

Ms. Greta White, P.G. Assistant Geologist New York State Department of Environmental Conservation 625 Broadway Albany, NY 12233-7017

Date: June 15, 2022 Our Ref: 30084590 Subject: National Grid North Albany Service Center Building 2-4 Alterations Focused Investigation Summary Report Arcadis of New York, Inc. One Lincoln Center 110 West Fayette Street Suite 300 Syracuse New York 13202 Phone: 315 446 9120 Fax: 315 449 0017 www.arcadis.com

Dear Ms. White,

On behalf of National Grid, this letter summarizes the work performed and findings of a focused investigation performed at the National Grid North Albany Service Center in March 2022. The investigation was performed to evaluate conditions within the footprint of proposed alterations (upgrades) to Building 2-4 at the National Grid North Albany Service Center (see Figure 1 for site location). Building 2-4 is located south of the former manufactured gas plant (MGP), but within the boundaries of New York State Department of Environmental Conservation (NYSDEC) Site No. 401040 (see Figure 2). The investigation characterized soil outside Building 2-4, the concrete floor slab inside the building, concrete aprons adjacent to the building, and soil below the concrete slab/aprons. The investigation was conducted by Arcadis of New York, Inc. (Arcadis) and National Grid's contractor during the week of March 28, 2022. Fieldwork and laboratory analyses were performed in accordance with the work plan contained in a March 23, 2022 letter to the NYSDEC, which was approved by the NYSDEC on March 28, 2022.

The investigation provided data to assess environmental requirements, including material handling, air monitoring, worker training, and other tasks, for National Grid's contractors that will be constructing the Building 2-4 alterations. As summarized herein, the soil analytical results are all less than the NYSDEC commercial soil cleanup objectives (SCOs) presented in Title 6 of the New York Codes, Rules, and Regulations (6 NYCRR) Part 375-6.8b, except for four semi-volatile organic compounds (SVOCs) and arsenic in select samples. The concrete analytical results indicate that the concrete interior floor slab and exterior aprons do not exhibit any detectable polychlorinated biphenyls (PCBs) or any Resource Conservation and Recovery Act (RCRA) hazardous waste characteristics.

Relevant background information, including an overview of the proposed Building 2-4 alterations and historical environmental data for the area near Building 2-4, is presented below and followed by a summary of the focused investigation and proposed environmental requirements for the contractors that will perform the alterations.

#### I. BACKGROUND INFORMATION

The proposed Building 2-4 alterations include a new roof, siding, and insulation on the building, new concrete aprons inside and outside the building, new natural gas service connecting to the building, and new stormwater drainage piping around the building. The proposed insulation to be installed around the building foundation wall, the new gas service (main) connecting to the building, and the new storm sewer piping to be installed around the

building require the removal of existing concrete immediately outside the building and soil excavation (trenching) to depths between approximately 2 and 5 feet below ground surface (bgs). A site plan prepared by Nelson Associates Architectural Engineering (NAAE) showing Building 2-4 and the approximate removal limits for the proposed alterations is provided in Attachment 1. Details of the ground-intrusive work planned for the Building 2-4 alterations are provided below:

- **Concrete Removal:** Concrete will be removed from three areas, including: (1) two approximately 12-foot long by 10-foot wide aprons on the north side of Building 2-4 for installation of new storm sewer piping and foundation insulation; (2) an approximately 20-foot long by 5-foot wide area inside the north wall of Building 2-4 to replace cracked/deteriorated concrete; and (3) an approximately 40-foot long by 3-foot wide area along the east side of Building 2-4 for installation of foundation installation. The concrete is approximately 4- to 10-inches thick. Therefore, an estimated 12 cubic yards (CY) of concrete debris will be generated by the removal.
- **Stone Removal:** Crusher run stone surface cover will be removed from three areas along the north side of Building 2-4 for installation of the new storm sewer piping and foundation insulation. Each removal area is 10 feet wide, the total length of the removal is 96 feet, and the removal depth is 1.5 feet, for a total of 53 CY of stone. These areas were shown on design drawings to be asphalt paved, but the ground surface was observed to be covered with crusher run stone during the focused investigation.
- **Soil Excavation:** Trenches will be excavated around Building 2-4 for the installation of new natural gas service to the building, new storm sewer piping to convey storm water runoff from the building roof and ground surface away from the building, and insulation around the subgrade building foundation, as described below:
  - Natural Gas Main: Approximately 225 lineal feet (LF) of trench will be excavated for a new low-pressure gas main that will extend from an existing gas main located along the east edge of the railroad tracks (i.e., the tie-in location will be directly west of the southwest corner of Building 2-3) and extend to the southwest corner of Building 2-4. Assuming the trench is 3 feet wide and 2 feet deep, the trench excavation will generate approximately 50 CY of spoils.
  - Storm Sewer Pipe: Approximately 300 LF of trench will be excavated for new storm sewer pipe to convey roof drainage to an existing manhole northwest of Building 2-4. The new storm sewer pipe will extend around the northern, southern, and western sides of Building 2-4. Assuming the trench is 3 feet wide and an average of 5 feet deep, the trench excavation will generate approximately 167 CY of spoils.
  - Foundation Insulation: The design drawings show installation of subsurface insulation around all four sides of Building 2-4. The base of the insulation is shown at a depth of 2 feet bgs. The northern, southern, and western foundation walls will be exposed by the excavation for the proposed new storm sewer pipe. The eastern foundation wall will be exposed by a trench that is assumed to be 2 feet wide, 2 feet deep, and 40 feet long, resulting in the generation of approximately 5.6 CY of excavation spoils (1.1 CY of concrete and 4.5 CY of soil).

Based on the estimates above, the Building 2-4 alterations are anticipated to generate approximately 12 CY of concrete debris and 275 CY of excavation spoils (stone and soil) that will need to be properly managed. The final volume will depend on contractor means and methods. NAAE's utility trench detail shows trenches in paved and gravel areas being backfilled with pipe bedding material (crushed stone) and select fill. The trench detail does not allow excavated soil to be reused as backfill. Therefore, the excavated material will be transported offsite for

disposal unless National Grid and Nelson elect to reuse some of the stone (as either surface or subsurface fill onsite) and/or the underlying material (as subsurface fill greater than 1 foot bgs onsite).

### **II. FOCUSED INVESTIGATION SUMMARY**

Fieldwork performed as part of the focused investigation is described below, followed by a summary of the investigation findings.

### A. Focused Investigation Fieldwork

Before drilling and sampling began, subsurface utilities in and around the work area were cleared by utility markouts by UDig NY, Inc. Concrete coring and soil boring was performed by National Grid's subcontractor (US Ecology, Inc. [US Ecology]) via hammer-drill and vacuum excavation methods, respectively, at each proposed concrete/soil sampling location. Details of the concrete core sampling, soil boring/sampling, and community air monitoring performed in connection with the focused investigation are presented below.

#### Concrete Sampling

US Ecology collected pulverized concrete samples from the two concrete aprons north of Building 2-4 (locations B2-4 CONC-1 and B2-4 CONC-2), the floor slab location inside Building 2-4 (location B2-4 CONC-3), and the concrete apron extending along the east side of Building 2-4 (location B2-4 CONC-4), as shown on the drawing included in Attachment 1. Concrete sampling locations B2-4 CONC-1 and B2-4 CONC-2 were each shifted approximately 7 feet east of the locations identified in the work plan (i.e., to the eastern edge of the concrete aprons), to eliminate potential trip hazards associated with the core holes, while the aprons continue to be used by site personnel for building access until construction begins. Pulverized concrete samples were collected from two different intervals at each sampling location for laboratory analysis as follows:

- Top 3 Inches of Existing Concrete: One sample from the top 3 inches of the concrete at each of the four sampling locations (total of four samples) was submitted for laboratory analysis for PCBs.
- Full Depth of Concrete Slab: Samples were collected through the full depth of the concrete slab at each of the four concrete sampling locations. The full-depth samples from locations B2-4 CONC-1 (0-10") and B2-4 CONC-2 (0-10") were composited to form sample B2-4 CONC-1-2, and the full depth samples from locations B2-4 CONC-3 (0-10") and B2-4 CONC-4 (0-4") were composited to form sample B2-4 CONC-3-4. The two composite samples were submitted for laboratory analysis for RCRA waste characteristics (i.e., Toxicity Characteristic Leaching Procedure [TCLP] VOCs, TCLP SVOCs, TCLP metals, ignitability, reactivity) and asbestos.

The concrete sampling locations, core hole depths, and sampling intervals are summarized in the Table 1. Each of the core holes drilled through the concrete was backfilled to ground surface with clean crusher run stone.

#### Soil Sampling

US Ecology completed soil borings at 11 locations within the proposed Building 2-4 alterations construction limits (locations SB-301 through SB-311 as shown on the drawing in Attachment 1). The sampling locations were marked in the field by Arcadis using tie-distance measurements obtained from Building 2-4 Alterations Design Drawing C100, with sampling locations from the March 23, 2022 work plan overlaid on the drawing. Soil boring locations SB-304 and SB-305, which aligned with concrete core sampling locations B2-4 CONC-1 and B2-4 CONC-2, were shifted approximately 7 feet east of the locations identified in the work plan, as indicated above. The soil boring locations, boring depths, and sampling intervals are summarized in the Table 1.

