 24 hours after installation. Each well should be developed by pumping and surging until the field parameters stabilize for a minimum of three consecutive readings of 10 percent variability of less. Field parameters should include temperature, pH and specific conductance. In addition, the turbidity of the groundwater must achieve a reading of 50 Nephelometric Turbidity Units (NTUs) or less during the field parameter readings. All groundwater obtained during well development and sampling should be disposed of in accordance with DER-10.
- Collect groundwater samples from 24 monitoring wells for laboratory analysis. This will include 18 overburden monitoring wells and six bedrock monitoring wells. The overburden monitoring wells will consist of the four newly installed overburden monitoring wells the 13 wells sampled during the 2020 investigation, and PES-5 which could not be located during the 2020 investigation but was found following the demolition of the Site buildings. Groundwater samples should be collected in general accordance with low-flow groundwater sampling procedures. It is recommended that a total of 28 groundwater samples (24 site samples, 1 duplicate, 1 MS, 1 MSD, and 1 field blank) be analyzed for TCL VOCs +10 by Method 8260 and PFAS via modified EPA Method 537.1. In addition, up to seven groundwater samples (4 site samples from 4 proposed overburden monitoring wells, 1 duplicate, 1 MS and 1 MSD) be analyzed for an expanded list of parameters including:

  - TCL SVOCs +20 by EPA Method 8270

  - TAL metals by EPA Method 6010B
  - Total mercury by EPA Method 7471A
  - TCL PCBs by EPA Method 8082
  - TCL chlorinated herbicides, pesticides by EPA Method 8081B
  - PFAS analyte list compounds by modified EPA Method 537
  - 1,4-dioxane by EPA Method 8270 SIM
- To assist in the evaluation of potential remedies for the chlorinated VOC groundwater contamination, a total of four groundwater samples (4 regular samples, no QA/QC), will be analyzed for natural attenuation parameters including:
  - Biological oxygen demand (BOD)
  - Chemical oxygen demand (COD)
  - Total and dissolved iron by EPA Method 6010C
  - Total and dissolved manganese by EPA Method 6010C
  - Chloride and sulfate by EPA Method 300.0
  - Sulfide by SM4500_S2_F
  - Nitrate by EPA Method 353.2
  - Total organic carbon (TOC) by EPA Method 5310C
  - Total alkalinity by EPA Method 310.2
  - Methane, ethane, and ethene by EPA Method RSK 175
  - Carbon dioxide by SM 4500/SM21-23

Decontamination Procedures

Non-dedicated sampling equipment will be subject to decontamination procedures prior to each sample collected to reduce the potential for cross-contamination, as described in the July 2020 RI Work Plan and the Generic FAP.

Disposal of Investigation Derived Waste

Investigation derived waste (IDW) shall be handled and disposed of in general accordance with the July 2020 RI Work Plan and the Generic FAP. In addition to the disposal of IDW from the proposed investigation work, IDW drums which remain on-site from previous investigations and six drums containing an unknown liquid product (which were found on-site during building demolition) will also be disposed of.

Analytical Data Quality Evaluation

As per the July 2020 RI Work Plan, all laboratory analysis will be completed by an Environmental Laboratory Approval Program (ELAP) laboratory selected by NYSDEC. The selected laboratory will provide data deliverables in formats acceptable to the NYSDEC and data validator (NY ASP B and NYSDEC EQuIS formats). All laboratory data will be reviewed by a

third-party data validator according to the requirements referenced in the July 2020 RI Work Plan and HRP's Generic QAPP.

Site Survey

Upon completion of investigation filed work, a survey will be conducted to properly locate additional sample locations (including soil borings, monitoring wells, surface water samples, and sediment samples). The sample locations will be surveyed by a New York State licensed land surveyor as per the July 2020 RI Work Plan and will be added to the existing Site base map. The elevations of all monitoring well casings will be established to within an accuracy of plus or minus 0.01 feet based on an arbitrary local vertical benchmark. A notch will be etched in all interior casings, or a permanent black mark, to provide a reference point for all future groundwater elevation measurements.

Remedial Investigation Report, Feasibility Study and Alternatives Analysis

Following the completion of additional RI field work HRP will complete a Remedial Investigation Report (RIR), Feasibility Study (FS), and Alternatives Analysis (AA) as per the July 2020 RI Work Plan.

