Volume 3 of 3

Project Manual

(Division 50, Project-Specific Available Information)

Athletic Field Construction
Ella T. Grasso Technical High School

189 Fort Hill Road
Groton, CT

DCS Project No.: BI-RT-877A
OSCGR Project No.: 900-0014

Prepared By:
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Josh Geballe – Commissioner

State of Connecticut
Department of Administrative Services
Construction Services
450 Columbus Boulevard
Hartford, CT 06103

Project Manual Date: 12/01/20

ISSUED for BID

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January 5, 2021 **FINAL**

Mr. Dennis Tovey
State of Connecticut
Department of Administrative Services
Division of Construction Services
450 Columbus Boulevard
Hartford, CT 06103

Re: In-Situ Soil Characterization and Soil Reuse Guidance
Ella Grasso Technical High School
189 Fort Hill Road
Groton, Connecticut

Dear Mr. Tovey:

ATC Group Services LLC (ATC) has prepared the following In-Situ Soil Characterization and Soil Reuse Determination letter report for the parcel known as Ella Grasso Technical High School, located at 189 Fort Hill Road in Groton, Connecticut ("Property"), on behalf of the State of Connecticut Department of Administrative Services (DAS) Division of Construction Services (DCS) ("Client"). A Site Location Map is presented as **Figure 1**.

The purpose of the investigation was to characterize "stockpiled" soils, which according to Mr. Dennis Tovey of the State of Connecticut DAS, DCS, are to be excavated for the construction of a new athletic field. The proposed location for the new athletic field had previously been filled and graded with soils considered excess from demolition of the former technical high school, which was razed in 2019/2020. In order to make a determination if soils are considered acceptable for unrestricted reuse, ATC completed an in-situ soil characterization investigation which is documented below. The results of this investigation have been used to determine if the soils slated for excavation are suitable for reuse without restriction or will require special handling upon excavation in accordance with State regulations.

Environmental Regulations and Reuse Guidance

The Remediation Standard Regulations ("RSRs," Sections 22a-133k-1 through 22a-133k-3 of the Regulations of Connecticut State Agencies) apply to any action taken to remediate polluted soil, surface water or groundwater plume emanating from a release area provided such action is required pursuant to Chapter 445 or Chapter 446 of the Connecticut General Statutes, or is taken pursuant to Public Act 95-183 (Transfer Act) and Public Act 95-190 (Remediation of Contaminated Real Property). The RSRs do not directly apply to the Property due to the lack of any current regulatory requirements. However, the RSRs are used for comparison purposes to determine how to characterize and manage polluted soils.

The RSRs define two criteria that apply to soil: the Direct Exposure Criteria (DEC) and the Pollutant Mobility Criteria (PMC). Direct Exposure Criteria (DEC) apply to soils from grade to 15 feet below the ground surface (fbgs). The DEC are risk-based standards that were developed to be protective of human health. The DEC are subdivided into the Residential DEC (RDEC), which is appropriate for residential properties, and Industrial/Commercial DEC (I/C-DEC), which is appropriate for industrial and commercial properties.

The PMC are used to evaluate the leachability of contaminants in soil. These risk-based standards were developed to be protective of the groundwater by ensuring that the potential for leaching of the contaminants from impacted soils into groundwater is minimized.

The PMC are subdivided into GAPMC and GBPMC, based on the groundwater classification of a site. According to Connecticut Environmental Conditions Online (CTECO), the Property is located in a designated "GA" area by the Connecticut Department of Energy and Environmental Protection (CTDEEP) for groundwater quality area. The "GA" designation indicates the ground water is considered "natural quality" and deemed suitable for drinking without treatment. Connecticut State regulations are the most stringent for "GA" classified groundwater. The PMC are applicable for soils from grade to the seasonal low water table (GAPMC) or above the seasonal high water table (GBPMC), as appropriate based on the CTDEEP groundwater classification.

The RSRs define four (4) categories of soil (Line items #1, #2, #4 and #5) and the CTDEEP General Permit for Contaminated Soil and/or Sediment Management, Staging and Transfer (expired 2018) defines one category of soil {Line item #3} with respect to reuse when excavated:

1. Hazardous waste - The treatment, storage, disposal and transportation of hazardous waste must be done in accordance with Federal and State hazardous waste regulations.

2. Special waste - Special waste is polluted soil that is specially authorized to be disposed of by the CTDEEP. Examples of a special waste include (1) water treatment, sewage treatment or industrial sludges, liquid, solids and contained gases; fly-ash and casting sands or slag; and contaminated dredge spoils; (2) scrap tires; (3) bulky waste; (4) asbestos; (5) residue; and (6) biomedical waste.

3. Contaminated Soil - Contaminated Soil is treated or untreated soil affected by a known or suspected release and determined, or reasonably expected to contain substances at concentrations above the RDEC or GAPMC.

4. Polluted soil – Polluted soil is defined as soils affected by a release of a substance at a concentration above applicable laboratory reporting limit but meets applicable RDEC and GA PMC and; therefore, can be reused on-site or at another site if accepted by the property owner and not placed below the water table or in an area susceptible to erosion.

5. Natural soil - Natural soils are defined as soils which do not contain concentrations of non-native contaminants above applicable laboratory reporting limits. Natural soils may be used at any parcel if the soils meet this criterion.

Environmental Investigation

The environmental investigation was conducted in an area of "stockpiling" with the location based upon the *Grasso Technical High School - Additional Excess Material Placement Map* dated 06/23/2020 and completed by Richter & Cegan Inc. This map depicts an area approximately 570 feet in length and 260 feet in width.

Prior to the investigation, ATC contacted Call Before You Dig (CBYD), a public utility locating service, to locate and mark subsurface public utilities entering the Property. In addition, ATC marked out proposed soil boring locations and contracted with a Ground Penetrating Radar (GPR) subcontractor, Underground

Surveying LLC located in Brookfield, Connecticut, to conduct a GPR survey of each drilling location. The GPR unit was used to clear proposed drilling locations of subsurface utilities and other obstructions such as large boulders placed during stockpiling activities. ATC marked out the boring locations across the fill area in an approximate 100 foot grid prior to the survey. Based upon the results of the GPR survey, the boring locations were either shifted or considered to be clear for drilling.

On December 1, 2020, ATC contracted with Glacier Drilling of Durham, Connecticut to advance 20 soil borings (B-1 through B-20) throughout the fill area. The borings were advanced using direct-push Geoprobe® drill rig equipped with macrocore samplers lined with disposable acetate sleeves for collection of soil samples. These 20 soil borings were set at approximately 100 feet apart. On December 2, 2020, ATC added an additional six (6) soil borings (B-21 through B-26) to reduce a portion of grid to 50 feet apart for better delineation.

The borings were advanced to a depth of 12 feet below ground surface (fbgs) with the exception of borings B-24, B-25, and B-26, which were located on the shallow western slope at an elevation approximately four (4) feet lower than the 23 other borings. These borings were advanced to a terminal depth of only eight (8) fbgs. Boring locations are presented on **Figure 2**. Soil samples were collected at four (4) foot depth intervals from each boring. A total of 71 soil samples were collected. The 0-4 foot soil sample was identified as "A", the 4-8 foot soil sample was identified as "B" and the 8-12 foot soil sample (if collected) was identified as "C".

Soil samples collected during the investigation were field screened utilizing a photo-ionization detector (PID). The PID measures the total concentration of volatile organic compounds (VOCs) within a specific ionization range in the sample headspace, but does not measure the actual concentrations of individual compounds that may be present. A portion of the soil sample was transferred from the sampling device into a re-sealable plastic bag. The sample was allowed to equilibrate approximately 15 minutes prior to screening. The plastic bag was opened approximately one half-inch to allow for insertion of the PID probe. No significant PID responses were noted in the sample containers.

Soil samples were collected into the appropriate laboratory sample containers, placed in an ice-packed cooler, and transported to Phoenix Environmental Laboratories, Inc. of Manchester, Connecticut (Phoenix), a State of Connecticut certified laboratory, under chain of custody protocols. Based on the results presented in the Remedial Action and UST Removal Report prepared by ATC and dated June 23, 2020, soil samples were analyzed by one or more of the following analyses:

- Extractable Total Petroleum Hydrocarbons(ETPH) by the CTDEEP approved method;
- VOCs in accordance with United States Environmental Protection Agency (USEPA) Method 8260;
- Polycyclic aromatic hydrocarbons (PAHs) in accordance with USEPA Method 8270; and,
- Total Resource Conservation and Recovery Act (RCRA) 8 metals and if necessary based on concentrations, SPLP RCRA 8 metals.

Soil samples collected from soil borings B-24 and B-25 were placed on hold until initial sampling results were received. Based on the results, further delineation was not required, and therefore, these soil samples were not analyzed.

Based on soil samples collected, soils in the fill area were identified as medium to fine brown to gray sand and gravel with a layer of topsoil within the first foot layer. Groundwater and bedrock were not encountered during advancement of borings to 12 fbgs. Boring B-1 did encounter refusal at 9 fbgs which in all likelihood was a boulder placed during stockpiling activities. Trace asphalt and brick fragments were noted in soil borings B-8 and B-9.

Soil Analytical Results

Copies of the Laboratory Certificates of Analysis and Chains of Custody for the investigation are included in **Attachment A**. **Table 1** presents the results of the soil analysis along with the sampling depths and compares them to the applicable RSR criteria. The overall analytical results from the soil investigation are reported below:

VOCs
For screening purposes, 30 of the original 60 soil samples (B-1 through B-20 {A,B,C}) collected as part of the proposed scope of work were analyzed for VOCs. VOCs were not detected above the laboratory reporting limit in the 30 soil samples submitted. Based on these results ATC concluded that additional analysis of the remaining 41 samples was not warranted for VOCs.

ETPH
The original 60 soil samples (B-1 through B-20 {A,B,C}) collected as part of the proposed scope of work were analyzed for ETPH. ETPH was detected above the laboratory reported limit in only one (1) soil sample. The 0-4 foot sample from B-13A had an ETPH concentration of 390 milligrams per Kilogram (mg/Kg). The concentration does not exceed the applicable RSR criteria. Based on these results ATC concluded that additional analysis of the remaining 11 samples was not warranted for ETPH.

Total RCRA 8 Metals
For screening purposes, 30 of the original 60 soil samples (B-1 through B-20 {A,B,C}) collected as part of the proposed scope of work were analyzed for total RCRA 8 metals. One or more RCRA 8 metal was noted in all soil samples submitted for analysis. The concentrations did not exceed the applicable RSR criteria and the level of concentrations noted are considered to be background or native concentrations. Based on these results, ATC concluded that additional analysis of the remaining 41 samples was not warranted for VOCs.

PAHs
Seventy one (71) soil samples were analyzed for PAHs. One or more PAHs were detected above the laboratory reporting limit in 10 of the 71 samples analyzed. One soil sample, B-4C, had several PAH concentrations that exceeded applicable RSR criteria.

Overall, detections of contaminants of concern (COCs) were noted above the laboratory reporting limit in soil samples from 10 soil borings. One (1) sample, B-4C, contained COCs that exceeded the applicable RSR criteria.

Soil Reuse Determination

Figure 2 depicts the delineation of soil areas that are considered to impacted (COCs greater than the laboratory reporting limit or background). Three (3) separate impacted zones were identified as shown on **Figure 2** and are listed as Impacted Zone #1, Impacted Zone #2, and Impacted Zone #3.

Polluted Soil is defined as soils affected by a release of a substance at a concentration above applicable laboratory reporting limit but meets applicable RDEC and GA PMC. Soil from Impacted Zone #1 and Impacted Zone #2 meets the definition of Polluted Soil.

Contaminated Soil is treated or untreated soil affected by a known or suspected release and determined, or reasonably expected to contain substances at concentrations above the RDEC or GAPMC. Soil from Impacted Zone #3 meets the definition of Contaminated Soil.

Based on the sampling grid and location of soil samples, ATC prepared cross-sections (**Figures 3 through 5**) at specific horizontal line distances (stations) that are shown **Figure 2**. Each cross-section then depicts the soil samples that were being deemed polluted or contaminated and the determination of the area of impact though interpretation. The areas of impacts are calculated by dividing the area into simple figures (triangles and trapezoids) and computing the area by length and depth. Then the volumes were calculated using the average end area of two (2) separate cross sections which are considered to be related and multiplying by the distance between the cross-sections.

The calculated volumes of each impacted zone is presented below:

Impacted Zone #1 = 6,334 cubic yards (yd^3)
Impacted Zone #2 = 2,095 yd^3
Impacted Zone #3 = 412 yd^3

Based upon ATCs findings, soils excavated within Impacted Zone #1 and #2 are deemed polluted and can be reused onsite or offsite, with approval by the offsite property owner, if deemed suitable as fill material and not placed below the water table and not placed in an area susceptible to erosion. If these criteria cannot be met, then then the soils will need to be transported offsite for disposal.

Soils excavated within Impacted Zone #3 are deemed contaminated and it is recommend that this material be disposed of off-site at a facility permitted to accept such waste. Alternatively, this soil maybe be reused in other scenarios, such as beneath a building or other permanent structure, beneath four feet of clean fill (or two feet of clean fill beneath a paved surface) or beneath a paved surface. This material should not be placed below the water table.

The remaining balance of the stockpile that is excavated and not within the impacted zones may be reused without restriction.

If you have any questions, please do not hesitate to contact the undersigned.

Sincerely,
ATC GROUP SERVICES LLC

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Attachments:

Attachment 1: Table 1
Attachment 2: Figures 1-5
Attachment 3: Laboratory Data Packages

Attachment 1: Table 1

Table 1
In-Situ Soil Characterization
Ella Grasso Technical High School
189 Fort Hill Road
Groton, Connecticut

General Location	CTDEEP RSR Criteria																				
Date				12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020
Depth				0-4'	4-8'	8-12'	0-4'	4-8'	8-12'	0-4'	4-8'	8-12'	0-4'	4-8'	8-12'	0-4'	4-8'	8-12'	0-4'	4-8'	8-12'	0-4'	4-8'
Screening (PPM)	GAPMC	RDEC	ICDEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sample ID				B-1A	B-1B	B-1C	B-2A	B-2B	B-2C	B-3A	B-3B	B-3C	B-4A	B-4B	B-4C	B-5A	B-5B	B-5C	B-6A	B-6B	B-6C	B-7A	B-7B
Volatile Organic Compounds (VOCS) (mg/kg)																							
Total VOCs	NE	NE	NE	NA	NA	NA	ND	ND	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA	ND	ND	ND	NA	NA
Extractable Total Petroleum Hydrocarbons (ETPH) (mg/kg)																							
ETPH	500	NE	NE	< 56	< 52	< 52	< 53	< 53	< 53	< 54	< 54	< 53	< 56	< 52	< 54	< 53	< 53	< 52	< 53	< 53	< 54	< 53	< 53
Total Resource Conservation and Recovery Act (RCRA) 8 Metals (mg/kg)																							
Arsenic	NE	10	10	NA	NA	NA	**1.36**	**1.18**	**1.23**	NA	NA	NA	**1.98**	**1.18**	**1.39**	**NA**	**NA**	**NA**	**1.04**	**1.71**	**1.46**	NA	NA
Barium	NE	4,700	4,700	NA	NA	NA	**37**	**28**	**32.1**	NA	NA	NA	**40.4**	**29**	**34.7**	**NA**	**NA**	**NA**	**28.7**	**43.7**	**47.5**	NA	NA
Cadmium	NE	34	34	NA	NA	NA	ND< 0.37	ND< 0.33	ND< 0.35	NA	NA	NA	ND< 0.36	ND< 0.37	ND< 0.36	NA	NA	NA	ND< 0.34	ND< 0.38	ND< 0.39	NA	NA
Chromium	NE	NE	NE	NA	NA	NA	**3.79**	**3.65**	**4.49**	NA	NA	NA	**7.88**	**4.25**	**5.9**	NA	NA	NA	**4.19**	**5.72**	**6.04**	NA	NA
Lead	NE	400	400	NA	NA	NA	**2.56**	**2.26**	**2.63**	NA	NA	NA	**5.74**	**2.85**	**2.46**	NA	NA	NA	**2.56**	**2.8**	**1.89**	NA	NA
Mercury	NE	20	20	NA	NA	NA	ND< 0.03	ND< 0.03	ND< 0.03	NA	NA	NA	**0.05**	ND< 0.03	ND< 0.03	NA	NA	NA	ND< 0.03	ND< 0.03	ND< 0.03	NA	NA
Polyaromatic Hydrocarbons (PAHs) (mg/kg)																							
Acenaphthylene	8.4	1000	1000	ND< 0.26	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.26	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Benz(a)anthracene	1	1	7.8	ND< 0.26	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.25	**0.34**	ND< 0.26	ND< 0.25	**5.2**	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Benzo(a)pyrene	1	1	1	ND< 0.26	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.25	**0.35**	ND< 0.26	ND< 0.25	**5.8**	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Benzo(b)fluoranthene	1	1	7.8	ND< 0.26	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.25	**0.28**	ND< 0.26	ND< 0.25	**5**	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Benzo(ghi)perylene	1*	8.4*	78*	ND< 0.26	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.26	ND< 0.25	**3.2**	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Benzo(k)fluoranthene	1	8.4	78	ND< 0.26	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.25	**0.25**	ND< 0.26	ND< 0.25	**3.2**	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Chrysene	1*	84	780	ND< 0.26	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.25	**0.31**	ND< 0.26	ND< 0.25	**4.9**	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Dibenz(a,h)anthracene	1*	1*	1*	ND< 0.26	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.26	ND< 0.25	**0.72**	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Fluoranthene	5.6	1000	2500	ND< 0.26	ND< 0.24	**0.29**	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.25	**0.65**	ND< 0.26	ND< 0.25	**12**	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Fluorene	5.6	1000	2500	ND< 0.26	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.26	ND< 0.25	**0.31**	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Indeno(1,2,3-cd)pyrene	1	8	1	ND< 0.26	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.26	ND< 0.25	**3.6**	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Phenanthrene	4	1,000	2,500	ND< 0.26	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.25	**0.36**	ND< 0.26	ND< 0.25	**4.1**	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Pyrene	4	1,000	2,500	ND< 0.26	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.25	**0.53**	ND< 0.26	ND< 0.25	**10**	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24

Abbreviations and Symbols
ND<0.24 = not detected above the laboratory reoirting limit
mg/kg = milligrams per kilogram
NA = Not Analyzed
NE = Criteria Not Established
GAPMC = GA Pollutant Mobility Criteria
ICDEC = Industrial Commercial Direct Exposure Criteria
RES DEC = Residential Direct Exposure Criteria
ETPH = Extractable Total Petroleum Hydrocarbons
CTDEEP = Connecticut Department of Energy and Evironmental Protection
RSRs = Remediation Standard Regulations
* = Criteria taken from CTDEEP table entitled " Recommended Criteria Values for Common Additional Polluting Substances and Alternate Criteria " dated November 2015.

Notes:
1) Concentrations shown in **bold** were reported above the laboratory reporting limits for the specified compound
2) Concentrations shown in **bold & shaded** were above the laboratory reporting limits & CTDEEP RSR Criteria

Table 1
In-Situ Soil Characterization
Ella Grasso Technical High School
189 Fort Hill Road
Groton, Connecticut

General Location	CTDEEP RSR Criteria																				
Date				12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/1/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020
Depth				8-12'	0-4'	4-8'	8-12'	0-4'	4-8'	8-12'	0-4'	4-8'	8-12'	0-4'	4-8'	8-12'	0-4'	4-8'	8-12'	0-4'	4-8'	8-12'	0-4'
Screening (PPM)	GAPMC	RDEC	ICDEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sample ID				B-7C	B-8A	B-8B	B-8C	B-9A	B-9B	B-9C	B-10A	B-10B	B-10C	B-11A	B-11B	B-11C	B-12A	B-12B	B-12C	B-13A	B-13B	B-13C	B-14A
Volatile Organic Compounds (VOCS) (mg/kg)																							
Total VOCs	NE	NE	NE	NA	ND	ND	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA	ND
Extractable Total Petroleum Hydrocarbons (ETPH) (mg/kg)																							
ETPH	500	NE	NE	< 52	< 52	< 53	< 52	< 53	< 51	< 53	< 53	< 52	< 53	< 54	< 53	< 53	< 52	< 52	< 52	**390**	< 53	< 52	< 53
Total Resource Conservation and Recovery Act (RCRA) 8 Metals (mg/kg)																							
Arsenic	NE	10	10	NA	**1.34**	**1.2**	ND< 0.73	NA	NA	NA	**0.76**	**0.74**	**1.49**	NA	NA	NA	**0.84**	**1.15**	**0.82**	NA	NA	NA	**1.1**
Barium	NE	4,700	4,700	NA	**31.7**	**38.4**	**33.3**	NA	NA	NA	**40.8**	**91.6**	**35.5**	NA	NA	NA	**38**	**34.3**	**38.2**	NA	NA	NA	**40.1**
Cadmium	NE	34	34	NA	ND< 0.38	**0.45**	**0.39**	NA	NA	NA	**0.47**	**0.4**	**0.43**	NA	NA	NA	**0.38**	**0.44**	**0.39**	NA	NA	NA	**0.52**
Chromium	NE	NE	NE	NA	**6.58**	**8.15**	**5.65**	NA	NA	NA	**10.4**	**2.76**	**8.61**	NA	NA	NA	**6.25**	**7.34**	**4.57**	NA	NA	NA	**10.7**
Lead	NE	400	400	NA	**4.33**	**3.47**	**1.89**	NA	NA	NA	**2.86**	**2.29**	**4.05**	NA	NA	NA	**2.26**	**3.13**	**2.26**	NA	NA	NA	**5.59**
Mercury	NE	20	20	NA	ND< 0.03	ND< 0.03	ND< 0.03	NA	NA	NA	ND< 0.03	ND< 0.03	ND< 0.03	NA	NA	NA	ND< 0.03	ND< 0.03	ND< 0.03	NA	NA	NA	ND< 0.03
Polyaromatic Hydrocarbons (PAHs) (mg/kg)																							
Acenaphthylene	8.4	1000	1000	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	**0.33**	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25
Benz(a)anthracene	1	1	7.8	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	**0.26**	ND< 0.25	ND< 0.25	**0.64**	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25
Benzo(a)pyrene	1	1	1	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24	**0.33**	ND< 0.24	ND< 0.25	ND< 0.24	**0.34**	ND< 0.25	ND< 0.25	**0.8**	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25
Benzo(b)fluoranthene	1	1	7.8	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24	**0.28**	ND< 0.24	ND< 0.25	ND< 0.24	**0.27**	ND< 0.25	ND< 0.25	**0.69**	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25
Benzo(ghi)perylene	1*	8.4*	78*	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	**0.52**	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25
Benzo(k)fluoranthene	1	8.4	78	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	**0.25**	ND< 0.25	ND< 0.25	**0.62**	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25
Chrysene	1*	84	780	ND< 0.24	**0.25**	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	**0.31**	ND< 0.25	ND< 0.25	**0.78**	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25
Dibenz(a,h)anthracene	1*	1*	1*	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25
Fluoranthene	5.6	1000	2500	ND< 0.24	**0.56**	ND< 0.25	ND< 0.24	**0.32**	ND< 0.24	ND< 0.25	ND< 0.24	**0.42**	ND< 0.25	ND< 0.25	**1.40**	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	**0.3**	ND< 0.24	ND< 0.24	ND< 0.25
Fluorene	5.6	1000	2500	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25
Indeno(1,2,3-cd)pyrene	1	8	1	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	**0.25**	ND< 0.25	ND< 0.25	**0.55**	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25
Phenanthrene	4	1,000	2,500	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	**0.48**	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25
Pyrene	4	1,000	2,500	ND< 0.24	**0.47**	ND< 0.25	ND< 0.24	**0.29**	ND< 0.24	ND< 0.25	ND< 0.24	**0.44**	ND< 0.25	ND< 0.25	**1.4**	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.25	**0.26**	ND< 0.24	ND< 0.24	ND< 0.25

Abbreviations and Symbols
ND<0.24 = not detected above the laboratory reoirting limit
mg/kg = milligrams per kilogram
NA = Not Analyzed
NE = Criteria Not Established
GAPMC = GA Pollutant Mobility Criteria
ICDEC = Industrial Commercial Direct Exposure Criteria
RES DEC = Residential Direct Exposure Criteria
ETPH = Extractable Total Petroleum Hydrocarbons
CTDEEP = Connecticut Department of Energy and Evironmental Protection
RSRs = Remediation Standard Regulations
* = Criteria taken from CTDEEP table entitled " Recommended Criteria Values for Common Additional Polluting Substances and Alternate Criteria " dated November 2015.

Notes:
1) Concentrations shown in **bold** were reported above the laboratory reporting limits for the specified compound
2) Concentrations shown in **bold & shaded** were above the laboratory reporting limits & CTDEEP RSR Criteria

Table 1
In-Situ Soil Characterization
Ella Grasso Technical High School
189 Fort Hill Road
Groton, Connecticut

General Location	CTDEEP RSR Criteria																	
Date				12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020
Depth				4-8'	8-12'	0-4'	4-8'	8-12'	0-4'	4-8'	8-12'	0-4'	4-8'	8-12'	0-4'	4-8'	8-12'	0-4'	4-8'	8-12'
Screening (PPM)	GAPMC	RDEC	ICDEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sample ID				B-14B	B-14C	B-15A	B-15B	B-15C	B-16A	B-16B	B-16C	B-17A	B-17B	B-17C	B-18A	B-18B	B-18C	B-19A	B-19B	B-19C
Volatile Organic Compounds (VOCS) (mg/kg)																				
Total VOCs	NE	NE	NE	ND	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Extractable Total Petroleum Hydrocarbons (ETPH) (mg/kg)																				
ETPH	500	NE	NE	< 52	< 53	< 53	< 52	< 55	< 52	< 52	< 51	< 61	< 54	< 54	< 52	< 52	< 51	< 54	< 53	< 51
Total Resource Conservation and Recovery Act (RCRA) 8 Metals (mg/kg)																				
Arsenic	NE	10	10	**0.9**	**1.3**	NA	NA	NA	**1.01**	**1.01**	**1.01**	NA	NA	NA	**1.00**	**1.17**	**1.25**	NA	NA	NA
Barium	NE	4,700	4,700	**32.3**	**36.8**	NA	NA	NA	**33.9**	**33.9**	**31.3**	NA	NA	NA	**37**	**37.4**	**38.8**	NA	NA	NA
Cadmium	NE	34	34	**0.38**	**0.48**	NA	NA	NA	**0.43**	**0.43**	**0.4**	NA	NA	NA	**0.43**	**0.48**	**0.45**	NA	NA	NA
Chromium	NE	NE	NE	**4.05**	**6.88**	NA	NA	NA	**6.82**	**5.83**	**8.25**	NA	NA	NA	**6.69**	**7.03**	**7.44**	NA	NA	NA
Lead	NE	400	400	**2.33**	**5.69**	NA	NA	NA	**3.12**	**2.49**	**2.98**	NA	NA	NA	**3.72**	**4.39**	**2.94**	NA	NA	NA
Mercury	NE	20	20	ND< 0.03	ND< 0.03	NA	NA	NA	ND< 0.03	ND< 0.03	ND< 0.03	NA	NA	NA	ND< 0.03	ND< 0.03	ND< 0.03	NA	NA	NA
Polyaromatic Hydrocarbons (PAHs) (mg/kg)																				
Acenaphthylene	8.4	1000	1000	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.26	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.28	ND< 0.25	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Benz(a)anthracene	1	1	7.8	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.26	ND< 0.24	ND< 0.25	ND< 0.24	**0.41**	ND< 0.25	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Benzo(a)pyrene	1	1	1	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.26	ND< 0.24	ND< 0.25	ND< 0.24	**0.47**	ND< 0.25	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Benzo(b)fluoranthene	1	1	7.8	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.26	ND< 0.24	ND< 0.25	ND< 0.24	**0.41**	ND< 0.25	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Benzo(ghi)perylene	1*	8.4*	78*	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.26	ND< 0.24	ND< 0.25	ND< 0.24	**0.29**	ND< 0.25	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Benzo(k)fluoranthene	1	8.4	78	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.26	ND< 0.24	ND< 0.25	ND< 0.24	**0.38**	ND< 0.25	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Chrysene	1*	84	780	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.26	ND< 0.24	ND< 0.25	ND< 0.24	**0.45**	ND< 0.25	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Dibenz(a,h)anthracene	1*	1*	1*	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.26	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.28	ND< 0.25	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Fluoranthene	5.6	1000	2500	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.26	ND< 0.24	ND< 0.25	ND< 0.24	**0.84**	**0.31**	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Fluorene	5.6	1000	2500	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.26	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.28	ND< 0.25	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Indeno(1,2,3-cd)pyrene	1	8	1	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.26	ND< 0.24	ND< 0.25	ND< 0.24	**0.34**	ND< 0.25	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Phenanthrene	4	1,000	2,500	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.26	ND< 0.24	ND< 0.25	ND< 0.24	**0.3**	ND< 0.25	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24
Pyrene	4	1,000	2,500	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.26	ND< 0.24	ND< 0.25	ND< 0.24	**0.81**	**0.3**	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.25	ND< 0.24

Abbreviations and Symbols
ND<0.24 = not detected above the laboratory reoirting limit
mg/kg = milligrams per kilogram
NA = Not Analyzed
NE = Criteria Not Established
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RSRs = Remediation Standard Regulations
* = Criteria taken from CTDEEP table entitled " Recommended Criteria Values for Common Additional Polluting Substances and Alternate Criteria " dated November 2015.

Notes:
1) Concentrations shown in **bold** were reported above the laboratory reporting limits for the specified compound
2) Concentrations shown in **bold & shaded** were above the laboratory reporting limits & CTDEEP RSR Criteria

Table 1
In-Situ Soil Characterization
Ella Grasso Technical High School
189 Fort Hill Road
Groton, Connecticut

General Location	CTDEEP RSR Criteria																					
Date				12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020	12/2/2020
Depth				0-4'	4-8'	8-12'	0-4'	4-8'	8-12'	0-4'	4-8'	8-12'	0-4'	4-8'	8-12'	0-4'	4-8'	8-12'	0-4'	4-8'	8-12'	0-4'	4-8'
Screening (PPM)	GAPMC	RDEC	ICDEC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sample ID				B-20A	B-20B	B-20C	B-21A	B-21B	B-21C	B-22A	B-22B	B-22C	B-23A	B-23B	B-23C	B-24A	B-24B	B-24C	B-25A	B-25B	B-25C	B-26A	B-26B
Volatile Organic Compounds (VOCS) (mg/kg)																							
Total VOCs	NE	NE	NE	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons (ETPH) (mg/kg)																							
ETPH	500	NE	NE	< 54	< 53	< 52	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Resource Conservation and Recovery Act (RCRA) 8 Metals (mg/kg)																							
Arsenic	NE	10	10	**0.78**	**0.77**	**1.13**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	NE	4,700	4,700	**37.1**	**46**	**41**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NE	34	34	**0.42**	**0.47**	**0.46**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NE	**5.94**	**4.44**	**5.54**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NE	400	400	**2.22**	**2.6**	**3.11**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NE	20	20	ND< 0.03	ND< 0.03	ND< 0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polyaromatic Hydrocarbons (PAHs) (mg/kg)																							
Acenaphthylene	8.4	1000	1000	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.27	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	NA	NA	NA	NA	NA	NA	ND< 0.25	ND< 0.25
Benz(a)anthracene	1	1	7.8	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.27	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	NA	NA	NA	NA	NA	NA	ND< 0.25	ND< 0.25
Benzo(a)pyrene	1	1	1	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.27	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	NA	NA	NA	NA	NA	NA	ND< 0.25	ND< 0.25
Benzo(b)fluoranthene	1	1	7.8	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.27	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	NA	NA	NA	NA	NA	NA	ND< 0.25	ND< 0.25
Benzo(ghi)perylene	1*	8.4*	78*	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.27	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	NA	NA	NA	NA	NA	NA	ND< 0.25	ND< 0.25
Benzo(k)fluoranthene	1	8.4	78	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.27	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	NA	NA	NA	NA	NA	NA	ND< 0.25	ND< 0.25
Chrysene	1*	84	780	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.27	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	NA	NA	NA	NA	NA	NA	ND< 0.25	ND< 0.25
Dibenz(a,h)anthracene	1*	1*	1*	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.27	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	NA	NA	NA	NA	NA	NA	ND< 0.25	ND< 0.25
Fluoranthene	5.6	1000	2500	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.27	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	NA	NA	NA	NA	NA	NA	ND< 0.25	ND< 0.25
Fluorene	5.6	1000	2500	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.27	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	NA	NA	NA	NA	NA	NA	ND< 0.25	ND< 0.25
Indeno(1,2,3-cd)pyrene	1	8	1	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.27	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	NA	NA	NA	NA	NA	NA	ND< 0.25	ND< 0.25
Phenanthrene	4	1,000	2,500	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.27	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	NA	NA	NA	NA	NA	NA	ND< 0.25	ND< 0.25
Pyrene	4	1,000	2,500	ND< 0.25	ND< 0.25	ND< 0.25	ND< 0.27	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.24	NA	NA	NA	NA	NA	NA	ND< 0.25	ND< 0.25

Abbreviations and Symbols
ND<0.24 = not detected above the laboratory reoirting limit
mg/kg = milligrams per kilogram
NA = Not Analyzed
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Notes:
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2) Concentrations shown in **bold & shaded** were above the laboratory reporting limits & CTDEEP RSR Criteria

Attachment 2: Figures 1-5

ENVIRONMENTAL • GEOTECHNICAL
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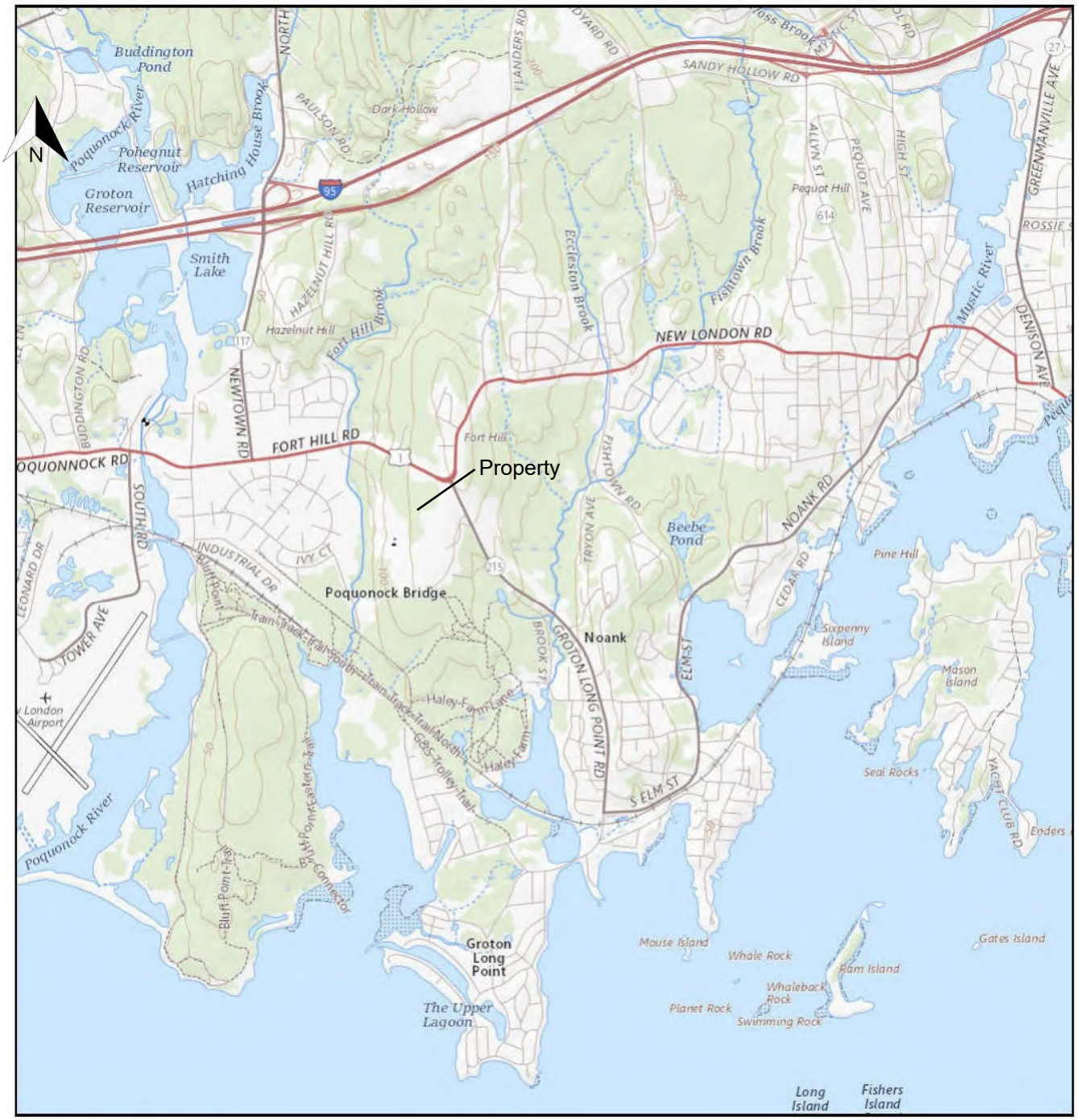
ATC Group Services
290 Roberts Street
East Hartford, CT 06108

Phone: 860-282-9924
Fax: 860-282-9826
www.atcgroupservices.com

Figure 1: Site Location Map

Project: Ella Grasso Technical High School
189 Fort Hill Road
Groton, CT

Project Number: 2257317020



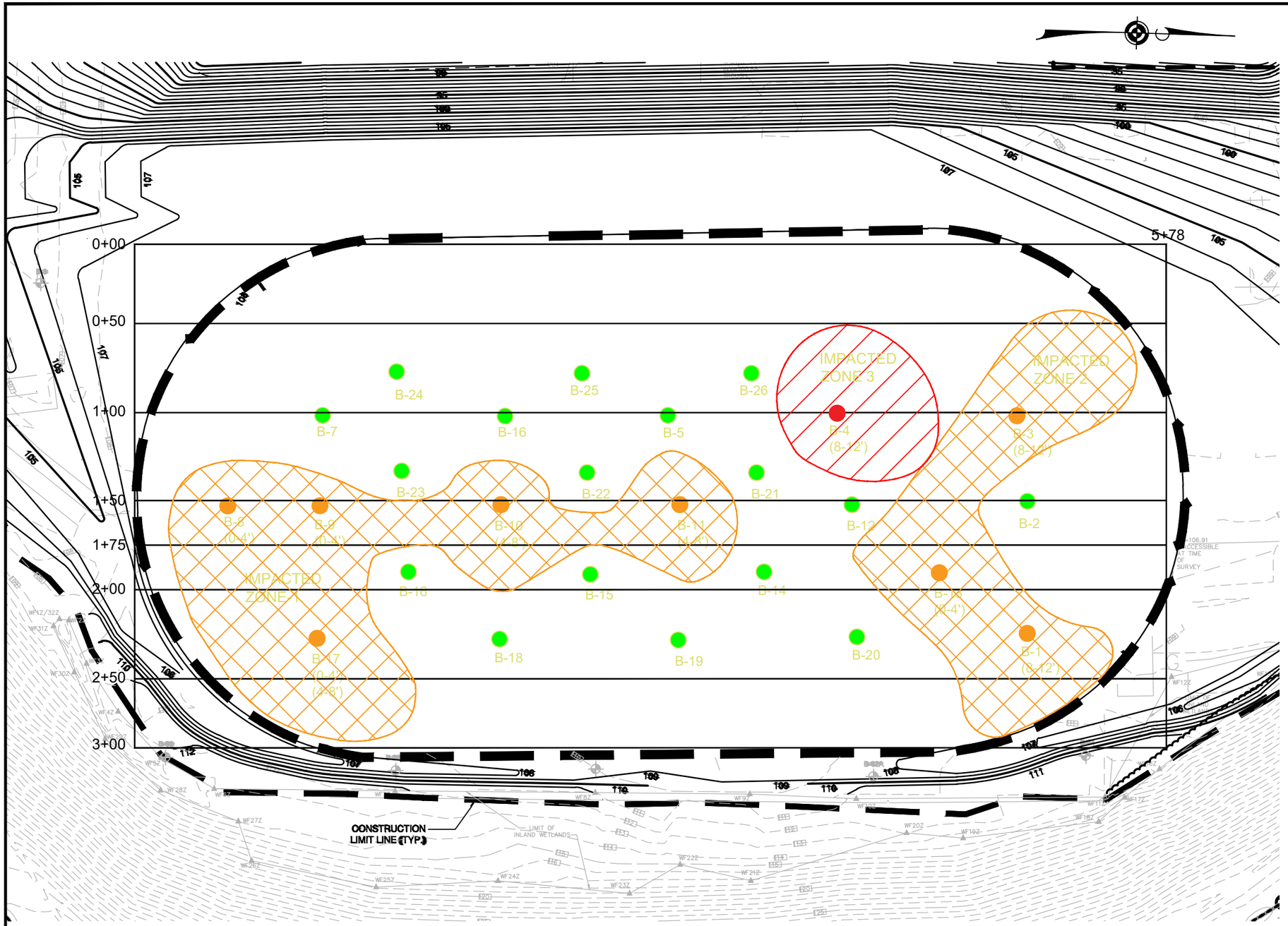
12/30/2020 11:29:37 AM

1:36,112

0 0.3 0.6 1.2 mi
0 0.5 1 2 km

ISSUED for BID

Source: USGS, The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Database, and National Transportation Data Set.