Soil samples were collected approximately every 1-foot from each boring for visual characterization (soil classification, color, texture, moisture content, potential impacts) and photoionization detector (PID) headspace screening by Arcadis. Soil boring logs are included in Attachment 2. As indicated on the logs, the top 3 to 12-inches of material encountered at each sampling location consisted of asphalt, concrete, or crusher run stone. Historic fill material, consisting primarily of coarse sand, gravel, crushed stone, and/or brick, was encountered below the surface cover. The soil recovered from the borings did not exhibit any non-aqueous phase liquid (NAPL), staining, sheens, or odors. Groundwater was not encountered in any of the soil borings. Based on these observations and in accordance with the work plan, soil samples from the first soil interval below both the asphalt pavement, concrete, or crusher run stone at each location were submitted for laboratory analysis of PCBs. In addition, soil samples from that same interval at seven of the 11 sampling locations (locations SB-301, SB-303, SB-304, SB-306, SB-307, SB-309, and SB-311) were submitted for laboratory analysis for Target Compound List (TCL) volatile organic compounds (VOCs), TCL SVOCs, Target Analyte List (TAL) inorganic constituents (including cyanide), total petroleum hydrocarbons (TPH) diesel range organics (DRO), and TPH gasoline range organics (GRO), heat of combustion, and/or percent sulfur.

The soil borings were backfilled to ground surface with clean crusher run stone. Excavated soil was staged north of Building 2-4 for subsequent waste characterization and offsite disposal by National Grid.

#### Community Air Monitoring

Community air monitoring was performed by Arcadis during ground-intrusive work (concrete coring, vacuum excavation, sampling, boring backfilling) in accordance with the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan (CAMP) included in Appendix 1A to the NYSDEC's Program Policy Document titled, DER-10/Technical Guidance for Site Investigation and Remediation, dated May 3, 2010 (DER-10). This involved monitoring for VOC vapors and particulates at one upwind and one downwind monitoring station. The monitoring equipment calculated 15-minute running average concentrations. No exceedances of the action levels specified in the CAMP were identified by the monitoring, and no visible dust was observed leaving the work area.

The VOC vapor and particulate data could not be downloaded in the field by Arcadis, because the necessary cable was not provided with the rental equipment. Arcadis coordinated with the rental equipment vendor, Pine Environmental (Pine), to have the data downloaded when the equipment was returned to their facility. This approach was consistent with that used on other projects in response to software incompatibility issues or missing cables preventing data download in the field. However, from follow-up discussions with Pine, there were some internal miscommunications and their field technicians overlooked the reminder labels that Arcadis had placed on the equipment. Pine apparently deleted the data before shipping the equipment out for the next rental.

#### **B. Focused Investigation Findings**

The laboratory analytical data reports for the concrete and soil samples collected as part of the March 2022 focused investigation (NYSDEC Analytical Services Protocol Category B data deliverables package) are presented in the electronic attachment. The laboratory analytical results have not been validated as they are intended for: (1) screening purposes to evaluate potential environmental requirements for the proposed construction work; and (2) use in waste profiling. The electronic data deliverables will be separately e-mailed to the NYSDEC for upload to the NYSDEC's EQuIS database. The concrete and soil analytical results are summarized below.

#### Concrete Analytical Results

The concrete analytical results for PCBs and RCRA waste characteristics are presented in Table 2. The concrete analytical results for asbestos are provided in the laboratory report included in the electronic attachment (asbestos was not detected in any of the samples).

PCBs were not detected above laboratory detection limits in any of the four discrete concrete samples. The concrete analytical results indicate that the concrete does not exhibit any RCRA hazardous waste characteristics. No VOCs or SVOCs were detected in leachate from TCLP sample extraction. Only three metals (barium, chromium, and lead) were detected in leachate from TCLP sample extraction, but the concentrations were two orders of magnitude or more below the regulatory limits presented in 6 NYCRR Part 371. The laboratory results also indicate that the samples were not ignitable or reactive.

#### Soil Analytical Results

The soil analytical results are presented in Table 3, conservatively compared to the commercial use SCOs presented in 6 NYCRR Part 375-6.8(b). As indicated in Table 3, no PCBs, VOCs, SVOCs, or inorganic constituents were identified at concentrations exceeding the NYSDEC commercial SCOs with the minor exceptions identified below:

- *SB-301:* Arsenic was identified at a concentration of 16.8 ppm, which slightly exceeds the 16 ppm commercial SCO.
- *SB-303:* Benzo(a)pyrene was identified at a concentration of 1.5 ppm, which slightly exceeds the 1 ppm commercial SCO.
- *SB-306 and SB-307:* Four SVOCs were identified at concentrations slightly exceeding the commercial use SCOs, as identified in the table below.

	Commercial SCO	Concentra	tion (ppm)
Constituent	(ppm)	SB-306	SB-307
Benzo(a)anthracene	5.6	8.2	6.1
Benzo(a)pyrene	1	7.9	5.9
Benzo(b)fluoranthene	5.6	9.2	7.5
Dibenz(a,h)anthracene	0.56	1.2	1

No commercial SCOs for heat of combustion, TPH DRO, TPH GRO, or percent sulfur are presented in 6 NYCRR Part 375. These constituents are required by CleanEarth for profiling wastes for thermal treatment at their facility in Fort Edward, New York.

Based on the visual soil characterization data (absence of NAPL) and the analytical data as summarized above, soil within the proposed Building 2-4 alterations construction limits appears to be minimally affected by the former MGP and/or other site activities.

While lead was not identified at concentrations exceeding the commercial use SCOs in any of the soil samples, lead was identified at concentrations of 328 and 383 ppm samples collected from locations SB-301 (along the alignment for the proposed natural gas main) and SB-306 (south of Building 2-4), respectively. Per Section 1.2 of the TCLP, for a waste that is 100% solid, the results of the total constituent analysis may be divided by 20 to convert the total results into the maximum leachable concentration. This factor is derived from the 20:1 liquid-to-

solid ratio employed in the TCLP. Accordingly, the maximum lead concentration in the leachate of the soil samples collected from locations SB-301 and SB-306 would be 16.4 and 19.5 ppm (i.e., 328 and 383 ppm divided by 20). These values are slightly more than the 5 ppm regulatory limit for a characteristic hazardous waste for lead (waste code D008). This data does not necessarily mean that the soil from these locations, as generated, is a hazardous waste; it simply suggests the potential for the soil to be hazardous for lead.

### III. PROPOSED ENVIRONMENTAL REQUIREMENTS FOR BUILDING 2-4 ALTERATIONS

The proposed excavation for the Building 2-4 alterations will be accomplished using a standard excavator or backhoe. Sidewall support (e.g., trench boxes, sloping, benching, etc.) will be provided for excavations extending below 5 feet bgs or within shallower soils that are unstable, as required per Occupational Safety and Health Administration (OSHA) requirements outlined in 29 Code of Federal Regulations (CFR) 1926, Subpart P. The groundwater table is not anticipated to be encountered during excavation; however, runoff from precipitation may collect within the excavation. The following environmental requirements have been established for the soil and water handling aspects of the proposed alterations construction work:

- Health & Safety: A site-specific Health and Safety Plan (HASP) will be developed to fulfill the requirements of 29 CFR 1910 and 29 CFR 1926 and cover contractor and subcontractor personnel who will be performing the intrusive work. Contractor staff performing intrusive work activities (excavation, soil handling) will be required to have OSHA 40-hour Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) training, including 8-hour annual refresher course updates, and medical clearance in accordance with 29 CFR 1910.120. The contractor will use appropriate personal protective equipment as required by the HASP. Orange construction fence, barrels, and/or caution tape attached to temporary/moveable posts or drums will be used to demarcate the work area. Signage will also be installed to prevent unauthorized/untrained personnel from entering the work area.
- 2. Dust/Vapor/Emissions Controls & Community Air Monitoring: The contractor will be required to implement dust, vapor, and odor control measures, as needed, based on air monitoring and visual assessment (by Arcadis or National Grid safety personnel) during intrusive and material handling activities to maintain particulate and volatile organic vapor levels below the action limits identified in the CAMP contained in Appendix 1A to of DER-10. Air monitoring will be performed upwind and downwind in accordance with the protocols presented in the CAMP. The 15-minute average air monitoring readings will be recorded by data loggers and will be available to the NYSDEC upon request. Instantaneous readings used to make decisions will also be documented and made available.
- 3. Excavation/Material Handling: The concrete within the proposed excavation area will be removed and transported for offsite recycling. The crusher run stone and fill material will be excavated to target depths and transferred to a lined material staging area or loaded directly into roll-off waste containers for further waste characterization sampling, as needed. The fill material from around sampling locations SB-301 and SB-306 will be stockpiled separately from other materials for waste characterization sampling (to further evaluate lead concentrations). The material staging area will consist of polyethylene sheeting (i.e., single sheet with a minimum 30 mil thickness) placed over the asphalt pavement or gravel surface and extending over sidewalls formed using hay bales, jersey barriers, crushed stone, or similar. The material staging area will be constructed at a location selected by National Grid that does not interfere with ongoing site operations. Materials in the staging area will be covered at the end of each workday and more often during periods of precipitation, as appropriate, to minimize contact with precipitation. Each roll-off will be lined with one layer of polyethylene sheeting (minimum 10-mil thickness). In addition, the roll-offs will be covered with a low-

permeability tarp (mesh tarps are prohibited) at the end of the workday, prior to departing the site, and during transport. Similarly, all dump truck beds or dump trailers will be lined and loads will be covered with a low-permeability tarp (mesh tarps are prohibited) before the truck departs the site. Loads will remain covered during transport. All covers and roll-off/dump truck/trailer gates are to be water-tight and securely closed to prevent leakage or release of wastes during transport. The waste soil/debris generated by the excavation will be shipped from the site under waste manifest (non-hazardous or hazardous waste, depending on characterization sampling results). The waste manifests will be signed by National Grid or Arcadis (as an agent for National Grid).