HRP has the responsibility of the overall management of this project and will respond to any NYSDEC requests. A proposed project schedule, key milestones, key project personnel, and project-specific subcontractors follow.

Project Schedule and Key Milestones

The proposed project schedule for this work assignment is outlined below. Key milestones are identified to monitor work progress. The following milestones will be applicable for this project:

		Est. Start Date
Milestone 1:	Collection of Surface Water and Sediment/Sludge Samples	April 2022
Milestone 2:	Subsurface soil sampling	May 2022
Milestone 3:	Installation and sampling of monitoring wells	May 2022
Milestone 4:	Removal of any investigation-derived waste	June/July 2022
Milestone 5:	Complete Data Validation	July 2022
Milestone 6:	RIR	July 2022
Milestone 7:	Feasibility Study and Alternatives Analysis	Fall 2022

The field work associated with soil and groundwater sampling (Milestones 1 through 3) will begin within 1-2 weeks of NYSDEC review and approval of all site-specific plans, contingent upon availability of subcontractors. Soil and groundwater samples will be submitted for laboratory analysis within 24 hours of field collection, and laboratory results can generally be expected within 10 days of submission. Any investigation-derived waste generated from the Site during the RI will be scheduled with the contractor to be removed within one week of the completion of Milestone 3, sampling of the monitoring wells. The timeframe of pickup and removal of this waste (Milestone 4) will be determined by the contractor upon scheduling. Data

validation (Milestone 5) will begin upon receipt of the first set of laboratory results and will continue to be submitted for validation as the results are received from the laboratory. Data validation is expected within a four-week timeframe. The RIR (Milestone 6) will be submitted as a draft report within 60 days after HRP receives the last round of analytical data from the laboratory. A second draft RIR will be submitted, if needed, within two weeks after the data validation company has reviewed the final analytical submitted for the investigation. A final version of the RIR will be submitted within two weeks after the DEC Project Manager's comments on both draft reports are received by HRP.

Key Project Personnel

A list of the project personnel of the prime consultant and subcontractors responsible for performance of the investigation has been submitted to the NYSDEC for approval. Primary project staffs are listed below:

Personnel	Company	Title for this Work Assignment	Responsibility
Mark Wright PG, CSP (Project Manager)	HRP Associates, Inc. (Prime Consultant)	Project Manager	Overall management of the WA
Mark Wright PG, CSP (Project Manager)	HRP Associates, Inc.	Office Health & Safety Manager	Approval of HASP and responsible for overall health and safety issues with the WA
Michael Varni (Senior Project Geologist)	HRP Associates, Inc.	Corporate QA/QC Officer	Responsible for QA/QC on the WA
Patrick Montuori (Senior Project Consultant)	HRP Associates, Inc.	Field Manager and Site Health & Safety Officer	Responsible for the on-site sampling and investigative tasks

Subcontractors for this project will include:

- Survey – Susan M. Anacker Professional Land Surveyor, PLLC
- GPR – Greenstar Environmental Solutions, LLC
- Drilling – Aztech Environmental
- Laboratory – NYSDEC Call-Out Laboratory
- Data Validation – Environmental Data Services
- Investigation Derived Waste Disposal – ACV Environmental

If you have any questions or require additional information, please feel free to contact HRP at (518) 877-7101.

Sincerely,
HRP Associates, Inc.

Patrick Montuori
Senior Consultant

Mark E. Wright, P.G., CSP
Project Manager

Attachment: Tables and Figures

TABLES

Table 1
Sampling Summary
Remedial Investigation

Former Rickett's Dry Cleaner
NYSDEC Site # 546058
2017-2019 Doubleday Avenue
Ballston Spa, New York