IMPACTED ZONE # VOLUME (CUBIC YARDS)
IMPACTED ZONE # 1 = 6,334
IMPACTED ZONE #2 = 2,095
IMPACTED ZONE #3 = 833

ISSUED for BID

LEGEND

- AREA OF PROPOSED EXCAVATION
- B-12 — SOIL BORINg/SOIL SAMPLE RESULT AND DEPTH (NO IMPACT)
- B-3 (8-12') — SOIL BORING/SOIL SAMPLE RESULT AND DEPTH (DETECTION > LABORATORY REPORTING LIMIT)
- B-4 (8-12') — SOIL BORING/SOIL SAMPLE RESULT AND DEPTH (DETECTION > RSRs)
- IMPACTED ZONE (POLLUTED SOIL)
- IMPACTED ZONE (CONTAMINATED SOIL

NOTES:

1. THE LOCATIONS OF ALL DELINEATIONS, STRUCTURES AND OTHER FEATURES PRESENTED ON THIS DRAWING ARE APPROXIMATE.
2. BASE MAP SOURCE:
   - 2.1. GOOGLE MAPS
   - 2.2. TOWN OF GROTON TAX ASSESSOR'S MAPS

0 30' 60' 90' 120'
Approximate Scale 1"=60'

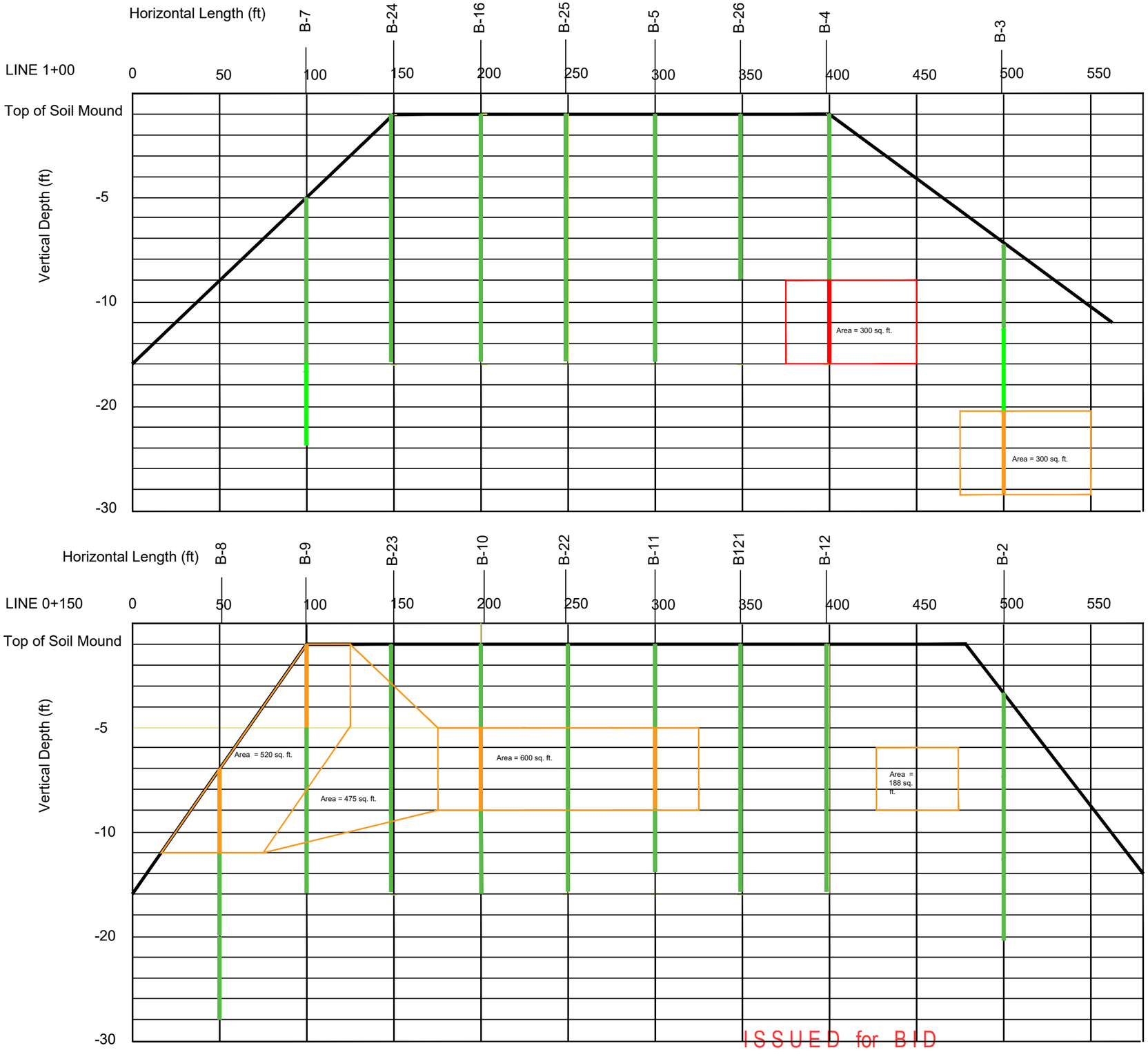
ATC
ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING
ATC GROUP SERVICES LLC
290 ROBERTS ST, SUITE 301
EAST HARTFORD, CONNECTICUT

REV. NO.:	DRAWING DATE:	ACAD FILE:
	01/05/21	Figure 1_Soil Borings

IN-SITU SOIL CHARACTERIZATION SAMPLING (PLAN VIEW)

CLIENT:	PM:
CTDCS	AJ
LOCATION: Ella T. Grasso Technical H.S. 189 Fort Hill Road Groton, CT	PE:

DESIGNED:	DETAILED:	PROJECT NO.:	FIGURE:
DB	DB	2257320120	2



ISSUED for BID

LEGEND

- *AREA OF PROPOSED EXCAVATION*
- *SOIL SAMPLE RESULT (NO IMPACT)*
- *SOIL SAMPLE RESULT (IMPACT REMEDIATION STANDARD REGULATIONS)*
- *SOIL SAMPLE RESULT (> REMEDIATION STANDARD REGULATIONS)*
- B-3 *BORING IDENTIFICATION (SEE FIGURE 2 FOR LOCATION)*

0 30' 60' 90' 120'

Approximate Scale 1"=60'

ATC GROUP SERVICES LLC
290 ROBERTS ST, SUITE 301
EAST HARTFORD, CONNECTICUT

ENVIRONMENTAL • GEOTECHNICAL
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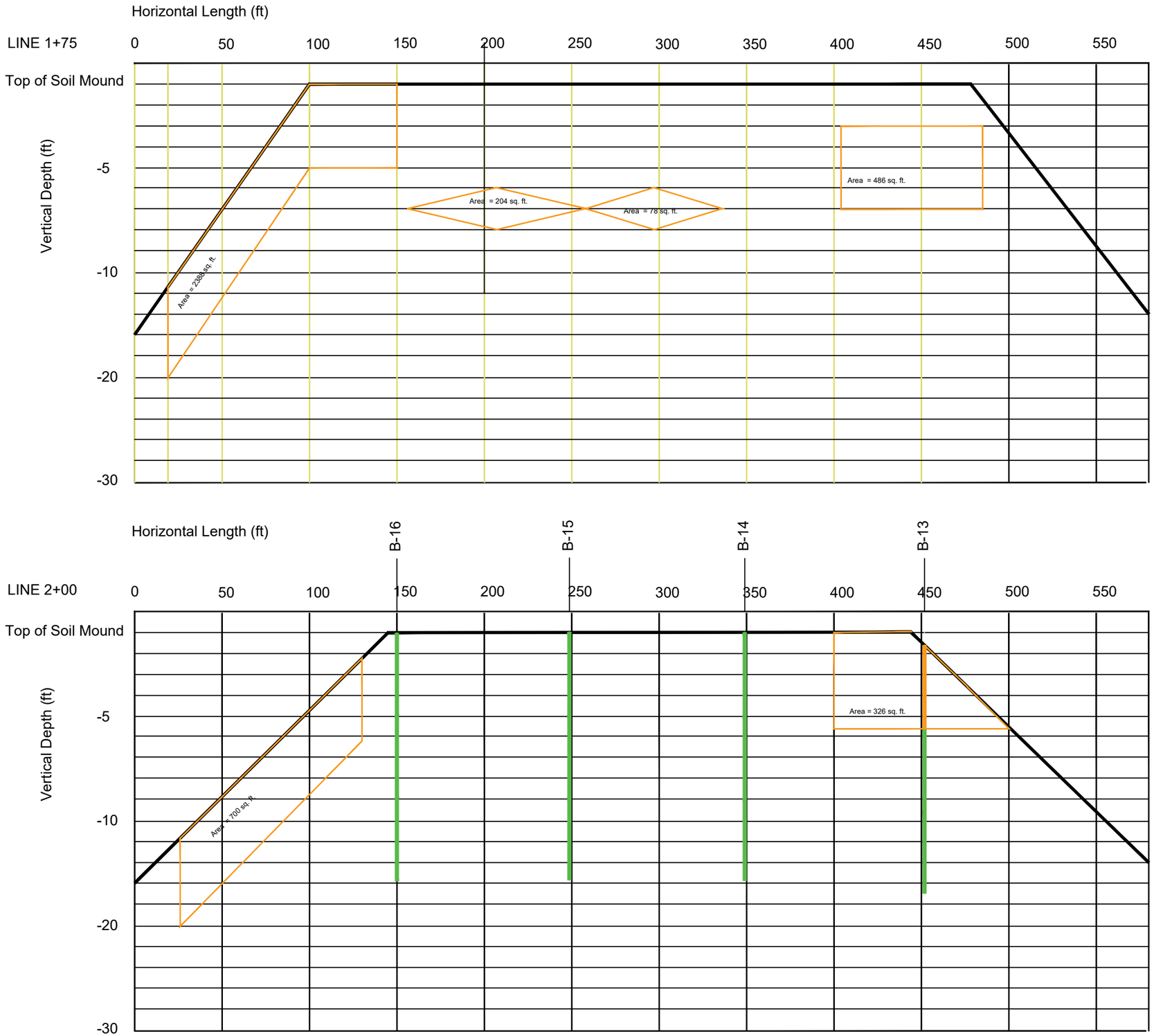
REV. NO.:	DRAWING DATE:	ACAD FILE:
	01/05/21	Figure 1_Soil Borings

CROSS SECTION PROFILES (STA. 1+00 & 1+50)

CLIENT:	PM:
CTDCS	AJ
LOCATION: Ella T. Grasso Technical H.S. 189 Fort Hill Road Groton, CT	PE:

DESIGNED:	DETAILED:	PROJECT NO.:	FIGURE:
DPB	DPB	2257320120	3



ISSUED for BID

LEGEND

- *AREA OF PROPOSED EXCAVATION*
- *SOIL SAMPLE RESULT (NO IMPACT)*
- *SOIL SAMPLE RESULT (IMPACT REMEDIATION STANDARD REGULATIONS)*
- *SOIL SAMPLE RESULT (> REMEDIATION STANDARD REGULATIONS)*
- B-3 *BORING IDENTIFICATION (SEE FIGURE 2 FOR LOCATION)*

0 30' 60' 90' 120'

Approximate Scale 1"=60'

ATC GROUP SERVICES LLC
290 ROBERTS ST, SUITE 301
EAST HARTFORD, CONNECTICUT

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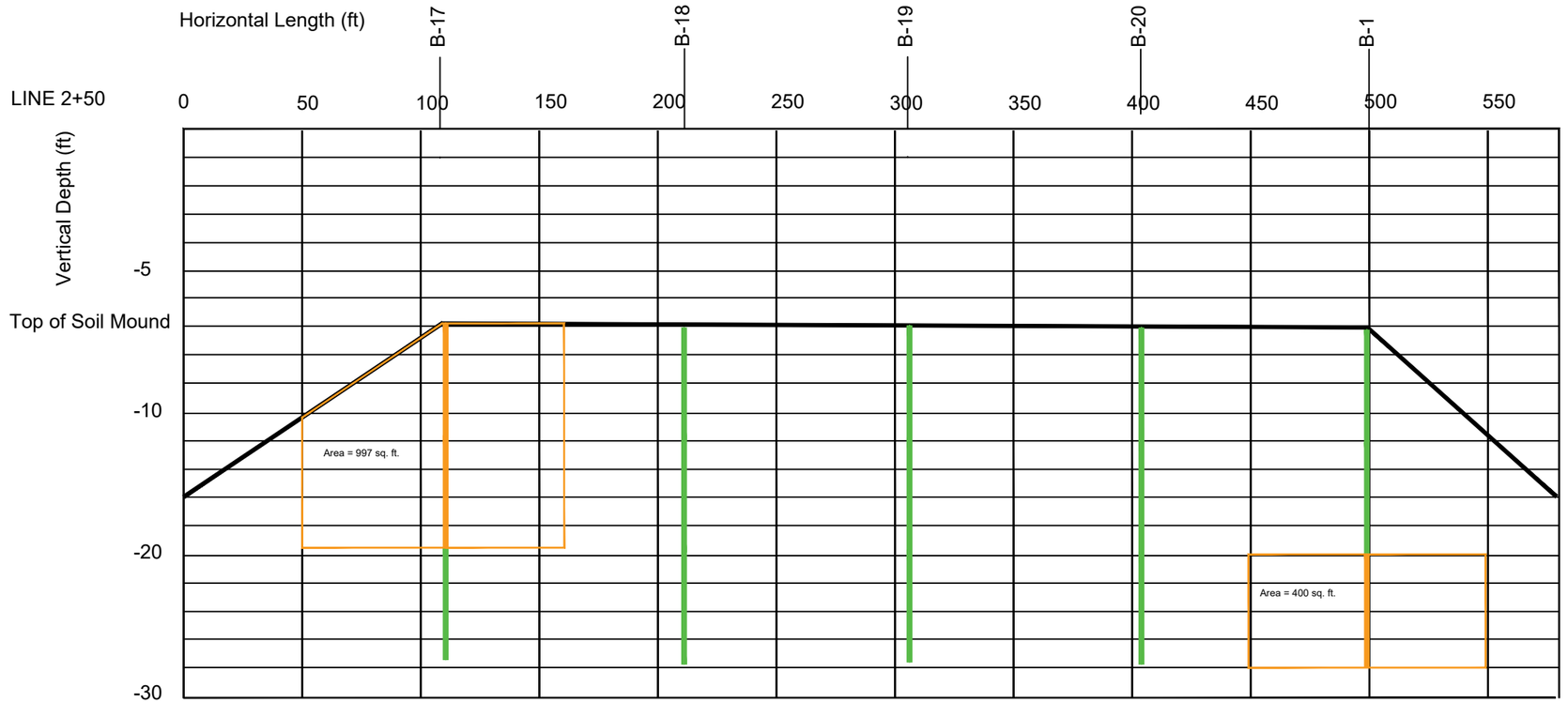
REV. NO.:	DRAWING DATE:	ACAD FILE:
	01/05/21	Figure 1_Soil Borings

CROSS SECTION PROFILES (STA. 1+75 & 2+00)

CLIENT:	PM:
CTDCS	AJ
LOCATION: Ella T. Grasso Technical H.S. 189 Fort Hill Road Groton, CT	PE:

DESIGNED:	DETAILED:	PROJECT NO.:	FIGURE:
DPB	DPB	2257320120	4



LEGEND

AREA OF PROPOSED EXCAVATION

SOIL SAMPLE RESULT (NO IMPACT)

SOIL SAMPLE RESULT (IMPACT REMEDIATION STANDARD REGULATIONS)

SOIL SAMPLE RESULT (> REMEDIATION STANDARD REGULATIONS)

B-3 *BORING IDENTIFICATION (SEE FIGURE 2 FOR LOCATION)*

0 30' 60' 90' 120'

Approximate Scale 1"=60'

ISSUED for BID

ATC GROUP SERVICES LLC
290 ROBERTS ST, SUITE 301
EAST HARTFORD, CONNECTICUT

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

REV. NO.:	DRAWING DATE:	ACAD FILE:
	01/05/21	Figure 1_Soil Borings

CROSS SECTION PROFILES (STA. 2+50)

CLIENT:	PM:
CTDCS	AJ
LOCATION: Ella T. Grasso Technical H.S. 189 Fort Hill Road Groton, CT	PE:

DESIGNED:	DETAILED:	PROJECT NO.:	FIGURE:
DPB	DPB	2257320120	5

Attachment 3: Laboratory Data Packages

PHOENIX
Environmental Laboratories, Inc.

Wednesday, December 09, 2020

Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Project ID: GRASSO TECH
SDG ID: GCH23802
Sample ID#s: CH23802 - CH23861

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone (860) 645-1102 Fax (860) 645-0823

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

December 09, 2020

SDG I.D.: GCH23802

Project ID: GRASSO TECH

Client Id	Lab Id	Matrix
B-1A	CH23802	SOIL
B-1B	CH23803	SOIL
B-1C	CH23804	SOIL
B-2A	CH23805	SOIL
B-2B	CH23806	SOIL
B-2C	CH23807	SOIL
B-3A	CH23808	SOIL
B-3B	CH23809	SOIL
B-3C	CH23810	SOIL
B-4A	CH23811	SOIL
B-4B	CH23812	SOIL
B-4C	CH23813	SOIL
B-5A	CH23814	SOIL
B-5B	CH23815	SOIL
B-5C	CH23816	SOIL
B-6A	CH23817	SOIL
B-6B	CH23818	SOIL
B-6C	CH23819	SOIL
B-7A	CH23820	SOIL
B-7B	CH23821	SOIL
B-7C	CH23822	SOIL
B-8A	CH23823	SOIL
B-8B	CH23824	SOIL
B-8C	CH23825	SOIL
B-9A	CH23826	SOIL
B-9B	CH23827	SOIL
B-9C	CH23828	SOIL
B-10A	CH23829	SOIL
B-10B	CH23830	SOIL
B-10C	CH23831	SOIL

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

December 09, 2020

SDG I.D.: GCH23802

Project ID: GRASSO TECH

Client Id	Lab Id	Matrix
B-11A	CH23832	SOIL
B-11B	CH23833	SOIL
B-11C	CH23834	SOIL
B-12A	CH23835	SOIL
B-12B	CH23836	SOIL
B-12C	CH23837	SOIL
B-13A	CH23838	SOIL
B-13B	CH23839	SOIL
B-13C	CH23840	SOIL
B-14A	CH23841	SOIL
B-14B	CH23842	SOIL
B-14C	CH23843	SOIL
B-15A	CH23844	SOIL
B-15B	CH23845	SOIL
B-15C	CH23846	SOIL
B-16A	CH23847	SOIL
B-16B	CH23848	SOIL
B-16C	CH23849	SOIL
B-17A	CH23850	SOIL
B-17B	CH23851	SOIL
B-17C	CH23852	SOIL
B-18A	CH23853	SOIL
B-18B	CH23854	SOIL
B-18C	CH23855	SOIL
B-19A	CH23856	SOIL
B-19B	CH23857	SOIL
B-19C	CH23858	SOIL
B-20A	CH23859	SOIL
B-20B	CH23860	SOIL
B-20C	CH23861	SOIL

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	8:40
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23802

Project ID: GRASSO TECH
Client ID: B-1A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	89		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	G/M	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	56	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	72		%	1	12/03/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D

Project ID: GRASSO TECH
Client ID: B-1A

Phoenix I.D.: CH23802

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	81		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	64		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	77		%	1	12/03/20	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	8:45
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23803

Project ID: GRASSO TECH
Client ID: B-1B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	94		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	G/M	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	52		%	1	12/03/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D

Project ID: GRASSO TECH
Client ID: B-1B

Phoenix I.D.: CH23803

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	82		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	67		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	100		%	1	12/03/20	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	8:50
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23804

Project ID: GRASSO TECH
Client ID: B-1C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	94		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	G/M	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	74		%	1	12/03/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	0.29	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-1C

Phoenix I.D.: CH23804

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	83		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	63		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	86		%	1	12/03/20	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	8:55
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23805

Project ID: GRASSO TECH
Client ID: B-2A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.37	0.37	mg/Kg	1	12/03/20	CPP	SW6010D
Arsenic	1.36	0.75	mg/Kg	1	12/03/20	CPP	SW6010D
Barium	37.0	0.37	mg/Kg	1	12/03/20	CPP	SW6010D
Cadmium	< 0.37	0.37	mg/Kg	1	12/03/20	CPP	SW6010D
Chromium	3.79	0.37	mg/Kg	1	12/03/20	CPP	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/03/20	RS	SW7471B
Lead	2.56	0.37	mg/Kg	1	12/03/20	CPP	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	12/03/20	CPP	SW6010D
Percent Solid	93		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/03/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	G/M	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
Total Metals Digest	Completed				12/02/20	B/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	58		%	1	12/03/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0024	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-2A

Phoenix I.D.: CH23805

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.02	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.02	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.2	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0024	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.024	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.008	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.008	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-2A

Phoenix I.D.: CH23805

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.008	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.008	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.008	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	96		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	93		%	1	12/03/20	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	79		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	67		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	89		%	1	12/03/20	WB	30 - 130 %
Field Extraction	Completed				12/01/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-2A

Phoenix I.D.: CH23805

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	9:00
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23806

Project ID: GRASSO TECH
Client ID: B-2B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.33	0.33	mg/Kg	1	12/03/20	CPP	SW6010D
Arsenic	1.18	0.66	mg/Kg	1	12/03/20	CPP	SW6010D
Barium	28.0	0.33	mg/Kg	1	12/03/20	CPP	SW6010D
Cadmium	< 0.33	0.33	mg/Kg	1	12/03/20	CPP	SW6010D
Chromium	3.65	0.33	mg/Kg	1	12/03/20	CPP	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/03/20	RS	SW7471B
Lead	2.26	0.33	mg/Kg	1	12/03/20	CPP	SW6010D
Selenium	< 1.3	1.3	mg/Kg	1	12/03/20	CPP	SW6010D
Percent Solid	94		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/03/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	K/M	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
Total Metals Digest	Completed				12/02/20	B/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	73		%	1	12/03/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0025	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-2B

Phoenix I.D.: CH23806

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.021	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.021	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.21	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0025	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.025	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0084	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.0084	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-2B

Phoenix I.D.: CH23806

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.0084	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0084	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0084	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	94		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	98		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	93		%	1	12/03/20	JLI	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	80		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	66		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	91		%	1	12/03/20	WB	30 - 130 %
Field Extraction	Completed				12/01/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-2B

Phoenix I.D.: CH23806

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	9:05
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23807

Project ID: GRASSO TECH
Client ID: B-2C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	12/03/20	CPP	SW6010D
Arsenic	1.23	0.71	mg/Kg	1	12/03/20	CPP	SW6010D
Barium	32.1	0.35	mg/Kg	1	12/03/20	CPP	SW6010D
Cadmium	< 0.35	0.35	mg/Kg	1	12/03/20	CPP	SW6010D
Chromium	4.49	0.35	mg/Kg	1	12/03/20	CPP	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/03/20	RS	SW7471B
Lead	2.63	0.35	mg/Kg	1	12/03/20	CPP	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	12/03/20	CPP	SW6010D
Percent Solid	93		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/03/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	K/M	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
Total Metals Digest	Completed				12/02/20	B/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	75		%	1	12/03/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0025	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-2C

Phoenix I.D.: CH23807

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.021	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.021	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.21	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0025	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.025	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0083	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.0083	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-2C

Phoenix I.D.: CH23807

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.0083	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0083	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0083	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	99		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	93		%	1	12/03/20	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	74		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	73		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	84		%	1	12/03/20	WB	30 - 130 %
Field Extraction	Completed				12/01/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-2C

Phoenix I.D.: CH23807

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	9:25
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23808

Project ID: GRASSO TECH
Client ID: B-3A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	91		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	K/M	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	54	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	62		%	1	12/04/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D

Project ID: GRASSO TECH
Client ID: B-3A

Phoenix I.D.: CH23808

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	77		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	80		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	89		%	1	12/03/20	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	9:30
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23809

Project ID: GRASSO TECH
Client ID: B-3B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	92		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	K/M	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	54	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	108		%	1	12/03/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D

Project ID: GRASSO TECH
Client ID: B-3B

Phoenix I.D.: CH23809

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	74		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	81		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	84		%	1	12/03/20	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	9:35
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23810

Project ID: GRASSO TECH
Client ID: B-3C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	93		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	K/M	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	64		%	1	12/03/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	0.34	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	0.35	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	0.28	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	0.25	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	0.31	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	0.65	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	0.36	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	0.53	0.25	mg/Kg	1	12/03/20	WB	SW8270D

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-3C

Phoenix I.D.: CH23810

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	76		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	74		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	84		%	1	12/03/20	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	9:45
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23811

Project ID: GRASSO TECH
Client ID: B-4A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	12/03/20	CPP	SW6010D
Arsenic	1.98	0.72	mg/Kg	1	12/03/20	CPP	SW6010D
Barium	40.4	0.36	mg/Kg	1	12/03/20	CPP	SW6010D
Cadmium	< 0.36	0.36	mg/Kg	1	12/03/20	CPP	SW6010D
Chromium	7.88	0.36	mg/Kg	1	12/03/20	CPP	SW6010D
Mercury	0.05	0.03	mg/Kg	2	12/03/20	RS	SW7471B
Lead	5.74	0.36	mg/Kg	1	12/03/20	CPP	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	12/03/20	CPP	SW6010D
Percent Solid	88		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/03/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	K/M	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
Total Metals Digest	Completed				12/02/20	B/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	56	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	67		%	1	12/03/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0025	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-4A

Phoenix I.D.: CH23811

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.02	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.02	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.2	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0025	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.025	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0082	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.0082	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-4A

Phoenix I.D.: CH23811

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.0082	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0082	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0082	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	99		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	93		%	1	12/03/20	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.26	mg/Kg	1	12/03/20	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	73		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	70		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	86		%	1	12/03/20	WB	30 - 130 %
Field Extraction	Completed				12/01/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-4A

Phoenix I.D.: CH23811

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	9:50
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23812

Project ID: GRASSO TECH
Client ID: B-4B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.37	0.37	mg/Kg	1	12/03/20	CPP	SW6010D
Arsenic	1.18	0.74	mg/Kg	1	12/03/20	CPP	SW6010D
Barium	29.0	0.37	mg/Kg	1	12/03/20	CPP	SW6010D
Cadmium	< 0.37	0.37	mg/Kg	1	12/03/20	CPP	SW6010D
Chromium	4.25	0.37	mg/Kg	1	12/03/20	CPP	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/03/20	RS	SW7471B
Lead	2.85	0.37	mg/Kg	1	12/03/20	CPP	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	12/03/20	CPP	SW6010D
Percent Solid	93		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/03/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	K/M	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
Total Metals Digest	Completed				12/02/20	B/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	85		%	1	12/04/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0023	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-4B

Phoenix I.D.: CH23812

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.019	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.019	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.19	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0023	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.023	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0076	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.0076	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-4B

Phoenix I.D.: CH23812

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.0076	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0076	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0076	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0038	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	95		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	95		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	96		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	93		%	1	12/03/20	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	74		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	69		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	88		%	1	12/03/20	WB	30 - 130 %
Field Extraction	Completed				12/01/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-4B

Phoenix I.D.: CH23812

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	9:55
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23813

Project ID: GRASSO TECH
Client ID: B-4C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	12/03/20	CPP	SW6010D
Arsenic	1.39	0.72	mg/Kg	1	12/03/20	CPP	SW6010D
Barium	34.7	0.36	mg/Kg	1	12/03/20	CPP	SW6010D
Cadmium	< 0.36	0.36	mg/Kg	1	12/03/20	CPP	SW6010D
Chromium	5.90	0.36	mg/Kg	1	12/03/20	CPP	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/03/20	RS	SW7471B
Lead	2.46	0.36	mg/Kg	1	12/03/20	CPP	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	12/03/20	CPP	SW6010D
Percent Solid	92		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/03/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	K/M	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
Total Metals Digest	Completed				12/02/20	B/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	54	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	90		%	1	12/04/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0024	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-4C

Phoenix I.D.: CH23813

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.02	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.02	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.2	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0024	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.024	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.008	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.008	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-4C

Phoenix I.D.: CH23813

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.008	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.008	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.008	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	99		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	93		%	1	12/03/20	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	0.35	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	1.1	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	5.2	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	5.8	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	5	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	3.2	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	3.2	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	4.9	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	0.72	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	12	2.5	mg/Kg	10	12/03/20	WB	SW8270D
Fluorene	0.31	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	3.6	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	4.1	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	10	2.5	mg/Kg	10	12/03/20	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	78		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	77		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	83		%	1	12/03/20	WB	30 - 130 %
% 2-Fluorobiphenyl (10x)	Diluted Out		%	10	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5 (10x)	Diluted Out		%	10	12/03/20	WB	30 - 130 %
% Terphenyl-d14 (10x)	Diluted Out		%	10	12/03/20	WB	30 - 130 %
Field Extraction	Completed				12/01/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-4C

Phoenix I.D.: CH23813

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	10:00
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23814

Project ID: GRASSO TECH
Client ID: B-5A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	92		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	K/M	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	79		%	1	12/04/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D

Project ID: GRASSO TECH
Client ID: B-5A

Phoenix I.D.: CH23814

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	75		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	78		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	85		%	1	12/03/20	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	10:05
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23815

Project ID: GRASSO TECH
Client ID: B-5B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	93		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	K/M	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	83		%	1	12/04/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D

Project ID: GRASSO TECH
Client ID: B-5B

Phoenix I.D.: CH23815

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	76		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	81		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	84		%	1	12/03/20	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	10:10
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23816

Project ID: GRASSO TECH
Client ID: B-5C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	94		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	K/M	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	90		%	1	12/04/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D

Project ID: GRASSO TECH
Client ID: B-5C

Phoenix I.D.: CH23816

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	72		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	65		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	85		%	1	12/03/20	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	10:20
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23817

Project ID: GRASSO TECH
Client ID: B-6A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	1	12/03/20	CPP	SW6010D
Arsenic	1.04	0.69	mg/Kg	1	12/03/20	CPP	SW6010D
Barium	28.7	0.34	mg/Kg	1	12/03/20	CPP	SW6010D
Cadmium	< 0.34	0.34	mg/Kg	1	12/03/20	CPP	SW6010D
Chromium	4.19	0.34	mg/Kg	1	12/03/20	CPP	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/03/20	RS	SW7471B
Lead	2.56	0.34	mg/Kg	1	12/03/20	CPP	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	12/03/20	CPP	SW6010D
Percent Solid	93		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/03/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	K/M	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
Total Metals Digest	Completed				12/02/20	B/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	81		%	1	12/04/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0024	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-6A

Phoenix I.D.: CH23817

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.02	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.02	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.2	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0024	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.024	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.008	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.008	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-6A

Phoenix I.D.: CH23817

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.008	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.008	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.008	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	95		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	95		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	99		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	92		%	1	12/03/20	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	68		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	69		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	84		%	1	12/03/20	WB	30 - 130 %
Field Extraction	Completed				12/01/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-6A

Phoenix I.D.: CH23817

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
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Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	10:25
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23818

Project ID: GRASSO TECH
Client ID: B-6B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	1	12/03/20	CPP	SW6010D
Arsenic	1.71	0.77	mg/Kg	1	12/03/20	CPP	SW6010D
Barium	43.7	0.38	mg/Kg	1	12/03/20	CPP	SW6010D
Cadmium	< 0.38	0.38	mg/Kg	1	12/03/20	CPP	SW6010D
Chromium	5.72	0.38	mg/Kg	1	12/03/20	CPP	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/03/20	RS	SW7471B
Lead	2.80	0.38	mg/Kg	1	12/03/20	CPP	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	12/03/20	CPP	SW6010D
Percent Solid	93		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/03/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	K/M	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
Total Metals Digest	Completed				12/02/20	B/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	74		%	1	12/04/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0025	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-6B

Phoenix I.D.: CH23818

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.021	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.021	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.21	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0025	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.025	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0083	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.0083	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-6B

Phoenix I.D.: CH23818

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.0083	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0083	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0083	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	99		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	94		%	1	12/03/20	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	71		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	70		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	83		%	1	12/03/20	WB	30 - 130 %
Field Extraction	Completed				12/01/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-6B

Phoenix I.D.: CH23818

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	10:30
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23819

Project ID: GRASSO TECH
Client ID: B-6C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	1	12/03/20	CPP	SW6010D
Arsenic	1.46	0.78	mg/Kg	1	12/03/20	CPP	SW6010D
Barium	47.5	0.39	mg/Kg	1	12/03/20	CPP	SW6010D
Cadmium	< 0.39	0.39	mg/Kg	1	12/03/20	CPP	SW6010D
Chromium	6.04	0.39	mg/Kg	1	12/03/20	CPP	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/03/20	RS	SW7471B
Lead	1.89	0.39	mg/Kg	1	12/03/20	CPP	SW6010D
Selenium	< 1.6	1.6	mg/Kg	1	12/03/20	CPP	SW6010D
Percent Solid	91		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/03/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	K/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
Total Metals Digest	Completed				12/02/20	B/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	54	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	64		%	1	12/03/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0029	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-6C

Phoenix I.D.: CH23819

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.024	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.024	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.24	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0029	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.029	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0098	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.0098	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-6C

Phoenix I.D.: CH23819

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.0098	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0098	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0098	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	100		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	93		%	1	12/03/20	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	60		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	60		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	84		%	1	12/03/20	WB	30 - 130 %
Field Extraction	Completed				12/01/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-6C

Phoenix I.D.: CH23819

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	10:40
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23820

Project ID: GRASSO TECH
Client ID: B-7A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	93		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	K/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	61		%	1	12/03/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D

Project ID: GRASSO TECH
Client ID: B-7A

Phoenix I.D.: CH23820

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	75		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	83		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	83		%	1	12/03/20	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	10:45
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23821

Project ID: GRASSO TECH
Client ID: B-7B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	93		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	K/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	66		%	1	12/03/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D

Project ID: GRASSO TECH
Client ID: B-7B

Phoenix I.D.: CH23821

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	75		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	80		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	89		%	1	12/03/20	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	10:50
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23822

Project ID: GRASSO TECH
Client ID: B-7C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	94		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	K/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	77		%	1	12/03/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D

Project ID: GRASSO TECH
Client ID: B-7C

Phoenix I.D.: CH23822

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	77		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	76		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	86		%	1	12/03/20	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	11:10
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23823

Project ID: GRASSO TECH
Client ID: B-8A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	1	12/03/20	CPP	SW6010D
Arsenic	1.34	0.75	mg/Kg	1	12/03/20	CPP	SW6010D
Barium	31.7	0.38	mg/Kg	1	12/03/20	CPP	SW6010D
Cadmium	< 0.38	0.38	mg/Kg	1	12/03/20	CPP	SW6010D
Chromium	6.58	0.38	mg/Kg	1	12/03/20	CPP	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/03/20	RS	SW7471B
Lead	4.33	0.38	mg/Kg	1	12/03/20	CPP	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	12/03/20	CPP	SW6010D
Percent Solid	95		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/03/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	K/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
Total Metals Digest	Completed				12/02/20	B/AG/BF	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	73		%	1	12/04/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0023	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-8A

Phoenix I.D.: CH23823

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.019	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.019	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.19	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0023	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.023	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0078	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.0078	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-8A

Phoenix I.D.: CH23823

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.0078	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0078	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0078	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0039	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	95		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	99		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	98		%	1	12/03/20	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	0.25	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	0.56	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	0.47	0.25	mg/Kg	1	12/03/20	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	72		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	77		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	92		%	1	12/03/20	WB	30 - 130 %
Field Extraction	Completed				12/01/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-8A

Phoenix I.D.: CH23823

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	11:15
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23824

Project ID: GRASSO TECH
Client ID: B-8B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.32	0.32	mg/Kg	1	12/05/20	TH	SW6010D
Arsenic	1.20	0.65	mg/Kg	1	12/05/20	TH	SW6010D
Barium	38.4	0.32	mg/Kg	1	12/05/20	TH	SW6010D
Cadmium	0.45	0.32	mg/Kg	1	12/05/20	TH	SW6010D
Chromium	8.15	0.32	mg/Kg	1	12/05/20	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/03/20	RS	SW7471B
Lead	3.47	0.32	mg/Kg	1	12/05/20	TH	SW6010D
Selenium	< 1.3	1.3	mg/Kg	1	12/05/20	TH	SW6010D
Percent Solid	94		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/03/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	K/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
Total Metals Digest	Completed				12/03/20	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	70		%	1	12/03/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0027	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-8B

Phoenix I.D.: CH23824

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.023	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.023	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.23	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0027	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.027	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.009	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.009	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-8B

Phoenix I.D.: CH23824

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.009	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.009	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.009	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	94		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	95		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	98		%	1	12/03/20	JLI	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	78		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	81		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	86		%	1	12/03/20	WB	30 - 130 %
Field Extraction	Completed				12/01/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-8B

Phoenix I.D.: CH23824

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	11:20
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23825

Project ID: GRASSO TECH
Client ID: B-8C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Arsenic	< 0.73	0.73	mg/Kg	1	12/05/20	TH	SW6010D
Barium	33.3	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Cadmium	0.39	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Chromium	5.65	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/03/20	RS	SW7471B
Lead	1.89	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	12/05/20	TH	SW6010D
Percent Solid	94		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/03/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	K/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/02/20	R/M	SW3546
Total Metals Digest	Completed				12/03/20	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	73		%	1	12/03/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0025	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-8C

Phoenix I.D.: CH23825

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.021	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.021	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.21	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0025	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.025	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0083	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.0083	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-8C

Phoenix I.D.: CH23825

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.0083	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0083	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0083	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	103		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	88		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	99		%	1	12/03/20	JLI	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	71		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	74		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	86		%	1	12/03/20	WB	30 - 130 %
Field Extraction	Completed				12/01/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-8C

Phoenix I.D.: CH23825

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	13:05
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23826

Project ID: GRASSO TECH
Client ID: B-9A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	93		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	K/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	58		%	1	12/03/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(a)pyrene	0.33	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(b)fluoranthene	0.28	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Fluoranthene	0.32	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Pyrene	0.29	0.24	mg/Kg	1	12/04/20	WB	SW8270D

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-9A

Phoenix I.D.: CH23826

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	79		%	1	12/04/20	WB	30 - 130 %
% Nitrobenzene-d5	81		%	1	12/04/20	WB	30 - 130 %
% Terphenyl-d14	104		%	1	12/04/20	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	13:10
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23827

Project ID: GRASSO TECH
Client ID: B-9B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	95		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	K/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	51	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	68		%	1	12/04/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D

Project ID: GRASSO TECH
Client ID: B-9B

Phoenix I.D.: CH23827

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	72		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	67		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	99		%	1	12/03/20	WB	30 - 130 %

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QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	13:15
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23828

Project ID: GRASSO TECH
Client ID: B-9C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	92		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	K/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	51		%	1	12/04/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/03/20	WB	SW8270D

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-9C

Phoenix I.D.: CH23828

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	79		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	81		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	99		%	1	12/03/20	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	13:25
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23829

Project ID: GRASSO TECH
Client ID: B-10A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Arsenic	0.76	0.68	mg/Kg	1	12/05/20	TH	SW6010D
Barium	40.8	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Cadmium	0.47	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Chromium	10.4	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/03/20	RS	SW7471B
Lead	2.86	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	12/05/20	TH	SW6010D
Percent Solid	94		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/03/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	K/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
Total Metals Digest	Completed				12/03/20	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	66		%	1	12/04/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0027	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-10A

Phoenix I.D.: CH23829

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.023	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.023	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.23	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0027	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.027	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0091	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.0091	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-10A

Phoenix I.D.: CH23829

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.0091	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0091	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0091	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0046	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	95		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	98		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	99		%	1	12/03/20	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	70		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	63		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	95		%	1	12/03/20	WB	30 - 130 %
Field Extraction	Completed				12/01/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-10A

Phoenix I.D.: CH23829

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	13:30
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23830

Project ID: GRASSO TECH
Client ID: B-10B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Arsenic	0.74	0.68	mg/Kg	1	12/05/20	TH	SW6010D
Barium	91.6	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Cadmium	0.40	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Chromium	2.76	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/03/20	RS	SW7471B
Lead	2.29	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	12/05/20	TH	SW6010D
Percent Solid	95		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/03/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	K/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
Total Metals Digest	Completed				12/03/20	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	78		%	1	12/04/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0027	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-10B

Phoenix I.D.: CH23830

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.022	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.022	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.22	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0027	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.027	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0089	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.0089	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-10B

Phoenix I.D.: CH23830

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.0089	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0089	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0089	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	95		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	98		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	98		%	1	12/03/20	JLI	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benz(a)anthracene	0.26	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(a)pyrene	0.34	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(b)fluoranthene	0.27	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Benzo(k)fluoranthene	0.25	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Chrysene	0.31	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluoranthene	0.42	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	0.25	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/03/20	WB	SW8270D
Pyrene	0.44	0.24	mg/Kg	1	12/03/20	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	71		%	1	12/03/20	WB	30 - 130 %
% Nitrobenzene-d5	63		%	1	12/03/20	WB	30 - 130 %
% Terphenyl-d14	94		%	1	12/03/20	WB	30 - 130 %
Field Extraction	Completed				12/01/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-10B

Phoenix I.D.: CH23830

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	13:35
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23831

Project ID: GRASSO TECH
Client ID: B-10C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Arsenic	1.49	0.69	mg/Kg	1	12/05/20	TH	SW6010D
Barium	35.5	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Cadmium	0.43	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Chromium	8.61	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/03/20	RS	SW7471B
Lead	4.05	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	12/05/20	TH	SW6010D
Percent Solid	93		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/03/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	K/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
Total Metals Digest	Completed				12/03/20	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	73		%	1	12/04/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0029	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-10C

Phoenix I.D.: CH23831

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.024	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.024	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.24	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0029	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.029	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0098	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.0098	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-10C

Phoenix I.D.: CH23831

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.0098	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0098	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0098	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0049	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	95		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	98		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	98		%	1	12/03/20	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	73		%	1	12/04/20	WB	30 - 130 %
% Nitrobenzene-d5	74		%	1	12/04/20	WB	30 - 130 %
% Terphenyl-d14	106		%	1	12/04/20	WB	30 - 130 %
Field Extraction	Completed				12/01/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-10C

Phoenix I.D.: CH23831

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	13:45
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23832

Project ID: GRASSO TECH
Client ID: B-11A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	92		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	K/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	54	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	74		%	1	12/04/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D

Project ID: GRASSO TECH
Client ID: B-11A

Phoenix I.D.: CH23832

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	76		%	1	12/04/20	WB	30 - 130 %
% Nitrobenzene-d5	78		%	1	12/04/20	WB	30 - 130 %
% Terphenyl-d14	105		%	1	12/04/20	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	13:50
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23833

Project ID: GRASSO TECH
Client ID: B-11B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	91		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	K/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	78		%	1	12/03/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthylene	0.33	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benz(a)anthracene	0.64	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(a)pyrene	0.8	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(b)fluoranthene	0.69	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(ghi)perylene	0.52	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(k)fluoranthene	0.62	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Chrysene	0.78	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Fluoranthene	1.4	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	0.55	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Phenanthrene	0.48	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Pyrene	1.4	0.25	mg/Kg	1	12/04/20	WB	SW8270D

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-11B

Phoenix I.D.: CH23833

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	69		%	1	12/04/20	WB	30 - 130 %
% Nitrobenzene-d5	66		%	1	12/04/20	WB	30 - 130 %
% Terphenyl-d14	105		%	1	12/04/20	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	13:55
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23834

Project ID: GRASSO TECH
Client ID: B-11C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	94		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	K/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	83		%	1	12/03/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D

Project ID: GRASSO TECH
Client ID: B-11C

Phoenix I.D.: CH23834

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	74		%	1	12/04/20	WB	30 - 130 %
% Nitrobenzene-d5	74		%	1	12/04/20	WB	30 - 130 %
% Terphenyl-d14	102		%	1	12/04/20	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	14:00
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23835

Project ID: GRASSO TECH
Client ID: B-12A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Arsenic	0.84	0.72	mg/Kg	1	12/05/20	TH	SW6010D
Barium	38.0	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Cadmium	0.38	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Chromium	6.25	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/03/20	RS	SW7471B
Lead	2.26	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	12/05/20	TH	SW6010D
Percent Solid	94		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/03/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	K/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
Total Metals Digest	Completed				12/03/20	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	84		%	1	12/03/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0025	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-12A

Phoenix I.D.: CH23835

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.021	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.021	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.21	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0025	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.025	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0083	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.0083	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-12A

Phoenix I.D.: CH23835

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.0083	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0083	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0083	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	95		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	96		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	99		%	1	12/03/20	JLI	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	74		%	1	12/04/20	WB	30 - 130 %
% Nitrobenzene-d5	66		%	1	12/04/20	WB	30 - 130 %
% Terphenyl-d14	105		%	1	12/04/20	WB	30 - 130 %
Field Extraction	Completed				12/01/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-12A

Phoenix I.D.: CH23835

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	14:05
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23836

Project ID: GRASSO TECH
Client ID: B-12B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Arsenic	1.15	0.72	mg/Kg	1	12/05/20	TH	SW6010D
Barium	34.3	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Cadmium	0.44	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Chromium	7.34	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/03/20	RS	SW7471B
Lead	3.13	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	12/05/20	TH	SW6010D
Percent Solid	95		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/03/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	K/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
Total Metals Digest	Completed				12/03/20	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	82		%	1	12/03/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0027	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-12B

Phoenix I.D.: CH23836

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.023	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.023	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.23	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0027	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.027	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0091	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.0091	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-12B

Phoenix I.D.: CH23836

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.0091	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0091	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0091	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	102		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	89		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	100		%	1	12/03/20	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	75		%	1	12/04/20	WB	30 - 130 %
% Nitrobenzene-d5	70		%	1	12/04/20	WB	30 - 130 %
% Terphenyl-d14	101		%	1	12/04/20	WB	30 - 130 %
Field Extraction	Completed				12/01/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-12B

Phoenix I.D.: CH23836

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/01/20	14:10
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23837

Project ID: GRASSO TECH
Client ID: B-12C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.37	0.37	mg/Kg	1	12/05/20	TH	SW6010D
Arsenic	0.82	0.74	mg/Kg	1	12/05/20	TH	SW6010D
Barium	38.2	0.37	mg/Kg	1	12/05/20	TH	SW6010D
Cadmium	0.39	0.37	mg/Kg	1	12/05/20	TH	SW6010D
Chromium	4.57	0.37	mg/Kg	1	12/05/20	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/04/20	RS	SW7471B
Lead	2.26	0.37	mg/Kg	1	12/05/20	TH	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	12/05/20	TH	SW6010D
Percent Solid	94		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/04/20	ARW/VT	SW7471B
Extraction of CT ETPH	Completed				12/02/20	K/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
Total Metals Digest	Completed				12/03/20	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	71		%	1	12/03/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0026	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-12C

Phoenix I.D.: CH23837

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.021	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.021	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.21	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0026	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.026	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0085	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.0085	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-12C

Phoenix I.D.: CH23837

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.0085	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0085	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0085	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	102		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	91		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	99		%	1	12/03/20	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	75		%	1	12/04/20	WB	30 - 130 %
% Nitrobenzene-d5	77		%	1	12/04/20	WB	30 - 130 %
% Terphenyl-d14	104		%	1	12/04/20	WB	30 - 130 %
Field Extraction	Completed				12/01/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-12C

Phoenix I.D.: CH23837

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	8:30
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23838