- 4. Water Management: The proposed work will be installed during dry conditions, if possible. Diversion berms will be used (if needed) to direct storm water runoff around the excavation area, to minimize water handling. Runoff that collects in the excavation or material staging area (if any) will be removed by pump and/or a vacuum truck, as needed, and transferred to an onsite storage tank (e.g., frac tank). Water generated by gravity dewatering of the excavated soils and equipment decontamination will be transferred into the storage tank or vacuum truck. The wastewater generated by the project will be characterized and transported to an industrial wastewater treatment facility for offsite treatment/discharge, as appropriate based on the characterization sampling results.
- 5. Erosion and Sedimentation Control Measures: The ground surface in the proposed work area slopes gently to the east (toward the property boundary). As indicated above, diversion berms will be used as needed to direct runoff around the excavation area. Based on existing topography and the proposed excavation shape/depth, there will be no storm water "run-off" out of the excavation area. Although erosion and sedimentation control measures such as silt fencing, straw bales, or waddles are not anticipated to be needed, waddles (e.g., Siltsoxx™) will be available for use downslope from the work area should conditions change. In addition, excavated materials for reuse or offsite disposal will be stockpiled in a lined material staging area or roll-off waste containers that will be covered to minimize contact with precipitation. The lined sidewalls of the material staging area and the steel sides of the roll-off waste containers will keep storm water runoff out.
- 6. Imported Fill: The proposed excavations will be backfilled using a combination of imported crusher run stone and select fill. If the imported fill is gravel, rock or stone, consisting of virgin material from a permitted mine or quarry, with less than 10% (by weight) passing through a size 80 sieve, the fill is anticipated to meet the NYSDEC's sampling exemption outlined in Section 5.4(e)(5.)(i.) of DER-10. If run-of-bank gravel and sand is to be used as backfill, the material will be sampled in accordance with the requirements outlined in Section 5.4(e) of DER-10 (i.e., one discrete grab sample submitted for laboratory analysis of VOCs and one composite sample submitted for laboratory analysis for PCBs, pesticides, SVOCs [including 1,4-dioxane], inorganic constituents, and per- and polyfluoroalkyl substances for each material type and source). The constituent list shall be consistent with that presented in Appendix 5 of DER-10 and Appendix G of the NYSDEC document titled "Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs", dated June 2021 [NYSDEC PFAS Guidance]. The laboratory analytical results for the proposed backfill must meet the SCOs for commercial or industrial use as presented in DER-10 (Appendix 5) and the NYSDEC PFAS Guidance in order for the soil to be imported and used as backfill at the site.
- 7. *Demarcation:* A demarcation layer will be installed to line the excavation bottom and sidewalls at least near sampling locations SB-301 and SB-306. The demarcation will designate the interface of the imported clean fill and surrounding soil that may have residual impacts. The demarcation layer will be placed in the excavation

upon reaching the excavation limits. It will also provide a physical barrier to remaining soil for workers who may need to enter the excavation to install new storm sewer piping or the natural gas main or compact soil around these utilities. To the extent possible, the work will be performed without manned entry into the excavation.

8. *Decontamination:* The contractor will be required to decontaminate equipment that contacts potentiallyimpacted soil. The equipment will be decontaminated by wiping and/or brushing off adhered soil/debris over the roll-off waste container or material staging area. The limited wash water anticipated to be generated by equipment decontamination will be absorbed by the soil or collected in a container for offsite disposal.

A full-time onsite representative will observe and document the soil management work and perform community air monitoring. A report will be prepared that summarizes the work and community air monitoring results. This report will be submitted to the NYSDEC within approximately one month following completion of the work activities.

We trust that the environmental requirements proposed above are acceptable to the NYSDEC. National Grid anticipates the ground intrusive portion of the work to begin on May 16, 2022. Let us know if you would like to visit the site during construction, and we can arrange to meet you there.

Please do not hesitate to contact Garry Cummins (National Grid Site Investigation and Remediation Project Manager at 315.440.5825), Matt Root (National Grid Environment Compliance at 518.227.7508) or the undersigned at 315.671.9441 if you have any questions or need additional information.

Sincerely, Arcadis of New York, Inc.

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John C. Brussel, P.E. Principal Engineer/Certified Project Manager

Email: John.Brussel@arcadis.com Direct Line: 315.671.9189

CC: Matthew Root, National Grid Brian Key, National Grid Gerald P. Cummins, National Grid Mark W. Lawlor, Nelson Associates Architectural Engineering Matthew S. Hysell, P.E., Arcadis of New York, Inc.

#### Enclosures:

#### Tables

- 1 Summary of Sampling Locations and Laboratory Analyses
- 2 Concrete Analytical Results for PCBs and RCRA Waste Characteristics
- 3 Soil Analytical Results for Detected PCBs, VOCs, SVOCs, Inorganics, and Miscellaneous

### Figures

- 1 Site Location Map
- 2 Site Layout and Soil Investigation Area

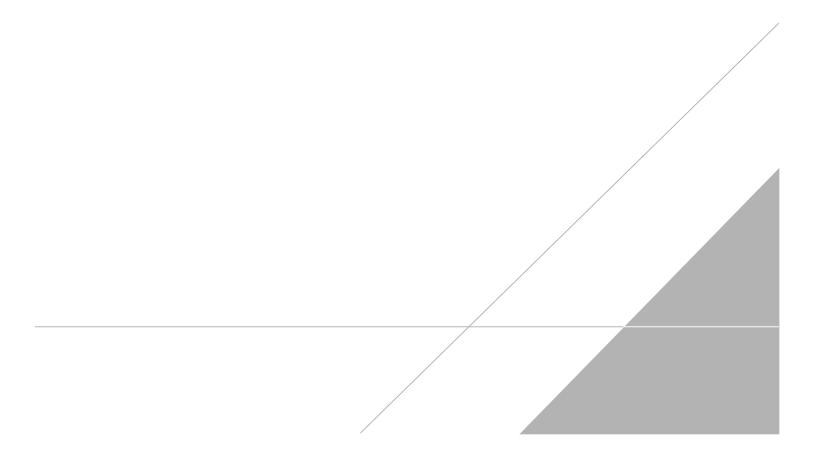
#### Attachments

- 1 Building 2-4 Alterations Design Drawing and Investigation Locations
- 2 Soil Boring Logs

#### **Electronic Attachment**

1 Laboratory Analytical Data Reports

# **TABLES**



## Table 1 Summary of Sampling Locations and Laboratory Analyses



#### National Grid Building 2-4 Alterations North Albany Former Manufactured Gas Plant Site Albany, New York

				Boring/				Analytica	al Parameters	
Sample ID	Sample Collection Date	Sampling Location	Sample Depth (feet bgs)	Coring Depth (feet)	Lab SDG #	PCBs	VOCs, SVOCs, Inorganics	TPH DRO & GRO	RCRA Waste Characteristics and Asbestos	Heat of Combustion & % Sulfur
Concrete Sam	ples									
B2-4 CONC-1		Concrete pad north of building, approximately 45 feet east of west wall	0-0.25	0.8		х				
B2-4 CONC-2		Concrete pad north of building, approximately 85 feet east of west wall	0-0.25	0.8		х				
B2-4 CONC-3		Interior cracked/deteriorated concrete pad	0-0.25	0.3		Х				
B2-4 CONC-4	3/30/2022	Concrete apron adjacent to the eastern side of building	0-0.25	0.8	J196264-1	х				
B2-4 CONC-1-2		Composite of B2-4 CONC-1 (0-0.8') and B2-4 CONC-2 (0-0.8')	Composite			х			х	
B2-4 CONC-3-4		Composite of B2-4 CONC-3 (0-0.3') and B2-4 CONC-4 (0-0.8')	Composite			х			х	
Soil Samples										
SB-301	3/30/2022	Proposed natural gas main alignment	0.4-0.9	2	J196266-1	Х	Х	Х		Х
SB-302	0,00,2022	1 0 0	0.4-0.9	2	01002001	Х				
SB-303	3/29/2022	Proposed natural gas main and storm sewer alignment (overlap) and foundation insulation installation area	1-1.5	5	J196250-1	x	х	x		x
SB-304		Proposed storm sewer alignment and	0.8-1.3	5	J196266-1	Х	Х	Х		Х
SB-305	3/30/2022	foundation insulation installation area	1-1.5	5	J196250-1	Х				
SB-306			0.25-0.75	5	J196266-1	Х	Х	Х		Х
SB-307	3/29/2022	Proposed storm sewer alignment and foundation insulation installation area	0.3-0.8	2.5	J196250-1	х	х	x		х
SB-308	3/30/2022	Proposed interior concrete pad replacement	0.8-1.3	1.3	J196266-1	Х				
SB-309	3/29/2022	Proposed gravel/soil cover removal and	0.5-1	1.5	J196250-1	х	х	х		х
SB-310	512312022	replacement	0.2-0.7	1.5	0190200-1	Х				
SB-311			0.7-1.2	2		Х	Х	X		Х



Table 1 Summary of Sampling Locations and Laboratory Analyses

National Grid Building 2-4 Alterations North Albany Former Manufactured Gas Plant Site Albany, New York

#### Notes:

- 1. Samples were collected by Arcadis of New York, Inc. (Arcadis) on the dates indicated above.
- 2. Samples were analyzed by Eurofins TestAmerica of Amherst, New York for the following:
  - Polychlorinated biphenyls (PCBs) using United States Environmental Protection Agency (USEPA) SW-846 Method 8082A.
  - Target Compound List (TCL) volatile organic compounds (VOCs) using USEPA SW-846 Method 8260C.
  - TCL semi-volatile organic compounds (SVOCs) using USEPA SW-846 Method 8270D.
  - Target Analyte List (TAL) inorganic constituents using USEPA SW-846 Method 6010C, 7471B, and 9012B.
  - Total petroleum hydrocarbons (TPH) diesel range organics (DRO) using USEPA SW-846 Method 8015D.
  - TPH gasoline range organics (GRO) using USEPA SW-846 Method 8015D.
  - % Sulfur using ASTM D3177.
  - Heat of combustion using ASTM Method D-240-87.
  - Resource Conservation and Recovery Act (RCRA) waste characteristics:
  - Toxicity Characteristic Leaching Procedure (TCLP) VOCs using USEPA SW-846 Method 1311/8260C.
  - TCLP SVOCs using USEPA SW-846 Method 1311/8270D.
  - TCLP Resource Conservation Recovery Act (RCRA) metals using USEPA SW-846 Method 1311/7470A/6010C .
  - Ignitability using USEPA SW-846 Method 1010A.
  - Reactivity (reactive sulfide and reactive cyanide) using USEPA Methods 9012/9034.
- 4. Samples were analyzed by LaBella Associates of Rochester, New York for asbestos using New York Department of Health Method 198.1 (polarized light microscopy PLM).
- 5. bgs = below ground surface.
- 6. SDG = sample delivery group.
- 7. - = not applicable.
- 8. An X indicates analysis was conducted.
- 9. Analytical results have not been validated.