Activity/ Matrix	Number of Sample Locations	Proposed Sample Locations	Number of Samples to be Collected	Analyses
Surface Water Sampling	7	Two previously sampled locations (S-1, S-2), one location downstream of S-2, and up to four seep locations within the building footprint	10 (7 regular, 3 QA/QC)	TCL VOCs+10 by EPA Method 8260
		Three surface water sample locations will be selected for an expanded list of analyses	6 (3 regular, 3 QA/QC)	TCL SVOCs+20 by EPA Method 8270 TAL Metals by EPA Method 6010B Total Mercury by EPA Method 1631 TCL PCBs by EPA Method 8082 TCL Chlorinated Herbicides and Pesticides by EPA Method 8081B PFAS by modified EPA Method 537.1 1,4-Dioxane by EPA Method 8270 SIM QA/QC includes duplicate, MS, MSD
Sediment/Sludge Sampling	2	Vault in northern protion of building and sump in southern portion of building	5 (2 regular, 3 QA/QC)	TCL VOCs+10 by EPA Method 8260 PFAS by Modified EPA Method 537.1 QA/QC includes duplicate, MS, MSD
Soil Boring Sampling	22	Up to three soil sample will be collected from each boring for VOC analysis	75 (66 regular, 9 QA/QC)	TCL VOCs+10 by EPA Method 8260 QA/QC includes duplicate, MS, MSD
		Up to two soil samples per boring from seven borings, including in the former car wash and in the rear of the former dry cleaner building, near TP-4.	18 (14 regular, 4 QA/QC)	PFAS by modified EPA Method 537.1 QA/QC includes duplicate, MS, MSD, field blank
		Seven soil samples will be selected for an expanded list of analyses	10 (7 regular, 3 QA/QC)	TCL SVOCs+20 by EPA Method 8270 TAL Metals by EPA Method 6010B Total Mercury by EPA Method 1631 TCL PCBs by EPA Method 8082 TCL Chlorinated Herbicides and Pesticides by EPA Method 8081B QA/QC includes duplicate, MS, MSD
Groundwater Sampling	24	One sample to be collected per well from 14 existing overburden monitoring wells, 6 existing bedrock wells and four proposed overburden monitoring wells	28 (24regular, 4 QA/QC)	TCL VOCs+10 by EPA Method 8260 PFAS by modified EPA Method 537.1 QA/QC includes duplicate, MS, MSD, field blank, trip blank
	4	One sample from each of the four proposed overburden monitoring wells for an expanded list of analyses	7 (4 regular, 3 QA/QC)	TCL SVOCs+20 by EPA Method 8270 TAL Metals by EPA Method 6010B Total Mercury by EPA Method 1631 TCL PCBs by EPA Method 8082 TCL Chlorinated Herbicides and Pesticides by EPA Method 8081B 1,4-Dioxane by EPA Method 8270 SIM QA/QC includes duplicate, MS, MSD
	4	Four overburden monitoring wells will be selected for natural attenuation analyses	4 (no QA/QC)	BOD COD Iron: Total and Dissolved by EPA Method 6010C Manganese: Total and Dissolved by EPA Method 6010C Chloride and Sulfate by EPA Method 300.0 Sulfide by SM4500_S2_F Nitrate by EPA Method 353.2 TOC by EPA Method 5310C Alkalinity, Total by EPA Method 310.2 Methane/Ethane/Ethene - Dissolved Gases (GC) by EPA Method RSK_175 Carbon dioxide by SM 4500/SM21-23

Acronym List:
BOD: Biological oxygen demand
COD: Chemical oxygen demand
PCBs: Polychlorinated biphenyls
PFAS: Per- and polyfluoroalkyl substances
TAL: Total analyte list
TCL: Total compound list
SVOCs: Semivolatile organic compounds
VOCs: Volatile organic compounds

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Table 2
Analytical Methods/Quality Assurance Summary
Remedial Investigation

Former Rickett's Dry Cleaner
NYSDEC Site # 546058
2017-2019 Doubleday Avenue
Ballston Spa, New York