Project ID: GRASSO TECH
Client ID: B-13A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	94		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	G/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	390	52	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	**		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	68		%	1	12/04/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Fluoranthene	0.3	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Pyrene	0.26	0.24	mg/Kg	1	12/04/20	WB	SW8270D

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-13A

Phoenix I.D.: CH23838

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	68		%	1	12/04/20	WB	30 - 130 %
% Nitrobenzene-d5	63		%	1	12/04/20	WB	30 - 130 %
% Terphenyl-d14	98		%	1	12/04/20	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C14 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	8:35
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23839

Project ID: GRASSO TECH
Client ID: B-13B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	94		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	G/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	76		%	1	12/04/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D

Project ID: GRASSO TECH
Client ID: B-13B

Phoenix I.D.: CH23839

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	73		%	1	12/04/20	WB	30 - 130 %
% Nitrobenzene-d5	72		%	1	12/04/20	WB	30 - 130 %
% Terphenyl-d14	106		%	1	12/04/20	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	8:40
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23840

Project ID: GRASSO TECH
Client ID: B-13C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	95		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	G/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	76		%	1	12/04/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D

Project ID: GRASSO TECH
Client ID: B-13C

Phoenix I.D.: CH23840

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	70		%	1	12/04/20	WB	30 - 130 %
% Nitrobenzene-d5	67		%	1	12/04/20	WB	30 - 130 %
% Terphenyl-d14	104		%	1	12/04/20	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	9:00
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23841

Project ID: GRASSO TECH
Client ID: B-14A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.33	0.33	mg/Kg	1	12/05/20	TH	SW6010D
Arsenic	1.10	0.66	mg/Kg	1	12/05/20	TH	SW6010D
Barium	40.1	0.33	mg/Kg	1	12/05/20	TH	SW6010D
Cadmium	0.52	0.33	mg/Kg	1	12/05/20	TH	SW6010D
Chromium	10.7	0.33	mg/Kg	1	12/05/20	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/04/20	RS	SW7471B
Lead	5.59	0.33	mg/Kg	1	12/05/20	TH	SW6010D
Selenium	< 1.3	1.3	mg/Kg	1	12/05/20	TH	SW6010D
Percent Solid	92		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/04/20	ARW/VT	SW7471B
Extraction of CT ETPH	Completed				12/02/20	G/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
Total Metals Digest	Completed				12/03/20	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	80		%	1	12/04/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0022	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-14A

Phoenix I.D.: CH23841

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.018	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.018	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.18	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0022	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.022	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0073	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.0073	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-14A

Phoenix I.D.: CH23841

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.0073	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0073	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0073	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0036	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	101		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	88		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	100		%	1	12/03/20	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	74		%	1	12/04/20	WB	30 - 130 %
% Nitrobenzene-d5	70		%	1	12/04/20	WB	30 - 130 %
% Terphenyl-d14	103		%	1	12/04/20	WB	30 - 130 %
Field Extraction	Completed				12/02/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-14A

Phoenix I.D.: CH23841

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	9:05
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23842

Project ID: GRASSO TECH
Client ID: B-14B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Arsenic	0.90	0.67	mg/Kg	1	12/05/20	TH	SW6010D
Barium	32.3	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Cadmium	0.38	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Chromium	4.05	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/04/20	RS	SW7471B
Lead	2.33	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Selenium	< 1.3	1.3	mg/Kg	1	12/05/20	TH	SW6010D
Percent Solid	95		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/04/20	ARW/VT	SW7471B
Extraction of CT ETPH	Completed				12/02/20	G/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
Total Metals Digest	Completed				12/03/20	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	66		%	1	12/04/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0026	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-14B

Phoenix I.D.: CH23842

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.021	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.021	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.21	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0026	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.026	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0085	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.0085	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-14B

Phoenix I.D.: CH23842

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.0085	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0085	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0085	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	104		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	93		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	101		%	1	12/03/20	JLI	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/04/20	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	75		%	1	12/04/20	WB	30 - 130 %
% Nitrobenzene-d5	68		%	1	12/04/20	WB	30 - 130 %
% Terphenyl-d14	104		%	1	12/04/20	WB	30 - 130 %
Field Extraction	Completed				12/02/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-14B

Phoenix I.D.: CH23842

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	9:10
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23843

Project ID: GRASSO TECH
Client ID: B-14C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.32	0.32	mg/Kg	1	12/05/20	TH	SW6010D
Arsenic	1.30	0.64	mg/Kg	1	12/05/20	TH	SW6010D
Barium	36.8	0.32	mg/Kg	1	12/05/20	TH	SW6010D
Cadmium	0.48	0.32	mg/Kg	1	12/05/20	TH	SW6010D
Chromium	6.88	0.32	mg/Kg	1	12/05/20	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/07/20	RS	SW7471B
Lead	5.69	0.32	mg/Kg	1	12/05/20	TH	SW6010D
Selenium	< 1.3	1.3	mg/Kg	1	12/05/20	TH	SW6010D
Percent Solid	94		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/07/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	G/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
Total Metals Digest	Completed				12/03/20	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	76		%	1	12/04/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0024	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-14C

Phoenix I.D.: CH23843

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.02	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.02	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.2	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0024	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.024	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.008	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.008	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-14C

Phoenix I.D.: CH23843

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.008	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.008	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.008	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.004	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	103		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	92		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	101		%	1	12/03/20	JLI	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/04/20	WB	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	76		%	1	12/04/20	WB	30 - 130 %
% Nitrobenzene-d5	79		%	1	12/04/20	WB	30 - 130 %
% Terphenyl-d14	100		%	1	12/04/20	WB	30 - 130 %
Field Extraction	Completed				12/02/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-14C

Phoenix I.D.: CH23843

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	9:15
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23844

Project ID: GRASSO TECH
Client ID: B-15A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	94		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	G/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	78		%	1	12/03/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D

Project ID: GRASSO TECH
Client ID: B-15A

Phoenix I.D.: CH23844

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	74		%	1	12/04/20	AW	30 - 130 %
% Nitrobenzene-d5	69		%	1	12/04/20	AW	30 - 130 %
% Terphenyl-d14	97		%	1	12/04/20	AW	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	9:20
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23845

Project ID: GRASSO TECH
Client ID: B-15B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	95		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	G/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	74		%	1	12/03/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-15B

Phoenix I.D.: CH23845

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	78		%	1	12/04/20	AW	30 - 130 %
% Nitrobenzene-d5	70		%	1	12/04/20	AW	30 - 130 %
% Terphenyl-d14	98		%	1	12/04/20	AW	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	9:25
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23846

Project ID: GRASSO TECH
Client ID: B-15C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	90		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	G/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	55	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	64		%	1	12/03/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.26	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthene	ND	0.26	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthylene	ND	0.26	mg/Kg	1	12/04/20	AW	SW8270D
Anthracene	ND	0.26	mg/Kg	1	12/04/20	AW	SW8270D
Benz(a)anthracene	ND	0.26	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(a)pyrene	ND	0.26	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.26	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.26	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.26	mg/Kg	1	12/04/20	AW	SW8270D
Chrysene	ND	0.26	mg/Kg	1	12/04/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.26	mg/Kg	1	12/04/20	AW	SW8270D
Fluoranthene	ND	0.26	mg/Kg	1	12/04/20	AW	SW8270D
Fluorene	ND	0.26	mg/Kg	1	12/04/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.26	mg/Kg	1	12/04/20	AW	SW8270D
Naphthalene	ND	0.26	mg/Kg	1	12/04/20	AW	SW8270D
Phenanthrene	ND	0.26	mg/Kg	1	12/04/20	AW	SW8270D
Pyrene	ND	0.26	mg/Kg	1	12/04/20	AW	SW8270D

Project ID: GRASSO TECH
Client ID: B-15C

Phoenix I.D.: CH23846

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	77		%	1	12/04/20	AW	30 - 130 %
% Nitrobenzene-d5	73		%	1	12/04/20	AW	30 - 130 %
% Terphenyl-d14	96		%	1	12/04/20	AW	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	9:35
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23847

Project ID: GRASSO TECH
Client ID: B-16A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Arsenic	1.01	0.67	mg/Kg	1	12/05/20	TH	SW6010D
Barium	33.9	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Cadmium	0.43	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Chromium	6.82	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/07/20	RS	SW7471B
Lead	3.12	0.34	mg/Kg	1	12/05/20	TH	SW6010D
Selenium	< 1.3	1.3	mg/Kg	1	12/05/20	TH	SW6010D
Percent Solid	94		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/07/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	G/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
Total Metals Digest	Completed				12/03/20	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	71		%	1	12/03/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.2	mg/Kg	50	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-16A

Phoenix I.D.: CH23847

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.34	mg/Kg	50	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.34	mg/Kg	50	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.34	mg/Kg	50	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.34	mg/Kg	50	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.34	mg/Kg	50	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.34	mg/Kg	50	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.34	mg/Kg	50	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.34	mg/Kg	50	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.34	mg/Kg	50	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.34	mg/Kg	50	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.027	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.34	mg/Kg	50	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.34	mg/Kg	50	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.027	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.27	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.34	mg/Kg	50	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0032	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.34	mg/Kg	50	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.34	mg/Kg	50	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.032	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.011	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.011	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.34	mg/Kg	50	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.34	mg/Kg	50	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.34	mg/Kg	50	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-16A

Phoenix I.D.: CH23847

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.34	mg/Kg	50	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.34	mg/Kg	50	12/03/20	JLI	SW8260C
Styrene	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.34	mg/Kg	50	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.011	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.67	mg/Kg	50	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.011	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0053	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	87		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	98		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	91		%	1	12/03/20	JLI	70 - 130 %
% 1,2-dichlorobenzene-d4 (50x)	97		%	50	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene (50x)	94		%	50	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane (50x)	97		%	50	12/03/20	JLI	70 - 130 %
% Toluene-d8 (50x)	93		%	50	12/03/20	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	78		%	1	12/04/20	AW	30 - 130 %
% Nitrobenzene-d5	71		%	1	12/04/20	AW	30 - 130 %
% Terphenyl-d14	99		%	1	12/04/20	AW	30 - 130 %
Field Extraction	Completed				12/02/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-16A

Phoenix I.D.: CH23847

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Volatile Comment:
There was a suppression of the last internal standard in the low level analysis, all affected compounds are reported from the methanol preserved high level analysis which did not exhibit this interference.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	9:40
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23848

Project ID: GRASSO TECH
Client ID: B-16B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	1	12/05/20	TH	SW6010D
Arsenic	1.01	0.76	mg/Kg	1	12/05/20	TH	SW6010D
Barium	33.9	0.38	mg/Kg	1	12/05/20	TH	SW6010D
Cadmium	0.43	0.38	mg/Kg	1	12/05/20	TH	SW6010D
Chromium	5.83	0.38	mg/Kg	1	12/05/20	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/07/20	RS	SW7471B
Lead	2.49	0.38	mg/Kg	1	12/05/20	TH	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	12/05/20	TH	SW6010D
Percent Solid	93		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/07/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	G/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
Total Metals Digest	Completed				12/03/20	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	80		%	1	12/04/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0026	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-16B

Phoenix I.D.: CH23848

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.022	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.022	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.22	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0026	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.026	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0086	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.0086	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-16B

Phoenix I.D.: CH23848

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.0086	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0086	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0086	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	100		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	89		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	100		%	1	12/03/20	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	76		%	1	12/04/20	AW	30 - 130 %
% Nitrobenzene-d5	70		%	1	12/04/20	AW	30 - 130 %
% Terphenyl-d14	99		%	1	12/04/20	AW	30 - 130 %
Field Extraction	Completed				12/02/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-16B

Phoenix I.D.: CH23848

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	9:45
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23849

Project ID: GRASSO TECH
Client ID: B-16C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.33	0.33	mg/Kg	1	12/05/20	TH	SW6010D
Arsenic	1.01	0.67	mg/Kg	1	12/05/20	TH	SW6010D
Barium	31.3	0.33	mg/Kg	1	12/05/20	TH	SW6010D
Cadmium	0.40	0.33	mg/Kg	1	12/05/20	TH	SW6010D
Chromium	8.25	0.33	mg/Kg	1	12/05/20	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/07/20	RS	SW7471B
Lead	2.98	0.33	mg/Kg	1	12/05/20	TH	SW6010D
Selenium	< 1.3	1.3	mg/Kg	1	12/05/20	TH	SW6010D
Percent Solid	95		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/07/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	G/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
Total Metals Digest	Completed				12/03/20	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	51	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	80		%	1	12/03/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0024	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-16C

Phoenix I.D.: CH23849

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.02	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.02	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.2	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0024	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.024	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0081	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.0081	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-16C

Phoenix I.D.: CH23849

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.0081	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0081	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0081	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0041	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	102		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	86		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	101		%	1	12/03/20	JLI	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	73		%	1	12/04/20	AW	30 - 130 %
% Nitrobenzene-d5	65		%	1	12/04/20	AW	30 - 130 %
% Terphenyl-d14	94		%	1	12/04/20	AW	30 - 130 %
Field Extraction	Completed				12/02/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-16C

Phoenix I.D.: CH23849

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	9:55
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23850

Project ID: GRASSO TECH
Client ID: B-17A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	81		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	G/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	61	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	52		%	1	12/03/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.28	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthene	ND	0.28	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthylene	ND	0.28	mg/Kg	1	12/04/20	AW	SW8270D
Anthracene	ND	0.28	mg/Kg	1	12/04/20	AW	SW8270D
Benz(a)anthracene	0.41	0.28	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(a)pyrene	0.47	0.28	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(b)fluoranthene	0.41	0.28	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(ghi)perylene	0.29	0.28	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(k)fluoranthene	0.38	0.28	mg/Kg	1	12/04/20	AW	SW8270D
Chrysene	0.45	0.28	mg/Kg	1	12/04/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.28	mg/Kg	1	12/04/20	AW	SW8270D
Fluoranthene	0.84	0.28	mg/Kg	1	12/04/20	AW	SW8270D
Fluorene	ND	0.28	mg/Kg	1	12/04/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	0.34	0.28	mg/Kg	1	12/04/20	AW	SW8270D
Naphthalene	ND	0.28	mg/Kg	1	12/04/20	AW	SW8270D
Phenanthrene	0.3	0.28	mg/Kg	1	12/04/20	AW	SW8270D
Pyrene	0.81	0.28	mg/Kg	1	12/04/20	AW	SW8270D

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-17A

Phoenix I.D.: CH23850

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	74		%	1	12/04/20	AW	30 - 130 %
% Nitrobenzene-d5	74		%	1	12/04/20	AW	30 - 130 %
% Terphenyl-d14	93		%	1	12/04/20	AW	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	10:00
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23851

Project ID: GRASSO TECH
Client ID: B-17B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	92		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	G/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	54	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	72		%	1	12/03/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Fluoranthene	0.31	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Pyrene	0.3	0.25	mg/Kg	1	12/04/20	AW	SW8270D

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-17B

Phoenix I.D.: CH23851

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	71		%	1	12/04/20	AW	30 - 130 %
% Nitrobenzene-d5	62		%	1	12/04/20	AW	30 - 130 %
% Terphenyl-d14	92		%	1	12/04/20	AW	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	10:05
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23852

Project ID: GRASSO TECH
Client ID: B-17C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	92		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	G/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	54	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	73		%	1	12/03/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-17C

Phoenix I.D.: CH23852

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	77		%	1	12/04/20	AW	30 - 130 %
% Nitrobenzene-d5	71		%	1	12/04/20	AW	30 - 130 %
% Terphenyl-d14	99		%	1	12/04/20	AW	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	10:30
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23853

Project ID: GRASSO TECH
Client ID: B-18A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.33	0.33	mg/Kg	1	12/05/20	TH	SW6010D
Arsenic	1.00	0.66	mg/Kg	1	12/05/20	TH	SW6010D
Barium	37.0	0.33	mg/Kg	1	12/05/20	TH	SW6010D
Cadmium	0.43	0.33	mg/Kg	1	12/05/20	TH	SW6010D
Chromium	6.69	0.33	mg/Kg	1	12/05/20	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/07/20	RS	SW7471B
Lead	3.72	0.33	mg/Kg	1	12/05/20	TH	SW6010D
Selenium	< 1.3	1.3	mg/Kg	1	12/05/20	TH	SW6010D
Percent Solid	95		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/07/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	G/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
Total Metals Digest	Completed				12/03/20	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	73		%	1	12/03/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0031	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-18A

Phoenix I.D.: CH23853

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.026	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.026	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.26	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0031	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.031	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.01	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.01	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-18A

Phoenix I.D.: CH23853

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.01	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.01	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.01	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0051	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	99		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	91		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	100		%	1	12/03/20	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	76		%	1	12/04/20	AW	30 - 130 %
% Nitrobenzene-d5	69		%	1	12/04/20	AW	30 - 130 %
% Terphenyl-d14	100		%	1	12/04/20	AW	30 - 130 %
Field Extraction	Completed				12/02/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-18A

Phoenix I.D.: CH23853

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	10:35
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23854

Project ID: GRASSO TECH
Client ID: B-18B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.33	0.33	mg/Kg	1	12/05/20	TH	SW6010D
Arsenic	1.17	0.66	mg/Kg	1	12/05/20	TH	SW6010D
Barium	37.4	0.33	mg/Kg	1	12/05/20	TH	SW6010D
Cadmium	0.48	0.33	mg/Kg	1	12/05/20	TH	SW6010D
Chromium	7.03	0.33	mg/Kg	1	12/05/20	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/07/20	RS	SW7471B
Lead	4.39	0.33	mg/Kg	1	12/05/20	TH	SW6010D
Selenium	< 1.3	1.3	mg/Kg	1	12/05/20	TH	SW6010D
Percent Solid	94		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/07/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	G/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
Total Metals Digest	Completed				12/03/20	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	64		%	1	12/03/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0033	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-18B

Phoenix I.D.: CH23854

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.027	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.027	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.27	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0033	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.033	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.011	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.011	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-18B

Phoenix I.D.: CH23854

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.011	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.011	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.011	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0054	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	101		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	89		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	101		%	1	12/03/20	JLI	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	75		%	1	12/04/20	AW	30 - 130 %
% Nitrobenzene-d5	64		%	1	12/04/20	AW	30 - 130 %
% Terphenyl-d14	100		%	1	12/04/20	AW	30 - 130 %
Field Extraction	Completed				12/02/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-18B

Phoenix I.D.: CH23854

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	10:40
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23855

Project ID: GRASSO TECH
Client ID: B-18C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Arsenic	1.25	0.71	mg/Kg	1	12/05/20	TH	SW6010D
Barium	38.8	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Cadmium	0.45	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Chromium	7.44	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/07/20	RS	SW7471B
Lead	2.94	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	12/05/20	TH	SW6010D
Percent Solid	96		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/07/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/02/20	G/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
Total Metals Digest	Completed				12/03/20	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	51	mg/Kg	1	12/03/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/03/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	70		%	1	12/03/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0027	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-18C

Phoenix I.D.: CH23855

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.023	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.023	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.23	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0027	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.027	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0091	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.0091	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-18C

Phoenix I.D.: CH23855

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.0091	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0091	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0091	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0045	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	102		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	89		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	102		%	1	12/03/20	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	74		%	1	12/04/20	AW	30 - 130 %
% Nitrobenzene-d5	63		%	1	12/04/20	AW	30 - 130 %
% Terphenyl-d14	97		%	1	12/04/20	AW	30 - 130 %
Field Extraction	Completed				12/02/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-18C

Phoenix I.D.: CH23855

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	10:50
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23856

Project ID: GRASSO TECH
Client ID: B-19A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	92		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/02/20	G/E	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	54	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	72		%	1	12/04/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D

Project ID: GRASSO TECH
Client ID: B-19A

Phoenix I.D.: CH23856

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	79		%	1	12/04/20	AW	30 - 130 %
% Nitrobenzene-d5	73		%	1	12/04/20	AW	30 - 130 %
% Terphenyl-d14	101		%	1	12/04/20	AW	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	10:55
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23857

Project ID: GRASSO TECH
Client ID: B-19B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	93		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/03/20	G/M	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	66		%	1	12/04/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D

Project ID: GRASSO TECH
Client ID: B-19B

Phoenix I.D.: CH23857

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	71		%	1	12/04/20	AW	30 - 130 %
% Nitrobenzene-d5	62		%	1	12/04/20	AW	30 - 130 %
% Terphenyl-d14	96		%	1	12/04/20	AW	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	11:00
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23858

Project ID: GRASSO TECH
Client ID: B-19C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	96		%		12/02/20	CAJ	SW846-%Solid
Extraction of CT ETPH	Completed				12/03/20	G/M	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	51	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	72		%	1	12/04/20	JRB	50 - 150 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/04/20	AW	SW8270D

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-19C

Phoenix I.D.: CH23858

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
QA/QC Surrogates							
% 2-Fluorobiphenyl	65		%	1	12/04/20	AW	30 - 130 %
% Nitrobenzene-d5	51		%	1	12/04/20	AW	30 - 130 %
% Terphenyl-d14	96		%	1	12/04/20	AW	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	11:10
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23859

Project ID: GRASSO TECH
Client ID: B-20A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.37	0.37	mg/Kg	1	12/05/20	TH	SW6010D
Arsenic	0.78	0.74	mg/Kg	1	12/05/20	TH	SW6010D
Barium	37.1	0.37	mg/Kg	1	12/05/20	TH	SW6010D
Cadmium	0.42	0.37	mg/Kg	1	12/05/20	TH	SW6010D
Chromium	5.94	0.37	mg/Kg	1	12/05/20	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/07/20	RS	SW7471B
Lead	2.22	0.37	mg/Kg	1	12/05/20	TH	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	12/05/20	TH	SW6010D
Percent Solid	91		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/07/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/03/20	G/M	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
Total Metals Digest	Completed				12/03/20	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	54	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	76		%	1	12/04/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0025	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-20A

Phoenix I.D.: CH23859

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.021	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.021	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.21	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0025	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.025	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0085	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.0085	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-20A

Phoenix I.D.: CH23859

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.0085	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0085	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0085	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0042	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	100		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	88		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	101		%	1	12/03/20	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	71		%	1	12/04/20	AW	30 - 130 %
% Nitrobenzene-d5	61		%	1	12/04/20	AW	30 - 130 %
% Terphenyl-d14	102		%	1	12/04/20	AW	30 - 130 %
Field Extraction	Completed				12/02/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-20A

Phoenix I.D.: CH23859

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	11:15
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23860

Project ID: GRASSO TECH
Client ID: B-20B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Arsenic	0.77	0.73	mg/Kg	1	12/05/20	TH	SW6010D
Barium	46.0	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Cadmium	0.47	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Chromium	4.44	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/07/20	RS	SW7471B
Lead	2.60	0.36	mg/Kg	1	12/05/20	TH	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	12/05/20	TH	SW6010D
Percent Solid	93		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/07/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/03/20	G/M	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
Total Metals Digest	Completed				12/03/20	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	69		%	1	12/04/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0026	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-20B

Phoenix I.D.: CH23860

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.022	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.022	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.22	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0026	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.026	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.0086	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.0086	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-20B

Phoenix I.D.: CH23860

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.0086	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.0086	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.0086	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0043	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	99		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	87		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	100		%	1	12/03/20	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	79		%	1	12/04/20	AW	30 - 130 %
% Nitrobenzene-d5	68		%	1	12/04/20	AW	30 - 130 %
% Terphenyl-d14	102		%	1	12/04/20	AW	30 - 130 %
Field Extraction	Completed				12/02/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-20B

Phoenix I.D.: CH23860

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 09, 2020

FOR: Attn: Mr. Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	11:20
Location Code:	ATC-EH	Received by:	LB	12/02/20	17:10
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	2257320120				

Laboratory Data

SDG ID: GCH23802
Phoenix ID: CH23861

Project ID: GRASSO TECH
Client ID: B-20C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.32	0.32	mg/Kg	1	12/05/20	TH	SW6010D
Arsenic	1.13	0.65	mg/Kg	1	12/05/20	TH	SW6010D
Barium	41.0	0.32	mg/Kg	1	12/05/20	TH	SW6010D
Cadmium	0.46	0.32	mg/Kg	1	12/05/20	TH	SW6010D
Chromium	5.54	0.32	mg/Kg	1	12/05/20	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	12/07/20	RS	SW7471B
Lead	3.11	0.32	mg/Kg	1	12/05/20	TH	SW6010D
Selenium	< 1.3	1.3	mg/Kg	1	12/05/20	TH	SW6010D
Percent Solid	94		%		12/02/20	CAJ	SW846-%Solid
Mercury Digestion	Completed				12/07/20	VT/ARW	SW7471B
Extraction of CT ETPH	Completed				12/03/20	G/M	SW3546
Soil Extraction for SVOA PAH	Completed				12/03/20	K/M	SW3546
Total Metals Digest	Completed				12/03/20	B/AG	SW3050B
TPH by GC (Extractable Products)							
Ext. Petroleum H.C. (C9-C36)	ND	52	mg/Kg	1	12/04/20	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	12/04/20	JRB	CTETPH 8015D
QA/QC Surrogates							
% n-Pentacosane	72		%	1	12/04/20	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,1-Trichloroethane	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.0033	mg/Kg	1	12/03/20	JLI	SW8260C
1,1,2-Trichloroethane	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethane	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloroethene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
1,1-Dichloropropene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-20C

Phoenix I.D.: CH23861

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,3-Trichloropropane	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dibromoethane	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichlorobenzene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloroethane	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
1,2-Dichloropropane	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichlorobenzene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
1,3-Dichloropropane	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
1,4-Dichlorobenzene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
2,2-Dichloropropane	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
2-Chlorotoluene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
2-Hexanone	ND	0.027	mg/Kg	1	12/03/20	JLI	SW8260C
2-Isopropyltoluene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
4-Chlorotoluene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
4-Methyl-2-pentanone	ND	0.027	mg/Kg	1	12/03/20	JLI	SW8260C
Acetone	ND	0.27	mg/Kg	1	12/03/20	JLI	SW8260C
Acrylonitrile	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Benzene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Bromobenzene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Bromochloromethane	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Bromodichloromethane	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Bromoform	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Bromomethane	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon Disulfide	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Carbon tetrachloride	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Chlorobenzene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroethane	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Chloroform	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Chloromethane	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,2-Dichloroethene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
cis-1,3-Dichloropropene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromochloromethane	ND	0.0033	mg/Kg	1	12/03/20	JLI	SW8260C
Dibromomethane	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Dichlorodifluoromethane	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Ethylbenzene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Hexachlorobutadiene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Isopropylbenzene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
m&p-Xylene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl Ethyl Ketone	ND	0.033	mg/Kg	1	12/03/20	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	0.011	mg/Kg	1	12/03/20	JLI	SW8260C
Methylene chloride	ND	0.011	mg/Kg	1	12/03/20	JLI	SW8260C
Naphthalene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
n-Butylbenzene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
n-Propylbenzene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
o-Xylene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C

Project ID: GRASSO TECH
Client ID: B-20C

Phoenix I.D.: CH23861

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
sec-Butylbenzene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Styrene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
tert-Butylbenzene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrachloroethene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Tetrahydrofuran (THF)	ND	0.011	mg/Kg	1	12/03/20	JLI	SW8260C
Toluene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Total Xylenes	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,2-Dichloroethene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,3-Dichloropropene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	0.011	mg/Kg	1	12/03/20	JLI	SW8260C
Trichloroethene	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorofluoromethane	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
Trichlorotrifluoroethane	ND	0.011	mg/Kg	1	12/03/20	JLI	SW8260C
Vinyl chloride	ND	0.0055	mg/Kg	1	12/03/20	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	12/03/20	JLI	70 - 130 %
% Bromofluorobenzene	101		%	1	12/03/20	JLI	70 - 130 %
% Dibromofluoromethane	88		%	1	12/03/20	JLI	70 - 130 %
% Toluene-d8	100		%	1	12/03/20	JLI	70 - 130 %
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/04/20	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	74		%	1	12/04/20	AW	30 - 130 %
% Nitrobenzene-d5	66		%	1	12/04/20	AW	30 - 130 %
% Terphenyl-d14	94		%	1	12/04/20	AW	30 - 130 %
Field Extraction	Completed				12/02/20		SW5035A

Project ID: GRASSO TECH
Client ID: B-20C

Phoenix I.D.: CH23861

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 09, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

December 09, 2020

QA/QC Data

SDG I.D.: GCH23802

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 555238 (mg/kg), QC Sample No: CH23819 2X (CH23805, CH23806, CH23807, CH23811, CH23812, CH23813, CH23817, CH23818, CH23819, CH23823, CH23824, CH23825, CH23829, CH23830, CH23831, CH23835, CH23836)													
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	112	115	2.6	97.8	90.8	7.4	70 - 130	30
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 555432 (mg/kg), QC Sample No: CH23841 2X (CH23837, CH23841, CH23842)													
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	104	107	2.8	99.8	90.1	10.2	70 - 130	30
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 555620 (mg/kg), QC Sample No: CH23868 2X (CH23843, CH23847, CH23848, CH23849, CH23853, CH23854, CH23855, CH23859, CH23860, CH23861)													
Mercury - Soil	BRL	0.02	<0.03	<0.03	NC	103	101	2.0	93.2	82.4	12.3	70 - 130	30
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 555159 (mg/kg), QC Sample No: CH23787 (CH23805, CH23806, CH23807, CH23811, CH23812, CH23813, CH23817, CH23818, CH23819, CH23823)													
ICP Metals - Soil													
Arsenic	BRL	0.67	4.47	4.66	4.20	89.5	92.2	3.0	95.8			75 - 125	35
Barium	BRL	0.33	58.0	58.8	1.40	88.3	95.1	7.4	88.0			75 - 125	35
Cadmium	BRL	0.33	0.59	0.60	NC	105	105	0.0	98.3			75 - 125	35
Chromium	BRL	0.33	17.2	17.9	4.00	93.8	97.6	4.0	96.1			75 - 125	35
Lead	BRL	0.33	18.6	21.8	15.8	86.8	90.6	4.3	96.6			75 - 125	35
Selenium	BRL	1.3	<1.4	<1.5	NC	92.4	93.7	1.4	95.1			75 - 125	35
Silver	BRL	0.33	<0.36	<0.37	NC	81.3	85.0	4.4	94.3			75 - 125	35
Comment:													
Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.													
QA/QC Batch 555324 (mg/kg), QC Sample No: CH23824 (CH23824, CH23825, CH23829, CH23830, CH23831, CH23835, CH23836, CH23837, CH23841, CH23842, CH23843, CH23847, CH23848, CH23849, CH23853, CH23854, CH23855, CH23859, CH23860, CH23861)													
ICP Metals - Soil													
Arsenic	BRL	0.67	1.20	1.07	NC	108	101	6.7	101			75 - 125	35
Barium	BRL	0.33	38.4	29.0	27.9	106	101	4.8	107			75 - 125	35
Cadmium	BRL	0.33	0.45	0.43	NC	109	115	5.4	99.9			75 - 125	35
Chromium	BRL	0.33	8.15	5.79	33.9	109	110	0.9	98.5			75 - 125	35
Lead	BRL	0.33	3.47	3.31	4.70	104	97.5	6.5	105			75 - 125	35
Selenium	BRL	1.3	<1.3	<1.4	NC	104	101	2.9	96.7			75 - 125	35
Silver	BRL	0.33	<0.32	<0.35	NC	95.6	87.7	8.6	95.3			75 - 125	35
Comment:													
Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.													

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

December 09, 2020

QA/QC Data

SDG I.D.: GCH23802

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 555139 (mg/Kg), QC Sample No: CH23804 (CH23802, CH23803, CH23804, CH23805)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	61	70	13.7	78	80	2.5	60 - 120	30	
% n-Pentacosane	71	%	88	80	9.5	82	89	8.2	50 - 150	30	
Comment:											
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.											
QA/QC Batch 555161 (mg/Kg), QC Sample No: CH23828 (CH23819, CH23820, CH23821, CH23822, CH23823, CH23824, CH23825, CH23826, CH23827, CH23828, CH23829, CH23830, CH23831, CH23832, CH23833, CH23834, CH23835, CH23836, CH23837)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	65	66	1.5	54	66	20.0	60 - 120	30	
% n-Pentacosane	87	%	78	78	0.0	57	69	19.0	50 - 150	30	
Comment:											
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.											
QA/QC Batch 555162 (mg/Kg), QC Sample No: CH23839 (CH23838, CH23839, CH23840, CH23841, CH23842, CH23843, CH23844, CH23845, CH23846, CH23847, CH23848, CH23849, CH23850, CH23851, CH23852, CH23853, CH23854, CH23855, CH23856)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	86	72	17.7	63	95	40.5	60 - 120	30	r
% n-Pentacosane	85	%	74	63	16.1	58	82	34.3	50 - 150	30	r
Comment:											
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.											
QA/QC Batch 555160 (mg/Kg), QC Sample No: CH23870 (CH23806, CH23807, CH23808, CH23809, CH23810, CH23811, CH23812, CH23813, CH23814, CH23815, CH23816, CH23817, CH23818)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	66	65	1.5	72	72	0.0	60 - 120	30	
% n-Pentacosane	76	%	73	74	1.4	56	58	3.5	50 - 150	30	
Comment:											
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.											
QA/QC Batch 555321 (mg/Kg), QC Sample No: CH24336 (CH23857, CH23858, CH23859, CH23860)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	87	104	17.8	108	107	0.9	60 - 120	30	
% n-Pentacosane	83	%	71	83	15.6	71	73	2.8	50 - 150	30	
Comment:											
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.											

QA/QC Data

SDG I.D.: GCH23802

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 555322 (mg/Kg), QC Sample No: CH24545 (CH23861)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C. (C9-C36)	ND	50	70	72	2.8	64	49	26.5	60 - 120	30	m
% n-Pentacosane	71	%	83	75	10.1	122	111	9.4	50 - 150	30	
Comment:											
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.											
QA/QC Batch 555166 (mg/Kg), QC Sample No: CH23803 (CH23802, CH23803, CH23804, CH23805, CH23806)											
Polynuclear Aromatic HC - Soil											
2-Methylnaphthalene	ND	0.23	81	86	6.0	76	79	3.9	40 - 140	30	
Acenaphthene	ND	0.23	87	87	0.0	79	84	6.1	30 - 130	30	
Acenaphthylene	ND	0.23	76	75	1.3	70	73	4.2	40 - 140	30	
Anthracene	ND	0.23	88	84	4.7	77	83	7.5	40 - 140	30	
Benz(a)anthracene	ND	0.23	87	86	1.2	79	84	6.1	40 - 140	30	
Benzo(a)pyrene	ND	0.23	92	90	2.2	81	88	8.3	40 - 140	30	
Benzo(b)fluoranthene	ND	0.23	102	103	1.0	93	100	7.3	40 - 140	30	
Benzo(ghi)perylene	ND	0.23	88	86	2.3	78	86	9.8	40 - 140	30	
Benzo(k)fluoranthene	ND	0.23	67	64	4.6	57	62	8.4	40 - 140	30	
Chrysene	ND	0.23	86	84	2.4	77	82	6.3	40 - 140	30	
Dibenz(a,h)anthracene	ND	0.23	88	87	1.1	78	84	7.4	40 - 140	30	
Fluoranthene	ND	0.23	89	85	4.6	77	83	7.5	40 - 140	30	
Fluorene	ND	0.23	84	84	0.0	78	83	6.2	40 - 140	30	
Indeno(1,2,3-cd)pyrene	ND	0.23	91	90	1.1	81	88	8.3	40 - 140	30	
Naphthalene	ND	0.23	70	76	8.2	70	69	1.4	40 - 140	30	
Phenanthrene	ND	0.23	86	84	2.4	76	83	8.8	40 - 140	30	
Pyrene	ND	0.23	88	84	4.7	75	83	10.1	30 - 130	30	
% 2-Fluorobiphenyl	85	%	85	87	2.3	78	79	1.3	30 - 130	30	
% Nitrobenzene-d5	71	%	68	76	11.1	68	65	4.5	30 - 130	30	
% Terphenyl-d14	98	%	95	90	5.4	82	88	7.1	30 - 130	30	
Comment:											
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)											
QA/QC Batch 555167 (mg/Kg), QC Sample No: CH23807 (CH23807, CH23808, CH23809, CH23810, CH23811, CH23812, CH23813, CH23814, CH23815, CH23816, CH23817, CH23818, CH23819, CH23820, CH23821, CH23822, CH23823, CH23824, CH23825)											
Polynuclear Aromatic HC - Soil											
2-Methylnaphthalene	ND	0.23	77	65	16.9	73	69	5.6	40 - 140	30	
Acenaphthene	ND	0.23	83	69	18.4	76	75	1.3	30 - 130	30	
Acenaphthylene	ND	0.23	74	61	19.3	68	67	1.5	40 - 140	30	
Anthracene	ND	0.23	83	67	21.3	75	76	1.3	40 - 140	30	
Benz(a)anthracene	ND	0.23	89	69	25.3	80	87	8.4	40 - 140	30	
Benzo(a)pyrene	ND	0.23	94	77	19.9	83	92	10.3	40 - 140	30	
Benzo(b)fluoranthene	ND	0.23	105	84	22.2	92	101	9.3	40 - 140	30	
Benzo(ghi)perylene	ND	0.23	85	68	22.2	80	86	7.2	40 - 140	30	
Benzo(k)fluoranthene	ND	0.23	67	55	19.7	63	69	9.1	40 - 140	30	
Chrysene	ND	0.23	85	67	23.7	78	84	7.4	40 - 140	30	
Dibenz(a,h)anthracene	ND	0.23	84	68	21.1	78	79	1.3	40 - 140	30	
Fluoranthene	ND	0.23	86	68	23.4	76	81	6.4	40 - 140	30	
Fluorene	ND	0.23	82	68	18.7	76	75	1.3	40 - 140	30	
Indeno(1,2,3-cd)pyrene	ND	0.23	85	68	22.2	80	87	8.4	40 - 140	30	
Naphthalene	ND	0.23	72	62	14.9	68	64	6.1	40 - 140	30	
Phenanthrene	ND	0.23	81	66	20.4	76	74	2.7	40 - 140	30	

QA/QC Data

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Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Pyrene	ND	0.23	85	69	20.8	75	83	10.1	30 - 130	30
% 2-Fluorobiphenyl	69	%	69	63	9.1	70	68	2.9	30 - 130	30
% Nitrobenzene-d5	68	%	68	58	15.9	71	66	7.3	30 - 130	30
% Terphenyl-d14	78	%	83	70	17.0	79	77	2.6	30 - 130	30

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 555313 (mg/Kg), QC Sample No: CH23827 (CH23826, CH23827, CH23828, CH23829, CH23830, CH23831, CH23832, CH23833, CH23834, CH23835, CH23836, CH23837, CH23838, CH23839, CH23840, CH23841, CH23842, CH23843)

Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	0.23	74	75	1.3	72	69	4.3	40 - 140	30
Acenaphthene	ND	0.23	84	86	2.4	79	79	0.0	30 - 130	30
Acenaphthylene	ND	0.23	79	80	1.3	73	72	1.4	40 - 140	30
Anthracene	ND	0.23	87	89	2.3	82	81	1.2	40 - 140	30
Benz(a)anthracene	ND	0.23	88	89	1.1	84	83	1.2	40 - 140	30
Benzo(a)pyrene	ND	0.23	91	92	1.1	84	85	1.2	40 - 140	30
Benzo(b)fluoranthene	ND	0.23	102	105	2.9	99	101	2.0	40 - 140	30
Benzo(ghi)perylene	ND	0.23	83	86	3.6	78	79	1.3	40 - 140	30
Benzo(k)fluoranthene	ND	0.23	70	67	4.4	62	62	0.0	40 - 140	30
Chrysene	ND	0.23	86	87	1.2	83	82	1.2	40 - 140	30
Dibenz(a,h)anthracene	ND	0.23	88	88	0.0	80	82	2.5	40 - 140	30
Fluoranthene	ND	0.23	92	92	0.0	84	84	0.0	40 - 140	30
Fluorene	ND	0.23	88	86	2.3	81	79	2.5	40 - 140	30
Indeno(1,2,3-cd)pyrene	ND	0.23	85	85	0.0	78	79	1.3	40 - 140	30
Naphthalene	ND	0.23	72	75	4.1	72	70	2.8	40 - 140	30
Phenanthrene	ND	0.23	86	86	0.0	79	79	0.0	40 - 140	30
Pyrene	ND	0.23	91	94	3.2	86	87	1.2	30 - 130	30
% 2-Fluorobiphenyl	74	%	76	79	3.9	71	72	1.4	30 - 130	30
% Nitrobenzene-d5	72	%	79	78	1.3	73	75	2.7	30 - 130	30
% Terphenyl-d14	106	%	102	105	2.9	93	94	1.1	30 - 130	30

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 555315 (mg/Kg), QC Sample No: CH23844 (CH23844, CH23845, CH23846, CH23847, CH23848, CH23849, CH23850, CH23851, CH23852, CH23853, CH23854, CH23855, CH23856, CH23857, CH23858, CH23859, CH23860, CH23861)

Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	0.23	74	80	7.8	59	69	15.6	40 - 140	30
Acenaphthene	ND	0.23	82	86	4.8	62	74	17.6	30 - 130	30
Acenaphthylene	ND	0.23	75	79	5.2	57	68	17.6	40 - 140	30
Anthracene	ND	0.23	82	84	2.4	61	75	20.6	40 - 140	30
Benz(a)anthracene	ND	0.23	86	90	4.5	63	80	23.8	40 - 140	30
Benzo(a)pyrene	ND	0.23	93	97	4.2	68	86	23.4	40 - 140	30
Benzo(b)fluoranthene	ND	0.23	106	108	1.9	76	96	23.3	40 - 140	30
Benzo(ghi)perylene	ND	0.23	100	103	3.0	72	90	22.2	40 - 140	30
Benzo(k)fluoranthene	ND	0.23	65	68	4.5	49	60	20.2	40 - 140	30
Chrysene	ND	0.23	83	86	3.6	61	76	21.9	40 - 140	30
Dibenz(a,h)anthracene	ND	0.23	105	109	3.7	75	96	24.6	40 - 140	30
Fluoranthene	ND	0.23	86	89	3.4	64	79	21.0	40 - 140	30
Fluorene	ND	0.23	80	83	3.7	61	74	19.3	40 - 140	30
Indeno(1,2,3-cd)pyrene	ND	0.23	104	109	4.7	75	95	23.5	40 - 140	30
Naphthalene	ND	0.23	69	77	11.0	58	66	12.9	40 - 140	30
Phenanthrene	ND	0.23	81	84	3.6	60	75	22.2	40 - 140	30

QA/QC Data

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Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Pyrene	ND	0.23	89	92	3.3	65	82	23.1	30 - 130	30	
% 2-Fluorobiphenyl	79	%	77	82	6.3	59	70	17.1	30 - 130	30	
% Nitrobenzene-d5	72	%	68	78	13.7	56	65	14.9	30 - 130	30	
% Terphenyl-d14	96	%	94	97	3.1	68	86	23.4	30 - 130	30	

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 555286 (mg/Kg), QC Sample No: CH23158 (CH23823, CH23824, CH23829, CH23830, CH23831, CH23835)

Volatiles - Soil (Low Level)