#### Table 2 Concrete Analytical Results for PCBs and RCRA Characteristics



#### National Grid Building 2-4 Alterations North Albany Former Manufactured Gas Plant Site Albany, New York

Location ID: Sample Depth (Feet):		Units	B2-4 CONC-1 0 - 0.25	B2-4 CONC-2 0 - 0.25	B2-4 CONC-3 0 - 0.25	B2-4 CONC-4 0 - 0.25	B2-4 CONC-1-2	B2-4 CONC-3-4
PCBs								
Total PCBs		mg/kg	<0.22	<0.23	<0.21	<0.20	NA	NA
Detected TCLP VOCs			·	·				
None Detected			NA	NA	NA	NA		
Detected TCLP SVOCs			•	•				
None Detected			NA	NA	NA	NA		
Detected TCLP Inorgan	nics		•	•				
Barium	100	mg/L	NA	NA	NA	NA	0.180 J	0.160 J
Chromium	5	mg/L	NA	NA	NA	NA	0.0140 J	<0.0200
Lead	5	mg/L	NA	NA	NA	NA	0.00530 J	0.00780 J
Miscellaneous			·	·				
Ignitability		°F	NA	NA	NA	NA	<50	<50
Reactivity, Cyanide		mg/kg	NA	NA	NA	NA	<9.70	<9.90
Reactivity, Sulfide		mg/kg	NA	NA	NA	NA	<9.7	<9.9

#### Notes:

- 1. Samples were collected by Arcadis of New York, Inc. (Arcadis) on March 30, 2022
- 2. Samples were analyzed by Eurofins TestAmerica of Amherst, New York for the following:
  - Polychlorinated biphenyls (PCBs) using United States Environmental Protection Agency (USEPA) SW-846 Method 8082A.
  - Toxicity Characteristic Leaching Procedure (TCLP) volatile organic compounds (VOCs) using USEPA SW-846 Method 1311/8260C.
  - TCLP SVOCs using USEPA SW-846 Method 1311/8270D.
  - TCLP Resource Conservation Recovery Act (RCRA) metals using USEPA SW-846 Method 1311/7470A/6010C.
  - Ignitability using USEPA SW-846 Method 1010A.
  - Reactivity (reactive sulfide and reactive cyanide) using USEPA Methods 9012/9034.
- 3. Data are reported in the following units:
  - PCBs and reactivity (cyanide and sulfide): milligrams per kilogram (mg/kg), which is equivalent to parts per million (ppm).
  - TCLP VOCs, TCLP SVOCs, and TCLP inorganics: milligrams per liter (mg/L), which is equivalent to ppm.
  - Ignitability: degrees Fahrenheit (deg F).
- 4. Only those VOCs, SVOCs, and inorganic constituents detected in one or more samples are summarized.
- 5. Data qualifiers are defined as follows:
  - < Constituent not detected at a concentration above the reported detection limit.
  - J Indicates that the associated numerical value is an estimated concentration.
- 6. 6 NYCRR Part 371 TCLP Criteria are from Title 6 of the Official Compilation of Codes, Rules, and Regulations of the State of New York (6 NYCRR) Part 371-3(e) Table 1, current through June 30, 2019.
- 7. -- = No 6 NYCRR Part 371 TCLP criteria listed.
- 8. NA = not analyzed.

5/10/2022

9. Results have not been validated.



#### National Grid Building 2-4 Alterations North Albany Former Manufactured Gas Plant Site Albany, New York

Location ID:	NYSDEC Part 375		SB-301	SB-302	SB-303	SB-304	SB-305	SB-306	SB-307	SB-308	SB-309	SB-310	SB-311
Sample Depth (Feet):	Restricted Use		0.4 - 0.9	0.4 - 0.9	1 - 1.5	0.8 - 1.3	1 - 1.5	0.25 - 0.75	0.3 - 0.8	0.8 - 1.3	0.5 - 1	0.2 - 0.7	0.7 - 1.2
Date Collected:	Commercial SCOs	Units	03/30/22	03/30/22	03/29/22	03/30/22	03/29/22	03/30/22	03/29/22	03/30/22	03/29/22	03/29/22	03/29/22
PCBs													
Total PCBs	1	mg/kg	<0.24	<0.26	<0.27	<0.20	<0.21	<0.24	<0.24	<0.22	<0.24	<0.28	<0.24
Detected VOCs			-										
Acetone	500	mg/kg	0.0064 J	NA	< 0.023	< 0.022	NA	<0.026	< 0.027	NA	<0.021	NA	<0.024
Trichloroethene	200	mg/kg	0.0017 JB	NA	< 0.0045	< 0.0044	NA	<0.0051	< 0.0054	NA	< 0.0043	NA	< 0.0047
Detected SVOCs				•	•	•			•		•	•	
2-Methylnaphthalene		mg/kg	<1.0	NA	0.046 J	<0.18	NA	<1.9	<0.99	NA	<0.18	NA	<0.18
Acenaphthene	500	mg/kg	<1.0	NA	0.11 J	<0.18	NA	0.97 J	0.75 J	NA	<0.18	NA	<0.18
Acenaphthylene	500	mg/kg	<1.0	NA	0.22	<0.18	NA	1.2 J	0.46 J	NA	<0.18	NA	<0.18
Anthracene	500	mg/kg	<1.0	NA	0.52	<0.18	NA	3.2	1.8	NA	<0.18	NA	<0.18
Benzo(a)anthracene	5.6	mg/kg	0.44 J	NA	1.7	0.044 JF1F2	NA	8.2	6.1	NA	<0.18	NA	<0.18
Benzo(a)pyrene	1	mg/kg	0.55 J	NA	1.5	0.052 JF2	NA	7.9	5.9	NA	<0.18	NA	<0.18
Benzo(b)fluoranthene	5.6	mg/kg	0.71 J	NA	1.9	0.057 JF2	NA	9.2	7.5	NA	<0.18	NA	<0.18
Benzo(g,h,i)perylene	500	mg/kg	0.42 J	NA	1.2	0.037 J	NA	5.7	4.7	NA	<0.18	NA	<0.18
Benzo(k)fluoranthene	56	mg/kg	0.29 J	NA	0.70	0.031 J	NA	4.0	2.7	NA	<0.18	NA	<0.18
Carbazole		mg/kg	<1.0	NA	0.18 J	<0.18	NA	0.72 J	0.86 J	NA	<0.18	NA	<0.18
Chrysene	56	mg/kg	0.55 J	NA	1.7	0.050 JF2	NA	7.9	6.3	NA	<0.18	NA	<0.18
Dibenz(a,h)anthracene	0.56	mg/kg	<1.0	NA	0.28	<0.18	NA	1.2 J	1.0	NA	<0.18	NA	<0.18
Dibenzofuran	350	mg/kg	<1.0	NA	0.092 J	<0.18	NA	0.57 J	0.31 J	NA	<0.18	NA	<0.18
Fluoranthene	500	mg/kg	0.88 J	NA	3.9	0.10 JF1F2	NA	20	14	NA	<0.18	NA	<0.18
Fluorene	500	mg/kg	<1.0	NA	0.14 J	<0.18	NA	1.2 J	0.57 J	NA	<0.18	NA	<0.18
Indeno(1,2,3-cd)pyrene	5.6	mg/kg	0.37 J	NA	1.1	0.032 J	NA	4.9	3.9	NA	<0.18	NA	<0.18
Naphthalene	500	mg/kg	<1.0	NA	0.16 J	<0.18	NA	0.34 J	0.18 J	NA	<0.18	NA	<0.18
Phenanthrene	500	mg/kg	0.39 J	NA	2.7	0.060 JF1F2	NA	13	9.3	NA	<0.18	NA	<0.18
Pyrene	500	mg/kg	0.77 J	NA	4.0	0.096 JF1F2	NA	18	13	NA	<0.18	NA	<0.18
Detected Inorganics													
Arsenic	16	mg/kg	16.8	NA	7.10	5.90	NA	7.50	6.00	NA	6.00	NA	6.40
Barium	400	mg/kg	303	NA	82.2	90.5	NA	86.3	76.4	NA	74.2	NA	70.3 F1
Cadmium	9.3	mg/kg	0.440	NA	0.210 J	0.0760 J	NA	0.170 J	0.0400 J	NA	0.180 J	NA	<0.220
Chromium		mg/kg	26.2	NA	22.0	18.3	NA	18.5	20.6	NA	18.6	NA	22.3
Lead	1,000	mg/kg	328	NA	51.2	66.3	NA	383	36.5	NA	19.6	NA	15.8
Mercury	2.8	mg/kg	0.150	NA	0.290	0.0370	NA	0.160	0.0650	NA	0.0290	NA	0.0250
Selenium	1,500	mg/kg	2.90 J	NA	1.80 J	1.00 J	NA	1.50 J	1.80 J	NA	1.60 J	NA	1.70 J
Miscellaneous													
Heat of Combustion		btu/lb	<200	NA	<200	<200	NA	<200	<200	NA	<200	NA	<200
TPH DRO		mg/kg	23	NA	21	8.6 J	NA	84	210	NA	96	NA	<17
TPH GRO		mg/kg	1.3 JB	NA	0.98 JB	1 B	NA	1.7 B	1.2 JB	NA	2.4 B	NA	1.1 JB
Sulfur		mg/kg	513 B	NA	330 B	374 B	NA	745 B	459 B	NA	339 B	NA	296 B