					Containers per Sample			Preservation Requirements			
Parameter	**Matrix**	**Number of Samples (including Field QC)**	**Preparation Method**	**Analytical Method**	**No.**	**Size**	**Type**	**Temp.**	**Light Sensitive**	**Chemical**	**Maximum Holding Time**
SOIL/SEDIMENT/SLUDGE											
VOCs by GC/MS	Soil/Sediment/Sludge	91	5035A	SW-846 Method 8260B	1	2 oz	clear glass jar	2-6º C	No	NA	14 days
SVOCs by GC/MS	Soil/Sediment/Sludge	10	3546	SW-846 Method 8270C	1	4 oz	amber glass jar	2-6º C	Yes	NA	14 days
TAL Metals by ICP	Soil/Sediment/Sludge	10	3050B	SW-846 Method 6010B	1	2 oz	clear glass jar	NA	No	NA	6 months
Total Mercury	Soil/Sediment/Sludge	10	3050B	SW-846 Method 1631	1	2 oz	clear glass jar	NA	No	NA	28 days
Chlrorinated Herbicides and Pesticides by GC	Soil/Sediment/Sludge	10	3546	SW-846 Method 8081A	1	8 oz	clear glass jar	2-6º C	No	NA	14 days
PCBs by GC	Soil/Sediment/Sludge	10	3546	SW-846 Method 8082	1	8 oz	clear glass jar	2-6º C	No	NA	14 days
PFAS	Soil/Sediment/Sludge	24	NA	Modified Method 537.1	2	8 oz	polypropylene	2-6º C	No	NA	14/28 days
GROUNDWATER/SURFACE WATER											
VOCs by GC/MS	Aqueous	38	5035	SW-846 Method 8260B	3	40 ml	glass vial	2-6º C	No	HCL	14 days
PFAS	Aqueous	34	NA	Modified Method 537.1	3	250 ml	polypropylene	2-6º C	No	NA	14/28 days
1,4-Dioxane	Aqueous	13	3510C	SW-846 Method 8270 SIM	2	500 ml	amber glass	2-6º C	Yes	NA	7 days
SVOCs by GC/MS	Aqueous	13	3510C	SW-846 Method 8270C	2	Liter	amber bottle	2-6º C	Yes	NA	7 days
TAL Metals by ICP	Aqueous	13	3005A	SW-846 Method 6010B	1	500 ml	plastic bottle	2-6º C	No	Nitric Acid	6 months
Chlorinated Herbicides and Pesticides by GC	Aqueous	13	3510C	SW-846 Method 8081	2	liter	clear glass bottle	2-6º C	No	NA	14/28 days
PCBs by GC	Aqueous	13	3510C	SW-846 Method 8082	2	liter	clear glass bottle	2-6º C	No	NA	7 days
BOD	Aqueous	4	NA	SM5210B	1	liter	plastic	2-6 C	No	NA	48 hours
COD	Aqueous	4	NA	EP 410.4	1	250ml	plastic	2-6 C	No	H2SO4	28 days
Iron and Manganese, Total by ICP	Aqueous	4	3005A	SW-846 Method 6010C	1	250 ml	plastic	2-6º C	No	HNO3	180 days
Iron and Manganese, Dissolved by ICP	Aqueous	4	3005A	SW-846 Method 6010C	1	250 ml	plastic	2-6º C	No	NA	180 days
Chloride and Sulfate	Aqueous	4	NA	SW-846 Method 300.0_28D	1	60 ml	plastic	2-6º C	No	NA	28 days
Sulfide	Aqueous	4	NA	SM4500_S2_F	1	250 ml	plastic	2-6º C	No	ZnA + NaOH	7 days
Nitrate, Nitrite and Nitrate_Calc	Aqueous	4	NA	SW-846 Method 353.2	2	125 ml	plastic	2-6º C	No	NA	48 hours
TOC	Aqueous	4	NA	SW-846 Method 5310C	2	40 ml	glass vial	2-6º C	No	HCl	28 days
Alkalinity, Total	Aqueous	4	NA	SW-846 Method 310.2	1	125 ml	plastic	2-6º C	No	NA	14 days
Methane/Ethane/Ethene by GC	Aqueous	4	NA	SW-846 Method RSK_175	3	40 ml	glass vial	2-6º C	No	HCl	14 days
CO2 by SM 4500/SM2320B	Aqueous	4	NA	SM4500/SM2320B	3	40 ml	glass vial	2-6º C	No	NA	7 days

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FIGURES

0 1,000 2,000 4,000 6,000 8,000

Feet

1 inch = 2,000 feet

N

USGS Quadrangle Information
Quad ID: 43073-A7
Name: Saratoga Springs, New York
Date Pub: 1970

Figure 1
Site Location
2017-2019 Doubleday Avenue
Milton, New York
HRP # DEC1002.P3
Scale 1" = 2,000'