1,1,1,2-Tetrachloroethane	ND	0.005	109	116	6.2	110	114	3.6	70 - 130	30	
1,1,1-Trichloroethane	ND	0.005	106	111	4.6	115	112	2.6	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.003	105	116	10.0	90	92	2.2	70 - 130	30	
1,1,2-Trichloroethane	ND	0.005	98	107	8.8	102	102	0.0	70 - 130	30	
1,1-Dichloroethane	ND	0.005	102	107	4.8	108	106	1.9	70 - 130	30	
1,1-Dichloroethene	ND	0.005	108	112	3.6	114	112	1.8	70 - 130	30	
1,1-Dichloropropene	ND	0.005	102	104	1.9	105	104	1.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	0.005	95	105	10.0	68	74	8.5	70 - 130	30	m
1,2,3-Trichloropropane	ND	0.005	95	104	9.0	99	101	2.0	70 - 130	30	
1,2,4-Trichlorobenzene	ND	0.005	97	104	7.0	67	72	7.2	70 - 130	30	m
1,2,4-Trimethylbenzene	ND	0.001	104	109	4.7	93	97	4.2	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	0.005	108	122	12.2	105	105	0.0	70 - 130	30	
1,2-Dibromoethane	ND	0.005	103	112	8.4	104	105	1.0	70 - 130	30	
1,2-Dichlorobenzene	ND	0.005	100	106	5.8	87	91	4.5	70 - 130	30	
1,2-Dichloroethane	ND	0.005	98	104	5.9	104	104	0.0	70 - 130	30	
1,2-Dichloropropane	ND	0.005	97	104	7.0	100	101	1.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	0.001	104	108	3.8	96	99	3.1	70 - 130	30	
1,3-Dichlorobenzene	ND	0.005	101	107	5.8	87	92	5.6	70 - 130	30	
1,3-Dichloropropane	ND	0.005	100	108	7.7	102	104	1.9	70 - 130	30	
1,4-Dichlorobenzene	ND	0.005	99	105	5.9	84	89	5.8	70 - 130	30	
2,2-Dichloropropane	ND	0.005	110	115	4.4	122	121	0.8	70 - 130	30	
2-Chlorotoluene	ND	0.005	101	107	5.8	96	98	2.1	70 - 130	30	
2-Hexanone	ND	0.025	93	103	10.2	89	90	1.1	70 - 130	30	
2-Isopropyltoluene	ND	0.005	103	108	4.7	93	96	3.2	70 - 130	30	
4-Chlorotoluene	ND	0.005	102	106	3.8	91	96	5.3	70 - 130	30	
4-Methyl-2-pentanone	ND	0.025	92	102	10.3	93	93	0.0	70 - 130	30	
Acetone	ND	0.01	68	74	8.5	<10	<10	NC	70 - 130	30	l,m
Acrylonitrile	ND	0.005	96	106	9.9	97	96	1.0	70 - 130	30	
Benzene	ND	0.001	102	107	4.8	103	105	1.9	70 - 130	30	
Bromobenzene	ND	0.005	99	105	5.9	94	97	3.1	70 - 130	30	
Bromochloromethane	ND	0.005	103	110	6.6	108	107	0.9	70 - 130	30	
Bromodichloromethane	ND	0.005	108	116	7.1	110	111	0.9	70 - 130	30	
Bromoform	ND	0.005	116	127	9.1	109	113	3.6	70 - 130	30	
Bromomethane	ND	0.005	108	114	5.4	123	116	5.9	70 - 130	30	
Carbon Disulfide	ND	0.005	109	112	2.7	110	109	0.9	70 - 130	30	
Carbon tetrachloride	ND	0.005	132	113	15.5	117	116	0.9	70 - 130	30	l
Chlorobenzene	ND	0.005	102	107	4.8	99	102	3.0	70 - 130	30	
Chloroethane	ND	0.005	117	122	4.2	128	125	2.4	70 - 130	30	
Chloroform	ND	0.005	103	107	3.8	109	106	2.8	70 - 130	30	
Chloromethane	ND	0.005	109	114	4.5	109	110	0.9	70 - 130	30	
cis-1,2-Dichloroethene	ND	0.005	93	102	9.2	99	95	4.1	70 - 130	30	
cis-1,3-Dichloropropene	ND	0.005	105	115	9.1	104	105	1.0	70 - 130	30	
Dibromochloromethane	ND	0.003	117	126	7.4	115	118	2.6	70 - 130	30	

QA/QC Data

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Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Dibromomethane	ND	0.005	98	107	8.8	100	101	1.0	70 - 130	30	
Dichlorodifluoromethane	ND	0.005	138	140	1.4	146	143	2.1	70 - 130	30	l,m
Ethylbenzene	ND	0.001	104	108	3.8	103	105	1.9	70 - 130	30	
Hexachlorobutadiene	ND	0.005	105	107	1.9	67	69	2.9	70 - 130	30	m
Isopropylbenzene	ND	0.001	106	110	3.7	103	105	1.9	70 - 130	30	
m&p-Xylene	ND	0.002	105	109	3.7	102	103	1.0	70 - 130	30	
Methyl ethyl ketone	ND	0.005	85	96	12.2	44	42	4.7	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	0.001	101	110	8.5	108	107	0.9	70 - 130	30	
Methylene chloride	ND	0.005	91	97	6.4	96	96	0.0	70 - 130	30	
Naphthalene	ND	0.005	107	118	9.8	88	90	2.2	70 - 130	30	
n-Butylbenzene	ND	0.001	108	111	2.7	88	91	3.4	70 - 130	30	
n-Propylbenzene	ND	0.001	104	109	4.7	98	100	2.0	70 - 130	30	
o-Xylene	ND	0.002	107	111	3.7	103	107	3.8	70 - 130	30	
p-Isopropyltoluene	ND	0.001	109	113	3.6	94	98	4.2	70 - 130	30	
sec-Butylbenzene	ND	0.001	114	118	3.4	101	104	2.9	70 - 130	30	
Styrene	ND	0.005	107	113	5.5	101	105	3.9	70 - 130	30	
tert-Butylbenzene	ND	0.001	107	111	3.7	100	103	3.0	70 - 130	30	
Tetrachloroethene	ND	0.005	103	106	2.9	102	101	1.0	70 - 130	30	
Tetrahydrofuran (THF)	ND	0.005	92	99	7.3	13	<10	NC	70 - 130	30	m
Toluene	ND	0.001	101	106	4.8	103	102	1.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	0.005	110	114	3.6	112	111	0.9	70 - 130	30	
trans-1,3-Dichloropropene	ND	0.005	107	115	7.2	104	105	1.0	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	0.005	119	132	10.4	106	107	0.9	70 - 130	30	l
Trichloroethene	ND	0.005	100	104	3.9	113	113	0.0	70 - 130	30	
Trichlorofluoromethane	ND	0.005	119	120	0.8	127	126	0.8	70 - 130	30	
Trichlorotrifluoroethane	ND	0.005	111	112	0.9	117	114	2.6	70 - 130	30	
Vinyl chloride	ND	0.005	120	122	1.7	124	121	2.4	70 - 130	30	
% 1,2-dichlorobenzene-d4	101	%	100	100	0.0	99	99	0.0	70 - 130	30	
% Bromofluorobenzene	96	%	101	101	0.0	100	101	1.0	70 - 130	30	
% Dibromofluoromethane	97	%	99	102	3.0	101	98	3.0	70 - 130	30	
% Toluene-d8	98	%	99	100	1.0	100	99	1.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

QA/QC Batch 555274 (mg/Kg), QC Sample No: CH23297 (CH23836, CH23837, CH23841, CH23842, CH23843, CH23847, CH23848, CH23849, CH23853, CH23854, CH23855, CH23859, CH23860, CH23861)

Volatiles - Soil (Low Level)

1,1,1,2-Tetrachloroethane	ND	0.005	100	97	3.0	100			70 - 130	30	
1,1,1-Trichloroethane	ND	0.005	93	89	4.4	97			70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.003	94	93	1.1	114			70 - 130	30	
1,1,2-Trichloroethane	ND	0.005	89	86	3.4	79			70 - 130	30	
1,1-Dichloroethane	ND	0.005	91	82	10.4	87			70 - 130	30	
1,1-Dichloroethene	ND	0.005	93	89	4.4	92			70 - 130	30	
1,1-Dichloropropene	ND	0.005	92	87	5.6	85			70 - 130	30	
1,2,3-Trichlorobenzene	ND	0.005	86	83	3.6	36			70 - 130	30	m
1,2,3-Trichloropropane	ND	0.005	92	90	2.2	110			70 - 130	30	
1,2,4-Trichlorobenzene	ND	0.005	87	82	5.9	34			70 - 130	30	m
1,2,4-Trimethylbenzene	ND	0.001	94	90	4.3	98			70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	0.005	97	96	1.0	92			70 - 130	30	
1,2-Dibromoethane	ND	0.005	93	91	2.2	72			70 - 130	30	
1,2-Dichlorobenzene	ND	0.005	90	87	3.4	64			70 - 130	30	m
1,2-Dichloroethane	ND	0.005	95	92	3.2	83			70 - 130	30	

QA/QC Data

SDG I.D.: GCH23802

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2-Dichloropropane	ND	0.005	93	90	3.3	91			70 - 130	30	
1,3,5-Trimethylbenzene	ND	0.001	95	91	4.3	109			70 - 130	30	
1,3-Dichlorobenzene	ND	0.005	90	86	4.5	64			70 - 130	30	m
1,3-Dichloropropane	ND	0.005	93	91	2.2	84			70 - 130	30	
1,4-Dichlorobenzene	ND	0.005	89	85	4.6	57			70 - 130	30	m
2,2-Dichloropropane	ND	0.005	98	93	5.2	98			70 - 130	30	
2-Chlorotoluene	ND	0.005	93	88	5.5	98			70 - 130	30	
2-Hexanone	ND	0.025	95	93	2.1	80			70 - 130	30	
2-Isopropyltoluene	ND	0.005	97	93	4.2	107			70 - 130	30	
4-Chlorotoluene	ND	0.005	90	86	4.5	78			70 - 130	30	
4-Methyl-2-pentanone	ND	0.025	96	94	2.1	91			70 - 130	30	
Acetone	ND	0.01	76	73	4.0	33			70 - 130	30	m
Acrylonitrile	ND	0.005	92	92	0.0	74			70 - 130	30	
Benzene	ND	0.001	91	87	4.5	88			70 - 130	30	
Bromobenzene	ND	0.005	90	86	4.5	75			70 - 130	30	
Bromochloromethane	ND	0.005	85	83	2.4	72			70 - 130	30	
Bromodichloromethane	ND	0.005	98	94	4.2	84			70 - 130	30	
Bromoform	ND	0.005	97	94	3.1	67			70 - 130	30	m
Bromomethane	ND	0.005	107	98	8.8	100			70 - 130	30	
Carbon Disulfide	ND	0.005	94	90	4.3	81			70 - 130	30	
Carbon tetrachloride	ND	0.005	103	99	4.0	102			70 - 130	30	
Chlorobenzene	ND	0.005	93	89	4.4	74			70 - 130	30	
Chloroethane	ND	0.005	105	96	9.0	101			70 - 130	30	
Chloroform	ND	0.005	88	85	3.5	86			70 - 130	30	
Chloromethane	ND	0.005	99	93	6.3	102			70 - 130	30	
cis-1,2-Dichloroethene	ND	0.005	81	78	3.8	68			70 - 130	30	m
cis-1,3-Dichloropropene	ND	0.005	92	90	2.2	64			70 - 130	30	m
Dibromochloromethane	ND	0.003	106	103	2.9	87			70 - 130	30	
Dibromomethane	ND	0.005	91	88	3.4	68			70 - 130	30	m
Dichlorodifluoromethane	ND	0.005	119	113	5.2	127			70 - 130	30	
Ethylbenzene	ND	0.001	93	89	4.4	89			70 - 130	30	
Hexachlorobutadiene	ND	0.005	89	87	2.3	63			70 - 130	30	m
Isopropylbenzene	ND	0.001	95	90	5.4	119			70 - 130	30	
m&p-Xylene	ND	0.002	93	90	3.3	86			70 - 130	30	
Methyl ethyl ketone	ND	0.005	86	84	2.4	79			70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	0.001	88	86	2.3	96			70 - 130	30	
Methylene chloride	ND	0.005	82	80	2.5	78			70 - 130	30	
Naphthalene	ND	0.005	92	91	1.1	49			70 - 130	30	m
n-Butylbenzene	ND	0.001	93	88	5.5	84			70 - 130	30	
n-Propylbenzene	ND	0.001	93	88	5.5	103			70 - 130	30	
o-Xylene	ND	0.002	95	92	3.2	91			70 - 130	30	
p-Isopropyltoluene	ND	0.001	95	91	4.3	101			70 - 130	30	
sec-Butylbenzene	ND	0.001	102	96	6.1	114			70 - 130	30	
Styrene	ND	0.005	92	89	3.3	64			70 - 130	30	m
tert-Butylbenzene	ND	0.001	97	92	5.3	119			70 - 130	30	
Tetrachloroethene	ND	0.005	87	82	5.9	80			70 - 130	30	
Tetrahydrofuran (THF)	ND	0.005	88	85	3.5	93			70 - 130	30	
Toluene	ND	0.001	90	87	3.4	81			70 - 130	30	
trans-1,2-Dichloroethene	ND	0.005	94	91	3.2	82			70 - 130	30	
trans-1,3-Dichloropropene	ND	0.005	93	91	2.2	52			70 - 130	30	m
trans-1,4-dichloro-2-butene	ND	0.005	103	100	3.0	61			70 - 130	30	m
Trichloroethene	ND	0.005	88	84	4.7	77			70 - 130	30	
Trichlorofluoromethane	ND	0.005	98	93	5.2	100			70 - 130	30	

QA/QC Data

SDG I.D.: GCH23802

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Trichlorotrifluoroethane	ND	0.005	105	100	4.9	113			70 - 130	30	
Vinyl chloride	ND	0.005	103	97	6.0	107			70 - 130	30	
% 1,2-dichlorobenzene-d4	98	%	99	99	0.0	102			70 - 130	30	
% Bromofluorobenzene	102	%	102	103	1.0	94			70 - 130	30	
% Dibromofluoromethane	90	%	91	92	1.1	90			70 - 130	30	
% Toluene-d8	99	%	100	100	0.0	98			70 - 130	30	

Comment:

The MSD is not reported for this LL soil batch.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

QA/QC Batch 555461H (mg/Kg), QC Sample No: CH23341 50X (CH23847 (50X))

Volatiles - Soil (High Level)

1,1,2,2-Tetrachloroethane	ND	0.25	103	103	0.0	102	105	2.9	70 - 130	30	
1,2,3-Trichlorobenzene	ND	0.25	129	127	1.6	115	120	4.3	70 - 130	30	
1,2,3-Trichloropropane	ND	0.25	96	94	2.1	91	95	4.3	70 - 130	30	
1,2,4-Trichlorobenzene	ND	0.25	123	122	0.8	116	121	4.2	70 - 130	30	
1,2,4-Trimethylbenzene	ND	0.25	106	104	1.9	107	104	2.8	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	0.25	114	110	3.6	107	114	6.3	70 - 130	30	
1,2-Dichlorobenzene	ND	0.25	109	107	1.9	107	107	0.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	0.25	104	101	2.9	104	101	2.9	70 - 130	30	
1,3-Dichlorobenzene	ND	0.25	108	106	1.9	106	106	0.0	70 - 130	30	
1,4-Dichlorobenzene	ND	0.25	109	106	2.8	106	105	0.9	70 - 130	30	
2-Chlorotoluene	ND	0.25	106	102	3.8	107	104	2.8	70 - 130	30	
2-Isopropyltoluene	ND	0.25	111	109	1.8	113	110	2.7	70 - 130	30	
4-Chlorotoluene	ND	0.25	104	102	1.9	104	104	0.0	70 - 130	30	
Bromobenzene	ND	0.25	103	102	1.0	102	102	0.0	70 - 130	30	
Hexachlorobutadiene	ND	0.25	119	117	1.7	118	116	1.7	70 - 130	30	
Isopropylbenzene	ND	0.25	105	102	2.9	107	104	2.8	70 - 130	30	
Naphthalene	ND	0.25	126	124	1.6	118	125	5.8	70 - 130	30	
n-Butylbenzene	ND	0.25	116	113	2.6	116	115	0.9	70 - 130	30	
n-Propylbenzene	ND	0.25	107	106	0.9	109	107	1.9	70 - 130	30	
p-Isopropyltoluene	ND	0.25	111	109	1.8	112	110	1.8	70 - 130	30	
sec-Butylbenzene	ND	0.25	113	109	3.6	114	111	2.7	70 - 130	30	
tert-Butylbenzene	ND	0.25	106	104	1.9	107	105	1.9	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	0.25	117	117	0.0	112	117	4.4	70 - 130	30	
% 1,2-dichlorobenzene-d4	98	%	102	102	0.0	103	102	1.0	70 - 130	30	
% Bromofluorobenzene	97	%	99	98	1.0	99	99	0.0	70 - 130	30	
% Dibromofluoromethane	96	%	96	98	2.1	98	100	2.0	70 - 130	30	
% Toluene-d8	93	%	102	103	1.0	102	102	0.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

QA/QC Batch 555271 (mg/Kg), QC Sample No: CH23459 (CH23805, CH23806, CH23807, CH23811, CH23812, CH23813, CH23817, CH23818, CH23819)

Volatiles - Soil (Low Level)

1,1,1,2-Tetrachloroethane	ND	0.005	110	106	3.7	80	83	3.7	70 - 130	30	
1,1,1-Trichloroethane	ND	0.005	108	103	4.7	95	102	7.1	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.003	112	108	3.6	69	72	4.3	70 - 130	30	m
1,1,2-Trichloroethane	ND	0.005	108	103	4.7	79	83	4.9	70 - 130	30	
1,1-Dichloroethane	ND	0.005	111	106	4.6	92	96	4.3	70 - 130	30	
1,1-Dichloroethene	ND	0.005	121	112	7.7	97	105	7.9	70 - 130	30	

QA/QC Data

SDG I.D.: GCH23802

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,1-Dichloropropene	ND	0.005	110	106	3.7	94	102	8.2	70 - 130	30	
1,2,3-Trichlorobenzene	ND	0.005	108	106	1.9	35	34	2.9	70 - 130	30	m
1,2,3-Trichloropropane	ND	0.005	99	97	2.0	66	69	4.4	70 - 130	30	m
1,2,4-Trichlorobenzene	ND	0.005	108	102	5.7	38	38	0.0	70 - 130	30	m
1,2,4-Trimethylbenzene	ND	0.001	108	104	3.8	68	72	5.7	70 - 130	30	m
1,2-Dibromo-3-chloropropane	ND	0.005	120	116	3.4	61	67	9.4	70 - 130	30	m
1,2-Dibromoethane	ND	0.005	107	105	1.9	77	79	2.6	70 - 130	30	
1,2-Dichlorobenzene	ND	0.005	110	106	3.7	53	56	5.5	70 - 130	30	m
1,2-Dichloroethane	ND	0.005	106	103	2.9	84	87	3.5	70 - 130	30	
1,2-Dichloropropane	ND	0.005	111	107	3.7	88	91	3.4	70 - 130	30	
1,3,5-Trimethylbenzene	ND	0.001	107	103	3.8	71	77	8.1	70 - 130	30	
1,3-Dichlorobenzene	ND	0.005	108	104	3.8	57	61	6.8	70 - 130	30	m
1,3-Dichloropropane	ND	0.005	104	102	1.9	78	80	2.5	70 - 130	30	
1,4-Dichlorobenzene	ND	0.005	108	104	3.8	56	59	5.2	70 - 130	30	m
2,2-Dichloropropane	ND	0.005	117	111	5.3	93	100	7.3	70 - 130	30	
2-Chlorotoluene	ND	0.005	111	106	4.6	70	74	5.6	70 - 130	30	
2-Hexanone	ND	0.025	110	106	3.7	56	55	1.8	70 - 130	30	m
2-Isopropyltoluene	ND	0.005	115	110	4.4	72	78	8.0	70 - 130	30	
4-Chlorotoluene	ND	0.005	107	103	3.8	64	69	7.5	70 - 130	30	m
4-Methyl-2-pentanone	ND	0.025	113	109	3.6	76	79	3.9	70 - 130	30	
Acetone	ND	0.01	99	97	2.0	64	74	14.5	70 - 130	30	m
Acrylonitrile	ND	0.005	115	112	2.6	63	65	3.1	70 - 130	30	m
Benzene	ND	0.001	110	106	3.7	88	92	4.4	70 - 130	30	
Bromobenzene	ND	0.005	107	104	2.8	64	68	6.1	70 - 130	30	m
Bromochloromethane	ND	0.005	110	104	5.6	83	86	3.6	70 - 130	30	
Bromodichloromethane	ND	0.005	115	110	4.4	87	89	2.3	70 - 130	30	
Bromoform	ND	0.005	115	113	1.8	71	74	4.1	70 - 130	30	
Bromomethane	ND	0.005	129	120	7.2	73	75	2.7	70 - 130	30	
Carbon Disulfide	ND	0.005	130	123	5.5	102	110	7.5	70 - 130	30	
Carbon tetrachloride	ND	0.005	117	111	5.3	92	103	11.3	70 - 130	30	
Chlorobenzene	ND	0.005	110	105	4.7	76	79	3.9	70 - 130	30	
Chloroethane	ND	0.005	126	120	4.9	93	101	8.2	70 - 130	30	
Chloroform	ND	0.005	101	97	4.0	82	86	4.8	70 - 130	30	
Chloromethane	ND	0.005	130	122	6.3	87	94	7.7	70 - 130	30	
cis-1,2-Dichloroethene	ND	0.005	104	100	3.9	89	90	1.1	70 - 130	30	
cis-1,3-Dichloropropene	ND	0.005	113	108	4.5	80	83	3.7	70 - 130	30	
Dibromochloromethane	ND	0.003	118	114	3.4	80	81	1.2	70 - 130	30	
Dibromomethane	ND	0.005	110	106	3.7	84	86	2.4	70 - 130	30	
Dichlorodifluoromethane	ND	0.005	172	165	4.2	101	110	8.5	70 - 130	30	I
Ethylbenzene	ND	0.001	114	108	5.4	83	87	4.7	70 - 130	30	
Hexachlorobutadiene	ND	0.005	114	110	3.6	52	60	14.3	70 - 130	30	m
Isopropylbenzene	ND	0.001	111	108	2.7	78	85	8.6	70 - 130	30	
m&p-Xylene	ND	0.002	108	103	4.7	79	83	4.9	70 - 130	30	
Methyl ethyl ketone	ND	0.005	109	100	8.6	64	74	14.5	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	0.001	104	112	7.4	77	95	20.9	70 - 130	30	
Methylene chloride	ND	0.005	97	94	3.1	75	78	3.9	70 - 130	30	
Naphthalene	ND	0.005	116	114	1.7	40	39	2.5	70 - 130	30	m
n-Butylbenzene	ND	0.001	114	111	2.7	65	72	10.2	70 - 130	30	m
n-Propylbenzene	ND	0.001	113	109	3.6	75	83	10.1	70 - 130	30	
o-Xylene	ND	0.002	112	107	4.6	78	82	5.0	70 - 130	30	
p-Isopropyltoluene	ND	0.001	112	109	2.7	67	75	11.3	70 - 130	30	m
sec-Butylbenzene	ND	0.001	116	113	2.6	70	78	10.8	70 - 130	30	
Styrene	ND	0.005	107	102	4.8	68	70	2.9	70 - 130	30	m

QA/QC Data

SDG I.D.: GCH23802

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
tert-Butylbenzene	ND	0.001	111	108	2.7	74	81	9.0	70 - 130	30	
Tetrachloroethene	ND	0.005	113	108	4.5	90	97	7.5	70 - 130	30	
Tetrahydrofuran (THF)	ND	0.005	112	107	4.6	84	90	6.9	70 - 130	30	
Toluene	ND	0.001	112	108	3.6	86	92	6.7	70 - 130	30	
trans-1,2-Dichloroethene	ND	0.005	118	114	3.4	89	99	10.6	70 - 130	30	
trans-1,3-Dichloropropene	ND	0.005	110	106	3.7	78	81	3.8	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	0.005	129	125	3.1	69	71	2.9	70 - 130	30	m
Trichloroethene	ND	0.005	111	106	4.6	90	97	7.5	70 - 130	30	
Trichlorofluoromethane	ND	0.005	123	118	4.1	102	108	5.7	70 - 130	30	
Trichlorotrifluoroethane	ND	0.005	131	130	0.8	114	124	8.4	70 - 130	30	I
Vinyl chloride	ND	0.005	139	133	4.4	96	102	6.1	70 - 130	30	I
% 1,2-dichlorobenzene-d4	96	%	101	101	0.0	101	101	0.0	70 - 130	30	
% Bromofluorobenzene	95	%	99	98	1.0	99	98	1.0	70 - 130	30	
% Dibromofluoromethane	97	%	102	98	4.0	98	98	0.0	70 - 130	30	
% Toluene-d8	93	%	102	102	0.0	102	102	0.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

QA/QC Batch 555449 (mg/Kg), QC Sample No: CH23825 (CH23825)

Volatiles - Soil (Low Level)

1,1,1,2-Tetrachloroethane	ND	0.005	106	106	0.0	93	101	8.2	70 - 130	30	
1,1,1-Trichloroethane	ND	0.005	97	100	3.0	85	93	9.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.003	104	108	3.8	89	93	4.4	70 - 130	30	
1,1,2-Trichloroethane	ND	0.005	96	96	0.0	87	90	3.4	70 - 130	30	
1,1-Dichloroethane	ND	0.005	91	92	1.1	80	85	6.1	70 - 130	30	
1,1-Dichloroethene	ND	0.005	95	98	3.1	83	89	7.0	70 - 130	30	
1,1-Dichloropropene	ND	0.005	94	96	2.1	84	90	6.9	70 - 130	30	
1,2,3-Trichlorobenzene	ND	0.005	96	97	1.0	76	81	6.4	70 - 130	30	
1,2,3-Trichloropropane	ND	0.005	102	104	1.9	92	95	3.2	70 - 130	30	
1,2,4-Trichlorobenzene	ND	0.005	96	96	0.0	73	80	9.2	70 - 130	30	
1,2,4-Trimethylbenzene	ND	0.001	103	103	0.0	86	95	9.9	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	0.005	105	111	5.6	91	96	5.3	70 - 130	30	
1,2-Dibromoethane	ND	0.005	102	104	1.9	92	96	4.3	70 - 130	30	
1,2-Dichlorobenzene	ND	0.005	99	99	0.0	85	91	6.8	70 - 130	30	
1,2-Dichloroethane	ND	0.005	102	105	2.9	94	98	4.2	70 - 130	30	
1,2-Dichloropropane	ND	0.005	97	99	2.0	90	92	2.2	70 - 130	30	
1,3,5-Trimethylbenzene	ND	0.001	103	102	1.0	87	96	9.8	70 - 130	30	
1,3-Dichlorobenzene	ND	0.005	99	99	0.0	83	90	8.1	70 - 130	30	
1,3-Dichloropropane	ND	0.005	101	102	1.0	91	95	4.3	70 - 130	30	
1,4-Dichlorobenzene	ND	0.005	97	97	0.0	81	89	9.4	70 - 130	30	
2,2-Dichloropropane	ND	0.005	103	104	1.0	86	93	7.8	70 - 130	30	
2-Chlorotoluene	ND	0.005	101	101	0.0	87	95	8.8	70 - 130	30	
2-Hexanone	ND	0.025	107	110	2.8	95	99	4.1	70 - 130	30	
2-Isopropyltoluene	ND	0.005	104	105	1.0	89	97	8.6	70 - 130	30	
4-Chlorotoluene	ND	0.005	99	99	0.0	84	92	9.1	70 - 130	30	
4-Methyl-2-pentanone	ND	0.025	106	108	1.9	95	97	2.1	70 - 130	30	
Acetone	ND	0.01	84	81	3.6	75	71	5.5	70 - 130	30	
Acrylonitrile	ND	0.005	101	105	3.9	90	92	2.2	70 - 130	30	
Benzene	ND	0.001	96	97	1.0	86	91	5.6	70 - 130	30	
Bromobenzene	ND	0.005	98	99	1.0	87	93	6.7	70 - 130	30	
Bromochloromethane	ND	0.005	92	93	1.1	83	87	4.7	70 - 130	30	
Bromodichloromethane	ND	0.005	102	103	1.0	90	96	6.5	70 - 130	30	

QA/QC Data

SDG I.D.: GCH23802

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Bromoform	ND	0.005	98	101	3.0	81	89	9.4	70 - 130	30
Bromomethane	ND	0.005	106	107	0.9	90	97	7.5	70 - 130	30
Carbon Disulfide	ND	0.005	95	98	3.1	81	87	7.1	70 - 130	30
Carbon tetrachloride	ND	0.005	106	109	2.8	89	99	10.6	70 - 130	30
Chlorobenzene	ND	0.005	99	99	0.0	88	94	6.6	70 - 130	30
Chloroethane	ND	0.005	105	105	0.0	87	95	8.8	70 - 130	30
Chloroform	ND	0.005	94	96	2.1	83	88	5.8	70 - 130	30
Chloromethane	ND	0.005	101	103	2.0	88	92	4.4	70 - 130	30
cis-1,2-Dichloroethene	ND	0.005	85	86	1.2	76	81	6.4	70 - 130	30
cis-1,3-Dichloropropene	ND	0.005	98	99	1.0	86	90	4.5	70 - 130	30
Dibromochloromethane	ND	0.003	108	110	1.8	94	101	7.2	70 - 130	30
Dibromomethane	ND	0.005	97	100	3.0	88	92	4.4	70 - 130	30
Dichlorodifluoromethane	ND	0.005	116	119	2.6	102	106	3.8	70 - 130	30
Ethylbenzene	ND	0.001	99	99	0.0	87	95	8.8	70 - 130	30
Hexachlorobutadiene	ND	0.005	100	101	1.0	76	84	10.0	70 - 130	30
Isopropylbenzene	ND	0.001	103	103	0.0	89	97	8.6	70 - 130	30
m&p-Xylene	ND	0.002	100	100	0.0	87	95	8.8	70 - 130	30
Methyl ethyl ketone	ND	0.005	96	101	5.1	83	84	1.2	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	0.001	97	100	3.0	87	91	4.5	70 - 130	30
Methylene chloride	ND	0.005	89	91	2.2	81	84	3.6	70 - 130	30
Naphthalene	ND	0.005	105	108	2.8	90	94	4.3	70 - 130	30
n-Butylbenzene	ND	0.001	102	103	1.0	82	93	12.6	70 - 130	30
n-Propylbenzene	ND	0.001	101	101	0.0	86	95	9.9	70 - 130	30
o-Xylene	ND	0.002	101	102	1.0	90	96	6.5	70 - 130	30
p-Isopropyltoluene	ND	0.001	103	104	1.0	86	95	9.9	70 - 130	30
sec-Butylbenzene	ND	0.001	109	110	0.9	92	102	10.3	70 - 130	30
Styrene	ND	0.005	100	100	0.0	87	94	7.7	70 - 130	30
tert-Butylbenzene	ND	0.001	104	104	0.0	90	98	8.5	70 - 130	30
Tetrachloroethene	ND	0.005	91	91	0.0	80	87	8.4	70 - 130	30
Tetrahydrofuran (THF)	ND	0.005	97	101	4.0	85	88	3.5	70 - 130	30
Toluene	ND	0.001	96	96	0.0	85	91	6.8	70 - 130	30
trans-1,2-Dichloroethene	ND	0.005	100	103	3.0	86	93	7.8	70 - 130	30
trans-1,3-Dichloropropene	ND	0.005	100	101	1.0	87	91	4.5	70 - 130	30
trans-1,4-dichloro-2-butene	ND	0.005	112	115	2.6	89	93	4.4	70 - 130	30
Trichloroethene	ND	0.005	94	93	1.1	87	93	6.7	70 - 130	30
Trichlorofluoromethane	ND	0.005	99	101	2.0	83	90	8.1	70 - 130	30
Trichlorotrifluoroethane	ND	0.005	109	112	2.7	95	105	10.0	70 - 130	30
Vinyl chloride	ND	0.005	105	108	2.8	92	97	5.3	70 - 130	30
% 1,2-dichlorobenzene-d4	99	%	99	99	0.0	100	98	2.0	70 - 130	30
% Bromofluorobenzene	103	%	103	102	1.0	103	101	2.0	70 - 130	30
% Dibromofluoromethane	87	%	91	92	1.1	91	89	2.2	70 - 130	30
% Toluene-d8	100	%	99	99	0.0	100	99	1.0	70 - 130	30

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
m = This parameter is outside laboratory MS/MSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

QA/QC Data

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Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
December 09, 2020

Wednesday, December 09, 2020

Criteria: None

State: CT

Sample Criteria Exceedances Report

GCH23802 - ATC-EH

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** ATC Associates

Project Location: GRASSO TECH ***Project Number:***

Laboratory Sample ID(s): CH23802-CH23861 ***Sampling Date(s):*** 12/1/2020, 12/2/2020

List RCP Methods Used (e.g., 8260, 8270, et cetera) 6010, 7470/7471, 8260, 8270, ETPH

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
1A	**Were the method specified preservation and holding time requirements met?**	☑ Yes ☐ No
1B	***VPH and EPH methods only:*** **Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)**	☐ Yes ☐ No ☑ NA
2	**Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?**	☑ Yes ☐ No
3	**Were samples received at an appropriate temperature (< 6 Degrees C)?**	☑ Yes ☐ No ☐ NA
4	**Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents acheived? See Sections: ETPH Narration, VOA Narration.**	☐ Yes ☑ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☐ Yes ☑ No ☑ Yes ☐ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☐ Yes ☑ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☑ Yes ☐ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: Rashmi Makol **Position:** Project Manager

Printed Name: Rashmi Makol **Date:** Wednesday, December 09, 2020

Name of Laboratory Phoenix Environmental Labs, Inc.

This certification form is to be used for RCP methods only.

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SDG Comments

Metals Analysis:
The client requested a shorter list of elements than the 6010 RCP list. Only the RCRA 8 Metals are reported as requested on the chain of custody.

8270 Semi-volatile Organics:
The client requested a short list for 8270 RCP Semivolatile. Only the PAH constituents are reported as requested on the chain-of-custody.

ETPH Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 555162 (Samples: CH23838, CH23839, CH23840, CH23841, CH23842, CH23843, CH23844, CH23845, CH23846, CH23847, CH23848, CH23849, CH23850, CH23851, CH23852, CH23853, CH23854, CH23855, CH23856): -----

The MS/MSD RPD exceeds the method criteria for one or more analytes, therefore there may be variability in the reported result. (Ext. Petroleum H.C. (C9-C36))

The MS/MSD RPD exceeds the method criteria for one or more surrogates, therefore there may be variability in the reported result. (% n-Pentacosane)

Instrument:

AU-FID1 12/03/20-1 Jeff Bucko, Chemist 12/03/20

CH23823 (1X), CH23838 (1X), CH23848 (1X)

The initial calibration (ETPHO05I) RSD for the compound list was less than 30% except for the following compounds: None.
As per section 7.2.3, a discrimination check standard was run (D03A003_1) and contained the following outliers: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID11 12/03/20-1 Jeff Bucko, Chemist 12/03/20

CH23831 (1X), CH23832 (1X), CH23833 (1X), CH23834 (1X), CH23835 (1X), CH23836 (1X), CH23837 (1X), CH23844 (1X), CH23845 (1X), CH23846 (1X), CH23847 (1X), CH23849 (1X), CH23850 (1X), CH23851 (1X), CH23852 (1X), CH23853 (1X), CH23854 (1X), CH23855 (1X), CH23856 (1X)

The initial calibration (ETPHO26I) RSD for the compound list was less than 30% except for the following compounds: None.
As per section 7.2.3, a discrimination check standard was run (D03A003_1) and contained the following outliers: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID11 12/04/20-1 Jeff Bucko, Chemist 12/04/20

CH23861 (1X)

The initial calibration (ETPHO26I) RSD for the compound list was less than 30% except for the following compounds: None.
As per section 7.2.3, a discrimination check standard was run (D04A003_1) and contained the following outliers: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID22 12/02/20-1 Adam Werner, Chemist 12/02/20

CH23804 (1X)

The initial calibration (ETPH916I) RSD for the compound list was less than 30% except for the following compounds: None.
As per section 7.2.3, a discrimination check standard was run (D02A005_1) and contained the following outliers: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID22 12/03/20-1 Jeff Bucko, Chemist 12/03/20

CH23808 (1X), CH23812 (1X), CH23813 (1X), CH23814 (1X), CH23815 (1X), CH23816 (1X), CH23817 (1X), CH23818 (1X)

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ETPH Narration

The initial calibration (ETPH916I) RSD for the compound list was less than 30% except for the following compounds: None.
As per section 7.2.3, a discrimination check standard was run (D03A032_1) and contained the following outliers: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID22 12/04/20-1 Jeff Bucko, Chemist 12/04/20

CH23857 (1X)

The initial calibration (ETPH916I) RSD for the compound list was less than 30% except for the following compounds: None.
As per section 7.2.3, a discrimination check standard was run (D04A003_1) and contained the following outliers: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-XL1 12/02/20-1 Adam Werner, Chemist 12/02/20

CH23802 (1X), CH23803 (1X), CH23805 (1X)

The initial calibration (ETPH929I) RSD for the compound list was less than 30% except for the following compounds: None.
As per section 7.2.3, a discrimination check standard was run (D02A003_2) and contained the following outliers: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-XL1 12/03/20-1 Jeff Bucko, Chemist 12/03/20

CH23839 (1X), CH23840 (1X), CH23841 (1X), CH23842 (1X), CH23843 (1X)

The initial calibration (ETPH929I) RSD for the compound list was less than 30% except for the following compounds: None.
As per section 7.2.3, a discrimination check standard was run (D03A003_1) and contained the following outliers: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-XL2 12/03/20-1 Jeff Bucko, Chemist 12/03/20

CH23806 (1X), CH23807 (1X), CH23809 (1X), CH23810 (1X), CH23811 (1X), CH23819 (1X), CH23820 (1X), CH23821 (1X), CH23822 (1X), CH23824 (1X), CH23825 (1X), CH23826 (1X), CH23827 (1X), CH23828 (1X), CH23829 (1X), CH23830 (1X), CH23858 (1X), CH23859 (1X), CH23860 (1X)

The initial calibration (ETPH916I) RSD for the compound list was less than 30% except for the following compounds: None.
As per section 7.2.3, a discrimination check standard was run (D03A003_1) and contained the following outliers: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Batch Specific):

Batch 555160_(CH23870)

CH23806, CH23807, CH23808, CH23809, CH23810, CH23811, CH23812, CH23813, CH23814, CH23815, CH23816, CH23817, CH23818

All LCS recoveries were within 60 - 120 with the following exceptions: None.
All LCSD recoveries were within 60 - 120 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

Batch 555321_(CH24336)

CH23857, CH23858, CH23859, CH23860

All LCS recoveries were within 60 - 120 with the following exceptions: None.
All LCSD recoveries were within 60 - 120 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

Batch 555322_(CH24545)

CH23861

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ETPH Narration

All LCS recoveries were within 60 - 120 with the following exceptions: None.
All LCSD recoveries were within 60 - 120 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

QC (Site Specific):

Batch 555139 (CH23804)

CH23802, CH23803, CH23804, CH23805

All LCS recoveries were within 60 - 120 with the following exceptions: None.
All LCSD recoveries were within 60 - 120 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 50 - 150 with the following exceptions: None.
All MSD recoveries were within 50 - 150 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

Batch 555161 (CH23828)

CH23819, CH23820, CH23821, CH23822, CH23823, CH23824, CH23825, CH23826, CH23827, CH23828, CH23829, CH23830, CH23831, CH23832, CH23833, CH23834, CH23835, CH23836, CH23837

All LCS recoveries were within 60 - 120 with the following exceptions: None.
All LCSD recoveries were within 60 - 120 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 50 - 150 with the following exceptions: None.
All MSD recoveries were within 50 - 150 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

Batch 555162 (CH23839)

CH23838, CH23839, CH23840, CH23841, CH23842, CH23843, CH23844, CH23845, CH23846, CH23847, CH23848, CH23849, CH23850, CH23851, CH23852, CH23853, CH23854, CH23855, CH23856

All LCS recoveries were within 60 - 120 with the following exceptions: None.
All LCSD recoveries were within 60 - 120 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 50 - 150 with the following exceptions: None.
All MSD recoveries were within 50 - 150 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: % n-Pentacosane(34.3%), Ext. Petroleum H.C. (C9-C36)(40.5%)
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

Mercury Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

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Mercury Narration

MERLIN 12/03/20 07:49 Rick Schweitzer, Chemist 12/03/20

CH23805, CH23806, CH23807, CH23811, CH23812, CH23813, CH23817, CH23818, CH23819, CH23823, CH23824, CH23825, CH23829, CH23830, CH23831, CH23835, CH23836

The method preparation blank, ICB, and CCBs contain all of the acids and reagents as the samples.
The initial calibration met all criteria including a standard run at or below the reporting level.
All calibration verification standards (ICV, CCV) met criteria.
All calibration blank verification standards (ICB, CCB) met criteria.
The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

MERLIN 12/04/20 07:42 Rick Schweitzer, Chemist 12/04/20

CH23837, CH23841, CH23842

The method preparation blank, ICB, and CCBs contain all of the acids and reagents as the samples.
The initial calibration met all criteria including a standard run at or below the reporting level.
All calibration verification standards (ICV, CCV) met criteria.
All calibration blank verification standards (ICB, CCB) met criteria.
The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

MERLIN 12/07/20 09:02 Rick Schweitzer, Chemist 12/07/20

CH23843, CH23847, CH23848, CH23849, CH23853, CH23854, CH23855, CH23859, CH23860, CH23861

The method preparation blank, ICB, and CCBs contain all of the acids and reagents as the samples.
The initial calibration met all criteria including a standard run at or below the reporting level.
All calibration verification standards (ICV, CCV) met criteria.
All calibration blank verification standards (ICB, CCB) met criteria.
The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 555620 (CH23868)

CH23843, CH23847, CH23848, CH23849, CH23853, CH23854, CH23855, CH23859, CH23860, CH23861

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

QC (Site Specific):

Batch 555238 (CH23819)

CH23805, CH23806, CH23807, CH23811, CH23812, CH23813, CH23817, CH23818, CH23819, CH23823, CH23824, CH23825, CH23829, CH23830, CH23831, CH23835, CH23836

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Mercury Narration

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 75 - 125 with the following exceptions: None.
All MSD recoveries were within 75 - 125 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

Batch 555432 (CH23841)

CH23837, CH23841, CH23842

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 75 - 125 with the following exceptions: None.
All MSD recoveries were within 75 - 125 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

ARCOS-2 12/03/20 09:06 Cindy Pearce, Chemist 12/03/20

CH23805, CH23806, CH23807, CH23811, CH23812, CH23813, CH23817, CH23818, CH23819, CH23823

The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

ARCOS-2 12/04/20 11:06 Tina Hall, Chemist 12/04/20

CH23824, CH23825, CH23829, CH23830, CH23831, CH23835, CH23836, CH23837, CH23841, CH23842, CH23843, CH23847, CH23848, CH23849, CH23853, CH23854, CH23855, CH23859, CH23860, CH23861

The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 555159 (CH23787)

CH23805, CH23806, CH23807, CH23811, CH23812, CH23813, CH23817, CH23818, CH23819, CH23823

All LCS recoveries were within 75 - 125 with the following exceptions: None.
All LCSD recoveries were within 75 - 125 with the following exceptions: None.
All LCS/LCSD RPDs were less than 35% with the following exceptions: None.
Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.

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ICP Metals Narration

QC (Site Specific):

Batch 555324 (CH23824)

CH23824, CH23825, CH23829, CH23830, CH23831, CH23835, CH23836, CH23837, CH23841, CH23842, CH23843, CH23847, CH23848, CH23849, CH23853, CH23854, CH23855, CH23859, CH23860, CH23861

All LCS recoveries were within 75 - 125 with the following exceptions: None.
All LCSD recoveries were within 75 - 125 with the following exceptions: None.
All LCS/LCSD RPDs were less than 35% with the following exceptions: None.
All MS recoveries were within 75 - 125 with the following exceptions: None.
Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.

SVOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

CHEM07 12/03/20-1 Matt Richard, Chemist 12/03/20

CH23826 (1X), CH23827 (1X), CH23828 (1X), CH23829 (1X), CH23830 (1X), CH23831 (1X), CH23832 (1X), CH23833 (1X), CH23834 (1X), CH23835 (1X), CH23836 (1X), CH23837 (1X), CH23838 (1X), CH23839 (1X), CH23840 (1X), CH23841 (1X), CH23842 (1X), CH23843 (1X)

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Evaluation (CHEM07/7_BN_1014):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM07/1203_03-7_BN_1014):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

CHEM28 12/03/20-1 Wes Bryon, Chemist 12/03/20

CH23813 (10X)

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Evaluation (CHEM28/28_SPLIT_1125):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

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SVOA Narration

Continuing Calibration Verification (CHEM28/1203_03-28_SPLIT_1125):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

CHEM28 12/03/20-2 Matt Richard, Chemist 12/03/20

CH23844 (1X), CH23845 (1X), CH23846 (1X), CH23847 (1X), CH23848 (1X), CH23849 (1X), CH23850 (1X), CH23851 (1X), CH23852 (1X), CH23853 (1X), CH23854 (1X), CH23855 (1X), CH23856 (1X), CH23857 (1X), CH23858 (1X), CH23859 (1X), CH23860 (1X), CH23861 (1X)

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.
For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Evaluation (CHEM28/28_BN_1125):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM28/1203_28-28_BN_1125):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

CHEM34 12/02/20-1 Matt Richard, Chemist 12/02/20

CH23802 (1X), CH23803 (1X), CH23804 (1X), CH23805 (1X), CH23806 (1X)

Initial Calibration Evaluation (CHEM34/34_BN_1124):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM34/1202_05-34_BN_1124):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

CHEM69 12/02/20-1 Matt Richard, Chemist 12/02/20

CH23807 (1X), CH23808 (1X), CH23809 (1X), CH23810 (1X), CH23811 (1X), CH23812 (1X), CH23813 (1X), CH23814 (1X), CH23815 (1X), CH23816 (1X), CH23817 (1X), CH23818 (1X), CH23819 (1X), CH23820 (1X), CH23821 (1X), CH23822 (1X), CH23823 (1X), CH23824 (1X), CH23825 (1X)

Initial Calibration Evaluation (CHEM69/69_BN_1117):

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RCP Certification Report

December 09, 2020

SDG I.D.: GCH23802

SVOA Narration

100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM69/1202_08-69_BN_1117):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

QC (Site Specific):

Batch 555166 (CH23803)

CH23802, CH23803, CH23804, CH23805, CH23806

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 40 - 140 with the following exceptions: None.
All MSD recoveries were within 40 - 140 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

Batch 555167 (CH23807)

CH23807, CH23808, CH23809, CH23810, CH23811, CH23812, CH23813, CH23814, CH23815, CH23816, CH23817, CH23818, CH23819, CH23820, CH23821, CH23822, CH23823, CH23824, CH23825

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 40 - 140 with the following exceptions: None.
All MSD recoveries were within 40 - 140 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

Batch 555313 (CH23827)

CH23826, CH23827, CH23828, CH23829, CH23830, CH23831, CH23832, CH23833, CH23834, CH23835, CH23836, CH23837, CH23838, CH23839, CH23840, CH23841, CH23842, CH23843

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 40 - 140 with the following exceptions: None.
All MSD recoveries were within 40 - 140 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

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RCP Certification Report

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SVOA Narration

Batch 555315 (CH23844)

CH23844, CH23845, CH23846, CH23847, CH23848, CH23849, CH23850, CH23851, CH23852, CH23853, CH23854, CH23855, CH23856, CH23857, CH23858, CH23859, CH23860, CH23861

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 40 - 140 with the following exceptions: None.
All MSD recoveries were within 40 - 140 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 555271 (Samples: CH23805, CH23806, CH23807, CH23811, CH23812, CH23813, CH23817, CH23818, CH23819): -----

The LCS and/or the LCSD recovery is above the upper range for one or more analytes that were not reported in the sample(s), therefore no significant bias is suspected. (Dichlorodifluoromethane, Trichlorotrifluoroethane, Vinyl chloride)

QC Batch 555286 (Samples: CH23823, CH23824, CH23829, CH23830, CH23831, CH23835): -----

The QC recoveries for one or more analytes is below the method criteria. A slight low bias is likely. (Acetone)

The LCS and/or the LCSD recovery is above the upper range for one or more analytes that were not reported in the sample(s), therefore no significant bias is suspected. (Carbon tetrachloride, trans-1,4-dichloro-2-butene)

The QC recovery for one or more analytes is above the upper range but were not reported in the sample(s), therefore no significant bias is suspected. (Dichlorodifluoromethane)

Instrument:

CHEM03 12/02/20-2 Jane Li, Chemist 12/02/20

CH23823 (1X), CH23824 (1X), CH23829 (1X), CH23830 (1X), CH23831 (1X), CH23835 (1X)

Initial Calibration Evaluation (CHEM03/VT-L120220):
91% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 29% (20%), Acetone 32% (20%), Bromoform 31% (20%), Dibromochloromethane 22% (20%), trans-1,3-Dichloropropene 21% (20%), trans-1,4-dichloro-2-butene 30% (20%)
The following compounds did not meet Table 4 recommended minimum response factors: Acetone 0.067 (0.1), Tetrachloroethene 0.180 (0.2)
The following compounds did not meet the minimum response factor of 0.05: None.

Continuing Calibration Verification (CHEM03/1202_29-VT-L120220):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
98% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet Table 4 recommended minimum response factors: None.

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VOA Narration

CHEM14 12/02/20-2 Jane Li, Chemist 12/02/20

CH23805 (1X), CH23806 (1X), CH23807 (1X), CH23811 (1X), CH23812 (1X), CH23813 (1X), CH23817 (1X), CH23818 (1X), CH23819 (1X)

Initial Calibration Evaluation (CHEM14/VT120120):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 23% (20%), Acetone 21% (20%), Methylene chloride 23% (20%)
The following compounds did not meet Table 4 recommended minimum response factors: Acetone 0.093 (0.1), Bromoform 0.095 (0.1), Tetrachloroethene 0.167 (0.2)
The following compounds did not meet the minimum response factor of 0.05: None.

Continuing Calibration Verification (CHEM14/1202_34-VT120120):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet Table 4 recommended minimum response factors: None.

CHEM14 12/03/20-1 Jane Li, Chemist 12/03/20

CH23847 (50X)

Initial Calibration Evaluation (CHEM14/VT120120):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 23% (20%)
The following compounds did not meet Table 4 recommended minimum response factors: None.
The following compounds did not meet the minimum response factor of 0.05: None.

Continuing Calibration Verification (CHEM14/1203_02-VT120120):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
99% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet Table 4 recommended minimum response factors: None.

CHEM26 12/02/20-2 Jane Li, Chemist 12/02/20

CH23836 (1X), CH23837 (1X), CH23841 (1X), CH23842 (1X), CH23843 (1X), CH23847 (1X), CH23848 (1X), CH23849 (1X), CH23853 (1X), CH23854 (1X), CH23855 (1X), CH23859 (1X), CH23860 (1X), CH23861 (1X)

Initial Calibration Evaluation (CHEM26/VT-112920):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet Table 4 recommended minimum response factors: None.
The following compounds did not meet the minimum response factor of 0.05: None.

Continuing Calibration Verification (CHEM26/1202_10-VT-112920):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet Table 4 recommended minimum response factors: None.

CHEM26 12/03/20-1 Jane Li, Chemist 12/03/20

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December 09, 2020

SDG I.D.: GCH23802

VOA Narration

CH23825 (1X, 46.43X, 50X)

Initial Calibration Evaluation (CHEM26/VT-112920):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet Table 4 recommended minimum response factors: None.
The following compounds did not meet the minimum response factor of 0.05: None.

Continuing Calibration Verification (CHEM26/1203_02-VT-112920):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet Table 4 recommended minimum response factors: None.

QC (Batch Specific):

Batch 555271 (CH23459) CHEM14 12/2/2020-2

CH23805(1X), CH23806(1X), CH23807(1X), CH23811(1X), CH23812(1X), CH23813(1X), CH23817(1X), CH23818(1X), CH23819(1X)

All LCS recoveries were within 70 - 130 with the following exceptions: Dichlorodifluoromethane(172%), Trichlorotrifluoroethane(131%), Vinyl chloride(139%)
All LCSD recoveries were within 70 - 130 with the following exceptions: Dichlorodifluoromethane(165%), Vinyl chloride(133%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

Batch 555274 (CH23297) CHEM26 12/2/2020-2

CH23836(1X), CH23837(1X), CH23841(1X), CH23842(1X), CH23843(1X), CH23847(1X), CH23848(1X), CH23849(1X), CH23853(1X), CH23854(1X), CH23855(1X), CH23859(1X), CH23860(1X), CH23861(1X)

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
The MSD is not reported for this LL soil batch.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

Batch 555286 (CH23158) CHEM03 12/2/2020-2

CH23823(1X), CH23824(1X), CH23829(1X), CH23830(1X), CH23831(1X), CH23835(1X)

All LCS recoveries were within 70 - 130 with the following exceptions: Acetone(68%), Carbon tetrachloride(132%), Dichlorodifluoromethane(138%)
All LCSD recoveries were within 70 - 130 with the following exceptions: Dichlorodifluoromethane(140%), trans-1,4-dichloro-2-butene(132%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

Batch 555461H (CH23341) CHEM14 12/3/2020-1

CH23847(50X)

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.

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December 09, 2020

SDG I.D.: GCH23802

VOA Narration

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

QC (Site Specific):

Batch 555449 (CH23825) CHEM26 12/3/2020-1

CH23825(1X)

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
All MS recoveries were within 70 - 130 with the following exceptions: None.
All MSD recoveries were within 70 - 130 with the following exceptions: None.
All MS/MSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

Temperature Narration

The samples were received at 3.2C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] No [ ]
Temp 3.2 °C Pg 1 of

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CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
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Client Services (860) 645-8726

Data Delivery/Contact Options:
[ ] Fax:
[ ] Phone:
[X] Email: andrew.johnson@atcgs.com

Customer: ATC Group Services, LLC
Address: 290 Roberts Street - Suite 301
East Hartford, CT 06108

Project: Grasso Tech
Report to: ATC
Invoice to: ATC
QUOTE #

Project P.O: 2257320120

This section MUST be completed with Bottle Quantities.

Sampler's Signature _____ Date: 12/1

Client Sample - Information - Identification

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
B=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOCs	ETPH	PAHs	RCRA 8 Metals	GL Amber 8 oz. w/H3PO4	Soil VOA Vials [1] methanol [2] H2O	GL Soil container (8) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [3] HCl	GL Amber 1000ml [3] As is [ ] H2SO4	PL As is [ ] 250ml [1] 500ml [1] 1000ml	PL H2SO4 [ ] 250ml [1] 500ml [1] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
23802	B-1A	S	12/1/20	8:40		X	X				1									
23803	B-1B	S	12/1/20	8:45		X	X				1									
23804	B-1C	S	12/1/20	8:50		X	X				1									
23805	B-2A	S	12/1/20	8:55	X	X	X	X		3	1									
23806	B-2B	S	12/1/20	9:00	X	X	X	X		3	1									
23807	B-2C	S	12/1/20	9:05	X	X	X	X		3	1									
23808	B-3A	S	12/1/20	9:25		X	X				1									
23809	B-3B	S	12/1/20	9:30		X	X				1									
23810	B-3C	S	12/1/20	9:35		X	X				1									
23811	B-4A	S	12/1/20	9:45	X	X	X	X		3	1									
23812	B-4B	S	12/1/20	9:50	X	X	X	X		3	1									
23813	B-4C	S	12/1/20	9:55	X	X	X	X		3	1									

Relinquished by:	Accepted by:	Date:	Time:
		12/2/20	1710

Comments, Special Requirements or Regulations:

Hold remaining soil pending SPLP request

Turnaround:
[ ] 1 Day*
[ ] 2 Days*
[ ] 3 Days*
[■] Standard
[ ] Other
* SURCHARGE APPLIES

RI
[ ] Direct Exposure (Residential)
[ ] GW
[ ] Other

CT
[■] RCP Cert
[ ] GW Protection
[ ] SW Protection
[ ] GA Mobility
[ ] GB Mobility
[ ] Residential DEC
[ ] I/C DEC
[ ] Other

MA
[ ] MCP Certification
[ ] GW-1
[ ] GW-2
[ ] GW-3
[ ] S-1
[ ] S-2
[ ] S-3
[ ] MWRA eSMART
[ ] Other

Data Format
[■] Excel
[■] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[■] Phoenix Std Report
[ ] Other
* SURCHARGE APPLIES

State where samples were collected: CT

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] No [ ]
Temp 3.0° C Pg of

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Client Services (860) 645-8726

Data Delivery/Contact Options:
[ ] Fax:
[ ] Phone:
[X] Email: andrew.johnson@atcgs.com

Customer: ATC Group Services, LLC
Address: 290 Roberts Street - Suite 301
East Hartford, CT 06108

Project: Grasso Tech
Report to: ATC
Invoice to: ATC
QUOTE #

Project P.O: 2257320120

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature [signature] Date: 12/1

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
B=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOCs	ETPH	PAHs	RCRA 8 Metals	GL Amber 8 oz. w/H3PO4	Soil VOA Vials [1] methanol [2] H2O	GL Soil container (8) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [3] HCl	GL Amber 1000ml [3] As is [ ] H2SO4	PL As is [ ] 250ml [1] 500ml [1] 1000ml	PL H2SO4 [ ] 250ml [1] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
23814	B-5A	S	12/1/20	10:00		X	X				1									
23815	B-5B	S	12/1/20	10:05		X	X				1									
23816	B-5C	S	12/1/20	10:10		X	X				1									
23817	B-6A	S	12/1/20	10:20	X	X	X	X		3	1									
23818	B-6B	S	12/1/20	10:25	X	X	X	X		3	1									
23819	B-6C	S	12/1/20	10:30	X	X	X	X		3	1									
23820	B-7A	S	12/1/20	10:40		X	X				1									
23821	B-7B	S	12/1/20	10:45		X	X				1									
23822	B-7C	S	12/1/20	10:50		X	X				1									
23823	B-8A	S	12/1/20	11:10	X	X	X	X		3	1									
23824	B-8B	S	12/1/20	11:15	X	X	X	X		3	1									
23825	B-8C	S	12/1/20	11:20	X	X	X	X		3	1									

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	12220	1710

Comments, Special Requirements or Regulations:

Hold remaining soil pending SPLP request

Turnaround:
[ ] 1 Day*
[ ] 2 Days*
[ ] 3 Days*
[■] Standard
[ ] Other
* SURCHARGE APPLIES

RI
[ ] Direct Exposure (Residential)
[ ] GW
[ ] Other

CT
[■] RCP Cert
[ ] GW Protection
[ ] SW Protection
[ ] GA Mobility
[ ] GB Mobility
[ ] Residential DEC
[ ] I/C DEC
[ ] Other

MA
[ ] MCP Certification
[ ] GW-1
[ ] GW-2
[ ] GW-3
[ ] S-1
[ ] S-2
[ ] S-3
[ ] MWRA eSMART
[ ] Other

State where samples were collected: CT

Data Format
[■] Excel
[■] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[■] Phoenix Std Report
[ ] Other
* SURCHARGE APPLIES

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] No [ ]
Temp 2.9 °C Pg of

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587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
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Client Services (860) 645-8726

Data Delivery/Contact Options:
[ ] Fax:
[ ] Phone:
[X] Email: andrew.johnson@atcgs.com

Customer: ATC Group Services, LLC
Address: 290 Roberts Street - Suite 301
East Hartford, CT 06108

Project: Grasso Tech
Report to: ATC
Invoice to: ATC
QUOTE #

Project P.O: 2257320120

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 12/2

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
B=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOCs	ETPH	PAHs	RCRA 8 Metals	GL Amber 8 oz. w/H3PO4	Soil VOA Vials [1] methanol [2] H2O	GL Soil container (8) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [3] HCl	GL Amber 1000ml [3] As is [ ] H2SO4	PL As is [ ] 250ml [1] 500ml [1] 1000ml	PL H2SO4 [ ] 250ml [1] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
23826	B-9A	S	12/1/20	13:05		X	X				1									
23827	B-9B	S	12/1/20	13:10		X	X				1									
23828	B-9C	S	12/1/20	13:15		X	X				1									
23829	B-10A	S	12/1/20	13:25	X	X	X	X		3	1									
23830	B-10B	S	12/1/20	13:30	X	X	X	X		3	1									
23831	B-10C	S	12/1/20	13:35	X	X	X	X		3	1									
23832	B-11A	S	12/1/20	13:45		X	X				1									
23833	B-11B	S	12/1/20	13:50		X	X				1									
23834	B-11C	S	12/1/20	13:55		X	X				1									
23835	B-12A	S	12/1/20	14:00	X	X	X	X		3	1									
23836	B-12B	S	12/1/20	14:05	X	X	X	X		3	1									
23837	B-12C	S	12/1/20	14:10	X	X	X	X		3	1									

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	12220	1710

Comments, Special Requirements or Regulations:

Hold remaining soil pending SPLP request

Turnaround:
[ ] 1 Day*
[ ] 2 Days*
[ ] 3 Days*
[■] Standard
[ ] Other
* SURCHARGE APPLIES

RI
[ ] Direct Exposure (Residential)
[ ] GW
[ ] Other

CT
[■] RCP Cert
[ ] GW Protection
[ ] SW Protection
[ ] GA Mobility
[ ] GB Mobility
[ ] Residential DEC
[ ] I/C DEC
[ ] Other

MA
[ ] MCP Certification
[ ] GW-1
[ ] GW-2
[ ] GW-3
[ ] S-1
[ ] S-2
[ ] S-3
[ ] MWRA eSMART
[ ] Other

State where samples were collected: CT

Data Format
[■] Excel
[■] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[■] Phoenix Std Report
[ ] Other
* SURCHARGE APPLIES

50 20 00 Regulated Soils 229 of 260

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] No [ ]
Temp 3°C Rg of

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Data Delivery/Contact Options:
[ ] Fax:
[ ] Phone:
[X] Email: andrew.johnson@atcgs.com

Customer: ATC Group Services, LLC
Address: 290 Roberts Street - Suite 301
East Hartford, CT 06108

Project: Grasso Tech
Report to: ATC
Invoice to: ATC
QUOTE #

Project P.O: 2257320120

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 12/2

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
B=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOCs	EtPH	PAHs	RCRA 8 Metals	GL Amber 8 oz. w/H3PO4	Soil VOA Vials [1] methanol [2] H2O	GL Soil container (8) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [3] HCl	GL Amber 1000ml [3] As is [ ] H2SO4	PL As is [ ] 250ml [1] 500ml [1] 1000ml	PL H2SO4 [ ] 250ml [1] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
23838	B-13A	S	12/2/20	8:30		X	X				1									
23839	B-13B	S	12/2/20	8:35		X	X				1									
23840	B-13C	S	12/2/20	8:40		X	X				1									
23841	B-14A	S	12/2/20	9:00	X	X	X	X		3	1									
23842	B-14B	S	12/2/20	9:05	X	X	X	X		3	1									
23843	B-14C	S	12/2/20	9:10	X	X	X	X		3	1									
23844	B-15A	S	12/2/20	9:15		X	X				1									
23845	B-15B	S	12/2/20	9:20		X	X				1									
23846	B-15C	S	12/2/20	9:25		X	X				1									
23847	B-16A	S	12/2/20	9:35	X	X	X	X		3	1									
23848	B-16B	S	12/2/20	9:40	X	X	X	X		3	1									
23849	B-16C	S	12/2/20	9:45	X	X	X	X		3	1									

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	12/2/20	1710

Comments, Special Requirements or Regulations:

Hold remaining soil pending SPLP request

Turnaround:
[ ] 1 Day*
[ ] 2 Days*
[ ] 3 Days*
[■] Standard
[ ] Other
*** SURCHARGE APPLIES**

RI
[ ] Direct Exposure (Residential)
[ ] GW
[ ] Other

CT
[■] RCP Cert
[ ] GW Protection
[ ] SW Protection
[ ] GA Mobility
[ ] GB Mobility
[ ] Residential DEC
[ ] I/C DEC
[ ] Other

MA
[ ] MCP Certification
[ ] GW-1
[ ] GW-2
[ ] GW-3
[ ] S-1
[ ] S-2
[ ] S-3
[ ] MWRA eSMART
[ ] Other

State where samples were collected: CT

Data Format
[■] Excel
[■] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[■] Phoenix Std Report
[ ] Other

*** SURCHARGE APPLIES**

Cooler: Yes [X] No [ ]
Coolant: IPK [ ] ICE [X] No [ ]
Temp 2 °C Pg of

CHAIN OF CUSTODY RECORD

PHOENIX Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Data Delivery/Contact Options:
[ ] Fax:
[ ] Phone:
[X] Email: andrew.johnson@atcgs.com

Customer: ATC Group Services, LLC
Address: 290 Roberts Street - Suite 301
East Hartford, CT 06108

Project: Grasso Tech
Report to: ATC
Invoice to: ATC
QUOTE #

Project P.O: 2257320120

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 12/2

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
B=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOCs	ETPH	PAHs	RCRA 8 Metals	GL Amber 8 oz. w/H3PO4	Soil VOA Vials [1] methanol [2] H2O	GL Soil container (8) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [3] HCl	GL Amber 1000ml [3] As is [ ] H2SO4	PL As is [ ] 250ml [1] 500ml [1] 1000ml	PL H2SO4 [ ] 250ml [1] 500ml [1] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
23850	B-17A	S	12/2/20	9:55		X	X					1								
23851	B-17B	S	12/2/20	10:00		X	X					1								
23852	B-17C	S	12/2/20	10:05		X	X					1								
23853	B-18A	S	12/2/20	10:30	X	X	X	X			3	1								
23854	B-18B	S	12/2/20	10:35	X	X	X	X			3	1								
23855	B-18C	S	12/2/20	10:40	X	X	X	X			3	1								
23856	B-19A	S	12/2/20	10:50		X	X					1								
23857	B-19B	S	12/2/20	10:55		X	X					1								
23858	B-19C	S	12/2/20	11:00		X	X					1								
23859	B-20A	S	12/2/20	11:10	X	X	X	X			3	1								
23860	B-20B	S	12/2/20	11:15	X	X	X	X			3	1								
23861	B-20C	S	12/2/20	11:20	X	X	X	X			3	1								

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	12220	1710

Comments, Special Requirements or Regulations:

Hold remaining soil pending SPLP request

Turnaround:
[ ] 1 Day*
[ ] 2 Days*
[ ] 3 Days*
[■] Standard
[ ] Other
* SURCHARGE APPLIES

RI
[ ] Direct Exposure (Residential)
[ ] GW
[ ] Other

CT
[■] RCP Cert
[ ] GW Protection
[ ] SW Protection
[ ] GA Mobility
[ ] GB Mobility
[ ] Residential DEC
[ ] I/C DEC
[ ] Other

MA
[ ] MCP Certification
[ ] GW-1
[ ] GW-2
[ ] GW-3
[ ] S-1
[ ] S-2
[ ] S-3
[ ] MWRA eSMART
[ ] Other

Data Format
[■] Excel
[■] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[■] Phoenix Std Report
[ ] Other
* SURCHARGE APPLIES

State where samples were collected: CT

PHOENIX
Environmental Laboratories, Inc.

Monday, December 14, 2020

Attn: Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Project ID: GRASSO TECH
SDG ID: GCH28599
Sample ID#s: CH28599 - CH28609

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone (860) 645-1102 Fax (860) 645-0823

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

December 14, 2020

SDG I.D.: GCH28599

Project ID: GRASSO TECH

Client Id	Lab Id	Matrix
B-21A	CH28599	SOIL
B-21B	CH28600	SOIL
B-21C	CH28601	SOIL
B-22A	CH28602	SOIL
B-22B	CH28603	SOIL
B-22C	CH28604	SOIL
B-23A	CH28605	SOIL
B-23B	CH28606	SOIL
B-23C	CH28607	SOIL
B-26A	CH28608	SOIL
B-26C	CH28609	SOIL

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 14, 2020

FOR: Attn: Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	11:30
Location Code:	ATC-EH	Received by:	B	12/09/20	17:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCH28599
Phoenix ID: CH28599

Project ID: GRASSO TECH
Client ID: B-21A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	83		%		12/09/20	CAJ	SW846-%Solid
Soil Extraction for SVOA PAH	Completed				12/10/20	K/M	SW3546
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.27	mg/Kg	1	12/11/20	AW	SW8270D
Acenaphthene	ND	0.27	mg/Kg	1	12/11/20	AW	SW8270D
Acenaphthylene	ND	0.27	mg/Kg	1	12/11/20	AW	SW8270D
Anthracene	ND	0.27	mg/Kg	1	12/11/20	AW	SW8270D
Benz(a)anthracene	ND	0.27	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(a)pyrene	ND	0.27	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.27	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.27	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.27	mg/Kg	1	12/11/20	AW	SW8270D
Chrysene	ND	0.27	mg/Kg	1	12/11/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.27	mg/Kg	1	12/11/20	AW	SW8270D
Fluoranthene	ND	0.27	mg/Kg	1	12/11/20	AW	SW8270D
Fluorene	ND	0.27	mg/Kg	1	12/11/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.27	mg/Kg	1	12/11/20	AW	SW8270D
Naphthalene	ND	0.27	mg/Kg	1	12/11/20	AW	SW8270D
Phenanthrene	ND	0.27	mg/Kg	1	12/11/20	AW	SW8270D
Pyrene	ND	0.27	mg/Kg	1	12/11/20	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	75		%	1	12/11/20	AW	30 - 130 %
% Nitrobenzene-d5	65		%	1	12/11/20	AW	30 - 130 %
% Terphenyl-d14	80		%	1	12/11/20	AW	30 - 130 %

Project ID: GRASSO TECH
Client ID: B-21A

Phoenix I.D.: CH28599

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 14, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 14, 2020

FOR: Attn: Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	11:35
Location Code:	ATC-EH	Received by:	B	12/09/20	17:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCH28599
Phoenix ID: CH28600

Project ID: GRASSO TECH
Client ID: B-21B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	95		%		12/09/20	CAJ	SW846-%Solid
Soil Extraction for SVOA PAH	Completed				12/10/20	K/M	SW3546
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	72		%	1	12/11/20	AW	30 - 130 %
% Nitrobenzene-d5	61		%	1	12/11/20	AW	30 - 130 %
% Terphenyl-d14	91		%	1	12/11/20	AW	30 - 130 %

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-21B

Phoenix I.D.: CH28600

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director
December 14, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 14, 2020

FOR: Attn: Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	11:40
Location Code:	ATC-EH	Received by:	B	12/09/20	17:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCH28599
Phoenix ID: CH28601

Project ID: GRASSO TECH
Client ID: B-21C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	94		%		12/09/20	CAJ	SW846-%Solid
Soil Extraction for SVOA PAH	Completed				12/10/20	K/M	SW3546
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	67		%	1	12/11/20	AW	30 - 130 %
% Nitrobenzene-d5	59		%	1	12/11/20	AW	30 - 130 %
% Terphenyl-d14	92		%	1	12/11/20	AW	30 - 130 %

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-21C

Phoenix I.D.: CH28601

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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Phyllis Shiller, Laboratory Director
December 14, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 14, 2020

FOR: Attn: Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	11:50
Location Code:	ATC-EH	Received by:	B	12/09/20	17:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCH28599
Phoenix ID: CH28602

Project ID: GRASSO TECH
Client ID: B-22A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	93		%		12/09/20	CAJ	SW846-%Solid
Soil Extraction for SVOA PAH	Completed				12/10/20	K/M	SW3546
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	75		%	1	12/11/20	AW	30 - 130 %
% Nitrobenzene-d5	68		%	1	12/11/20	AW	30 - 130 %
% Terphenyl-d14	86		%	1	12/11/20	AW	30 - 130 %

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-22A

Phoenix I.D.: CH28602

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 14, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 14, 2020

FOR: Attn: Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	11:55
Location Code:	ATC-EH	Received by:	B	12/09/20	17:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCH28599
Phoenix ID: CH28603

Project ID: GRASSO TECH
Client ID: B-22B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	95		%		12/09/20	CAJ	SW846-%Solid
Soil Extraction for SVOA PAH	Completed				12/10/20	K/M	SW3546
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	73		%	1	12/11/20	AW	30 - 130 %
% Nitrobenzene-d5	63		%	1	12/11/20	AW	30 - 130 %
% Terphenyl-d14	90		%	1	12/11/20	AW	30 - 130 %

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-22B

Phoenix I.D.: CH28603

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 14, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 14, 2020

FOR: Attn: Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	12:00
Location Code:	ATC-EH	Received by:	B	12/09/20	17:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCH28599
Phoenix ID: CH28604

Project ID: GRASSO TECH
Client ID: B-22C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	95		%		12/09/20	CAJ	SW846-%Solid
Soil Extraction for SVOA PAH	Completed				12/10/20	K/M	SW3546
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	62		%	1	12/11/20	AW	30 - 130 %
% Nitrobenzene-d5	52		%	1	12/11/20	AW	30 - 130 %
% Terphenyl-d14	92		%	1	12/11/20	AW	30 - 130 %

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-22C

Phoenix I.D.: CH28604

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 14, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 14, 2020

FOR: Attn: Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	12:10
Location Code:	ATC-EH	Received by:	B	12/09/20	17:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCH28599
Phoenix ID: CH28605

Project ID: GRASSO TECH
Client ID: B-23A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	92		%		12/09/20	CAJ	SW846-%Solid
Soil Extraction for SVOA PAH	Completed				12/10/20	K/M	SW3546
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	75		%	1	12/11/20	AW	30 - 130 %
% Nitrobenzene-d5	72		%	1	12/11/20	AW	30 - 130 %
% Terphenyl-d14	92		%	1	12/11/20	AW	30 - 130 %

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-23A

Phoenix I.D.: CH28605

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 14, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 14, 2020

FOR: Attn: Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	12:15
Location Code:	ATC-EH	Received by:	B	12/09/20	17:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCH28599
Phoenix ID: CH28606

Project ID: GRASSO TECH
Client ID: B-23B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	94		%		12/09/20	CAJ	SW846-%Solid
Soil Extraction for SVOA PAH	Completed				12/10/20	K/M	SW3546
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/11/20	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	76		%	1	12/11/20	AW	30 - 130 %
% Nitrobenzene-d5	73		%	1	12/11/20	AW	30 - 130 %
% Terphenyl-d14	85		%	1	12/11/20	AW	30 - 130 %

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-23B

Phoenix I.D.: CH28606

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
December 14, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 14, 2020

FOR: Attn: Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	12:20
Location Code:	ATC-EH	Received by:	B	12/09/20	17:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCH28599
Phoenix ID: CH28607

Project ID: GRASSO TECH
Client ID: B-23C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	93		%		12/09/20	CAJ	SW846-%Solid
Soil Extraction for SVOA PAH	Completed				12/10/20	K/M	SW3546
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.24	mg/Kg	1	12/10/20	AW	SW8270D
Acenaphthene	ND	0.24	mg/Kg	1	12/10/20	AW	SW8270D
Acenaphthylene	ND	0.24	mg/Kg	1	12/10/20	AW	SW8270D
Anthracene	ND	0.24	mg/Kg	1	12/10/20	AW	SW8270D
Benz(a)anthracene	ND	0.24	mg/Kg	1	12/10/20	AW	SW8270D
Benzo(a)pyrene	ND	0.24	mg/Kg	1	12/10/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.24	mg/Kg	1	12/10/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.24	mg/Kg	1	12/10/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.24	mg/Kg	1	12/10/20	AW	SW8270D
Chrysene	ND	0.24	mg/Kg	1	12/10/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.24	mg/Kg	1	12/10/20	AW	SW8270D
Fluoranthene	ND	0.24	mg/Kg	1	12/10/20	AW	SW8270D
Fluorene	ND	0.24	mg/Kg	1	12/10/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.24	mg/Kg	1	12/10/20	AW	SW8270D
Naphthalene	ND	0.24	mg/Kg	1	12/10/20	AW	SW8270D
Phenanthrene	ND	0.24	mg/Kg	1	12/10/20	AW	SW8270D
Pyrene	ND	0.24	mg/Kg	1	12/10/20	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	70		%	1	12/10/20	AW	30 - 130 %
% Nitrobenzene-d5	66		%	1	12/10/20	AW	30 - 130 %
% Terphenyl-d14	89		%	1	12/10/20	AW	30 - 130 %

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-23C

Phoenix I.D.: CH28607

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director
December 14, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 14, 2020

FOR: Attn: Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	13:00
Location Code:	ATC-EH	Received by:	B	12/09/20	17:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCH28599
Phoenix ID: CH28608

Project ID: GRASSO TECH
Client ID: B-26A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	93		%		12/09/20	CAJ	SW846-%Solid
Soil Extraction for SVOA PAH	Completed				12/10/20	K/A	SW3546
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/11/20	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	81		%	1	12/11/20	AW	30 - 130 %
% Nitrobenzene-d5	89		%	1	12/11/20	AW	30 - 130 %
% Terphenyl-d14	94		%	1	12/11/20	AW	30 - 130 %

Project ID: GRASSO TECH
Client ID: B-26A

Phoenix I.D.: CH28608

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 14, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 14, 2020

FOR: Attn: Andrew Johnson
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		12/02/20	13:05
Location Code:	ATC-EH	Received by:	B	12/09/20	17:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCH28599
Phoenix ID: CH28609

Project ID: GRASSO TECH
Client ID: B-26C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	92		%		12/09/20	CAJ	SW846-%Solid
Soil Extraction for SVOA PAH	Completed				12/10/20	K/A	SW3546
Polynuclear Aromatic HC							
2-Methylnaphthalene	ND	0.25	mg/Kg	1	12/10/20	AW	SW8270D
Acenaphthene	ND	0.25	mg/Kg	1	12/10/20	AW	SW8270D
Acenaphthylene	ND	0.25	mg/Kg	1	12/10/20	AW	SW8270D
Anthracene	ND	0.25	mg/Kg	1	12/10/20	AW	SW8270D
Benz(a)anthracene	ND	0.25	mg/Kg	1	12/10/20	AW	SW8270D
Benzo(a)pyrene	ND	0.25	mg/Kg	1	12/10/20	AW	SW8270D
Benzo(b)fluoranthene	ND	0.25	mg/Kg	1	12/10/20	AW	SW8270D
Benzo(ghi)perylene	ND	0.25	mg/Kg	1	12/10/20	AW	SW8270D
Benzo(k)fluoranthene	ND	0.25	mg/Kg	1	12/10/20	AW	SW8270D
Chrysene	ND	0.25	mg/Kg	1	12/10/20	AW	SW8270D
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	12/10/20	AW	SW8270D
Fluoranthene	ND	0.25	mg/Kg	1	12/10/20	AW	SW8270D
Fluorene	ND	0.25	mg/Kg	1	12/10/20	AW	SW8270D
Indeno(1,2,3-cd)pyrene	ND	0.25	mg/Kg	1	12/10/20	AW	SW8270D
Naphthalene	ND	0.25	mg/Kg	1	12/10/20	AW	SW8270D
Phenanthrene	ND	0.25	mg/Kg	1	12/10/20	AW	SW8270D
Pyrene	ND	0.25	mg/Kg	1	12/10/20	AW	SW8270D
QA/QC Surrogates							
% 2-Fluorobiphenyl	78		%	1	12/10/20	AW	30 - 130 %
% Nitrobenzene-d5	82		%	1	12/10/20	AW	30 - 130 %
% Terphenyl-d14	94		%	1	12/10/20	AW	30 - 130 %

ISSUED for BID

Project ID: GRASSO TECH
Client ID: B-26C

Phoenix I.D.: CH28609

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
December 14, 2020
Reviewed and Released by: Rashmi Makol, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

December 14, 2020

QA/QC Data

SDG I.D.: GCH28599

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 556226 (mg/Kg), QC Sample No: CH28607 (CH28599, CH28600, CH28601, CH28602, CH28603, CH28604, CH28605, CH28606, CH28607)											
Polynuclear Aromatic HC - Soil											
2-Methylnaphthalene	ND	0.23	79	81	2.5	78	74	5.3	40 - 140	30	
Acenaphthene	ND	0.23	78	81	3.8	76	73	4.0	30 - 130	30	
Acenaphthylene	ND	0.23	70	74	5.6	70	67	4.4	40 - 140	30	
Anthracene	ND	0.23	82	85	3.6	80	77	3.8	40 - 140	30	
Benz(a)anthracene	ND	0.23	83	86	3.6	83	75	10.1	40 - 140	30	
Benzo(a)pyrene	ND	0.23	99	96	3.1	90	79	13.0	40 - 140	30	
Benzo(b)fluoranthene	ND	0.23	133	119	11.1	108	90	18.2	40 - 140	30	
Benzo(ghi)perylene	ND	0.23	43	39	9.8	38	34	11.1	40 - 140	30	l,m
Benzo(k)fluoranthene	ND	0.23	77	75	2.6	71	58	20.2	40 - 140	30	
Chrysene	ND	0.23	83	85	2.4	81	77	5.1	40 - 140	30	
Dibenz(a,h)anthracene	ND	0.23	52	49	5.9	49	46	6.3	40 - 140	30	
Fluoranthene	ND	0.23	78	81	3.8	77	75	2.6	40 - 140	30	
Fluorene	ND	0.23	81	86	6.0	80	75	6.5	40 - 140	30	
Indeno(1,2,3-cd)pyrene	ND	0.23	50	51	2.0	52	57	9.2	40 - 140	30	
Naphthalene	ND	0.23	72	72	0.0	71	65	8.8	40 - 140	30	
Phenanthrene	ND	0.23	79	82	3.7	78	75	3.9	40 - 140	30	
Pyrene	ND	0.23	81	81	0.0	78	77	1.3	30 - 130	30	
% 2-Fluorobiphenyl	75	%	77	79	2.6	74	70	5.6	30 - 130	30	
% Nitrobenzene-d5	76	%	75	78	3.9	76	66	14.1	30 - 130	30	
% Terphenyl-d14	85	%	91	88	3.4	84	83	1.2	30 - 130	30	
Comment:											
Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)											
QA/QC Batch 556227 (mg/Kg), QC Sample No: CH28609 (CH28608, CH28609)											
Polynuclear Aromatic HC - Soil											
2-Methylnaphthalene	ND	0.23	83	80	3.7	83	76	8.8	40 - 140	30	
Acenaphthene	ND	0.23	90	86	4.5	90	84	6.9	30 - 130	30	
Acenaphthylene	ND	0.23	80	77	3.8	77	74	4.0	40 - 140	30	
Anthracene	ND	0.23	88	83	5.8	86	83	3.6	40 - 140	30	
Benz(a)anthracene	ND	0.23	91	87	4.5	88	87	1.1	40 - 140	30	
Benzo(a)pyrene	ND	0.23	97	93	4.2	94	93	1.1	40 - 140	30	
Benzo(b)fluoranthene	ND	0.23	108	100	7.7	104	107	2.8	40 - 140	30	
Benzo(ghi)perylene	ND	0.23	87	84	3.5	87	85	2.3	40 - 140	30	
Benzo(k)fluoranthene	ND	0.23	63	68	7.6	69	65	6.0	40 - 140	30	
Chrysene	ND	0.23	88	82	7.1	84	81	3.6	40 - 140	30	
Dibenz(a,h)anthracene	ND	0.23	88	86	2.3	87	85	2.3	40 - 140	30	
Fluoranthene	ND	0.23	91	86	5.6	91	91	0.0	40 - 140	30	
Fluorene	ND	0.23	91	86	5.6	87	83	4.7	40 - 140	30	
Indeno(1,2,3-cd)pyrene	ND	0.23	90	86	4.5	87	85	2.3	40 - 140	30	
Naphthalene	ND	0.23	75	74	1.3	76	71	6.8	40 - 140	30	

QA/QC Data

SDG I.D.: GCH28599

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Phenanthrene	ND	0.23	86	80	7.2	85	83	2.4	40 - 140	30
Pyrene	ND	0.23	90	87	3.4	91	88	3.4	30 - 130	30
% 2-Fluorobiphenyl	78	%	80	78	2.5	78	75	3.9	30 - 130	30
% Nitrobenzene-d5	86	%	89	85	4.6	85	81	4.8	30 - 130	30
% Terphenyl-d14	92	%	92	92	0.0	91	90	1.1	30 - 130	30

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
m = This parameter is outside laboratory MS/MSD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
December 14, 2020

Monday, December 14, 2020

Criteria: None

State: CT

Sample Criteria Exceedances Report

GCH28599 - ATC-EH

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Comments

December 14, 2020 SDG I.D.: GCH28599

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

Cooler: Yes ☐ No ☐
Coolant: IPK ☐ ICE ☐ No ☐
Temp 10.6 °C Pg 1 of 1

CHAIN OF CUSTODY RECORD

PHOENIX *Environmental Laboratories, Inc.*

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Data Delivery/Contact Options:
☐ Fax:
☐ Phone:
■ Email: andrew.johnson@atcgs.com

Customer: ATC Group Services LLC
Address: 290 Roberts Street Suite 301
East Hartford CT 06108

Project: Grasso Tech
Report to: ATC
Invoice to: ATC
QUOTE #

Project P.O:

This section MUST be completed with Bottle Quantities.

Sampler's Signature: [signature] Date: 12-2-20

Client Sample - Information - Identification

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
B=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	PAHs	GL Amber 8 oz. w/H3PO4	Soil VOA Vials [2] methanol [1] H2O	GL Soil container (8) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
286599	B-21A	S	12-2-20	11:30	x		1										
286600	B-21B			11:35	x		1										
286601	B-21C			11:40	x		1										
286602	B-22A			11:50	x		1										
286603	B-22B			11:55	x		1										
286604	B-22C			12:00	x		1										
286605	B-23A			12:10	x		1										
286606	B-23B			12:15	x		1										
286607	B-23C			12:20	x		1										
286608	B-26A			13:00	x		1										
* 286609	B-26C	↓	↓	13:05	x		1										

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	12/9/20	17:28

Comments, Special Requirements or Regulations:
* Jar lid says B-26B @ 13:05

Turnaround:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
■ Standard
☐ Other
* SURCHARGE APPLIES

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Other

CT
☐ RCP Cert
☐ GW Protection
☐ SW Protection
☐ GA Mobility
☐ GB Mobility
☐ Residential DEC
☐ I/C DEC
☐ Other

MA
☐ MCP Certification
☐ GW-1
☐ GW-2
☐ GW-3
☐ S-1
☐ S-2
☐ S-3
☐ MWRA eSMART
☐ Other

State where samples were collected: CT

Data Format
■ Excel
■ PDF
☐ GIS/Key
☐ EQuIS
☐ Other

Data Package
☐ Tier II Checklist
☐ Full Data Package*
■ Phoenix Std Report
☐ Other
* SURCHARGE APPLIES

GEOTECHNICAL ENGINEERING REPORT

PROPOSED NEW SCHOOL BUILDINGS & SITE DEVELOPMENT
ELLA GRASSO TECHNICAL VOCATIONAL SCHOOL
184 FORT HILL ROAD, GROTON, CT

Prepared By:

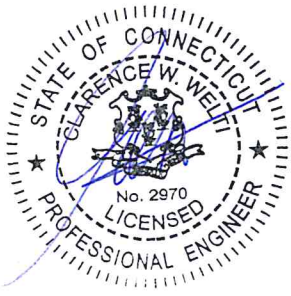
Dr. Clarence Welti, P.E., P.C.
227 William Street
Glastonbury, CT 06033

Prepared For:

Moser Pilon Nelson, Architects
30 Jordan Lane
Wethersfield, CT 06109

July, 2016

Revised December 12, 2016



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I. GEOTECHNICAL REPORT FOR PROPOSED NEW BUILDINGS

DR. CLARENCE WELTI, P.E., P.C.

GEOTECHNICAL ENGINEERING

227 Williams Street · P.O. Box 397
Glastonbury, CT 06033-0397

(860) 633-4623 / FAX (860) 657-2514

December 12, 2016

Mr. Richard Brown, AIA
Moser Pilon Nelson Architects
30 Jordan Lane
Wethersfield, CT 06109

Re: Geotechnical Study for Proposed New Buildings at Ella T. Grasso Technical Vocational School, 189 Fort Hill Road, Groton, CT; Revisions Section 5.0.2; Section 6.0 and Section 6.1 50% Review of Documents

Dear Richard:

1.0 Data from the test borings taken at the above referenced site have been previously forwarded. Ten preliminary borings were drilled in October 2015 at possible future areas of development areas, five of which were in proximity to the proposed building footprint. The preliminary borings were drilled to a maximum depth of 30.3 feet below the existing grades. Water level observation wells were installed in two of those borings. The boring program for the subject study, which includes borings B-17 thru B-23 around the west end of the existing structure and borings B-24 thru B-54 at the proposed new school building. These latter borings (B-24 thru B-55) were drilled to a maximum depth 27 feet below existing grade. Much of area in the west 60% of the proposed building footprint was filled to depths as deep as 26 feet, with soil from on site excavation during the 1973 construction. The boring locations are shown on the attached plan. The borings were located from existing topography. Water table readings at four monitor wells are included with the boring data. *The borings were drilled by Clarence Welti Associates, Inc. and sampling was conducted by this firm solely to obtain indications of subsurface conditions as part of a geotechnical exploration program. No services were performed by Dr. Clarence Welti, P.E., P.C. to evaluate subsurface environmental conditions.*

1.1 Included with the boring data are six geologic sections through the proposed building. The bottom of fill is defined partially by the old (pre 1973) topography and the recent boring data.

2.0 The **Subject School Building** will have two ground floor levels, based on the existing hillside topography. The upper level (about 60,000 sf on the east side) will have a ground floor at Elev. 82 and the lower level (about 80,000 sf on the west side) will have a ground floor at Elev.66. Additional proposed structures include **(1) The Bus Garage**, which overlies the existing building and has proposed footprint of about 15,000 sf and **(2) The Field House** with a footprint of about

2,400 sf. The latter two structures would be built in phase 2 and would be covered in a separate report.

2.0.1 The existing topography on the east side of the school building ranges from about Elev. 80 to Elev. 77 with existing fill depths up to 16 feet but averaging less than 5 feet over 50% of this section.