5/10/2022

Jarcadis-us.com/officedata/Syracuse-NY/Clients/National Grid/North Albany/10 Final Reports and Presentations/2022/Bldg 2-4 Focused Inv Summary/2022.0510-N Albany-Bldg 2-4 Investigation Summary Tables

## Table 3 Soil Analytical Results for Detected PCBs, VOCs, SVOCs, Inorganics, and Miscellaneous



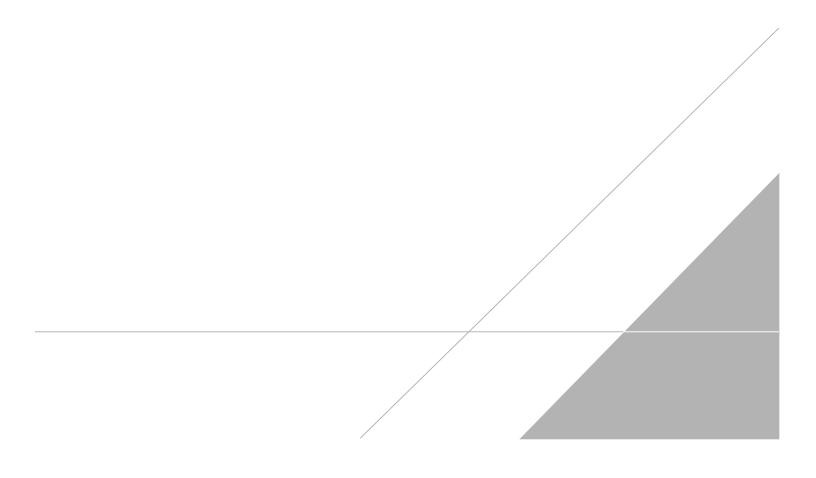
National Grid Building 2-4 Alterations North Albany Former Manufactured Gas Plant Site Albany, New York

#### Notes:

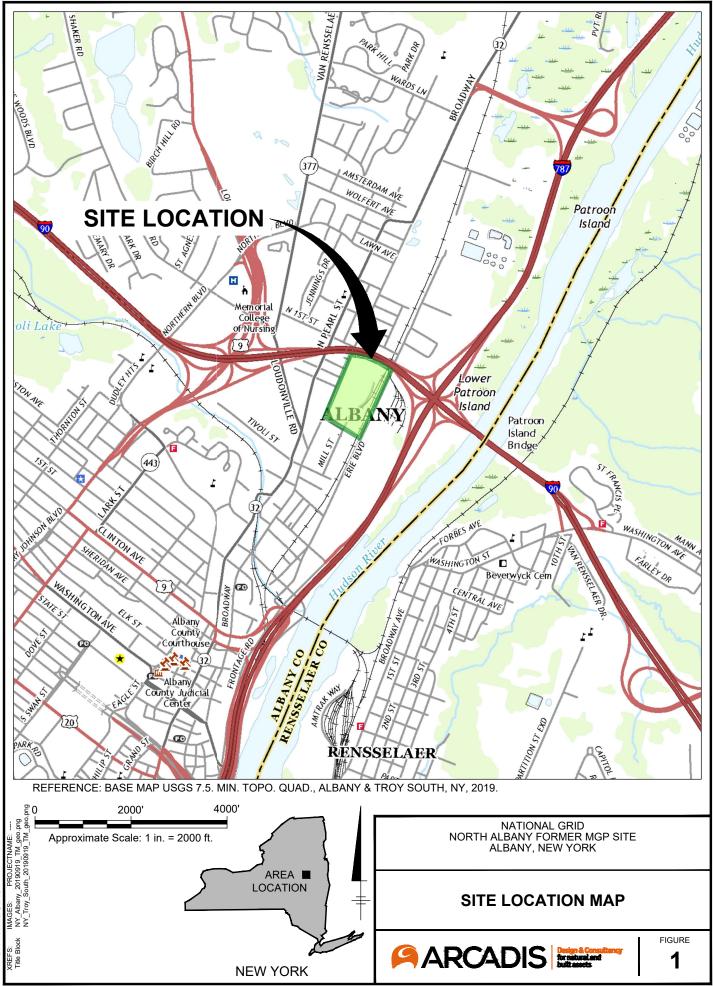
4.

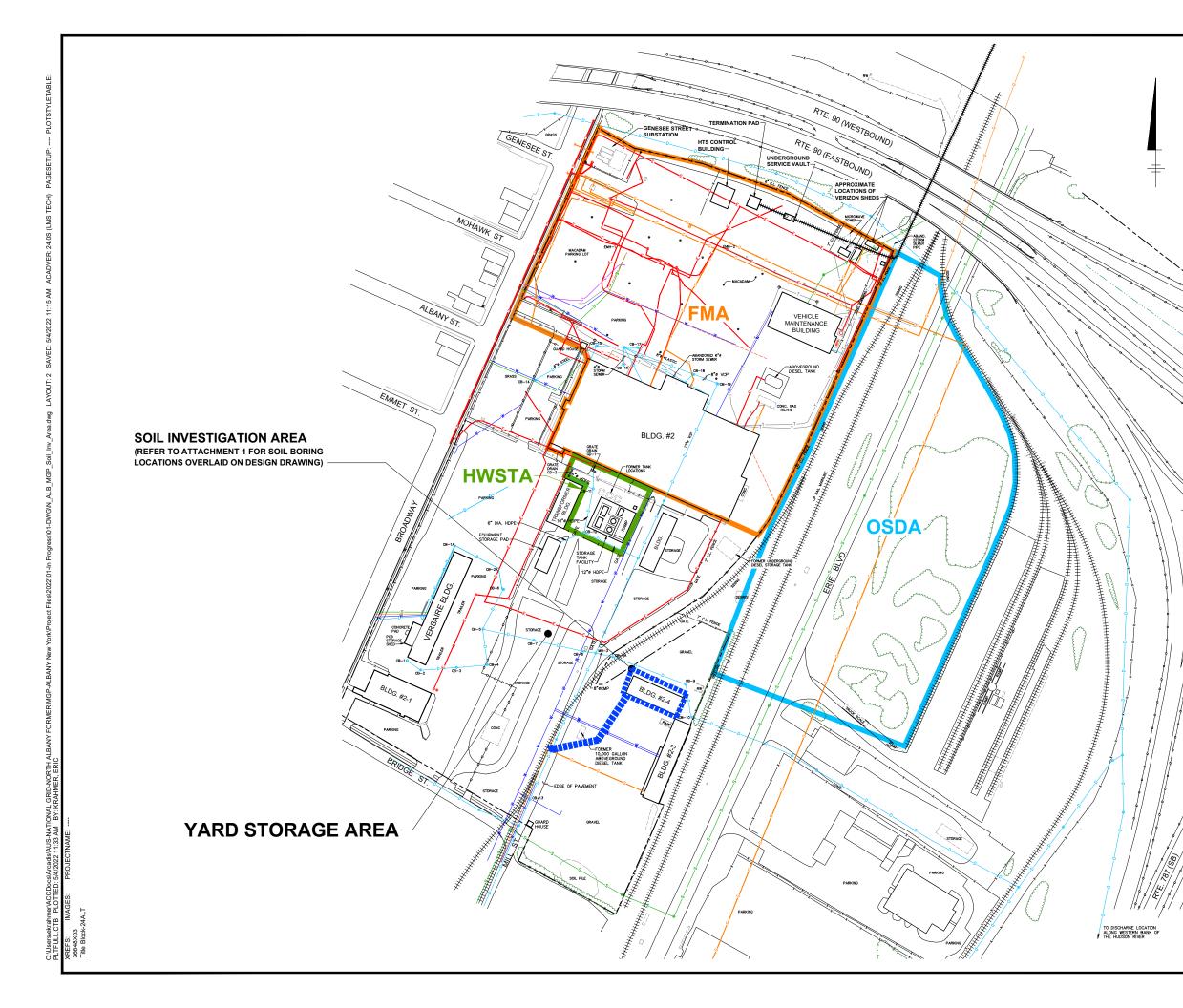
- 1. Samples were collected by Arcadis of New York, Inc. (Arcadis) on the dates indicated.
- 2. Samples were analyzed by Eurofins TestAmerica of Amherst, New York for the following:
  - Polychlorinated biphenyls (PCBs) using United States Environmental Protection Agency (USEPA) SW-846 Method 8082A
  - Target Compound List (TCL) volatile organic compounds (VOCs) using USEPA SW-846 Method 8260C
  - TCL semi-volatile organic compounds (SVOCs) using USEPA SW-846 Method 8270D
  - Target Analyte List (TAL) inorganic constituents using USEPA SW-846 Method 6010C, 7471B, and 9012B
  - Total petroleum hydrocarbons (TPH) diesel range organics (DRO) using USEPA SW-846 Method 8015D.
  - TPH gasoline range organics (GRO) using USEPA SW-846 Method 8015D.
  - % Sulfur using ASTM D3177.
  - Heat of combustion using ASTM Method D-240-87.
- 3. Data are reported in the following units:
  - PCBs, TLC VOCs, TCL SVOCs, TAL inorganics, TPH DRO, TPH GRO, and % Sulfur: milligrams per kilogram, which is equipment to ppm. - Heat of Combustion: British thermal units per pound (BTU/lb).
  - Only those VOCs, SVOCs, and inorganic constituents detected in one or more samples are summarized.
- 5. Data qualifiers are defined as follows:
  - < Constituent not detected at a concentration above the reported detection limit.
  - B Compound was found in the blank and sample.
  - F1 Matrix spike or matrix spike duplicate recovery exceeds control limits.
  - F2 Matrix spike/matrix spike duplicate relative percent difference exceeds control limits
  - J Indicates that the associated numerical value is an estimated concentration.
- 6. 6 NYCRR Part 375 Soil Cleanup Objectives (SCOs) are from Title 6 of the Official Compilation of Codes, Rules, and Regulations of the State of New York (6 NYCRR) Part 375-6.8(b), effective December 14,2006.
- 7. Shading indicates that the result exceeds the 6 NYCRR Part 375 Commercial Use SCO.
- 8. NA = not analyzed.
- 9. -- = No 6 NYCRR Part 375 SCO listed.
- 10. Results have not been validated.