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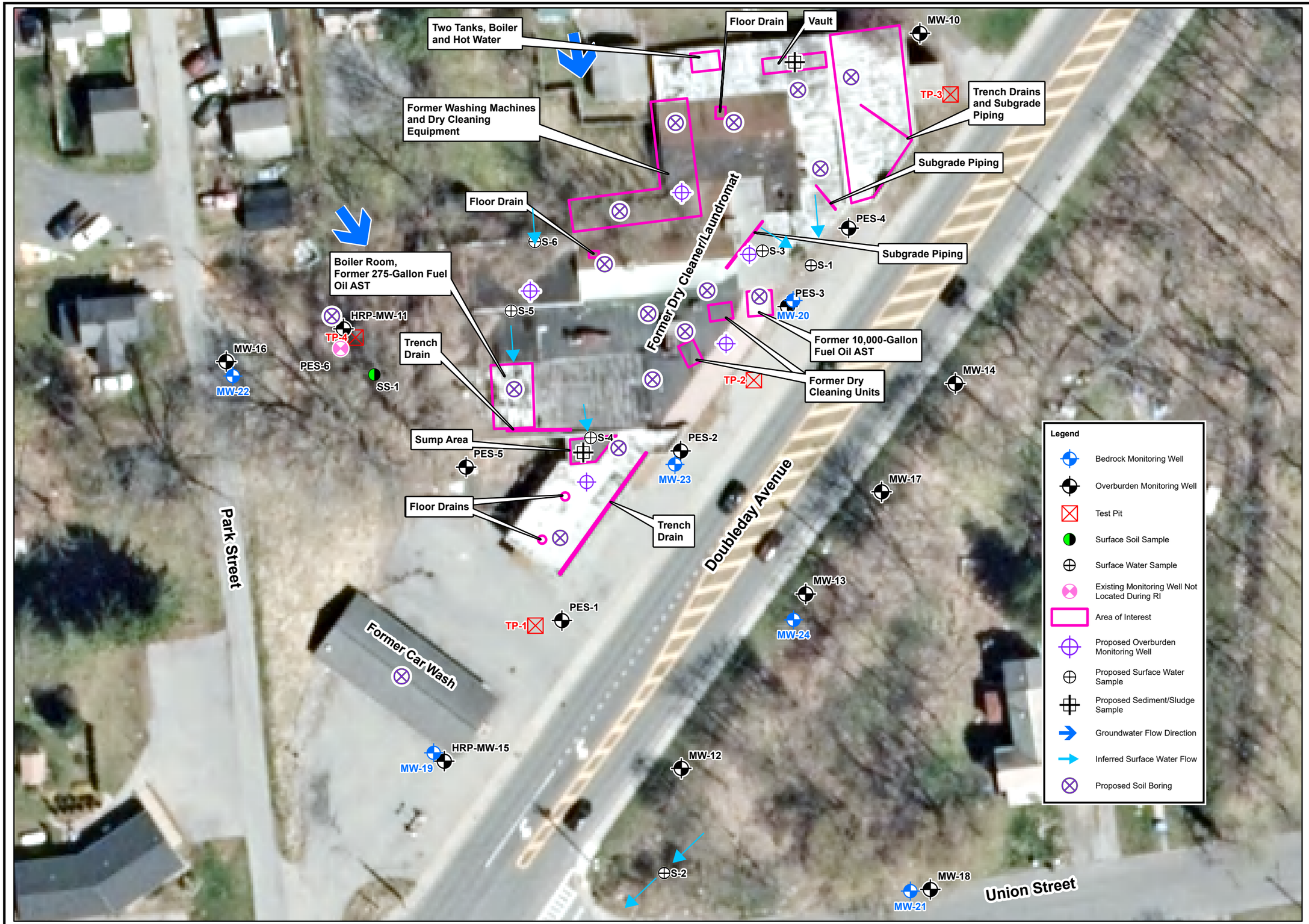
ONE FAIRCHILD SQUARE
SUITE 110
CLIFTON PARK, NY 12065
(518) 877-7101
HRPASSOCIATES.COM

Path: S:\Data\NNYDEC - NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION\MILTON\2017 DOUBLEDAY AVENUE, BALLSTON SPA (MILTON), NY\DEC1002P3\GIS\Figure 1 - Site Location.mxd



HRP
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197 SCOTT SWAMP ROAD
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(860) 674-9570
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North

0 20 40 Feet

Revisions					
No.	Date				

Designed By:	Drawn By:	Reviewed By:
PM	BOB	PM

Issue Date:	Project No:	Sheet Size:
05/10/2022	DEC1002.P3	11x17

Proposed Investigation Locations

Rickett's Dry Cleaners
(Site #546058)

2017-2019 Doubleday Avenue
Ballston Spa (Milton), New York

FIGURE

2