2.0.2 The existing topography on the west side of the building ranges from Elev. 77 to about Elev. 62. The bottom of the existing fill at the west wall of the building is as deep as Elev. 40. Some areas with new fill could be up to 28 feet above the original natural (pre-1973) grades.

3.0 The **Geologic Origin** of the natural inorganic soils is from glacial moraine deposits. These deposits consist generally of dense to very dense fine to medium sand with little to some silt, gravel and cobbles. There is existing fill in west area of the proposed school building extending up to 26± feet below the existing grades. The fill materials consist generally of materials which were excavated from the east portion of the school site during the 1973 construction. The bedrock, based on geologic mapping, is granitic Mamacoke Formation interlayered Gneiss.

3.1 The **Soils/Rock Cross Section** from the borings is generally as follows:

East 60,000 sf Area of Building (see borings B-5, B-6, B-30, B-31, B-34, B-35, B-37, B-38, B-40, B-41, B-43A, B-44, B-44A, B46, B-47, B-47A, B-50 and B-51)

Bituminous Concrete to 3" to 4"; or Topsoil to 8" to 10"

Underlay of Pavement; fine to coarse SAND, some Gravel, trace Silt 9" to 12"

FILL; fine to medium SAND, some Silt, little Gravel to 1 to 10 feet below grade (lowest at Elev. 67), loose to dense

Moraine; fine to medium SAND, some Silt, little Gravel to auger refusal at 3 to 28+ feet (Elev. 53 to Elev.76), medium compact to very dense

The ground water was between Elev. 61 and Elev. 73 at the completion of the borings

West 80,000sf Area of Building (see borings B-4, B-25, B28, B-29, B-30A, B32, B32A, B-33, B-33A, B-36, B-39, B-40, B-42, B-43, B-45, B-46, B-48, B-49, B-52 thru B-54, B-54A)

Bituminous Concrete 3" to 4"; or Topsoil to 4" to 10"

Underlay of Pavement; fine to coarse SAND, some Gravel, trace Silt 9" to 12"

FILL; fine to medium SAND, some Silt, trave to little Gravel, trace Roots to 7 to 26 feet (Elev.36 to Elev. 67), loose to medium compact

Moraine; fine to medium SAND, some Silt, trace to little Gravel to auger refusal at 12 to 27+ feet (Elev.<35 to Elev. 64), medium compact to very dense

The ground water was Elev. 35 to Elev. 70 at the completion of the borings

3.3 The **Groundwater** in the building area appears to be primarily related to the origin pre-1973 topography. Typically the springtime water tables in moraine soils would be within 5 feet of grade in terrain where there is less than a 10% grade. The moraine soils have low permeabilities and a low voids ratios. These properties allow the water table to temporarily mound in areas from storm water recharge. Most of the building footprint has some fill and the water table is either at the base of the fill or possibly 1 to 2 feet into the base of fill.

4.0 The **Criteria for Foundation Type and Loading** are as follows:

1. The maximum total settlement shall not exceed 3/4" and the maximum differential settlement shall not exceed ½ the maximum settlement.

2. The foundation type and structure must address seismic requirements of the building code.

3. The slab at grade floors shall not settle in excess of ½" relative to the main structure.

These criteria are generally applied to buildings of similar character to the subject structure. If the owner, the architect, the engineers find the criteria as unacceptable, the writer should be informed to permit additional geotechnical input.

4.1 Regarding item 2 (above), the seismic site soil profile classification is 'C'. The mapped MCE Spectral Response Acceleration values for Groton, CT are as follows: For short periods S_S= 0.160 and for one second periods S_1 = 0.058.

5.0 Regarding **Foundation Type,** the natural soil/rock profile at the site has a relatively high bearing capacity. While the design can be based on spread footings, the variation in the soils cross sections (as noted on the attached cross sections) requires site specific treatment beneath the spread footings and floor slabs in areas where there are existing fills.

5.0.1 The east section of the building (floor at Elev. 82) will have spread footings generally on the natural moraine at least 3feet below original natural grades. Some areas could have footings on compacted structural fill after removal of any existing fill and subsoils to at least 2 feet below original natural grade. The natural soils will be sensitive to remolding beneath equipment when wet. To address this condition there should be a minimum 6" layer of 3/8" crushed stone on a geotextile placed beneath footings on the natural soils and as an initial layer beneath controlled fills where atop a wet subgrade. The **allowable bearing pressure** at least 3 feet into the natural moraine and on structural fills less than 3 feet thick could be 3 Tons/sf.

5.0.2 The west section of the building (floor at Elev. 66), as noted in section 3.1 above and on the geologic cross sections, has up to 26 feet of silty moraine fill from prior construction, which was

erratically compacted. The requirement for a structural support on the silty moraine fill from prior 1973 construction would have had to include kneading compaction in layers not exceeding 8" to properly break up chunks of soil. Based on the erratic soil sample blow counts in the borings, this was obviously not the case. While some areas may indicate sample blow counts in the borings as being suitable for spread footing support, the borings are spaced at about 100 feet apart and it would be clearly inappropriate to interpolate or extrapolate data from uncontrolled and uncertified fills. The recommended support of building foundations and the slab on grade in this area of the building is with drilled or driven aggregate piers. With the floor at Elev. 66, interior spread footings at about Elev.63 and the exterior wall footings at about Elev.62., the top of the aggregate piers would be at about Elev. 62. The layout and design of the piers would be by a design build contractor. The bottom of the fill in the cross sections is defined from pre-1973 topography and also from the recent boring data. In establishing the bottom, these two sources may vary since the old topography may not always be accurate or the low blow count on the samples near the bottom of the fill could actually be in loose subsoil which were below the original natural ground. **In establishing the bottom of the fill for pier lengths the lowest indicated bottom should be used**. Normal spread footings would be placed on a 12" layer of crushed 3/4"stone over the piers with an **allowable bearing pressure of 2 Tons/sf.** Regarding the slab on grade the aggregate pier placement does provide fill improvement, which would permit a normal slab on grade, based on sub-grade modulus of at least 150 pci. A more conservative design of the slab on grade could be done, assuming that the slab loading on the piers at 3+ feet below the slab will be distributed at least 2 feet out from the piers. With 24" Dia. piers this would indicate square area about 3'x 3' which would be spanned as a reinforced slab.

5.1 The retaining wall at intersection of the two floor levels: Design loading on this wall would depend on the timing of backfill on the wall. In any case the wall loading would include both the soil loading and seismic loading. If the wall is backfilled prior to placement of structure above the wall, the loading on the wall could be a combination of active and seismic loading equal to $20H^2$ pounds per foot of wall. From a seismic standpoint there should also be an inertial load equal to the mass of the wall plus the backfill over the heel times 0.07 (½ of assumed A_v). Backfill of the wall should be with material cited in section 6.0 below. The backfill should extend a distance behind the wall equal to the height of the wall to a 1:1 cut into the natural soil.

5.1.1 The allowable bearing pressure for the wall footings can be an average of 3 Tons/sf if at least 3 feet into the natural moraine or on a structural fill less than 3 feet thick. For structural fills exceeding 3 feet in depth the allowable average bearing pressure cab be 2 Tons/sf. The maximum loading on the toe of the footing can be 50% above he average pressure.

5.1.2 There should be footing drain at the base of retaining wall footings to exclude any hydrostatic load on the wall.

5.2 The **ultimate sliding factor for footings** is 0.60.

5.3 The **Frost Protection Depth** in accordance with the Building Code is 3.5 feet below finish grades in areas which are exposed to weather.

5.4 The **Foundation Design Parameters** are summarized as follows:

Design Parameters	Values
Allowable Bearing Pressure on controlled fill in excess of 3 feet	4,000 psf
Allowable bearing Pressure at least 3 feet below top of natural of on structural fill less than 3 feet thick	6000 psf
Frost Protection Depth	3.5 feet
Backfill Unit Weight (Section 6.0)	125 pcf
Angle of Internal Friction (Backfill), φ	34°
At Rest Lateral Coefficient	0.45
Active Lateral Coefficient (level backfill)	0.28
Ultimate Sliding Coefficient, Concrete on crushed stone or controlled fill	0.60
Seismic Design Parameters	
Seismic Site Soil Profile Classification	C
Mapped MCE Spectral Acceleration for Short Periods S_S	0.160
Mapped MCE Spectral Acceleration for On Second Periods S_1	0.058

6.0 Regarding **Controlled Fill, Backfill of Excavations for Footings and Walls, and Fill beneath slab at Grade floors** to within 6" of the slab bottom, the material shall conform to the following gradation or be 3/8" crushed stone:

Percent Passing	Sieve Size
100	3.5"
50 - 100	3/4"
25 - 75	No.4

The fraction, passing the No.4 sieve shall have less than 15%, passing the No. 200 sieve.

All controlled fill and backfill must be compacted to at least 95% of modified optimum density in accordance with ASTM D-1557.

6.0.1 In the east section of the building (area not on aggregate piers) all existing fills should be removed from beneath the floor slab and replaced with controlled fill conforming to section 6.0 above. In the west section of the building (area where the floor slab is supported by the aggregate piers) there should be a minimum 2 feet of controlled fill between the top of the piers and the bottom of the floor slab. A vapor retarder is required below the slabs on grade.

6.1 The 6" immediately beneath the slab on grade should be with 3/4" minus processed stone conforming the following gradation:

Percent Passing	Sieve Size
100	1.25"
90 - 100	1"
75 - 100	3/4"
25 - 60	1/4"
10 - 35	No. 40
3 - 12	No. 100
0 - 5	No. 200

6.1.1 If there is a requirement for Radon mitigation, the above material would be deleted and 3/4" stone would be placed. The depth of the stone would be defined by the designer of the venting system.

7.0. Regarding the **Earthwork** the existing fill area would fall in OSHA Class C. Excavation slope, which are not shored and exceed 5 feet in height, must be cut back to slope of 1.5 Horizontal to 1.0 Vertical The natural on site soil at least3 feet below original grade would fall in OSHA Class B and would require excavation slopes of 1:1 for unshored cuts exceeding 5 feet in height.

7.1 The natural soils may be sensitive to remolding under equipment when wet. If the subgrades are wet, there would be a requirement 12" to 18" initial layer of crushed stone or off site sand and gravel as working surface for ongoing equipment movements.

8.0 This report has been prepared for specific application to the subject project in accordance with generally accepted soil and foundation engineering practices. No other warranty, express or implied, is made. In the event that any changes in the nature, design and location of structures are planned, the conclusions and recommendations contained in this report should not be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing.

The general recommendations submitted in this report are based in part upon data obtained from referenced explorations. The extent of variations between explorations may not become evident until

construction.

Dr. Clarence Welti, P.E., P.C., shall perform a general review of the final design and specifications in order that geotechnical design recommendations contained in the Geotechnical Report may be properly interpreted and implemented as they were intended.

If you have any questions please call our office.

Very truly yours,

Max Welti, P.E.

Clarence Welti Ph.D., P. E.
President, Dr. Clarence Welti P.E., P.C.

II. GEOTECHNICAL REPORT FOR PROPOSED SITE IMPROVEMENTS

DR. CLARENCE WELTI, P.E., P.C.

GEOTECHNICAL ENGINEERING

227 Williams Street · P.O. Box 397
Glastonbury, CT 06033-0397

(860) 633-4623 / FAX (860) 657-2514

December 12, 2016

Mr. Richard Brown, AIA
Moser Pilon Nelson, Architects
30 Jordan Lane
Wethersfield, CT 06109

Re: Geotechnical Study for Proposed Site Improvements at Ella Grasso Technical Vocational School, 184 Fort Hill Road, Groton, CT; Revisions at section 4.1.4 and Cross Sections at Slope Toward the Brook ; Supplement to Address 50% Drawings + Review of 90% Drawings

Dear Richard:

1.0 Data from borings and test pits taken for the subject project have been previously forwarded with our report of August 31, 2016. Twenty three borings were drilled in areas of proposed site improvements to maximum depth of 25 feet. Nine test pits were taken, with three pit in the proposed building area (TP-1 thru TP-3) and six in areas of site improvements (TP-4 thru TP-9). A separate geotechnical study has been provided for the building, which included 39 borings. These latter boring data provided geologic cross sections, which covered the structure and can be extrapolated into the the lower part of the site. The site borings were drilled to auger refusal, to below any existing fill or to a maximum depth of 20 feet into natural soil. One boring (see B-60A) was cored into the bedrock at the proposed track area. Water level observation wells were placed in four of the building borings (B-5, B-6, B-42 and B-43A) and one site boring (B-73). Water table readings are included with the boring data. *The borings were drilled by Clarence Welti Associates, Inc. and sampling was conducted by this firm solely to obtain indications of subsurface conditions as part of a geotechnical exploration program. No services were performed to evaluate subsurface environmental conditions.*

1.1 Twenty six grain size gradation tests were performed on soils, which are typical of soils, which would be encountered in future excavations or in embankments. The results of those tests are included in the appendix.

2.0 The **Site Work for the Subject Project,** apart from the work beneath the proposed buildings, includes the following:

1. **A new track and field area** at the highest part of the site, partially covering the existing building, which will be demolished. This area is contiguous to the base of slope, where the original swale at the base of the slope has become a wetland. The proposed seating at the field overlies part of the wet swale. The work in this area will be in phase 2 after demolition of the existing structure.

2. **A new road network accessing the buildings and athletic facilities proposed for the site**. These include (a) the relocated entry roadway extending along the north site boundary and cutting into the existing slope to depths up 18± feet to subgrade (See section 4.2.1); (b) the new parking area for buses and passenger vehicles adjacent to the upper building level, which is in a shallow cut on the east side (see sections 4.2.2 and 4.2.3); © the access road along the lower level of the new building with passenger vehicle parking to be constructed on an embankment over a previously placed deep fill (see section 4.3.1); (d) a new roadway adjacent to the west side of the new track (see section 4.2.4) and (e) the peripheral roadway on the south side of the site (see section 4.4).

3. **The new slope on the west side the site:** The slope extends generally from the east bank of the water course at about Elev. 20 up to about Elev. 65 and locally up to Elev. 90. It is presently proposed to have a 2:1 slope without benches. Much of the proposed slope will overlie a previously placed fill slope. The proposed slope will be largely composed of on site excavation. *It is understood that the detention basin indicated at the top of the slope will be eliminated and the depressed area would be filled. This would probably reduce the height of the nearby mound.*

2.1 Regarding soil and rock types, which will be encountered in the proposed site work, the natural soil is dense moraine with a silt content generally in the range of 25 to 35%. The natural water content may be close to, or above the optimum water content. The existing fill materials encountered in the borings and test pits is from excavated moraine soils from the existing buildings and site facilities. This material was irregularly placed and compacted. It has water contents in many areas, which are above the optimum water content. Much of the upper part of the site development will be at the razed existing structure. The east side of the track will encounter rock, which is a relatively sound Gneiss.

3.0 General Geotechnical Issues:

3.1 Summary of Excavation Requirements: The site excavations into the natural soils will be in dense silty moraine, which will in many areas have a water content above the optimum water content and may require temporary stockpiling. This material must be thoroughly kneaded to avoid clumps of soil, which could break down when saturated and cause an unstable condition, possibly affecting pavement stability or slope stability. The requirement for kneading will limit fill lifts to 8" or less. Specific procedures are noted herein, but the contractor must be fully alerted to the possible problems, which can occur without adherence to the recommended procedures.

3.2 OSHA requirements: In areas with existing fill the soils are considered Class C and any excavations, which exceed 5 feet in height and are not shored, must be cut back to slopes not exceeding 1.5 Horizontal to 1.0 Vertical. The natural undisturbed dense moraine would be considered as Class B soil, which would require unshored cuts exceeding 5 feet in height to be cut back to 1:1

3.3 Underlay of drainage and trench backfill: Storm drainage and sanitary piping should have at least 6" of crushed 3/8" stone beneath the piping. The crushed stone at storm drainage should be carried to 3" above the spring line of the pipe. The crushed stone at sanitary lines should be carried to 6" above the pipe. Backfill of piping in areas beneath pavements should be with gravel fill, compacted to at least 95% of modified optimum density. In landscaped areas the backfill can be with on site materials placed and compacted in lifts not exceeding 12". Compaction can be with hoe packs to at least 90% of modified optimum density.

3.4 Material density changes from cuts to fills: (1) Natural moraine shrinkage of zero; (2) Rock swell of 10%; (3) Existing uncontrolled fill shrinkage of 5% into controlled fills**.**

4.0 The conditions and specific requirements for addressing areas of site work, cited in section 2.0 are as follows:

4.0.1 Materials: It is possible that the existing building concrete and bricks would be crushed and used in some of the fill areas (in Phase 2). To avoid issues with these materials becoming crushed during placement and creating a material other than that which was tested in the laboratory, the material must be initially crushed to 1" or finer. Other off site materials, cited in this section, are specified in CTDOT Specification 816.

4.1 Development of track and field, stabilization of the swale and the base of slope contiguous to the track. The area at the toe of the slope had a prior swale, but did not provide stone wedge with under drainage at the slope and the swale apparently did not have positive drainage. The result is effectively a wetland about 8 feet wide at the base of the slope.

4.1.1 The area at the proposed seating and stabilization of the drainage swale will require special treatment as follows: (1) At the base of the 2H:1V slope and 40 feet to the west of the toe of the slope, excavate to 3 feet below proposed grade, (2) Place 15" of crushed 3/8" stone on the base of the cut, (3) Place an under drain at the base of the crushed stone, (4) Place a wedge of crushed 3/4" stone 5 feet (vertically) up the slope atop the 3/8" crushed stone, (5) Fill up to within 6" of the bottom of a paved swale with clean gravel meeting CTDOT Spec 816; Section. M.02.06, grading A, (6) Place processed stone base for the 6" below the paved swale and (7) Pave swale with 3" of bituminous concrete or possibly with precast concrete swale sections.

4.1.2 The proposed field, as shown on the present plans is synthetic turf. The plans indicate the section beneath the turf and fine graded material will have 12" of stone, which is placed over "ordinary fill". It should be noted that (1) part of the field may have rock excavation beneath section; (2) on site material as fill may not be stable to support heavy construction equipment and (3) the section may be subjected to frost action from saturated soil below the stone. It is

recommended that there be at least 8" of Gravel Fill beneath the crushed stone under the synthetic turf to address the above issues.

4.1.3 The underlay of the track and field events area should include at least 16" of gravel subbase conforming to CTDOT 816, Section M.0.2.06 grading A. There should be 6" of processed stone base conforming to CTDOT 616 Section M.05.01. The bituminous concrete should be placed in two courses to 3.5". An edge drain is recommended around the track.

4.2 Roadways and parking areas:

4.2.1 The Relocated North Roadway accessing Bus Queues and Passenger Vehicle Parking at the upper building level and the access to the track and field (see borings B-2, B-73, B-77, B84A and B-84B): The roadway encroaches into existing mounds and slopes at the northeast corner of the site with cuts to sub-grade as deep as 18 feet. One monitor well was placed at boring B-73, which indicated the ground water at about Elev.90 or about 10 feet above the proposed grades. The remaining borings in this area indicated ground water (either from sample water contents or water level in the borings) to be close to proposed pavement subgrades. The proposed slopes are indicated at 2H:1V. This is acceptable with the following conditions: (1) The formation of the cut slope must exclude over excavation and back-blading and (2) there must be stone wedge at the toe of slope to at least 5 feet (vertically) up the slope. The stone wedge shall be tied to an under drain at the pavement edge (or snow shelf). The section beneath the bituminous concrete should include at least 12" of gravel subbase (CTDOT Specification 816 Section M..02.06 Grading A)and 8" of processed stone base (CTDOT Specification 816 Section M.05.01). The pavement sections in this area, which will have combined bus and passenger vehicle traffic, should have at least 4.5" of bituminous concrete, placed in at least two courses.

4.2.2 Bus Queues at Upper Level of building: This area should be treated similar to that in section 4.2.1 above, as regards the pavement section. A under drain should placed at the east edge of the pavement. The heavy duty pavement would apply to bus route around the south end of the classroom building and at the access to the proposed bus garage.

4.2.3 Passenger Vehicle Parking East of Bus Queues: This bituminous concrete thickness in this area should be 3.5". The underlay should include 6" of Processed Stone Base and 12" of gravel subbase. An under drain and stone wedge should be placed at the toe of the cut slope to the east.

4.2.4 Roadway with parking above the slope at the parking area in section 4.2.3: This area is largely within the existing building footprint and close to the existing grades. Fill to the bottom of the pavement section in this area could be with reclaimed crushed concrete. The pavement section should include 3.5" of bituminous concrete, 6" of processed stone base and 8" of gravel subbase.

4.3 The Roadway with Parking at the lower level of the building:

4.3.1 This roadway (apart from the parking) will have bus traffic and possibly occasional heavy truck traffic and should have a bituminous concrete similar to the roadway cited section 4.2.1 above. Much of this area will be on a fill, up to 15 feet in height (Elev. 50 to Elev. 65). The base of the fill will generally be on previously placed fill. Some the fill surface has collected storm water in the silty soils, resulting in less than stable surficial conditions.

4.3.2 The construction of the embankment in this area will require an initial layer of crushed 3/4" stone on geotextile to at least 18" above the existing stripped sub-grade. The area of this crushed stone should for bidding purposes be assumed to be 60 feet wide x 200 feet in length. This material should be placed on one lift to address the surficially unstable surface. The fill above this initial layer could be with either on site excavation or crushed and reclaimed building materials. The silty moraine must be placed in lifts not exceeding 8" and must be thoroughly kneaded prior to vibratory compaction. If the silty moraine material exceeds the optimum water content, it would be necessary to place intervening layers of crushed concrete or off site gravel fill. Required compaction would be to at least 93% of modified optimum density (ASTM 1557 D).

4.3.3 The pavement section atop the embankment should be as follows: 4.5" of Bituminous Concrete on 8" of Processed Stone Base on 8" of Gravel Subbase.

4.4 Periphery road at south end of site, extending from road on west side of athletic field to connection to main road at the lower part of the site (see borings B-56 thru B-59):

4.4.1 The soils cross section from the above boring data indicate the dense silty moraine described elsewhere herein. The water table on boring completion varied from 4 feet to 14 feet below grade. The soil samples below 7 feet have water contents at or close to saturation**.**

4.4.2 The grading plan indicate cuts of 10+ feet over parts of the proposed roadway, which would place the grades at or close to saturated frost susceptible silty moraine soil. The slope contiguous to the roadway on the high side should have stone wedges and under drains.

4.4.3 The pavement section should include the followings: 3.5" of Bituminous Concrete on 6" of Processed Stone Base over12" of Gravel Subbase.

4.5 Slope from Lower Roadway at about Elev. 65 to the Brook at about Elev.20 (see borings $B\text{-}5_{1973}$ and $B\text{-}6_{1973}$ and test pits TP- 4 thru TP-6).

4.5.1 Much of the proposed slope will be over areas with existing fill, part of which may be saturated and locally loose. The toe of slope as defined by the boring data will be on dense moraine, which will have the water table locally on the surface.

4.5.2 The construction of the slope on the west side of the site should obviously be initiated at the base to address localized anomalies in the natural soil and in the existing uncontrolled fill. The base of the fill in proximity to the brook will require an initial 12" layer of crushed 3/8" stone over a width of about 20 feet. A stone wedge up to 5 feet vertically on the slope should be

placed at the toe of slope. A cross section of this area is shown in appendix 3. The slope on the natural grade up to about Elev. 40 is at 3H±:1V. The part of the fill, which is 10 feet or higher would not require grubbing. The trees could be cut flush and the initial fill lift could be 18". If the ground surface is wet, the initial fill lift should be with off site sand and gravel conforming to the gradation for gravel subbase. The boulders at the base of the slope can be placed in the embankment, where the embankment height exceeds 6 feet. Boulders must be spread apart to permit placement and compaction of the soil between the boulders. It may be necessary to place of off site sand in some areas around the boulders to preclude voids in the embankment. Alternatively the boulders can be crushed before placement in the embankment.

4.5.3 The existing fill slope extends from about Elev.40 to about Elev. 50 to 60, where there was a prior parking area for about a 60 feet width. The grade rises from this level on a 2H:1V slope to about Elev. 65. The sloped area of existing fill will require 8 feet wide benches at 25 feet horizontal spacing with 12" of crushed 3/8" stone on the benches, as noted in the sections in appendix 3.The embankment formation over the flat area from about Elev. 55 to Elev. 65 is discussed in section 4.3 above. This area will have a substantial heavy duty pavement, which does require stringent compaction control of the embankment.

4.5.4 The placement and compaction over the remainder of the slope development should be limited to 8" lifts and compaction should be to at least 93% of modified optimum density with initial kneading compaction of the silty moraine. On site excavation from the natural moraine soils, which do not exceed the optimum water content by more than 3%, may be used as fill. If there evident weaving a 12" layer of 3/4" crushed stone or gravel subbase conforming to CTDOT 816, Section M.0.2.06 grading A, would be required to permit additional filling.

4.6 Backfill at Catch Basins and Manhole in paved areas have experienced significant heaving, which appears to be related to frost penetration into fines within the backfill. It is possible that carefully placed backfill in small lift can avoid this problem. The alternative would be to allow at least 12" of crushed 3/8" stone around the structures.

4.7 Sidewalks*:* The concrete sidewalks should have at least 8" of Gravel Base (M.02.06, grading C) beneath the concrete.

5.0 This report has been prepared for specific application to the subject project in accordance with generally accepted soil and foundation engineering practices. No other warranty, express or implied, is made. In the event that any changes in the nature, design and location of structures are planned, the conclusions and recommendations contained in this report should not be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing.

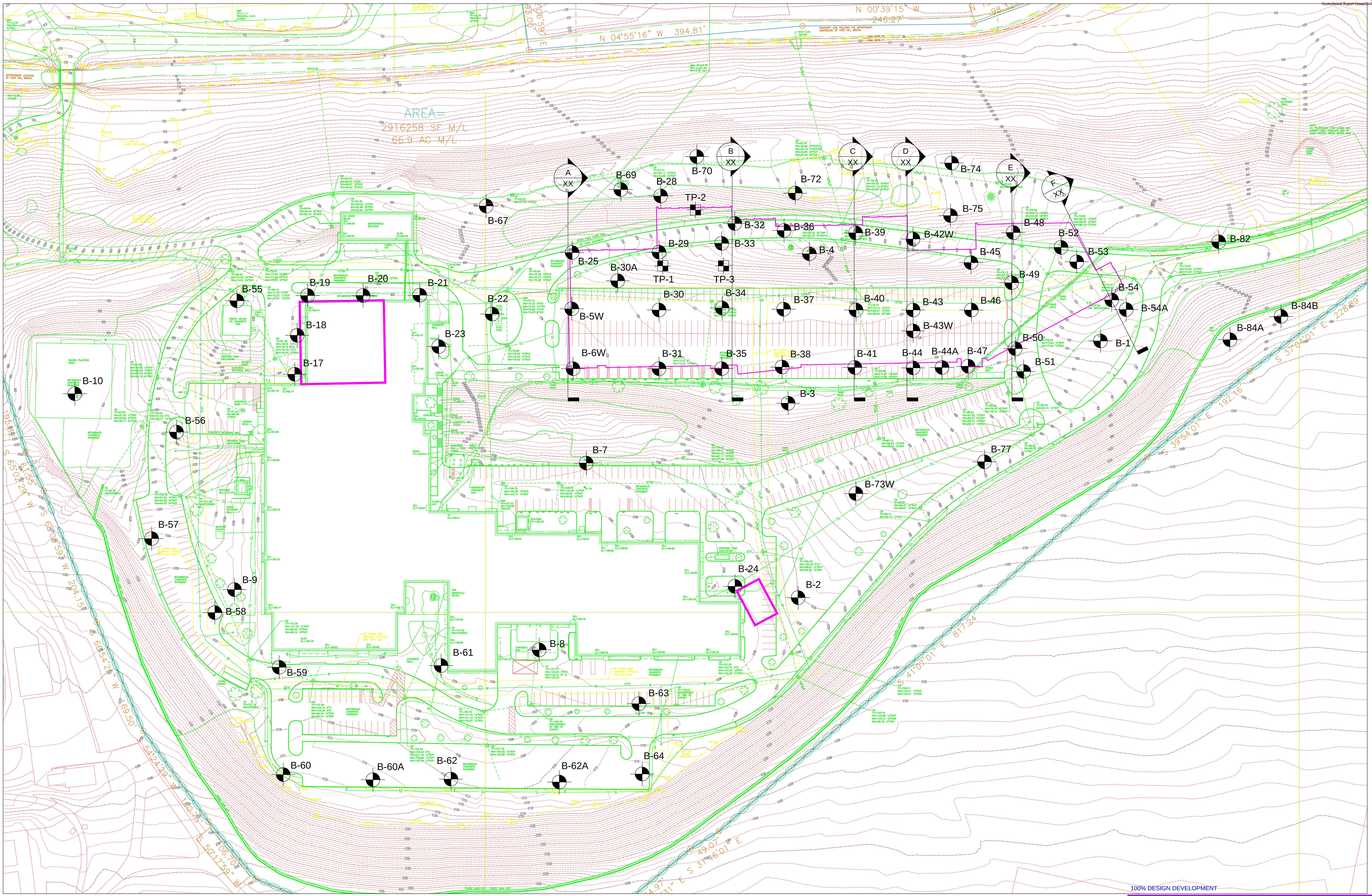
The analyses and recommendations submitted in this report are based in part upon data obtained from referenced explorations. The extent of variations between explorations may not become evident until construction. If variations then appear evident, it will be necessary to re-evaluate the recommendations of this report.
Dr. Clarence Welti, P.E., P.C., should perform a general review of the final design and specifications in order that geotechnical design recommendations may be properly interpreted and implemented as they were intended.

If you have any questions please call me.

Very truly yours,

Max Welti, P.E.

Clarence Welti Ph.D., P. E.
President, Dr. Clarence Welti P.E., P.C.



TEST BORING LOCATION

TEST PIT LOCATION

MPN Project Number:

TEST BORING & TEST PIT LOCATION PLAN
PREPARED BY CLARENCE WELTI ASSOCIATES, INC.
P.O. Box 397, Glastonbury, CT 06033

JULY, 2016

drawing title	STATE OF CONNECTICUT
TEST BORING & TEST PIT LOCATION PLAN	DEPARTMENT OF ADMINISTRATIVE SERVICES
REVISIONS	
mark / date / description	drawing prepared by: MOSER PILON NELSON ARCHITECTS, 30 JORDAN LANE, WETHERSFIELD, CT. 06109
	date: 07/22/2016
	scale: 1" = 50'
	project: ADDITIONS and RENOVATIONS to: **GRASSO TECHNICAL HIGH SCHOOL**, 189 Fort Hill Road, Groton, CT.
	drawn by: JB
	approved by: MW
	CAD no.:
	project no.: BI-RT-877
	drawing no.: B–1

ISSUED for BID

50 40 01
Geotechnical Report GrassoTech121216

TEST PIT #3

TEST PIT #9

TEST PIT #8

TEST PIT #6

TEST PIT #5

1
B-2

TEST PIT #4

TEST PIT #7

EXISTING
GARAGE

TEST PIT #2

TEST PIT #1

TEST PIT #3

PROPOSED
SCHOOL
BUILDING

EXISTING
SCHOOL
BUILDING

TEST PIT LOCATION PLAN
7/6/16

1
B-1 1" = 80'-0"

0' 40' 80' 160'

PROJECT NORTH

ISSUED for BID

MPN Project Number: 2015075.00

drawing title
TEST PIT LOCATION PLAN

REVISIONS

mark	date	description

STATE OF CONNECTICUT
DEPARTMENT OF ADMINISTRATIVE SERVICES

drawing prepared by
MOSER PILON NELSON ARCHITECTS
30 JORDAN LANE
WETHERSFIELD, CT. 06109

project
ADDITIONS and RENOVATIONS to:
GRASSO TECHNICAL HIGH SCHOOL
189 Fort Hill Road
Groton, CT.

CAD no.

project no.
BI-RT-877

date

scale
1" = 80'-0"

drawn by

approved by

drawing no.
B-2

DR. CLARENCE WELTI, P.E., P.C.

GEOTECHNICAL ENGINEERING

227 Williams Street · P.O. Box 397
Glastonbury, CT 06033-0397

(860) 633-4623 / FAX (860) 657-2514

June 24, 2016

Mr. Richard Brown, AIA
Moser Pilon Nelson Architects
30 Jordan Lane
Wethersfield, CT 06109

Re: Proposed Grasso Tech School, Delineation of Building Area Requiring Aggregate Pier Support for Foundations and Floor Slabs

Dear Rich:

Attached is the plan defining the proposed easterly limit of the aggregate piers. The westerly limit is 5 feet west of the west wall of the building.

The limit line is defined as follows: starting from the south wall at a point 5 feet west of Line J, then extending on a line parallel to and 5 feet west of line J north to a point 8 feet north of Line 4A, then parallel and easterly on a line 8 feet north of line 4A to a line 5 feet west of Line CA, then parallel to and 5 feet west of Line CA, to the north end of the building.

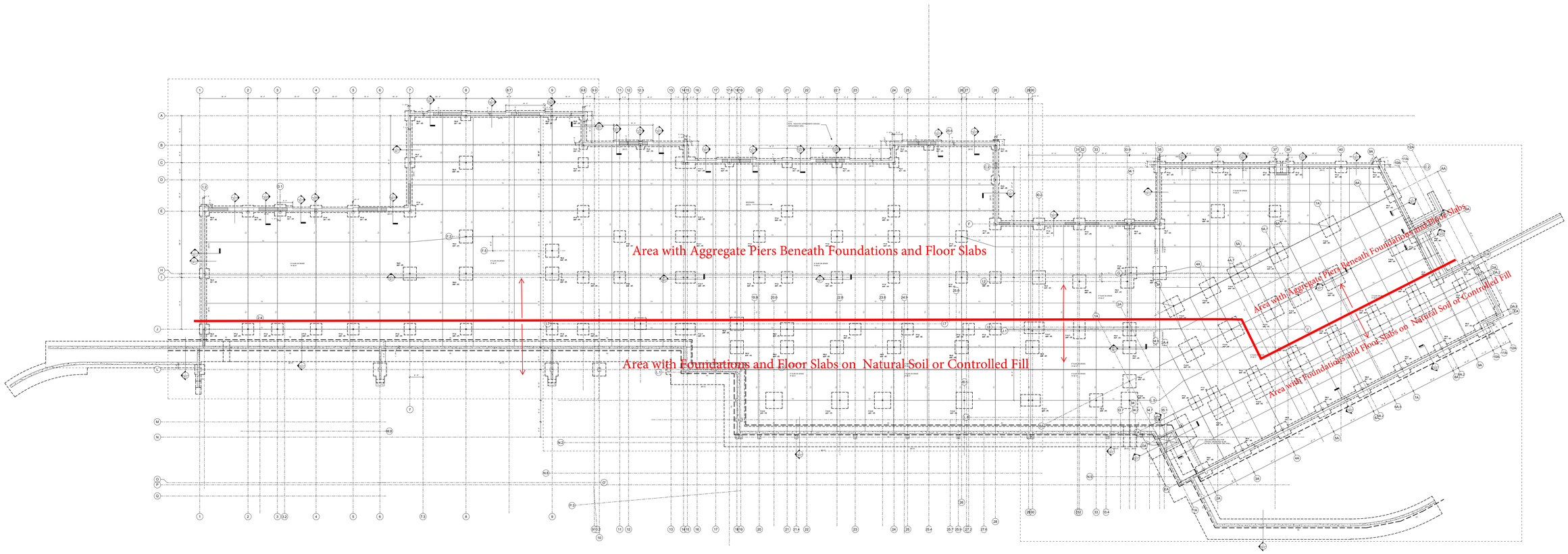
The location of the line is based on boring interpolation and the original site topography. Most of the area east of the line will be at or below the original topography. Some footings will require up to 3± feet of structural fill in the area east of the designated line.

If you have any questions, please call me.

Very truly yours,

Clarence Welti, PhD, P. E.
Pres. Dr. Clarence Welti, P.E., P.C.

ISSUED for BID



Proposed Grasso Tech School
189 Fort Hill Road, Groton, CT
Delineation of Building Area Requiring Aggregate Pier Support
June 27, 2016
Dr. Clarence Welti , P.E. P.C

FIGURE 1

APPENDIX 1

TEST BORING LOGS
&
TEST PIT LOGS

Ground Water Level Observation Well Readings
Ella Grasso Technical High School
184 Fort Hill Road, Groton, CT

11/11/16

Boring No.	Gr. Elev.	10/12/15	5/23/16	6/3/16	6/23/16	7/25/16	11/11/16
B-5W	78.0	None	none	none	17.7 feet	17.75	17.75
B-6W	79.0	18 feet		6.8 feet	7.7 feet	10.2	12.4
B-43AW	77.5		19.0	12.1 feet	14.3 feet	13.7	14.1
B-42	60.0		25 feet	18.5 feet	20.1 feet	22.4	22.5
B-73W	100.0			9.9 feet	11.4 feet	14.5	11.7

Summary Water Table Elevations on 11/11/16

B-5 Elev.60.25

B-6 Elev. 66.6

B-43 Elev.63.4

B-42 Elev. 37.5

B-73 Elev. 88.3

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 77.0

HOLE NO. B-1

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 10/9/15
FINISH DATE 10/9/15

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	1-2-12-7	0.0'-2.0'		TOPSOIL 0.50	
					BR. FINE-CRS. SAND, LITTLE SILT & GRAVEL, TRACE BRICK & ASPHALT - FILL 1.5	75
	2	8-10-14-20	2.0'-4.0'		GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, TRACE ROOTS - FILL	
5	3	3-3-2-2	5.0'-7.0'			
	4	6-8-2-4	7.0'-9.0'			70
10	5	34-60	10.0'-10.8'		GREY FINE-CRS. SAND, SOME SILT, LITTLE GRAVEL 10.0	
					AUGER REFUSAL @ 11.0' 11.0	65
15						
						60
20						
						55
25						
						50
30						
						45
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-1**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 105.0

HOLE NO. B-2

GROUND WATER OBSERVATIONS
AT 8.7 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 10/10/15
FINISH DATE 10/10/15

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	7-8-10-7	0.0'-2.0'		TOPSOIL 0.33	105
					GREY FINE-CRS. SAND, LITTLE SILT & GRAVEL	
	2	13-16-36-45	2.0'-4.0'		2.0 GREY FINE-CRS. SAND, SOME SILT & GRAVEL, FEW COBBLES & BOULDERS	
5	3	37-20-25	5.0'-6.5'			100
10	4	45-60	10.0'-11.0'			95
15	5	60	15.0'-15.4'			90
					18.5 AUGER REFUSAL @ 18.5'	
20						85
25						80
30						75
35						70

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-2**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 80.0

HOLE NO. B-3

GROUND WATER OBSERVATIONS
AT 11.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 10/9/15
FINISH DATE 10/9/15

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	7-13-15-17	0.0'-2.0'		TOPSOIL 0.50	80
					GREY FINE-MED. SAND, SOME GRAVEL & COBBLES. LITTLE SILT	
	2	28-60	2.0'-3.0'			
5	3	60	5.0'-5.4'			75
10	4	52-60	10.0'-11.0'			70
15	5	60	15.0'-15.4'			65
20	6	60	20.0'-20.4'			60
25	7	60	25.0'-25.1'			55
30	8	60	30.0'-30.3'		BOTTOM OF BORING @ 30.33' 30.33	50
35						45

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-3**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 63.0

HOLE NO. B-4

GROUND WATER OBSERVATIONS
AT 17.8 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 10/9/15
FINISH DATE 10/9/15

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	2-10-20-26	0.0'-2.0'		TOPSOIL	
					GREY FINE-CRS. SAND, SOME GRAVEL, LITTLE SILT, TRACE WOOD - FILL	
	2	34-40-34-40	2.0'-4.0'			60
5	3	15-20-22-27	5.0'-7.0'			
						55
10	4	20-23-28	10.0'-11.5'			
						50
15	5	3-2-1	15.0'-16.5'		GREY FINE-MED. SAND, SOME SILT, TRACE GRAVEL, WOOD & ROOTS - FILL	
						45
20	6	2-3-2	20.0'-21.5'			
						40
25	7	7-6-10	25.0'-26.5'		GREY FINE-CRS. SAND, LITTLE SILT	
					AUGER REFUSAL @ 27.5'	35
30						
						30
35						

0.75
15.0
26.0
27.5

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-4**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 78.0

HOLE NO. B-5

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 10/12/15
FINISH DATE 10/12/15

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.33	
	1	20-20-21-18	1.0'-3.0'		BR. FINE-CRS. SAND, SOME GRAVEL, LITTLE SILT 1.0	
					GREY FINE-MED. SAND, SOME SILT, TRACE GRAVEL, FEW COBBLES	
	2	15-20-20-34	3.0'-5.0'			75
5	3	60	5.0'-5.5'			
						70
10	4	20-21-21	10.0'-11.5'			
						65
15	5	60	15.0'-15.1'			
					18.0	60
					AUGER REFUSAL @ 18.0'	
20					2" DIA WELL @ 18.0'	
					10.0' OF SCREEN (.010) SLOT	
					8.0' OF RISER	
					0' OF STICKUP	55
25					SAND FROM 18.0' TO 6.0'	
					BENTONITE SEAL FROM 6.0' TO 4.0'	
					BACKFILL FROM 4.0' TO 0.50'	
					CONCRETE FROM 0.50' TO 0'	50
30					7" DIA. ROADWAY BOX COVER	
						45
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-5**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 79.0

HOLE NO. B-6

GROUND WATER OBSERVATIONS
AT 18.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 10/12/15
FINISH DATE 10/12/15

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.33	
	1	7-9-12-10	1.0'-3.0'		BR. FINE-CRS. SAND, SOME GRAVEL, LITTLE SILT 1.0	
					GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL & COBBLES	
	2	12-30-60	3.0'-4.4'			75
5	3	20-22-24	5.0'-6.5'			
						70
10	4	60	10.0'-10.5'			
						65
15	5	28-60	15.0'-15.8'			
						60
20	6	60	20.0'-20.3'		20.25	
					AUGER REFUSAL @ 20.25'	
					2" DIA WELL @ 19.5'	
					10.0' OF SCREEN (.010) SLOT	
					19.0' OF RISER	55
25					0' OF STICKUP	
					SAND FROM 19.5' TO 8.0'	
					BENTONITE SEAL FROM 8.0' TO 6.0'	
					BACKFILL FROM 6.0' TO 0.50'	50
30					CONCRETE FROM 0.50' TO 0'	
					7" DIA. ROADWAY BOX COVER	
						45
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-6**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 107.0

HOLE NO. B-7

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 10/12/15
FINISH DATE 10/12/15

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.25	
	1	7-3-4-3	1.0'-3.0'		BR. FINE-CRS. SAND, SOME GRAVEL, LITTLE SILT 1.0	
					GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL - FILL	105
	2	3-6-7-7	3.0'-5.0'			
5					5.0	
	3	1-1-5-8	5.0'-7.0'		BR. FINE-MED. SAND, SOME SILT - FILL	
					6.0	
	4	7-15-26	7.0'-8.4'		GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL & COBBLES	100
10	5	24-27-27	10.0'-11.5'			95
15	6	60	15.0'-15.4'		16.0	
					AUGER REFUSAL @ 16.0'	90
20						85
25						80
30						75
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-7**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 108.0

HOLE NO. B-8

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 10/12/15
FINISH DATE 10/12/15

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	1-4-9-18	0.0'-2.0'		TOPSOIL	
					GREY FINE-MED. SAND, SOME SILT, TRACE GRAVEL, FEW COBBLES	
	2	20-22-25-32	2.0'-4.0'			
	3	20-23-60	4.0'-5.5'			
10					AUGER REFUSAL @ 10.0'	

1.0
10.0

105
100
95
90
85
80
75

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-8**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 106.0

HOLE NO. B-9

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 10/12/15
FINISH DATE 10/12/15

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	9-24-36-36	0.0'-2.0'		TOPSOIL 0.25	105
					GREY FINE-MED. SAND, SOME GRAVEL & COBBLES, LITTLE SILT	
	2	43-37-38-43	2.0'-4.0'			
	3	37-40-60	4.0'-5.4'			
5						100
					9.0	
					AUGER REFUSAL @ 9.0'	
10						95
15						90
20						85
25						80
30						75
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-9**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 97.0

HOLE NO. B-10

GROUND WATER OBSERVATIONS
AT 21.5 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 10/12/15
FINISH DATE 10/12/15