# **FIGURES**









#### LEGEND:

	APPROXIMATE LOCATION OF HIGH TEMPERATURE SUPERCONDUCTIVE CABLE
	GUARD RAIL
<b>iii</b> i	FENCE
+++++++++++++++++++++++++++++++++++++++	EXISTING RAILROAD
	APPROXIMATE PROPERTY LINE
\$	UTILITY POLE
08	EXISTING CATCH BASIN
۲	EXISTING STORM SEWER MANHOLE
S	EXISTING SANITARY MANHOLE
©	EXISTING ELECTRICAL MANHOLE
$\odot$	EXISTING TELEPHONE MANHOLE
0	EXISTING UNKNOWN UTILITY MANHOLE
D	STORM SEWER
s	SANITARY SEWER
T	TELEPHONE LINE
———E-——	ELECTRICAL LINE
6	GAS LINE
w	WATER LINE
c	CABLE LINE
	UNKNOWN UTILITY
	FORMER MGP AREA
	OFF-SITE DOWNGRADIENT AREA
	HAZARDOUS WASTE STORAGE TANK AREA
	SOIL INVESTIGATION AREA

#### NOTES:

- BASE MAP (INCLUDING BUILDING LOCATIONS) DEVELOPED FROM ELECTRONIC FILE OF NIAGARA MOHAWK POWER CORPORATION (NMPC) DRAWING NO. C-29736-C, DATED JULY 1994, ENTITLED NORTH ALBAMY SERVICE CENTER HAZARDOUS WASTE MANAGEMENT PERMIT APPLICATION, TOPOGRAPHIC MAP INDEX SHEET.
- 2. LOCATIONS OF UNDERGOUND UTILITIES (INCLUDING ON-SITE STORM SEWERS, SANITARY SEWERS, TELEPHONE LINES, ELECTRICAL LINES, GAS LINES, WATER LINES, AND CABLE) WERE DIGITIZED FROM NMPC DRAWING NO. D-29734-E, FILE INDEX NO. 20.3-A1.1-B2, DATED JUNE 27, 1994, ENTILED NORTH ALBARY SERVICE CENTER SITE PLAN PAVING (OUTSIDE FENCE). LOCATION OF UNDERGROUND TELEPHONE LINES, ELECTRICAL LINES, GAS LINES, AND CABLE LINES WERE UPDATED BASED ON ELECTROMACNETIC UTILITY SURVEY CONDUCTED BY UNDERGROUND SERVICES, INC. DURING OCTOBER 2012. ACTUAL LOCATIONS OF UNDERGROUND SERVICES, INC. DURING OCTOBER 2012. ACTUAL LOCATIONS OF SUBSURFACE WORK ACTIVITIES.

LOCATIONS OF MANHOLES AND CATCH BASINS WERE OBTAINED FROM SURVEYS CONDUCTED BY NMPC DURING JULY/AUGUST 1997 AND NATIONAL GRID DURING OCTOBER 2012.

- 4. LOCATIONS OF OFF-SITE STORM AND SANITARY SEWERS WERE DIGITIZED FROM CITY OF ALBANY DRAWINGS AND ARE APPROXIMATE.
- 5. FMA = FORMER MANUFACTURED GAS (MGP) PLANT AREA.
- 6. OSDA = OFF-SITE DOWNGRADIENT AREA.
- 7. HWSTA = HAZARDOUS WASTE STORAGE TANK AREA.

SITE LAYOUT AND SOIL INVESTIGATION AREA

**ARCADIS** 

FIGURE

2

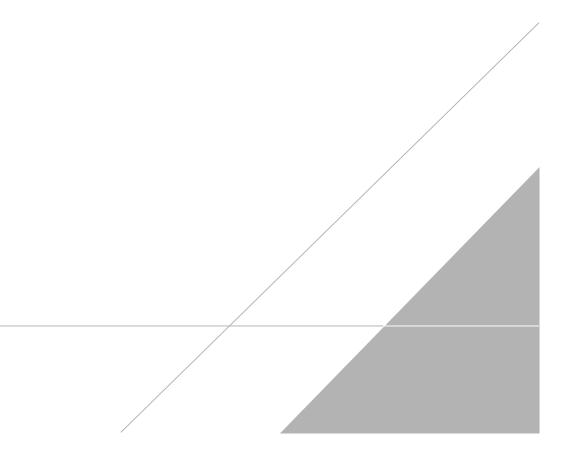
GRAPHIC SCALE

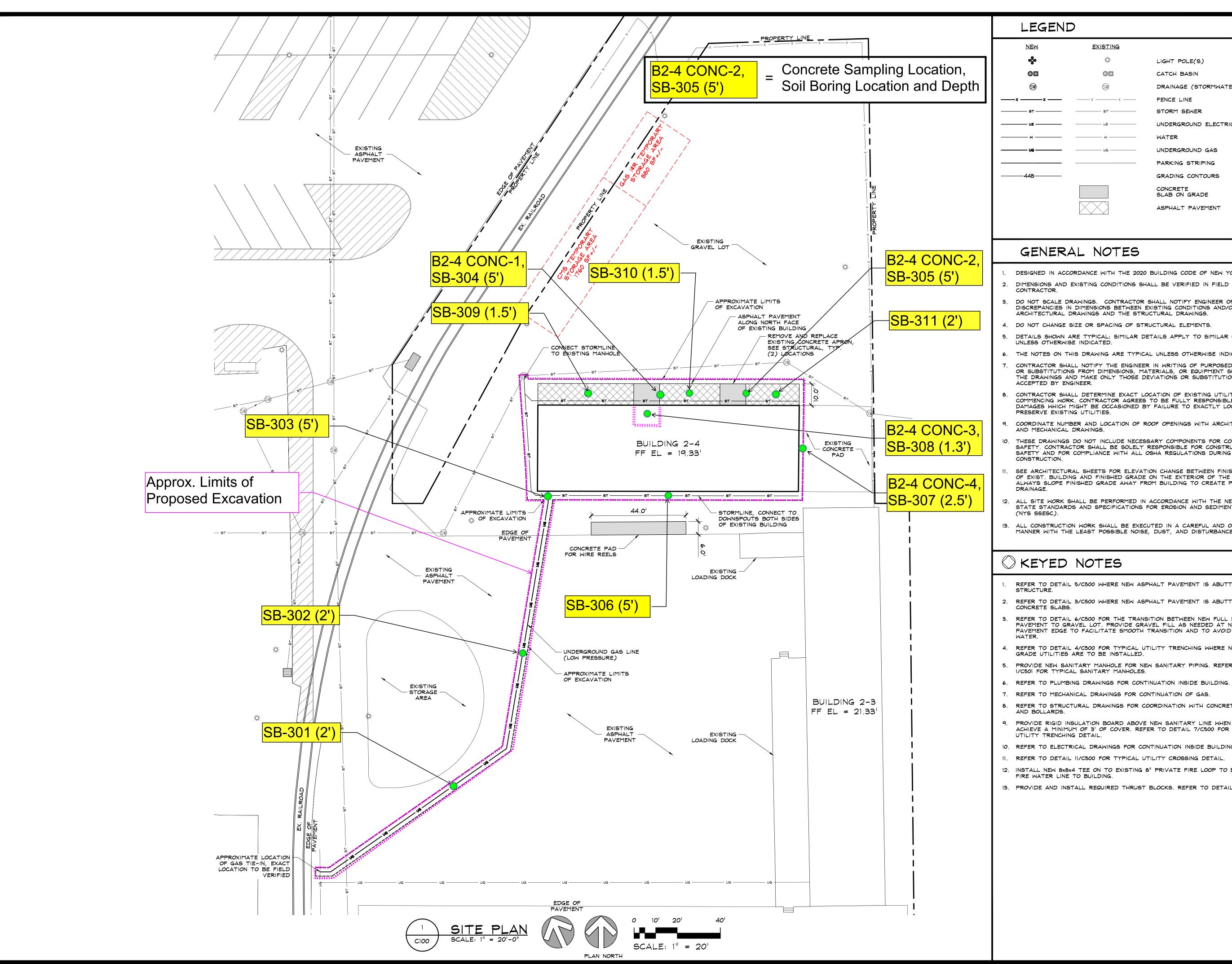
NATIONAL GRID NORTH ALBANY FORMER MGP SITE ALBANY, NEW YORK

**BUILDING 2-4 ALTERATIONS** 

# **ATTACHMENT 1**

**Building 2-4 Alterations Design Drawing and Investigation Locations** 





## LIGHT POLE(S) CATCH BASIN DRAINAGE (STORMWATER) MANHOLE FENCE LINE STORM SEWER UNDERGROUND ELECTRIC WATER UNDERGROUND GAS PARKING STRIPING GRADING CONTOURS CONCRETE SLAB ON GRADE ASPHALT PAVEMENT