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.25	
	1	13-7-14-17	1.0'-3.0'		BR. FINE-CRS. SAND, SOME GRAVEL, LITTLE SILT 0.75	
					BR. FINE-CRS. SAND, LITTLE SILT & GRAVEL - FILL	95
	2	13-9-10-7	3.0'-5.0'			
5						
	3	4-2-3-3	5.0'-7.0'		BR. FINE SAND AND SILT 5.0	
						90
	4	4-15-18-22	7.0'-9.0'		GREY FINE-MED. SAND, SOME SILT, GRAVEL & COBBLES 7.5	
10						
	5	21-32-36	10.0'-11.5'			85
15						
	6	30-38-56	15.0'-16.6'			80
20						
	7	55-60	20.0'-21.0'			75
25						
	8	60	25.0'-25.1'		AUGER REFUSAL @ 25.08' 25.08	70
30						
						65
35						

LEGEND: COL. A:

SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON

PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-10**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. B-11

GROUND WATER OBSERVATIONS
AT 4.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 10/9/15
FINISH DATE 10/9/15

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	2-11-10-14	0.0'-2.0'		TOPSOIL .08	
					GREY FINE-MED. SAND, LITTLE SILT, TRACE GRAVEL, FEW COBBLES - FILL	
	2	60	2.0'-2.5'			
5	3	60	5.0'-5.9'		GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL - FILL 5.0	
					DARK BR. FINE-MED. SAND AND SILT, TRACE ROOTS & WOOD 7.0	
10	4	8-17-20-20	10.0'-12.0'		GREY FINE-CRS. SAND, LITTLE SILT & GRAVEL 10.0	
15	5	10-13-15	15.0'-16.5'		BR. FINE-CRS. SAND, TRACE SILT & GRAVEL 16.0	
					BOTTOM OF BORING @ 16.5' 16.5	
20						
25						
30						
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-11**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. B-12

GROUND WATER OBSERVATIONS
AT 8.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 10/9/15
FINISH DATE 10/9/15

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	1-6-7-15	0.0'-2.0'		TOPSOIL 0.56	
					BR. FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES	
	2	60	2.0'-2.3'			
5	3	8-60	5.0'-5.8'		5.0 GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL & COBBLES, FEW BOULDERS	
10	4	5-6-6	10.0'-11.5'			
15	5	7-8-12	15.0'-16.5'		15.5 BR. FINE SAND AND SILT	
					16.5 BOTTOM OF BORING @ 16.5'	
20						
25						
30						
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-12**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. B-14

GROUND WATER OBSERVATIONS
AT 6.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 10/13/15
FINISH DATE 10/13/15

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	1-3-2-2	0.0'-2.0'		TOPSOIL	
					BR. FINE-CRS.SAND, SOME GRAVEL, TRACE SILT	
					0.83	
	2	1-1-1-2	2.0'-4.0'			
	3	3-6-8-9	4.0'-6.0'			
5					GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL	
					4.5	
					GREY FINE-CRS. SAND, LITTLE SILT & GRAVEL	
					8.0	
10	4	5-5-6	10.0'-11.5'			
15	5	7-6-8	15.0'-16.5'			
					BOTTOM OF BORING @ 16.5'	
					16.5	
20						
25						
30						
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-14**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. B-15

GROUND WATER OBSERVATIONS
AT 7.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 10/13/15
FINISH DATE 10/13/15

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	2-3-9-7	0.0'-2.0'		TOPSOIL	
					BR. FINE-MED. SAND, SOME SILT, TRACE GRAVEL - FILL	0.83
	2	12-10-10-6	2.0'-4.0'			
					DARK BR. FINE-CRS.SAND, SOME SILT, TRACE GRAVEL	3.0
	3	10-14-9-4	4.0'-6.0'			
5						
	4	6-10-10-10	6.0'-8.0'		GREY FINE-CRS. SAND, LITTLE SILT & GRAVEL	6.5
10	5	6-8-11	10.0'-11.5'			
15	6	10-10-11	15.0'-16.5'			
20						
25						
30						
35					BOTTOM OF BORING @ 16.5'	16.5

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-15**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. B-16

GROUND WATER OBSERVATIONS
AT 5.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 10/13/15
FINISH DATE 10/13/15

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	3-4-10-9	0.0'-2.0'		TOPSOIL	
					0.83	
					GREY/BR. FINE-MED. SAND, SOME SILT, TRACE GRAVEL, FEW COBBLES - FILL	
					3.0	
	2	6-6-8-8	3.0'-5.0'		GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL	
5	3	7-8-10-12	5.5'-7.5'		5.5	
					GREY FINE-CRS.SAND, SOME SILT & GRAVEL	
10						
15						
					16.5	
					BOTTOM OF BORING @ 16.5'	
20						
25						
30						
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-16**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 82.0

HOLE NO. B-17

GROUND WATER OBSERVATIONS
AT 5.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/19/16
FINISH DATE 5/19/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.33	
	1	6-7-9-12	1.0'-3.0'		BR. FINE-CRS. SAND, SOME GRAVEL, LITTLE SILT 1.0	
	~~1~~	~~6-7-9-12~~	~~1.0'-3.0'~~		BR. FINE-MED. SAND, SOME SILT, TRACE GRAVEL	80
	2	9-12-13-15	3.0'-5.0'		3.0 GREY/BR. FINE-MED. SAND, SOME SILT, LITTLE GRAVEL	
5	3	21-60	5.0'-5.8'		7.0 BOTTOM OF BORING @ 7.0' (AUGER REFUSAL)	75
10						70
15						65
20						60
25						55
30						50
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K.CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-17**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 82.0

HOLE NO. B-18

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/23/16
FINISH DATE 5/23/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.25	
	1	20-20-18-14	1.0'-3.0'		BR. FINE-CRS. SAND, SOME GRAVEL, TRACE SILT 1.0	
					GREY FINE-MED. SAND, SOME SILT, TRACE GRAVEL - FILL	80
	2	8-9-10-10	3.0'-5.0'		DARK BR. FINE-MED. SAND, SOME SILT, LITTLE GRAVEL - FILL 3.0	
5	3	10-12-10-17	5.0'-5.8'		GREY/BR. FINE-MED. SAND, SOME SILT, LITTLE GRAVEL 5.5	
						75
10					BOTTOM OF BORING @ 10.0' (AUGER REFUSAL) 10.0	
						70
15						
						65
20						
						60
25						
						55
30						
						50
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K.CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-18**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 82.0

HOLE NO. B-19

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/19/16
FINISH DATE 5/19/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	3-6-12-17	0.0'-2.0'		TOPSOIL 0.50	
					BR. FINE-MED. SAND, SOME SILT, LITTLE GRAVEL - FILL	80
	2	20-30-27-27	2.0'-4.0'		3.0	
					GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES - FILL	
	3	22-22-23-26	4.0'-6.0'			
5						75
10	4	2-3-6-6	10.0'-12.0'		10.0 BR. FINE-MED. SAND, SOME SILT, TRACE GRAVEL - FILL	
	5	7-8-12-31	12.0'-14.0'			70
					13.0 GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL - FILL	
15	6	17-25-26	15.0'-16.5'		15.0 GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL	
					17.0 BOTTOM OF BORING @ 17.0' (AUGER REFUSAL)	65
20						60
25						55
30						50
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K.CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-19**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 82.0

HOLE NO. B-20

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/19/16
FINISH DATE 5/19/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	1-2-10-60	0.0'-1.5'		TOPSOIL	
					0.83	
					BR. FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES - FILL	80
	2	60	3.0'-5.8'			
5	3	5-5-8-8	5.0'-7.0'		5.0	
	3	5-5-8-8	5.0'-7.0'		DARK GREY FINE-MED. SAND, SOME SILT, TRACE GRAVEL-FILL	75
10	4	4-4-5	10.0'-11.5'		10.0	
					DARK BR. FINE-MED. SAND, SOME SILT, TRACE GRAVEL - FILL	70
					13.0	
15	5	10-15-27	15.0'-16.5'		GREY FINE-MED. SAND, SOME SILT, TRACE GRAVEL	65
20	6	12-21-22	20.0'-21.5'			60
25					24.5	
					BOTTOM OF BORING @ 24.5' (AUGER REFUSAL)	55
30						50
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K.CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-20**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 81.0

HOLE NO. B-21

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/19/16
FINISH DATE 5/19/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	1-5-15-21	0.0'-2.0'		TOPSOIL	
					BR. FINE SAND, SOME SILT, LITTLE GRAVEL- FILL	0.83 / 80
	2	13-13-12-10	2.0'-4.0'			
					GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES - FILL	3.0
5	3	7-11-11-8	4.0'-6.0'			75
10	4	5-4-4-4	10.0'-11.5'			70
					GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES	13.0
15	5	16-30-60	15.0'-16.3'			65
					BOTTOM OF BORING @ 17.5' (AUGER REFUSAL)	17.5
20						60
25						55
30						50
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K.CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-21**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 82.0

HOLE NO. B-22

GROUND WATER OBSERVATIONS
AT 15.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/18/16
FINISH DATE 5/18/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	2-5-12-20	0.0'-2.0'		TOPSOIL 0.50	
					BR. FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES - FILL	80
	2	20-31-60	2.0'-3.5'			
	3	6-9-12-11	4.0'-6.0'			
5					GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES - FILL 5.0	75
10	4	2-2-4-4	10.0'-11.5'		GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES 10.0	70
15	5	16-24-39	15.0'-16.5'			65
					BOTTOM OF BORING @ 18.0' (AUGER REFUSAL) 18.0	
20						60
25						55
30						50
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-22**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 108.0

HOLE NO. B-24

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/12/16
FINISH DATE 5/12/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	2-8-11-8	0.0'-2.0'		TOPSOIL 0.67	
					GREY FINE-MED. SAND, SOME SILT, TRACE GRAVEL	
	2	24-60	2.0'-3.0'			105
	3	18-60	4.0'-4.9'			
5					5.5	
					BOTTOM OF BORING @ 5.5' (AUGER REFUSAL)	100
10						
						95
15						
						90
20						
						85
25						
						80
30						
						75
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-24**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL
LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 77.0
HOLE NO. B-25

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/17/16
FINISH DATE 5/17/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.33	
	1	14-19-20-60	1.0'-3.0'		BR. FINE-CRS. SAND, SOME GRAVEL, TRACE SILT 1.0	
					GREY/BR. FINE-CRS. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES	75
	2	25-30-35-35	3.0'-5.0'			
5	3	31-35-36-40	5.0'-7.0'			70
10	4	8-8-9-5	10.0'-12.0'		11.0	
					DARK GREY FINE-CRS. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES - FILL	65
	5	8-60	12.0'-13.0'			
15						
	6	8-7-6-9	15.0'-17.0'			60
20	7	11-3-2-2	20.0'-22.0'			
	8	3-3-4-5	22.0'-24.0'		22.0	55
					DARK GREY/BR. FINE SAND AND SILT, TRACE ROOTS & ORGANICS	
	9	4-9-33-28	24.0'-26.0'			
25					25.0	
					GREY FINE-CRS. SAND, SOME SILT, LITTLE GRAVEL	
	10	12-8-8-12	26.0'-28.0'			50
	11	11-34-100	28.0'-29.5'			
					29.5	
30					BOTTOM OF BORING @ 29.5'	
					NOTE: SOILS WET AT 10'	45
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-25**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 59.0

HOLE NO. B-28

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/31/16
FINISH DATE 5/31/16

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	2-7-11-12	0.0'-2.0'		TOPSOIL	
					GREY FINE-CRS. SAND, SOME SILT, LITTLE GRAVEL - FILL	
	2	10-11-10-12	2.0'-4.0'			
5	3	2-1-3-4	5.0'-7.0'			55
					0.70	
					GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES	
10	4	10-24-32	10.0'-11.5'			50
						45
15	5	10-13-16	15.0'-16.5'			
						40
20	6	10-18-22	20.0'-21.5'			
						35
25	7	10-13-16	25.0'-26.5'			
					26.5	
					BOTTOM OF BORING @ 26.5'	30
30						
						25
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-28**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 71.5

HOLE NO. B-29

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/17/16
FINISH DATE 5/17/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.25	
					BR. FINE-CRS. SAND, SOME GRAVEL, TRACE SILT 0.50	
	1	8-9-15-21	1.0'-3.0'		BR. FINE-CRS. SAND, SOME SILT, TRACE GRAVEL - FILL 1.0	70
					GREY FINE-CRS. SAND, SOME SILT, LITTLE GRAVEL - FILL	
	2	21-20-19-23	3.0'-5.0'			
5	3	15-15-15-23	5.0'-7.0'			65
10	4	9-14-22	10.0'-11.5'			60
					BOTTOM OF BORING @ 13.5' (AUGER REFUSAL) 13.5	
15						55
20						50
25						45
30						40
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-29**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 77.5

HOLE NO. B-30

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/17/16
FINISH DATE 5/17/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.33	
	1	11-16-21-23	1.0'-3.0'		BR. FINE-CRS.SAND, SOME GRAVEL, TRACE SILT 0.67	
					GREY FINE-CRS. SAND, SOME SILT, TRACE GRAVEL - FILL	75
	2	12-17-18-20	3.0'-5.0'			
5	3	12-20-12-10	5.0'-7.0'			
					6.5	
	4	4-7-7-7	7.0'-9.0'		DARK BR. FINE-MED. SAND, SOME SILT, TRACE GRAVEL & ROOTS - FILL	70
	5	8-5-5-8	9.0'-11.0'			
10					10.0	
	6	6-23-60	11.0'-12.3'		GREY/BR. FINE-CRS. SAND, SOME SILT, TRACE GRAVEL	
					11.5	
					GREY FINE-CRS. SAND, SOME SILT, TRACE GRAVEL	65
					14.0	
15					BOTTOM OF BORING @ 14.0' (AUGER REFUSAL)	
						60
20						
						55
25						
						50
30						
						45
35						

LEGEND: COL. A:

SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON

PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-30**

ISSUED for BID

Geotechnical Report GrassoTech121216

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 77

HOLE NO. B-30A

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 6/9/16
FINISH DATE 6/9/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	4-60	0.0'-1.0'		TOPSOIL, TRACE ROOTS 0.42	
					BR. FINE-MED. SAND, SOME SILT, LITTLE GRAVEL - FILL	75
	2	16-30-22-50	3.0'-5.0'			
5	3	19-19-10-20	5.0'-7.0'			70
10	4	12-16-23	10.0'-11.5'		GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL - FILL 10.0	65
15	5	10-5-7	15.0'-16.5'		DARK BR. FINE-MED. SAND, SOME SILT, TRACE WOOD 15.0	
					BR. FINE-MED. SAND, SOME SILT, TRACE GRAVEL 16.0	60
	6	60	18.0'-18.2'		GREY FINE-MED. SAND, SOME SILT & GRAVEL, FEW COBBLES 18.0	
20	7	42-60	20.0'-21.0'			55
25					BOTTOM OF BORING @ 22.5' (AUGER REFUSAL) 22.5	50
30						45
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-30A**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 78.5

HOLE NO. B-31

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/13/16
FINISH DATE 5/13/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.25	
	1	21-29-30-60	1.0'-2.6'		BR. FINE-CRS. SAND, SOME GRAVEL, TRACE SILT 1.0	
					GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL	
	2	25-30-27-29	3.0'-5.0'			75
5	3	24-25-25-27	5.0'-7.0'			
					8.0	
					BOTTOM OF BORING @ 8.0' (AUGER REFUSAL)	70
10						
						65
15						
						60
20						
						55
25						
						50
30						
						45
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-31**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 66.0

HOLE NO. B-32

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/18/16
FINISH DATE 5/18/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.17	
					BR. FINE-CRS. SAND, SOME GRAVEL, TRACE SILT - FILL	65
					GREY/BR. FINE-MED. SAND, SOME SILT, LITTLE GRAVEL,FEW COBBLES - FILL 1.5	
	1	6-10-13-17	3.0'-5.0'			
5	2	18-20-20-60	5.0'-7.0'		BOTTOM OF BORING @ 5.0' (AUGER REFUSAL) 5.0	60
10						55
15						50
20						45
25						40
30						35
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-32**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 66.0

HOLE NO. B-32A

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/18/16
FINISH DATE 5/18/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.17	
	1	6-10-13-17	1.0'-3.0'		BR. FINE-CRS. SAND, SOME GRAVEL, LITTLE SILT - FILL	65
					1.5 GREY/BR. FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES - FILL	
5	1	18-16-24-60	5.0'-6.7'			60
10	2	8-13-10	10.0'-11.5'			55
15	3	17-60	15.0'-16.0'			
					16.0 BOTTOM OF BORING @ 16.0 (AUGER REFUSAL)	50
					NOTE: BORING WAS DRILLED 4 FEET FROM B-32	
20						45
25						40
30						35
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-32A**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 66.0

HOLE NO. B-33

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/23/16
FINISH DATE 5/23/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.17	
	1	12-15-25-25	1.0'-3.0'		BR. FINE-CRS. SAND, SOME GRAVEL, TRACE SILT 1.0	65
					GREY/BR. FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES - FILL	
	2	25-60	3.0'-4.0'			
5	3	12-17-14-15	5.0'-7.0'			60
10	4	20-28-24	10.0'-11.5'			55
					BOTTOM OF BORING @ 12.5' (AUGER REFUSAL) 12.5	
15						50
20						45
25						40
30						35
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K.CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-33**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 66.0

HOLE NO. B-33A

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/23/16
FINISH DATE 5/23/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.17	
					BR. FINE-CRS. SAND, SOME GRAVEL, TRACE SILT 1.0	65
					GREY/BR. FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES - FILL	
5						60
10						55
15	1	14-14-13	15.0'-16.5'			50
					BOTTOM OF BORING @ 17.5' (AUGER REFUSAL) 17.5	
					NOTE: BORING WAS TAKEN 4 FEET FROM B-33	
20						45
25						40
30						35
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K.CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-33A**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 76.5

HOLE NO. B-34

GROUND WATER OBSERVATIONS
AT 15.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/13/16
FINISH DATE 5/13/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.25	
	1	7-9-9-8	1.0'-3.0'		BR.FINE-CRS.SAND, SOME GRAVEL, TRACE SILT - POSSIBLE FILL 1.0	75
					BR. FINE-MED. SAND, SOME SILT, TRACE GRAVEL	
	2	3-5-7-4	3.0'-5.0'			
5					GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL 4.0	
	3	4-7-9-13	5.0'-7.0'			70
10	4	7-24-25	10.0'-11.5'			65
15	5	20-22-33	15.0'-16.5'			60
					BOTTOM OF BORING @ 19.0' (AUGER REFUSAL) 19.0	
20						55
25						50
30						45
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-34**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 78

HOLE NO. B-35

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/13/16
FINISH DATE 5/13/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.25	
	1	8-27-37-60	1.0'-2.4'		BR. FINE-CRS. SAND, SOME GRAVEL, TRACE SILT 1.0	
					BR.FINE-MED.SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES	75
	2	20-60	3.0'-3.9'			
					BOTTOM OF BORING @ 4.0' (AUGER REFUSAL) 4.0	
5						70
10						65
15						60
20						55
25						50
30						45
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-35**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 62.0

HOLE NO. B-36

GROUND WATER OBSERVATIONS
AT 9.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/18/16
FINISH DATE 5/18/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.25	
	1	60	1.0'-2.5'		BR. FINE-CRS. SAND, SOME GRAVEL & TRACE SILT 1.0	
					BR. FINE SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES - FILL	60
	2	16-60	3.0'-4.0'		3.5	
5					GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES - FILL	
	3	8-10-11-11	5.0'-7.0'			55
10						
	4	11-14-14	10.0'-11.5'			50
15						
	5	14-17-16	15.0'-16.5'			45
					19.0	
20					GREY FINE-MED. SAND AND SILT, TRACE GRAVEL - FILL	
	6	W-O-H	20.0'-22.0'			40
	7	3-3-3-6	22.0'-24.0'			
					24.0	
	8	16-24-43-44	24.0'-26.0'		GREY FINE-MED. SAND, SOME SILT, TRACE GRAVEL	
25					26.0	
					BOTTOM OF BORING @ 26.0'	35
30						
						30
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-36**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 76.5

HOLE NO. B-37

GROUND WATER OBSERVATIONS
AT 15.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/13/16
FINISH DATE 5/13/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.25	
	1	6-5-6-4	1.0'-3.0'		BR. FINE-CRS. SAND, SOME GRAVEL, TRACE SILT 1.0	75
					BR. FINE-MED. SAND, SOME SILT, TRACE GRAVEL - FILL	
	2	1-1-1-9	3.0'-5.0'			
5	3	10-8-8-8	5.0'-7.0'			
					GREY FINE-MED. SAND, SOME SILT, TRACE GRAVEL 6.0	70
10	4	5-7-28	10.0'-11.5'			65
15	5	16-17-32	15.0'-16.5'			60
20	6	31-60	20.0'-20.8'		BOTTOM OF BORING @ 20.8' 20.8	55
25						50
30						45
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-37**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 78.4

HOLE NO. B-38

GROUND WATER OBSERVATIONS
AT 7.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/12/16
FINISH DATE 5/12/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.25	
	1	3-7-14-13	1.0'-3.0'		BR. FINE-CRS. SAND, SOME GRAVEL, TRACE SILT 1.0	
					GREY FINE-MED. SAND, SOME SILT, TRACE GRAVEL	
	2	15-15-18-17	3.0'-5.0'			75
5	3	7-8-8-10	5.0'-7.0'			
						70
10	4	11-7-9	10.0'-11.5'			
					BOTTOM OF BORING @ 13.0' (AUGER REFUSAL) 13.0	65
15						
						60
20						
						55
25						
						50
30						
						45
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-38**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 60.0

HOLE NO. B-39

GROUND WATER OBSERVATIONS
AT 17.2 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/13/16
FINISH DATE 5/13/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.25	60
	1	13-10-12-7	1.0'-3.0'		BR. FINE-CRS.SAND, SOME GRAVEL, TRACE SILT 0.75 GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES - FILL	
	2	6-10-10-16	3.0'-5.0'			
5	3	10-9-12-8	5.0'-7.0'			55
10	4	5-4-5	10.0'-11.5'			50
15	5	0-0-1	15.0'-16.5'		GREY FINE-MED SAND AND SILT - FILL 15.0	45
20	6	W-0-H	20.0'-21.5'			40
25	7	7-34-50	25.0'-26.5'		GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL 23.5 BOTTOM OF BORING @ 26.5' 26.5	35
30						30
35						25

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-39**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 76.0

HOLE NO. B-40

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/13/16
FINISH DATE 5/13/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.25	
	1	4-3-2-2	1.0'-3.0'		BR. FINE-CRS. SAND, SOME GRAVEL, TRACE SILT 1.0	75
					BR. FINE-MED. SAND, SOME SILT, TRACE GRAVEL - FILL	
	2	2-1-1-2	3.0'-5.0'			
5	3	4-2-3-7	5.0'-7.0'			70
	4	25-27-60	7.0'-8.5'		GREY FINE-MED. SAND, SOME SILT, TRACE GRAVEL 7.0	
	5	16-26-34	10.0'-11.5'			
10						65
					BOTTOM OF BORING @ 12.0' (AUGER REFUSAL) 12.0	
15						60
20						55
25						50
30						45
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-40**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 78.5

HOLE NO. B-41

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/12/16
FINISH DATE 5/12/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.25	
	1	3-7-14-13	1.0'-3.0'		BR. FINE-CRS. SAND, SOME GRAVEL, TRACE SILT 1.0	
					GREY FINE-MED. SAND, SOME SILT, TRACE GRAVEL, FEW COBBLES	
	2	25-25-34-60	3.0'-5.0'			75
5						
						70
					9.0	
10					BOTTOM OF BORING @ 9.0' (AUGER REFUSAL)	
						65
15						
						60
20						
						55
25						
						50
30						
						45
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-41**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 60.0

HOLE NO. B-42

GROUND WATER OBSERVATIONS
AT 25.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/25/16
FINISH DATE 5/25/16

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	0-2-3-2	0.0'-2.0'		TOPSOIL 0.40	60
					GREY/BR. FINE-CRS.SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES & BOULDERS, LITTLE WOOD & ROOTS - FILL	
	2	8-6-6-22	2.0'-4.0'			
5	3	17-20-18	5.0'-6.5'			55
10	4	11-10-17	10.0'-11.5'			50
15	5	8-10-15	15.0'-16.5'			45
					DARK GREY/BR. FINE-MED.SAND, SOME SILT, LITTLE WOOD, TRACE GRAVEL - FILL 18.0	
20	6	38-60	20.0'-20.6'		GREY FINE-MED.SAND, SOME SILT, LITTLE GRAVEL 21.0	40
25	7	22-47-60	25.0'-26.3'			35
					BOTTOM OF BORING @ 27.0' 27.0	
					2" DIA.WELL @ 27.0'	
30					10.0' OF SCREEN (.010 SLOT)	30
					17.0' OF RISER	
					SAND FROM 27.0' TO 15.0'	
35					BENTONITE SEAL FROM 15.0' TO 13.0'	25

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
					BACKFILLED FROM 13.0' TO SURFACE	
					7" DIA. ROADWAY BOX COVER	
40						20
45						15
50						10
55						5
60						0
65						-5
70						-10
75						-15

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 2 OF 2 | HOLE NO. **B-42**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 76.8

HOLE NO. B-43

GROUND WATER OBSERVATIONS
AT 17.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/13/16
FINISH DATE 5/13/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.25	
	1	6-5-6-4	1.0'-3.0'		BR. FINE-CRS. SAND, SOME GRAVEL, TRACE SILT 1.0	
					GREY FINE-MED. SAND, SOME SILT, TRACE GRAVEL. FEW COBBLES - FILL	75
	2	3-3-2-8	3.0'-5.0'			
5	3	60	5.0'-5.1'			
	4	2-2-2-2	7.0'-9.0'		GREY/BR. SILT AND FINE-MED. SAND, TRACE GRAVEL & ROOTS - FILL 7.0	70
	5	1-2-2-2	9.0'-11.0'			
10	6	2-2-3-3	11.0'-13.0'			65
	7	2-3-3-3	13.0'-15.0'			
15	8	1-2-7-8	15.0'-17.0'			
	9	6-6-5-6	17.0'-18.0'		GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL 17.0	60
20	10	3-4-7-7	20.0'-22.0'		BR. FINE-CRS. SAND, SOME SILT, LITTLE GRAVEL 20.0	
	11	5-6-7-6	22.0'-24.0'			55
	12	7-7-6-8	24.0'-26.0'			
25					BOTTOM OF BORING @ 26.0' 26.0	50
30						45
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-43**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 77.5

HOLE NO. B-43A

GROUND WATER OBSERVATIONS
AT 19.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/23/16
FINISH DATE 5/23/16

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.25	
	1	12-14-21-36	1.0'-3.0'		BR. FINE-CRS. SAND, SOME GRAVEL, TRACE SILT 0.67	
					BR. FINE-MED. SAND, SOME SILT, TRACE GRAVEL - FILL 1.0	
					GREY FINE SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES	75
	2	60	3.0'-3.3'			
5	3	10-15-11-17	5.0'-7.0'			
						70
10	4	22-60	10.0'-10.8'			
						65
15	5	30-60	15.0'-15.7'			
						60
20	6	30-42-60	20.0'-21.5'			
						55
25					24.5	
					BOTTOM OF BORING @ 24.5' (AUGER REFUSAL)	
					WATER @ 19.0' @ 0 HRS.	
					2" DIA. WELL @ 24.0'	50
					10.0' OF SCREEN (.010 SLOT)	
30					14.0' OF RISER	
					0' OF STICKUP	
					SAND FROM 24.0' TO 12.0'	45
					BENTONITE SEAL FROM 12.0' TO 10.0'	
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K.CHRISTIANA
INSPECTOR:

SHEET 1 OF 2 HOLE NO. **B-43A**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
					BACKFILL FROM 10.0' TO 1.0'	
					CONCRETRE FROM 1.0' TO 0'	
					7" DIA. ROADWAY BOX COVER	40
40						35
45						30
50						25
55						20
60						15
65						10
70						5
75						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K.CHRISTIANA
INSPECTOR:

SHEET 2 OF 2 | HOLE NO. **B-43A**

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 79.0

HOLE NO. B-44

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/12/16
FINISH DATE 5/12/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.25	
	1	3-7-14-13	1.0'-3.0'		BR. FINE-CRS. SAND, SOME GRAVEL, TRACE SILT 1.0	
					GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES	
	2	15-20-25-60	3.0'-4.8'			
5						75
					7.0	
					BOTTOM OF BORING @ 7.0' (AUGER REFUSAL)	
10						70
15						65
20						60
25						55
30						50
35						45

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-44**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 79

HOLE NO. B-44A

GROUND WATER OBSERVATIONS
AT 12.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 6/3/16
FINISH DATE 6/3/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					AUGERED TO REFUSAL @ 5.5', CORED BOULDER AUGERED TO 10. 0'	75
5					GREY FINE-CRS. SAND, SOME SILT & GRAVEL, FEW COBBLES & BOULDERS (5.5)	70
10	1	60	10.0'-10.3'			65
15	2	60	15.0'-15.3'			60
20					AUGER REFUSAL @ 18.0' (18.0)	55
25						50
30						45
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-44A**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 68.0

HOLE NO. B-45

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/13/16
FINISH DATE 5/13/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.25	
	1	32-30-28-29	1.0'-3.0'		BR. FINE-CRS. SAND, SOME GRAVEL, TRACE SILT 1.08	
					GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES, LITTLE WOOD & ROOTS - FILL	65
	2	25-30-40-25	3.0'-5.0'			
5	3	9-5-6-12	5.0'-7.0'			
						60
10	4	10-12-14	10.0'-11.5'			
						55
15	5	9-8-10	15.0'-16.5'			
						50
20	6	12-14-60	20.0'-21.3'			
					DARK BR.ORGANIC SILT 21.0	
					GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL 21.2	
					BOTTOM OF BORING @ 21.5' (AUGER REFUSAL) 21.5	45
25						
						40
30						
						35
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-45**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 77.5

HOLE NO. B-46

GROUND WATER OBSERVATIONS
AT 20.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/16/16
FINISH DATE 5/16/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.25	
	1	2-3-2-1	1.0'-3.0'		BR. FINE-CRS. SAND, SOME GRAVEL, TRACE SILT 0.75	
					GREY FINE-CRS. SAND, SOME SILT, LITTLE GRAVEL - FILL	75
	2	1-2-1-1	3.0'-5.0'			
5	3	4-5-21-35	5.0'-7.0'			
					GREY FINE-CRS. SAND, SOME SILT, LITTLE GRAVEL 6.0	
						70
10	4	28-35-60	10.0'-11.2'			
						65
15	5	25-45-45	15.0'-16.5'			
						60
20	6	18-38-10	20.0'-21.5'			
						55
25	7	25-60	25.0'-25.6'			
					BOTTOM OF BORING @ 26.5' 26.5	50
30						
						45
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-46**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 79.5

HOLE NO. B-47

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/12/16
FINISH DATE 5/12/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.25	
	1	2-7-60	1.0'-2.9'		BR. FINE-CRS. SAND, SOME GRAVEL, TRACE SILT 1.0	
					GREY/BR. FINE-MED. SAND, SOME SILT, LITTLE GRAVEL & COBBLES	
					3.0	
					BOTTOM OF BORING @ 3.0' (AUGER REFUSAL)	
5						75
10						70
15						65
20						60
25						55
30						50
35						45

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-47**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 79.5

HOLE NO. B-47A

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/12/16
FINISH DATE 5/12/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS		ELEV.
0					ASPHALT	0.25	
					BR. FINE-CRS. SAND, SOME GRAVEL, TRACE SILT	1.0	
					DARK GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES		
					BOTTOM OF BORING @ 4.0' (AUGER REFUSAL)	4.0	75
5							
10							70
15							65
20							60
25							55
30							50
35							45

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-47A**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 66.0

HOLE NO. B-48

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/24/16
FINISH DATE 5/24/16

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	3-7-12-18	0.0'-2.0'		TOPSOIL 0.30	
					BR. FINE-CRS. SAND, LITTLE SILT - FILL 1.0	65
	2	18-24-18-23	2.0'-4.0'		GREY FINE-MED.SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES & BOULDERS, TRACE WOOD & ROOTS - FILL	
5	3	13-14-17	5.0'-6.5'			60
10	4	10-7-5	10.0'-11.5'			55
15	5	0-2-3	15.0'-16.5'			50
					GREY FINE-MED.SAND, SOME SILT, LITTLE GRAVEL 19.0	
20	6	22-60	20.0'-20.7'			45
25	7	60	25.0'-25.2'		BOTTOM OF BORING @ 25.2' (AUGER REFUSAL) 25.2	40
30						35
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-48**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 74.0

HOLE NO. B-49

GROUND WATER OBSERVATIONS
AT 19.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/16/16
FINISH DATE 5/16/16

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	1-4-5-12	0.0'-2.0'		TOPSOIL 0.33	
					GREY/BR. FINE-CRS. SAND, SOME SILT, LITTLE GRAVEL - FILL	
	2	14-6-7-11	2.0'-4.0'			
	3	15-12-12-12	4.0'-6.0'			70
5						
						65
10	4	7-6-5	10.0'-11.5'			
						60
15	5	15-12-12	15.0'-16.5'			
						55
20	6	3-1-2-2	20.0'-22.0'			
	7	2-10-60	22.0'-23.1'		GREY FINE-CRS. SAND, SOME GRAVEL, LITTLE SILT 22.5	
					BOTTOM OF BORING @ 23.5' (AUGER REFUSAL) 23.5	50
25						
						45
30						
						40
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-49**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 79.0

HOLE NO. B-50

GROUND WATER OBSERVATIONS
AT 15.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/12/16
FINISH DATE 5/12/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	3-2-1-2	0.0'-2.0'		TOPSOIL	
					GREY/BR. FINE-MED. SAND AND SILT, TRACE GRAVEL - FILL (0.83)	
	2	5-5-10-10	2.0'-4.0'		GREY FINE-MED. SAND, SOME SILT, TRACE GRAVEL- FILL (3.0)	75
	3	5-9-6-6	4.0'-6.0'		FINE-MED. SAND, SOME SILT, TRACE GRAVEL & ROOTS - FILL (5.0)	
5					GREY FINE-MED. SAND AND SILT, LITTLE GRAVEL (7.0)	
						70
10	4	2-5-6	10.0'-11.5'			
					GREY FINE-CRS. SAND, SOME SILT, TRACE GRAVEL (13.0)	65
15	5	15-60	15.0'-15.8'		BOTTOM OF BORING @ 16.0' (AUGER REFUSAL) (16.0)	
						60
20						
						55
25						
						50
30						
						45
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-50**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 81.0

HOLE NO. B-51

GROUND WATER OBSERVATIONS
AT 9.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/12/16
FINISH DATE 5/12/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.25	
	1	3-3-2-8	1.0'-3.0'		BR. FINE-CRS. SAND, SOME GRAVEL, TRACE SILT 1.0	80
					GREY FINE-MED. SAND, SOME SILT, TRACE GRAVEL - FILL	
	2	10-6-6-15	3.0'-5.0'			
					DARK GREY FINE SAND AND SILT, TRACE GRAVEL & ROOTS - 4.0	
5					FILL	
	3	21-16-11-7	5.0'-7.0'			75
	4	5-5-7-11	7.0'-9.0'			
					GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL 8.0	
10						
	5	4-5-7	10.0'-11.5'			70
15					BOTTOM OF BORING @ 15.0' (AUGER REFUSAL) 15.0	
						65
20						
						60
25						
						55
30						
						50
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-51**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 69.0

HOLE NO. B-52

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/24/16
FINISH DATE 5/24/16

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	3-4-4-4	0.0'-2.0'		TOPSOIL 0.10	
					BR. FINE-CRS. SAND, LITTLE SILT & GRAVEL, FEW COBBLES, TRACE ROOTS & GRASS - FILL	
	2	3-2-2-3	2.0'-4.0'			
					4.0	65
5	3	10-12-15-17	5.0'-7.0'		GREY FINE-CRS.SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES, TRACE WOOD - FILL	
						60
10	4	60	10.0'-10.3'			
						55
15	5	2-3-3	15.0'-16.5'			
						50
20	6	10-60	20.0'-20.7'			
					21.5	
					BOTTOM OF BORING @ 21.5' (AUGER REFUSAL)	45
25						
						40
30						
						35
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-52**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 74.0

HOLE NO. B-53

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/13/16
FINISH DATE 5/13/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.20	
	1	12-13-5-12	1.0'-3.0'		BR. FINE-CRS. SAND, SOME GRAVEL, TRACE SILT 1.08	
					GREY FINE-CRS. SAND, SOME SILT & GRAVEL - FILL	70
5	2	12-7-5-3	5.0'-7.0'		GREY FINE-CRS.SAND, SOME SILT, LITTLE GRAVEL - FILL 5.5	
						65
10	3	1-5-7	10.0'-11.5'			
						60
15	4	2-5-8	15.0'-16.5'			
						55
20					BOTTOM OF BORING @ 19.5' (AUGER REFUSAL) 19.5	
						50
25						
						45
30						
						40
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-53**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 75.0

HOLE NO. B-54

GROUND WATER OBSERVATIONS
AT 11.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/16/16
FINISH DATE 5/16/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	1-1-2-5	0.0'-2.0'		TOPSOIL 0.50	75
					BR. FINE-CRS.SAND, LITTLE SILT, TRACE GRAVEL	
	2	2-5-10-10	2.0'-4.0'		3.0	
					GREY FINE-CRS.SAND, SOME SILT, LITTLE GRAVEL - FILL	
	3	7-8-8-10	4.0'-6.0'			
5						70
10	4	1-2-3	10.0'-11.5'			65
					14.0	
15					BOTTOM OF BORING @ 14.0' (AUGER REFUSAL)	60
20						55
25						50
30						45
35						40

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-54**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 76.5

HOLE NO. B-54A

GROUND WATER OBSERVATIONS
AT 10.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/16/16
FINISH DATE 5/16/16

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	2-4-7-34	0.0'-2.0'		TOPSOIL 0.56	
					BR. FINE-MED. SAND, SOME SILT, TRACE GRAVEL	75
	2	17-17-18-19	2.0'-4.0'		3.0	
					DARK GREY FINE-CRS.SAND, SOME SILT, TRACE GRAVEL & ROOTS - FILL	
	3	7-9-8-8	4.0'-6.0'			
5						
	4	2-3-5-5	6.0'-8.0'			70
	5	4-2-0-2	8.0'-10.0'			
10	6	12-16-23	10.0'-11.5'		10.0	
					GREY FINE-CRS. SAND, SOME SILT, TRACE GRAVEL	65
15					15.0	
					BOTTOM OF BORING @ 15.0' (AUGER REFUSAL)	60
20						
						55
25						
						50
30						
						45
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-54A**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 82.5

HOLE NO. B-55

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 6/1/16
FINISH DATE 6/1/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					TOPSOIL 0.33	
					BR. FINE-MED. SAND, SOME SILT, TRACE GRAVEL	80
					3.5	
					POSSIBLE BOULDER OR BEDROCK 4.0	
5					BOTTOM OF BORING @ 4.0' (AUGER REFUSAL)	75
10						70
15						65
20						60
25						55
30						50
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-55**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 96.0

HOLE NO. B-56

GROUND WATER OBSERVATIONS
AT 14.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/31/16
FINISH DATE 5/31/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	2-3-11-28	0.0'-2.0'		TOPSOIL	
					BR. FINE-MED. SAND, LITTLE SILT & GRAVEL, FEW COBBLES	
					0.67	95
	2	19-19-42-60	2.0'-3.9'			
5	3	14-19-22-25	5.0'-7.0'			90
					GREY FINE-MED. SAND, SOME SILT, GRAVEL & COBBLES	
					7.0	
10	4	60	10.0'-10.5'			85
15	5	27-60	15.0'-15.8'			80
20	6	60	20.0'-20.4'		BOTTOM OF BORING @ 20.4'	
					20.4	75
25						70
30						65
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-56**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 104.0

HOLE NO. B-57

GROUND WATER OBSERVATIONS
AT 9.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/31/16
FINISH DATE 5/31/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	8-9-14	0.5'-2.0'		BITUMINOUS CONCRETE 0.25 BR. FINE-CRS. SAND, LITTLE SILT & GRAVEL, FEW COBBLES	
	2	15-25-26-28	2.0'-4.0'			
	3	40-60	4.0'-5.0'		GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES 4.0	100
5						
						95
10	4	60	10.0'-10.5'			
						90
15	5	37-60	15.0'-16.0'			
						85
20	6	60	20.0'-20.4'		BOTTOM OF BORING @ 20.4' 20.4	
						80
25						
						75
30						
						70
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-57**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 106.5

HOLE NO. B-58

GROUND WATER OBSERVATIONS
AT 10.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/31/16
FINISH DATE 5/31/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	3-15-38	0.5'-2.0'		BITUMINOUS CONCRETE 0.25	
					GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES	105
	2	33-44-60	2.0'-3.5'			
5	3	60	5.0'-5.3'			100
10	4	60	10.0'-10.4'			95
15	5	42-60	15.0'-15.8'		16.0	
					BOTTOM OF BORING @ 16.0' (AUGER REFUSAL)	90
20						85
25						80
30						75
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-58**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 107.0

HOLE NO. B-59

GROUND WATER OBSERVATIONS
AT 4.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 6/1/16
FINISH DATE 6/1/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	21-26-29	0.5'-2.0'		BITUMINOUS CONCRETE 0.25	
					GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES	105
	2	13-16-16-15	2.0'-4.0'			
	3	12-6-4-5	4.0'-6.0'			
5						100
10	4	60	10.0'-10.3'			95
					12.5 BOTTOM OF BORING @ 12.5' (AUGER REFUSAL)	
15						90
20						85
25						80
30						75
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-59**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 112.0

HOLE NO. B-60

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/31/16
FINISH DATE 5/31/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	2-6-8-30	0.0'-2.0'		TOPSOIL 0.33	
					BR. FINE-MED. SAND, SOME SILT, TRACE GRAVEL & ROOTS	
	2	17-10-17-24	2.0'-4.0'		GREY FINE-MED. SAND, SOME SILT & GRAVEL, FEW COBBLES 2.0	110
	3	22-60	4.0'-4.8'			
5					6.0	
					BOTTOM OF BORING @ 6.0' (AUGER REFUSAL)	105
10						100
15						95
20						90
25						85
30						80
35						

LEGEND: COL. A:

SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON

PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-60**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	NQ
SIZE I.D.	3.75"		1.375"	2.0"
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 111.0

HOLE NO. B-60A

GROUND WATER OBSERVATIONS
AT FT. AFTER HOURS
AT FT. AFTER HOURS

START DATE 6/2/16
FINISH DATE 6/2/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.25	
	1	20-20-30-32	1.0'-3.0'		BR. FINE-CRS. SAND, SOME GRAVEL, LITTLE SILT 1.0	110
					GREY FINE-CRS. SAND, SOME SILT, LITTLE GRAVEL	
	2	46-30-36-40	3.0'-5.0'			
5	3	22-47-56	5.0'-6.4'			105
					7.5	
					CORED BEDROCK - GNEISS	
					RUN #1 7.5' - 12.5' RECOVERED 59" RQD=	
10						100
					12.5	
					BOTTOM OF BORING @ 12.5'	
15						95
20						90
25						85
30						80
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-60A**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 108.0

HOLE NO. B-61

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 6/1/16
FINISH DATE 6/1/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	1-6-16-12	0.0'-2.0'		TOPSOIL 0.50	
					GREY FINE-MED. SAND, LITTLE SILT, TRACE GRAVEL	
	2	10-9-11-7	2.0'-4.0'			105
					4.0	
5	3	38-60	4.0'-4.9'		GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES	
						100
10	4	60	10.0'-10.4'			
					13.0	95
					BOTTOM OF BORING @ 13.0' (AUGER REFUSAL)	
15						
						90
20						
						85
25						
						80
30						
						75
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-61**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 110.0

HOLE NO. B-62

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 6/1/16
FINISH DATE 6/1/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					BR. ASPHALT AND GRAVEL (0.25)	110
	1	22-60	1.0'-2.0'		GREY FINE-CRS. SAND AND GRAVEL, LITTLE SILT	
					GREY FINE-MED. SAND, SOME SILT, TRACE GRAVEL (2.0)	
	2	60	3.0'-3.1'		BOTTOM OF BORING @ 3.1' (AUGER REFUSAL) (3.1)	
					NOTE: SOIL WAS WET @ 3.0'	
5						105
10						100
15						95
20						90
25						85
30						80
35						75

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-62**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 110.5