40

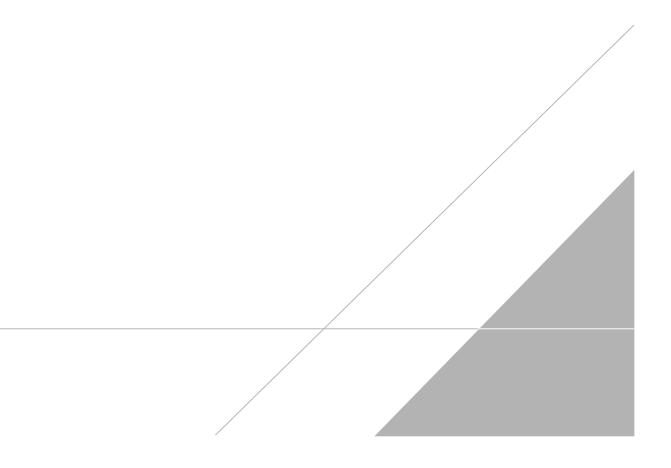
- DESIGNED IN ACCORDANCE WITH THE 2020 BUILDING CODE OF NEW YORK STATE.
- DIMENSIONS AND EXISTING CONDITIONS SHALL BE VERIFIED IN FIELD BY
- 3. DO NOT SCALE DRAWINGS. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES IN DIMENSIONS BETWEEN EXISTING CONDITIONS AND/OR ARCHITECTURAL DRAWINGS AND THE STRUCTURAL DRAWINGS.
- 4. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
- DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED.
- 6. THE NOTES ON THIS DRAWING ARE TYPICAL UNLESS OTHERWISE INDICATED.
- CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF PURPOSED DEVIATIONS OR SUBSTITUTIONS FROM DIMENSIONS, MATERIALS, OR EQUIPMENT SHOWN ON THE DRAWINGS AND MAKE ONLY THOSE DEVIATIONS OR SUBSTITUTIONS
- CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR DAMAGES WHICH MIGHT BE OCCASIONED BY FAILURE TO EXACTLY LOCATE AND
- COORDINATE NUMBER AND LOCATION OF ROOF OPENINGS WITH ARCHITECTURAL
- 10. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION SAFETY AND FOR COMPLIANCE WITH ALL OSHA REGULATIONS DURING
- SEE ARCHITECTURAL SHEETS FOR ELEVATION CHANGE BETWEEN FINISHED FLOOR OF EXIST. BUILDING AND FINISHED GRADE ON THE EXTERIOR OF THE BUILDING. ALWAYS SLOPE FINISHED GRADE AWAY FROM BUILDING TO CREATE POSITIVE
- ALL SITE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL
- 13. ALL CONSTRUCTION WORK SHALL BE EXECUTED IN A CAREFUL AND ORDERLY MANNER WITH THE LEAST POSSIBLE NOISE, DUST, AND DISTURBANCE.

- REFER TO DETAIL 5/C500 WHERE NEW ASPHALT PAVEMENT IS ABUTTING A
- REFER TO DETAIL 3/C500 WHERE NEW ASPHALT PAVEMENT IS ABUTTING
- REFER TO DETAIL 6/C500 FOR THE TRANSITION BETWEEN NEW FULL DEPTH PAVEMENT TO GRAVEL LOT. PROVIDE GRAVEL FILL AS NEEDED AT NEW PAVEMENT EDGE TO FACILITATE SMOOTH TRANSITION AND TO AVOID STANDING
- 4. REFER TO DETAIL 4/C500 FOR TYPICAL UTILITY TRENCHING WHERE NEW BELOW GRADE UTILITIES ARE TO BE INSTALLED. 5. PROVIDE NEW SANITARY MANHOLE FOR NEW SANITARY PIPING. REFER TO DETAIL
- 1/C501 FOR TYPICAL SANITARY MANHOLES.
- 8. REFER TO STRUCTURAL DRAWINGS FOR COORDINATION WITH CONCRETE APRON
- PROVIDE RIGID INSULATION BOARD ABOVE NEW SANITARY LINE WHEN UNABLE TO ACHIEVE A MINIMUM OF 3' OF COVER. REFER TO DETAIL 7/C500 FOR INSULATED
- 10. REFER TO ELECTRICAL DRAWINGS FOR CONTINUATION INSIDE BUILDING.
- 11. REFER TO DETAIL 11/C500 FOR TYPICAL UTILITY CROSSING DETAIL.
- 12. INSTALL NEW 8x8x4 TEE ON TO EXISTING 8" PRIVATE FIRE LOOP TO BRING NEW 4"
- 13. PROVIDE AND INSTALL REQUIRED THRUST BLOCKS. REFER TO DETAIL 2/C501.

NELSON ASSOCIATES Nerh Park Row • Clinton, NY 13323-1536
PROLET THE N. ALBANY SERVICE CENTER BUILDING 2-4 ALTERATIONS HITS BROADWAY MENANDS, NEW YORK 12204
PROJECT NO.20-2056REVISIONJATEDATEJATEDATE3/3/21DRAWN BYMSBCHECKED BYDRKAPPROVED BYPNNSCALEAS NOTEDSHEET TITLESITE PLAN
sheet no. <b>C100</b>

# **ATTACHMENT 2**

Soil Boring Logs



Sample	/Core L	_og				2	94	ARC	ADI	S
Boring/Well	SB-3	301	Project/No	. 30	108458	52		Page	of	
Site Location	NG	N.A	Hban	Y		Drilling Started	1340 Drillin Com	ng pleted		
Total Depth D	rilled	2'	Feet	Hole Diamete	r 12"	inches	Type of Sam Coring Devic		truck	Tork Knite
Length and D of Coring Dev	iameter				×			pling Interval		feet
Land-Surface	Elev.		feet		Surveyed	Estimated	Datum	-	The second property and the second	
Drilling Fluid U	Jsed		Ione	/			Drillin	ng Method	Vac th	ick/Air Kaire
Drilling Contractor	US.	Eco	1097				_Driller	Helper		-
Prepared By	J.Duquette						Hammer Weight	Hammer Drop		ins.
Sample/Core De (feet below land	surface)	Core Recovery	PID Reading	Time/Hydraulic Pressure or Blows per 6						
From	To E I'	(feet)	(ppm)	Inches	Sample/Core Descript	lion				
51.	1211		00		Asphalt Brown Gu	. Int to	11 Sama	Checks	Sandi	Rost
12"	24'		0.0		SAA GA	averv	V/ JUIME		JUNKI	y onen
			- 10							
					Sampled	@ 1	410	on 3	130/22	
					91					

Sample	/Core L	₋og					ARCA	DIS
Boring/Well Site Location	<u>SB-</u> NG	802 N A	Project/No		00845	Drilling Started	Page Drilling Completed	of
Total Depth D	rilled	2	Feet	Hole Diameter	12"	inches	ype of Sample/ Coring Device	ck/AirKn.kk
Length and Di				palare d and a	-		Sampling Interval	feet
Land-Surface	Elev.		feet		Surveyed	Estimated	Datum	
Drilling Fluid U	Jsed	$_{\sim}$	one	-			Drilling Method	activet they know
Drilling Contractor	US.	Eco	logy	1			Driller Helper	
Prepared By	J.Duquette		01				lammer Hammer Veight Drop	ins.
Sample/Core De (feet below land		Core Recovery	PID Reading	Time/Hydraulic Pressure or Blows per 6				
From	то 5''	(feet)	(ppm)	Inches	Sample/Core Descri	iption		
5"	10		0.0	-	Asphalt (wheel S	store w	Some Course	Brown Game
12"	24"	$\hat{}$	0.0		SAA	1010 00	Some Couse	Drown Sten
			0.0	-	Sampled	LQ.	1335 on 31	30/22
		1						
	1							

Sample	/Core L	_og					ARCADIS
Boring/Well	SB	303	Project/No	. 30	08458	2	Page/_of /
Site Location	NG	N	Albar	14		Drilling Started	Drilling Completed
Total Depth D	rilled	5	Feet	/ Hole Diamete	r <u>12</u>	inches	Type of Sample/ Coring Device <u>A:r Kn;fe/VAC</u>
Length and Di of Coring Dev			~	-			Sampling Intervalfeet
Land-Surface	Elev.		feet		Surveyed	Estimated	
Drilling Fluid L	Jsed	NO	nl				Drilling Method Ar Krife/UAC
Drilling Contractor	125	Eco	logy				DrillerHelper
Prepared By	J.Duquette		5/				Hammer Hammerins.
Sample/Core De (feet below land		Core Recovery	PID Reading	Time/Hydraulic Pressure or Blows per 6			
From	To	(feet)	(ppm)	Inches	Sample/Core Descripti	0	
121	12"		0.0	-	Clushed Duck Brown	Rack	Se Sand W/ Angular Gram
12	36"	-	0.0	-	SA4	T LOON	SE Same of Angelin Evaning
36"	48.	-	0.0		BAA		
48.	60%	-	0.0	_	SAA		
					Sei		
					Sampled	a 15	50 on 3/29/22
					.9		

Sample	/Core L	og					9	AF	RC	AC	SIS	
Boring/Well	<u>58-3</u>	604	Project/No	. 30	508458	2		P	age	<u> </u>	of 1	
Site Location	NGN	V. Ali	bany			Drilling Started		Drilling Complete	d			
Total Depth E	Drilled	1.5	Feet	Hole Diamete	r <u>12''</u>	inches	Type of S Coring D	Sample/ Vevice	A.Y.K.	nife /	Vac	
Length and D of Coring Dev			_		nega de referir - 1 - 1		S	Sampling	Interval		feet	
Land-Surface	Elev.		feèt		Surveyed	Estimated	-			Lic V	. Ca la la c	
Drilling Fluid			ont				- C	Drilling M	ethod	ANA	nife/NAC	
Drilling Contractor	US. 8	Ecolog	1-	NRC			Driller	н	elper			
Prepared By	J.Duquette		5(				Hammer Weight	Contraction of the local division of the loc	ammer rop		ins.	
Sample/Core D (feet below land		Core Recovery	PID Reading	Time/Hydraulic Pressure or Blows per 6								
From	То	(feet)	(ppm)	Inches	Sample/Core Descript	ion						ſ
10"	10"	-	0.0		Concrete		1	(1 A	1	<i>(</i>		
	12"		60		Stak Drawn (1	brise Si	nu	V/ Ano	jular 1	Terrel		
Magy"	36"		60	-	544							
3(1)	48"	-	0.0	-	SÀA							
48"	60"	-	0.0	~	SAA							
					4	<u> </u>	0.4		21			
					Sampled	6 10 12 10	26	Oh	5/30	22/22	12x/22	
					CONC	Sample	ed a	1130	$\leq 0$	<u>n                                    </u>		
								11-0				
												1

Sample	/Core l	_og				ARCADIS
Boring/Well	SB-8	305	Project/No	<u>.</u> 30	0084582	Pageof
Site Location	NG	7. A	1. Al	bany	Drilling Started	Drilling Comple <u>ted</u>
Total Depth D			Feet	( Hole Diameter	rinches	Type of Sample/ Coring Device Air Knife/Vac
Length and Di of Coring Dev						Sampling Interval
Land-Surface	Elev.		feet		Surveyed Estimate	ed Datum
Drilling Fluid l	Jsed		Nor	re		Drilling Method Air Know MAC
Drilling Contractor	US	Ecol	any	NR	L	Driller Helper
Prepared By	J.Duquette		Ú.			Hammer Hammer Weight Drop ins.
Sample/Core De (feet below land	-	Core Recovery	PID Reading	Time/Hydraulic Pressure or Blows per 6		
From	To	(feet)	(ppm)	Inches	Sample/Core Description	
0	10"		0.0		Conver	
10	12	-	0.0		Large Angular 6	Traine !
12	24"	~	0.0	-	Dark brown Los	ase Sand WI Angular Graner
24"	36"		0.0		SAA	
36	45"	~	0.0		SAA	
48	60		0.0		OTA Curlo blill	
60			0.0		Concrete block	
					Samplece & CONC-2 Sample	1405 on 3/30/20 ed@1130 on 3/30/22
						>>

Sample	/Core I	_og				e	ARC	ADIS	5
Boring/Well	5B-30	06	Project/N	o. 3	008 458-	2	Page	1 of	1
Site Location	NG	NA	Alban			rilling arted 0910	Drilling	730	_
Total Depth D	Drilled	5	Feet	Hole Diamete	r 12" in		Device	nife/Vac	
Length and D of Coring Dev	iameter			2			Sampling Interval		et
Land-Surface	Elev.		feet		Surveyed Es	stimated Datum			_
Drilling Fluid	Used		Nor	Le le			Drilling Method	Air Knice	JUERC
Drilling Contractor	US. 8	Ecolog	7			Driller	Helper		- -
Prepared By	J.Duquette		4			Hamm Weigh		in	s.
Sample/Core Do		Core Recovery	PID Reading	Time/Hydraulic Pressure or Blows per 6					
From	To	(feet)	(ppm)	Inches	Sample/Core Description	61			
	3	-	0.1	~	Crushed	Store	2000 NB 144		
3"	12"		0.1		Dark Brown	Course Sc	and W/An	gular grou	ue (
12"	36"		0.0		SAA				
31."	48'	-	0.0		CILA				
48"	60"		60	-	SAL				
			0.0						
					Sampled @	0940	on 3/	30/22	
								-	

Sample	/Core L	₋og					ARCADIS
Boring/Well	Si3-	307	Project/No	<u>.</u> 30	08-458	52	Page of
Site Location	N.G.	N.	Alba	ny		Drilling Started	1120 Drilling Completed 1130
Total Depth Drilled		25	Feet	Hole Diameter	~12"	Type of Sample/ Coring Device Air Kn. Re/ UGC TILLY	
Length and Diameter of Coring Device			_			Sampling Intervalfeet	
Land-Surface Drilling Fluid U	Land-Surface Elev.		feet		Surveyed	Drilling Method Air Kinne / Vacture	
Drilling Contractor	NR	C . (	)5	Ecolog	4	Driller Helper	
Prepared	J.Duquette				×		Hammer Hammer Weight Drop ins.
Sample/Core De (feet below land	surface)	Core Recovery	PID Reading	Time/Hydraulic Pressure or Blows per 6			
From	то Ц'	(feet)	(ppm)	inches	Sample/Core Descrip	ption	
4"	12"		0.0		NA C C III	11/1.00	lar Gravel. Brown
12"	24"		0.0	-	M.C. SONU	w/ fivido	Gaver, Diener
24"	30"		00		SAA		
					Sampled	a	1200 on 3/29/22
					Conc-4	also	Collected @ this
					location	(ii)	1030 on 3/30/22
	1						

Sample/Core Log											
Boring/Well	,-304	Project/No	<u>. 3</u>	00845	582	Pageof					
Site Location <u>NG</u>	N.	Alb	any		Drilling Started	Drilling Completed					
T-4-1 D-104 D-10-1	2'	E t	<u></u>	Y-"		Type of Sample/ Coring Device Vac Aruck/Core chill					
Total Depth Drilled		Feet	Hole Diamete	r	inches	Coring Device Vac Truck Love dr. 11					
Length and Diameter of Coring Device		-			Sampling Interval feet						
Land-Surface Elev.		feet		Surveyed	d Datum						
Drilling Fluid Used	$ \Lambda $	lone				Drilling Method Core chill					
Drilling Contractor	. Ea	009	¥		Driller Helper						
Prepared By J.Duque	tte	0	/			Hammer Hammer Weight Drop ins.					
Sample/Core Depth (feet below land surface)	Core Recovery	PID Reading	Time/Hydraulic Pressure or Blows per 6								
From To	(feet)	(ppm)	Inches	Sample/Core Desci	A	nplaces @					
10" 12'	-	0.0		<b>•</b>	rown Grau						
	·· _	6.0		SAA	iown Crau	the the gala survey					
10 10											
				Sundeil	a 1	125 on 3/30/22					
				CONC-3	Samole	10 1100 Gn 3/30/22					
					0						
	-										
	_										
	_										
	_										

Sample	Core I	DO						9	ARC	ADI	S
Boring/Well	SB-	309	Project/No	).	300	845	58-	2	Page	of	1
Site Location	NG	NA	1/ban				rilling arted		Drilling Completed		
Total Depth Drilled		1.5	Feet	Hole Diamete	r 12	۶/ine	ches	Type of Coring [	Sample/ Device <u>Air</u> k	inife/Va	'C
Length and Diameter of Coring Device				www.rh	1 1				Sampling Interval	Non-second State	feet
Land-Surface Elev.			feet		Surveyed	E	stimated				
Drilling Fluid	Used	Ne	one					2	Drilling Method	AN K.	re /VAC
Drilling Contractor	US.	Ecolo	Xen					Driller _	Helper		
Prepared By	J.Duquette		9/					Hamme Weight	r Hammer Drop		ins.
Sample/Core D (feet below land		Core Recovery	PID Reading	Time/Hydraulic Pressure or Blows per 6							
From	To	(feet)	(ppm)	Inches	Sample/Cor	e Description	1.0				
611	12"		0.0		Dark	Brown	tone		Sance W/	Anastro	0.50.10
12"	16	-	0.0	-	SAA	0.000			cance voy	riguica	ging
16"		-	0.0		SAA						
					1		0			01	
					Samp	red	a	14	50 On	3/29/	<u>25</u>
		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~									
		I	I								

Sample	/Core I	oq					9	ARC	ADIS	
				21	NOTICA	$\sim$			1	
Boring/Well	515-2	510	Project/No	<u>. 30</u>	00450	4		Page	of	-
Site Location	NGI	V Al	Ь			Drilling Started		Drilling Completed		-
Total Depth [	Drilled	1.5	Feet	Hole Diamete	r 12"	inches	Type of Coring [	Sample/ Device <u>4.</u>	Kn. Fe/U	ue.
Length and Diameter of Coring Device Sampling Interval										et
Land-Surface ElevfeetSurveyedEstimated Datum										- /
Drilling Fluid	Used	/	No:	ne			_	Drilling Method	Ar Knit	Nac
Drilling Contractor	US	Ecolo	ay.	NRC			Driller	Helper		_
Prepared By	J.Duquette		UT.				Hamme Weight		in:	3.
Sample/Core D (feet below land		Core Recovery	PID Reading	Time/Hydraulic Pressure or Blows per 6						
From	To	(feet)	(ppm)	Inches	Sample/Core Descri	~	1			
	3.	~	0.0	<u> </u>	(rushed	Grave	1 50 - 5	Sand with	Angulas Gra	
122	1/1'		0.0		Lork Bion	un loa		Junia W/	ANGUIN CTO	
17.15	16		0.0		CA A					
16			0.0		SAL					
					Sampler	10	/	1415	on 3/291:	2
					- V					
	ļ									
		· ·								

Sample	/Core I	Log					ARCADIS
Boring/Well	SB-3	311	Project/No	<u>.                                    </u>	00845	82	Page of
Site Location	NG.	N	Alb	any		Drilling Started	150 Drilling Completed 1200
Total Depth Drilled		2	Feet	Hole Diamete	r <u>~12</u>	inches	Type of Sample/ Coring Device <u>Air Kn. Ke/Varc</u>
Length and Diameter of Coring Device							Sampling Interval feet
Land-Surface Elev.			feet		Surveyed	Estimated	Datum
Drilling Fluid U	Jsed	$-\Delta$	lon	e_	n an and web procession. Journal of Alaska and The South State of Alaska and Alaska and Alaska and Alaska and A		Drilling Method Arkhan
Drilling Contractor	US.	Ecology - No			C		DrillerHelper
Prepared By	J.Duquette		UL.				Hammer Hammer Weight Drop ins.
Sample/Core De (feet below land		Core Recovery	PID Reading	Time/Hydraulic Pressure or Blows per 6			
From	То	(feet)	(ppm)	Inches	Sample/Core Desc		
Ou	4"		6.0	~	Crushed	Stone	
4"	8	-	0.6	-	Bindle		
<u> </u>	12"	-	6.0		Brann M	-C Su	nd W/ angular acavel
12"	16"	-	6.6		SAA		0
<b>6</b> <sup>11</sup>	24"	-	6.0		SAA		
					Sampleil	- Q	340, no PUMT Sample
					So TCLF	> Same	dect. on 3/29/22
						V	