HOLE NO. B-62A

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 6/2/16
FINISH DATE 6/2/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					TOPSOIL 0.25	110
	1	60	1.0'-1.4'		BR. FINE-CRS. SAND, SOME FINE-MED. GRAVEL, LITTLE SILT 0.90	
					GREY FINE-CRS. SAND, LITTLE SILT & GRAVEL 1.5	
					BOTTOM OF BORING @ 1.5' (AUGER REFUSAL)	
5						105
10						100
15						95
20						90
25						85
30						80
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-62A**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 107.5

HOLE NO. B-63

GROUND WATER OBSERVATIONS
AT 3.25 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 6/2/16
FINISH DATE 6/2/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					ASPHALT 0.25	
	1	32-69	1.0'-3.0'		BR. FINE-CRS. SAND, SOME GRAVEL, LITTLE SILT 1.0	
					GREY FINE-CRS. SAND, SOME SILT & GRAVEL	105
5	2	22-25-30-40	5.0'-7.0'			100
10	3	60	10.0'-10.0'		BOTTOM OFBORING @ 10.0' (AUGER REFUSAL) 10.0	95
15						90
20						85
25						80
30						75
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-63**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 111.0

HOLE NO. B-64

GROUND WATER OBSERVATIONS
AT 3.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 6/1/16
FINISH DATE 6/1/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	8-20-20	0.5'-2.0'		BITUMINOUS CONCRETE 0.33	
					BR. FINE-CRS. SAND, LITTLE SILT & GRAVEL 1.0	110
	2	24-24-31-60	2.0'-3.6'		GREY FINE-CRS. SAND, SOME SILT & GRAVEL, TRACE WOOD	
					4.0	
5					BOTTOM OF BORING @ 4.0' (AUGER REFUSAL)	105
10						100
15						95
20						90
25						85
30						80
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-64**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 67.0

HOLE NO. B-67

GROUND WATER OBSERVATIONS
AT FT. AFTER HOURS
AT FT. AFTER HOURS

START DATE 5/27/16
FINISH DATE 5/2716

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	7-10-15-20	0.0'-2.0'		TOPSOIL 0.40	
					GREY FINE-CRS. SAND, SOME SILT & GRAVEL, FEW COBBLES & OULDERS	65
	2	10-11-10-12	2.0'-4.0'			
5	3	3-2-10	5.0'-7.0'			60
10						
					12.0	55
					BOTTOM BORING @ 12.0' (AUGER REFUSAL)	
15						50
20						45
25						40
30						35
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-67**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 59.0

HOLE NO. B-69

GROUND WATER OBSERVATIONS
AT 17.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/31/16
FINISH DATE 5/31/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	12-20-50-9	0.0'-2.0'		TOPSOIL 0.30 BR. FINE-MED. SAND, SOME SILT, LITTLE WOOD & ROOTS - FILL 2.0 GREY FINE-CRS. SAND, SOME SILT & GRAVEL, FEW COBBLES - FILL	55
5	2	10-15-20-27	5.0'-7.0'			50
10	3	5-7-10	10.0'-11.5'			45
15	4	10-7-5	15.0'-16.5'			40
20	5	1-2-3	20.0'-21.5'			35
25	6	3-2-4	25.0'-26.5'		26.5 BOTTOM OF BORING @ 26.5'	30
30						25
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-69**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 56.0

HOLE NO. B-70

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/25/16
FINISH DATE 5/25/16

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	1-3-9-13	0.0'-2.0'		BR.FINE-MED.SAND, SOME SILT - FILL	
					GREY/BR. FINE-CRS.SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES & BOULDERS - FILL (1.0)	55
	2	7-10-13-20	2.0'-4.0'			
	3	10-32-7-7	4.0'-6.0'			
5						50
10	4	7-10-15	10.0'-11.5'			45
15	5	10-15-16	15.0'-16.5'			40
20	6	13-10-9	20.0'-21.5'			35
25	7	4-4-6	25.0'-26.5'			
					BR. FINE-CRS.SAND AND SILT, LITTLE GRAVEL (26.0)	30
					BOTTOM OF BORING @ 27.0' (27.0)	
					NOTE: SOILS WERE SATURATED AT 26'	
30						25
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-70**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 63.0

HOLE NO. B-72

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/31/16
FINISH DATE 5/31/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	7-15-18-23	0.0'-2.0'		TOPSOIL 0.5	
					GREY FINE-CRS. SAND, SOME SILT & GRAVEL, FEW COBBLES - FILL	60
	2	35-35-60	2.0'-3.4'			
5						55
10	3	13-10-6	10.0'-11.5'			50
15	4	2-2-1	15.0'-16.5'		GREY FINE-MED.SAND AND SILT 15.0	
					GREY FINE-CRS. SAND, SOME SILT, LITTLE GRAVEL 17.0	45
20	5	36-60	20.0'-20.8'		BOTTOM OF BORING @ 20.7' (AUGER REFUSAL) 20.7	
					NOTE:SOIL WERE WET BELOW 15.0'	40
25						35
30						30
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-72**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 100.0

HOLE NO. B-73

GROUND WATER OBSERVATIONS
AT 10.5 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 6/1/16
FINISH DATE 6/1/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	3-2-1-2	0.0'-2.0'		TOPSOIL 0.50	100
					BR. FINE SAND AND SILT, TRACE GRAVEL	
	2	36-60	2.0'-2.8'		GREY FINE-CRS. SAND, SOME SILT & GRAVEL, FEW COBBLES 2.0	
5	3	37-28-29-26	5.0'-7.0'			95
10	4	22-28-28	10.0'-11.5'			90
15	5	22-22-25	15.0'-16.5'			85
20	6	35-60	20.0'-21.0'			80
25	7	60	25.0'-25.4'		BOTTOM OF BORING @ 25.5' 25.5	75
					2" DIA. WELL @ 23.0'	
					10.0' OF SCREEN (.010 SLOT)	
30					13.0' OF RISER	70
					0' OF STICKUP	
					SAND FROM 25.5' TO 11.0'	
					BENTONITE SEAL FROM 11.0' TO 10.0'	
35					BACKFILL FROM 10.0' TO 0.5'	65

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 2 HOLE NO. **B-73**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
					CONCRETE FROM 0.5' TO SURFACE	
					7" DIA. ROADWAY BOX COVER	
40						60
45						55
50						50
55						45
60						40
65						35
70						30
75						25

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 2 OF 2 | HOLE NO. **B-73**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 60.0

HOLE NO. B-74

GROUND WATER OBSERVATIONS
AT 6.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 5/25/16
FINISH DATE 5/25/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	3-7-28-30	0.0'-2.0'		BR.FINE-MED.SAND, SOME SILT, LITTLE GRAVEL - FILL	60
					1.0 GREY/BR. FINE-MED.SAND, SOME SILT & GRAVEL, FEW COBBLES & BOULDERS, TRACE WOOD - FILL	
	2	10-7-5-4	2.0'-4.0'			
5	3	0-7-2	5.0'-6.5'			55
10	4	12-16-19	10.0'-11.5'			50
15	5	10-13-18	15.0'-16.5'			45
					19.0 GREY FINE-MED. SAND, SOME SILT & GRAVEL, FEW COBBLES & BOULDERS	
20	6	32-60	20.0'-21.0'			40
25	7	60	25.0'-25.3'		25.3 BOTTOM OF BORING @ 25.3'	35
30						30
35						25

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-74**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 60.0

HOLE NO. B-75

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 6/1/16
FINISH DATE 6/1/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS		ELEV.
0	1	1-64	0.0'-1.0'		TOPSOIL	0.50	60
					GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES - FILL		
5	2	3-4-3-4	5.0'-7.0'				55
10	3	7-10-12-14	10.0'-12.0'				50
15	4	43-60	15.0'-15.8'		GREY FINE-CRS. SAND, LITTLE SILT & GRAVEL	15.0	45
20					BOTTOM OF BORING @ 20.0' (AUGER REFUSAL)	20.0	40
25							35
30							30
35							25

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-75**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 81

HOLE NO. B-77

GROUND WATER OBSERVATIONS
AT 16.5 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 6/3/16
FINISH DATE 6/3/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					PROBE TO REFUSAL	80
5						75
10	1	60	10.0'-10.3'			70
15						65
20						60
					22.0 BOTTOM OF BORING @ 22.0' (AUGER REFUSAL)	
25						55
30						50
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-77**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 75.0

HOLE NO. B-82

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 6/1/16
FINISH DATE 6/1/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	10-8-9-10	0.0'-2.0'		TOPSOIL 0.30	75
					BR. FINE SAND AND SILT, TRACE FINE GRAVEL	
	2	12-15-22-38	2.0'-4.0'		2.0 GREY FINE-CRS. SAND, SOME SILT & GRAVEL	
	3	45-42-60	4.0'-5.1'			
5					5.5 BOTTOM OF BORING @ 5.5' (AUGER REFUSAL)	70
10						65
15						60
20						55
25						50
30						45
35						40

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: J. BREWER
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-82**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 92.0

HOLE NO. B-84A

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 6/9/16
FINISH DATE 6/9/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	2-3-3-3	0.0'-2.0'		TOPSOIL 0.56	
					BR. FINE-MED. SAND, LITTLE SILT, LITTLE FINE-MED. GRAVEL	90
	2	10-24-28-38	2.0'-4.0'		2.5	
					GREY/BR.FINE-MED. SAND, SOME SILT, GRAVEL & COBBLES, FEW BOULDERS	
5					CORED COBBLES AND BOULDERS FROM 7.0 TO 12.0'	
	3	16-18-22-30	5.0'-7.0'		RUN #1 7.0' - 12.0' RECOVERED 18"	85
10						
	4	11-41	12.0'-13.0'			80
15					15.0	
	5	60	15.0'-15.3'		GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES & BOULDERS	75
20						
	6	60	20.0'-20.3'			70
25						
	7	60	25.0'-25.2'		25.2	
					BOTTOM OF BORING @ 25.2'	65
30						
						60
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-84A**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV. 90.0

HOLE NO. B-84B

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 6/9/16
FINISH DATE 6/9/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	12-8-10-16	0.0'-2.0'		TOPSOIL 0.17	90
					BR. FINE-MED. SAND, SOME SILT, LITTLE GRAVEL & COBBLES, FEW BOULDERS	
	2	60	2.0'-2.3'			
5	3	60	5.0'-5.1'			85
10	4	60	10.0'-10.5'			80
					GREY FINE-MED. SAND, SOME SILT, SOME GRAVEL & COBBLES, FEW BOULDERS 12.0	
15	5	60	15.0'-15.4'		CORED COBBLES AND BOULDERS FROM 19.0' TO 24.0'	75
					RUN # 1 19.0' - 24.0' RECOVERED 10"	
20						70
	6	60	24.0'-24.2'		BOTTOM OF BORING @ 24.2' 24.2	
25						65
30						60
35						55

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-84B**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE				
SIZE I.D.				
HAMMER WT.				
HAMMER FALL				

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. TP-1

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 7/6/16
FINISH DATE 7/6/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					TOPSOIL 0.33	
					GREY/BR.FINE-CRS.SAND, SOME SILT, GRAVEL, COBBLES & BOULDERS - FILL	
					NOTE: ONE BOULDER ABOUT 3'X4'X2' WAS ECOUNTERED AT ABOUT 6 FEET. THE REMAINDER OF THE BOULDERS WERE ENERALLY LESS THAN 24" DIAMETER.	
5						
10						
15					GREY/BR. FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, COBBLES & ROOTS 15.0	
					BOTTOM OF TEST PIT @ 17.0' 17.0	
					NOTE: THE SOILS WERE SATURATED BELOW 8 FEET.	
20						
25						
30						
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER:
INSPECTOR: M.WELTI

SHEET 1 OF 1 HOLE NO. **TP-1**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE				
SIZE I.D.				
HAMMER WT.				
HAMMER FALL				

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. TP-2

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 7/6/16
FINISH DATE 7/6/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					TOPSOIL 0.33	
					GREY/BR.FINE-CRS.SAND, SOME SILT, GRAVEL, COBBLES & BOULDERS - FILL	
					NOTE: THE BOULDERS WERE GENERALLY LESS THAN 24" DIAMETER	
5						
10						
14.0					BOTTOM OF TEST PIT @ 14.0'	
15						
20						
25						
30						
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER:
INSPECTOR: M.WELTI

SHEET 1 OF 1 HOLE NO. **TP-2**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE				
SIZE I.D.				
HAMMER WT.				
HAMMER FALL				

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. TP-3

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 7/6/16
FINISH DATE 7/6/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					TOPSOIL 0.33	
					GREY/BR.FINE-CRS.SAND, SOME SILT, GRAVEL, COBBLES & BOULDERS - FILL	
					NOTE: THE BOULDERS WERE GENERALLY LESS THAN 24" DIAMETER	
5						
10						
15					GREY/BR. FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, COBBLES & ROOTS 15.0	
					BOTTOM OF TEST PIT @ 17.0' 17.0	
20						
25						
30						
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER:
INSPECTOR: M.WELTI

SHEET 1 OF 1 HOLE NO. **TP-3**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE				
SIZE I.D.				
HAMMER WT.				
HAMMER FALL				

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. TP-4

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 7/6/16
FINISH DATE 7/6/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					TOPSOIL 0.50	
					BR.FINE-MED.SAND, SOME SILT, TRACE ROOTS & GRAVEL 1.0	
					GREY/BR. FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, 1.2	
					BOTTOM OF TEST PIT @ 1.2'	
5						
10						
15						
20						
25						
30						
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER:
INSPECTOR: M.WELTI

SHEET 1 OF 1 HOLE NO. **TP-4**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE				
SIZE I.D.				
HAMMER WT.				
HAMMER FALL				

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. TP-5

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 7/6/16
FINISH DATE 7/6/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					TOPSOIL 0.50	
					BR.FINE-MED.SAND, SOME SILT, TRACE ROOTS & GRAVEL 0.75	
					GREY/BR. FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, COBBLES & ROOTS 1.0	
					BOTTOM OF TEST PIT @ 1.0'	
5						
10						
15						
20						
25						
30						
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER:
INSPECTOR: M.WELTI

SHEET 1 OF 1 HOLE NO. **TP-5**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE				
SIZE I.D.				
HAMMER WT.				
HAMMER FALL				

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. TP-6

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 7/6/16
FINISH DATE 7/6/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					DARK BR SILT, LITTLE ORGANICS, TRACE FINE SAND	
					0.75	
					GREY/BR. FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, COBBLES & ROOTS	
					1.0	
					BOTTOM OF TEST PIT @ 1.0'	
5						
10						
15						
20						
25						
30						
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER:
INSPECTOR: M.WELTI

SHEET 1 OF 1 HOLE NO. **TP-6**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE				
SIZE I.D.				
HAMMER WT.				
HAMMER FALL				

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. TP-7

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 7/6/16
FINISH DATE 7/6/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					BITUMINOUS CONCRETE 0.30	
					BR. FINE-CRS.SAND AND GRAVEL, TRACE SILT 1.0	
					GREY/BR.FINE-CRS.SAND, SOME SILT, LITTLE GRAVEL 2.0	
					BOTTOM OF TEST PIT @ 2.0'	
5						
10						
15						
20						
25						
30						
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER:
INSPECTOR: M.WELTI

SHEET 1 OF 1 HOLE NO. **TP-7**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE				
SIZE I.D.				
HAMMER WT.				
HAMMER FALL				

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. TP-8

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 7/6/16
FINISH DATE 7/6/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					BITUMINOUS CONCRETE 0.30	
					BR. FINE-CRS.SAND AND GRAVEL, TRACE SILT 1.0	
					GREY/BR.FINE-CRS.SAND, SOME SILT, LITTLE GRAVEL	
					BOTTOM OF TEST PIT @ 2.0' 2.5	
5						
10						
15						
20						
25						
30						
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER:
INSPECTOR: M.WELTI

SHEET 1 OF 1 HOLE NO. **TP-8**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE				
SIZE I.D.				
HAMMER WT.				
HAMMER FALL				

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. TP-9

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 7/6/16
FINISH DATE 7/6/16

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0					BITUMINOUS CONCRETE 0.30	
					BR. FINE-CRS.SAND AND GRAVEL, TRACE SILT 1.0	
					GREY/BR.FINE-CRS.SAND, SOME SILT, LITTLE GRAVEL 2.0	
					BOTTOM OF TEST PIT @ 2.0'	
5						
10						
15						
20						
25						
30						
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER:
INSPECTOR: M.WELTI

SHEET 1 OF 1 HOLE NO. **TP-9**

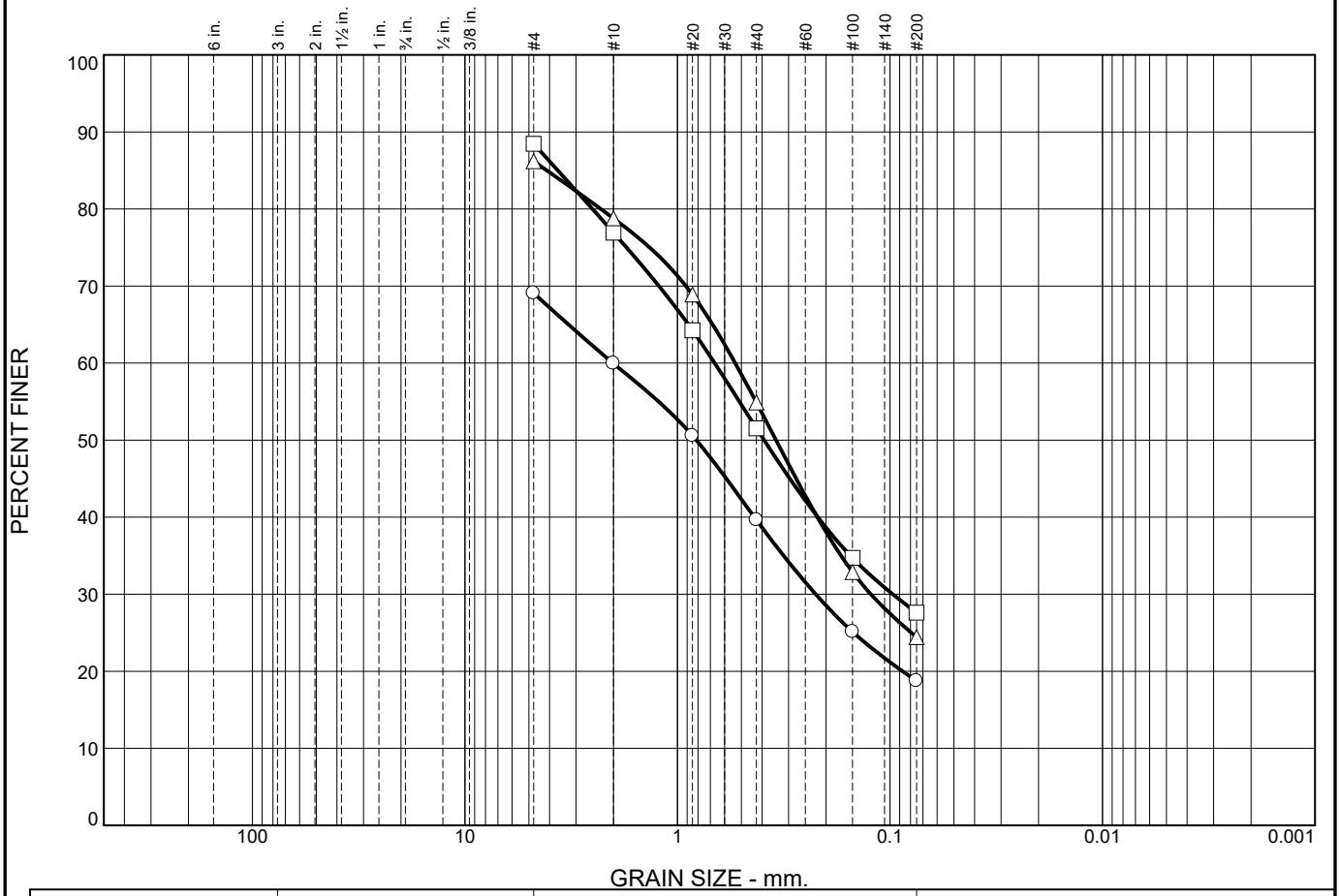
ISSUED for BID

APPENDIX 2

LABORATORY TESTING

(26) Grain Size Gradation & Water Content Tests

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○				9.1	20.4	20.9	18.7	
□				11.6	25.4	23.9	27.6	
△				7.4	23.9	30.5	24.4	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○				2.0100	0.8153	0.2236				
□			3.6555	0.6682	0.3912	0.0969				
△			4.1153	0.5349	0.3438	0.1230				

	Material Description	USCS	AASHTO
○			
□			
△			

Project No. **Client:** MOSER PILON NELSON ARCHITECTS

Project: GRASSO TECHNICAL HIGH SCHOOL

○ **Source of Sample:** B-17 **Depth:** 1.0 **Sample Number:** 1

□ **Source of Sample:** B-20 **Depth:** 5.0 **Sample Number:** 3

△ **Source of Sample:** B-22 **Depth:** 2.0 **Sample Number:** 2

Remarks:

○Water Content - 8.2%

□Water Content - 10.1%

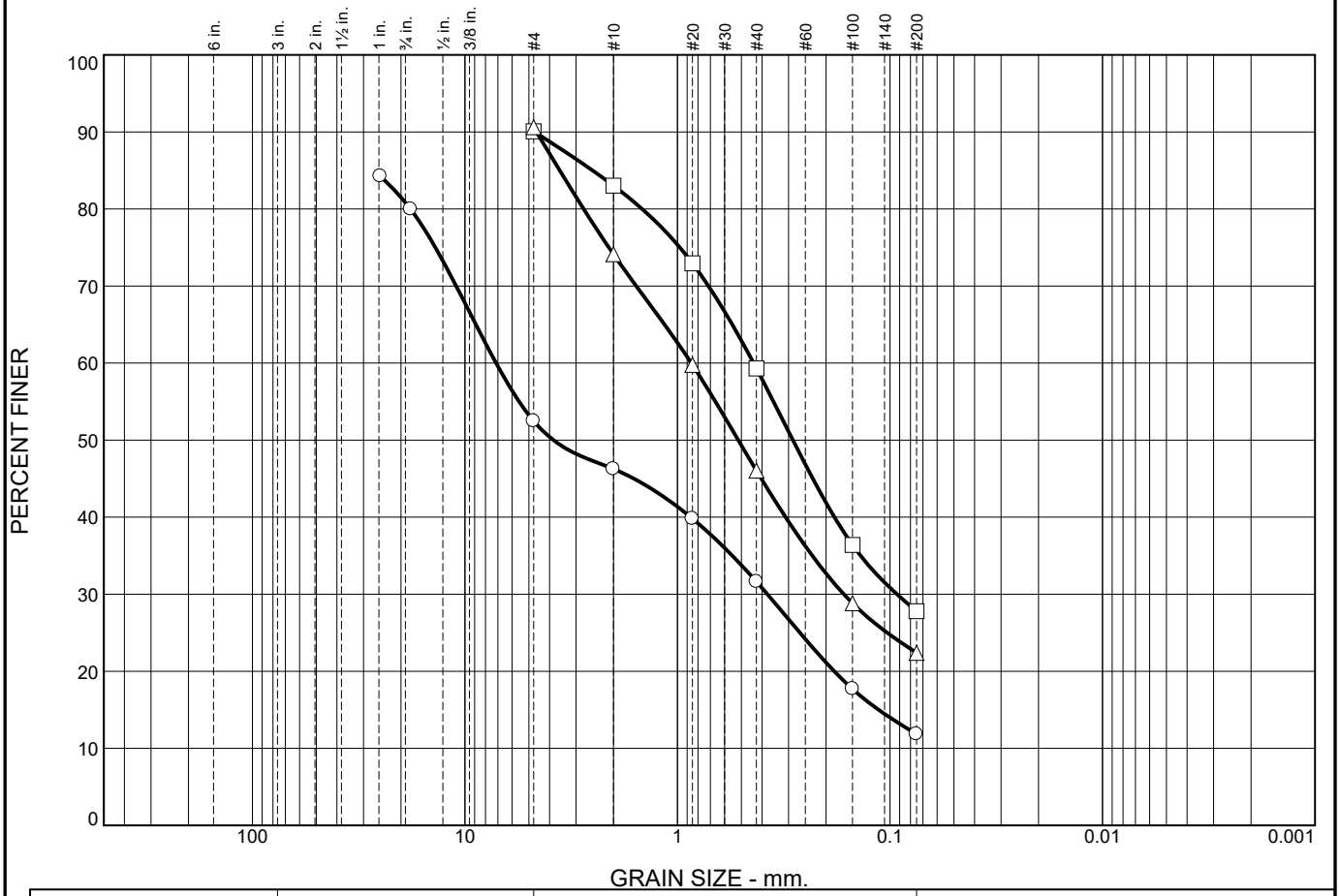
△Water Content - 5.4%

CLARENCE WELTI ASSOCIATES, INC.

Figure

ISSUED for BID

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○			28.3	6.2	14.7	19.8	11.8	
□				7.1	23.7	31.5	27.8	
△				16.5	28.1	23.6	22.4	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○				7.1334	3.8328	0.3774	0.1130			
□			2.5082	0.4383	0.2863	0.0926				
△			3.5805	0.8609	0.5174	0.1648				

	Material Description	USCS	AASHTO
○			
□			
△			

Project No. **Client:** MOSER PILON NELSON ARCHITECTS

Project: GRASSO TECHNICAL HIGH SCHOOL

○ **Source of Sample:** B-25 **Depth:** 5.0 **Sample Number:** 3

□ **Source of Sample:** B-29 **Depth:** 3.0 **Sample Number:** 2

△ **Source of Sample:** B-30 **Depth:** 5.0 **Sample Number:** 3

Remarks:

○Water Content - 2.0%

□Water Content 5.8%

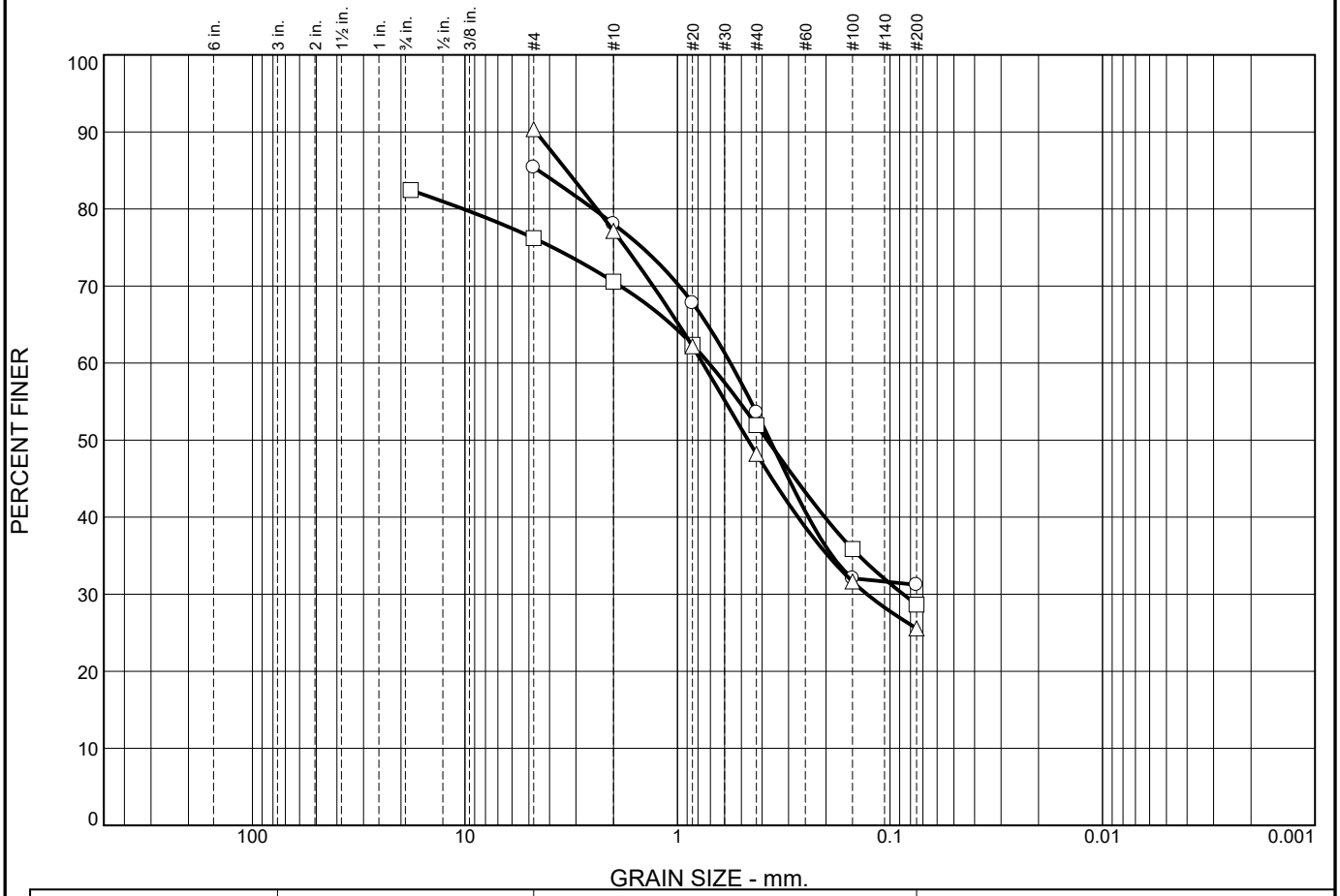
△Water Content - 22.5%

CLARENCE WELTI ASSOCIATES, INC.

Figure

ISSUED for BID

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○				7.3	24.5	22.4	31.2	
□				5.6	18.7	23.2	28.7	
△				13.2	29.0	22.6	25.6	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			4.5148	0.5632	0.3671					
□				0.7121	0.3778	0.0865				
△			3.3205	0.7613	0.4650	0.1282				

	Material Description	USCS	AASHTO
○			
□			
△			

Project No. **Client:** MOSER PILON NELSON ARCHITECTS

Project: GRASSO TECHNICAL HIGH SCHOOL

○ **Source of Sample:** B-32A **Depth:** 5.0 **Sample Number:** 1

□ **Source of Sample:** B-37 **Depth:** 5.0 **Sample Number:** 3

△ **Source of Sample:** B-43 **Depth:** 11.0 **Sample Number:** 6

Remarks:

○Water Content - 5.4%

□Water Content - 6.9%

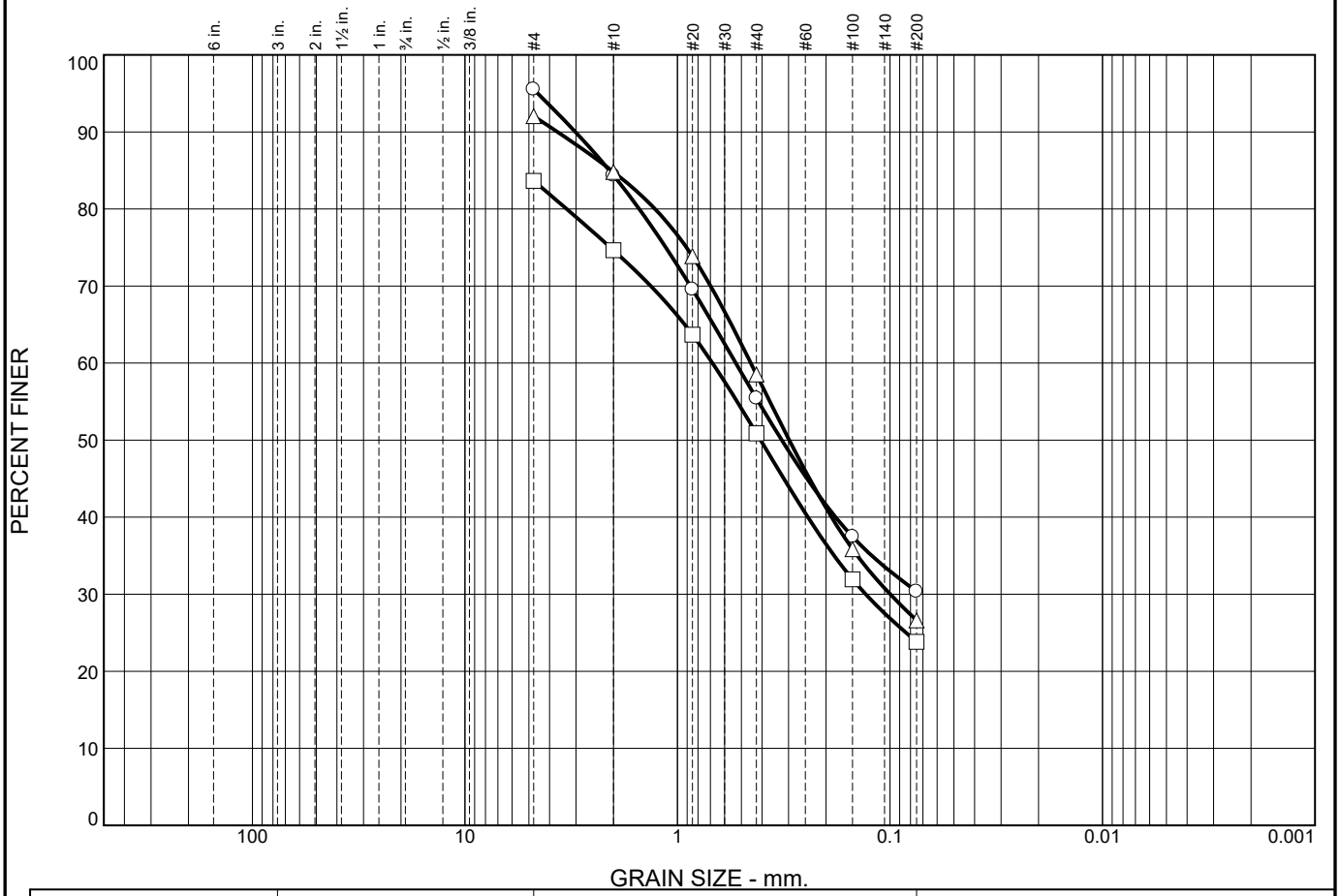
△Water Content - 10.3%

CLARENCE WELTI ASSOCIATES, INC.

Figure

ISSUED for BID

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○				11.1	29.0	25.0	30.4	
□				9.0	23.8	27.1	23.8	
△				7.2	26.3	31.9	26.6	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			2.0884	0.5314	0.3229					
□				0.6842	0.4065	0.1301				
△			2.0418	0.4518	0.2978	0.0997				

	Material Description	USCS	AASHTO
○			
□			
△			

Project No. **Client:** MOSER PILON NELSON ARCHITECTS

Project: GRASSO TECHNICAL HIGH SCHOOL

○ **Source of Sample:** B-48 **Depth:** 2.0 **Sample Number:** 2

□ **Source of Sample:** B-49 **Depth:** 4.0 **Sample Number:** 3

△ **Source of Sample:** B-52 **Depth:** 5.0 **Sample Number:** 3

Remarks:

○Water Content - 11.5%

□Water Content - 5.7%

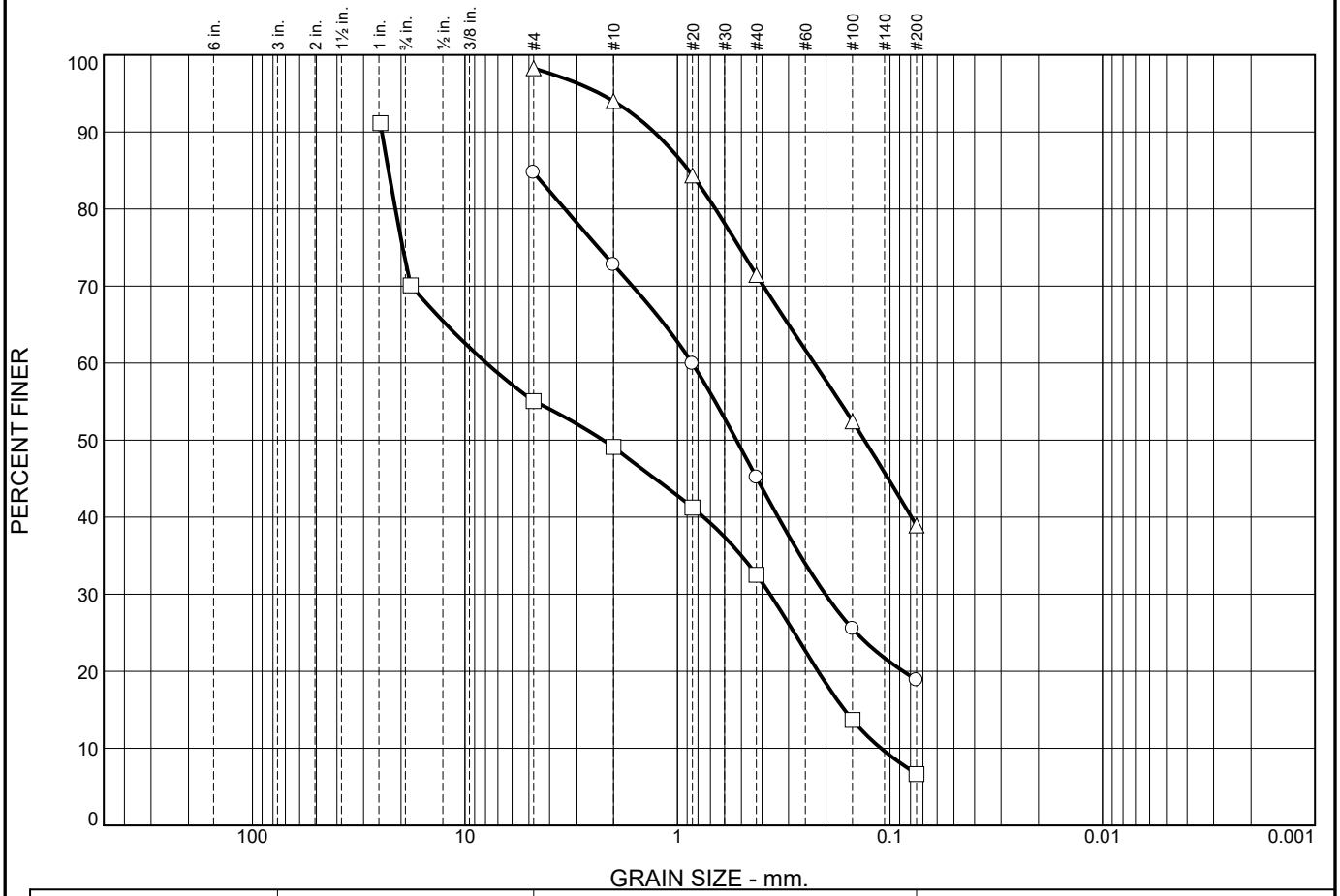
△Water Content - 4.8%

CLARENCE WELTI ASSOCIATES, INC.

Figure

ISSUED for BID

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○				11.9	27.6	26.3	18.9	
□			18.1	6.0	16.6	25.8	6.7	
△				4.3	22.6	32.5	38.9	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○				0.8539	0.5278	0.2014				
□			22.8848	7.9248	2.2375	0.3671	0.1638	0.1102	0.15	71.93
△			0.8856	0.2273	0.1318					

	Material Description	USCS	AASHTO
○			
□			
△			

Project No. **Client:** MOSER PILON NELSON ARCHITECTS

Project: GRASSO TECHNICAL HIGH SCHOOL

○ **Source of Sample:** B-54 **Depth:** 4.0 **Sample Number:** 3

□ **Source of Sample:** B-56 **Depth:** 2.0 **Sample Number:** 2

△ **Source of Sample:** B-57 **Depth:** 2.0 **Sample Number:** 2

Remarks:

○Water Content - 9.3%

□Water Content - 6.3%

△Water Content - 10.2%

CLARENCE WELTI ASSOCIATES, INC.

Figure

Particle Size Distribution Report

	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○				8.1	22.7	27.9	29.0	
□				15.7	30.0	25.5	17.6	
△			10.6	5.2	16.6	24.5	19.0	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			3.5352	0.4974	0.3025	0.0823				
□			3.8955	0.9015	0.5704	0.2258				
△				1.9659	0.6415	0.1902				

	Material Description	USCS	AASHTO
○			
□			
△			

Project No. **Client:** MOSER PILON NELSON ARCHITECTS

Project: GRASSO TECHNICAL HIGH SCHOOL

○ **Source of Sample:** B-58 **Depth:** 2.0 **Sample Number:** 2

□ **Source of Sample:** B-61 **Depth:** 2.0 **Sample Number:** 2

△ **Source of Sample:** B-73 **Depth:** 5.0 **Sample Number:** 3

Remarks:

○Water Content - 5.8%

□Water Content - 6.9%

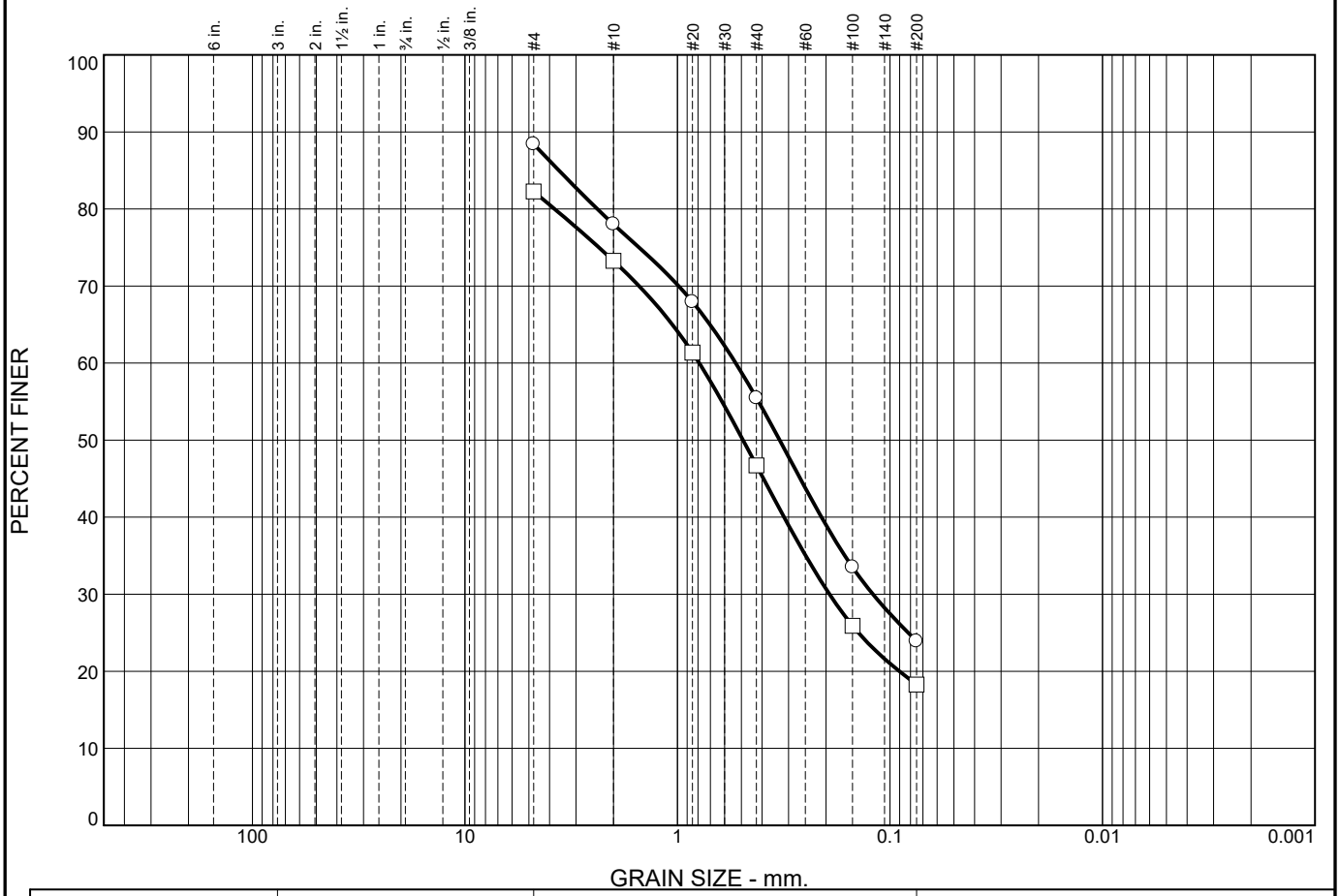
△Water Content - 4.5%

CLARENCE WELTI ASSOCIATES, INC.

Figure

ISSUED for BID

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○				10.4	22.5	31.6	23.9	
□				9.0	26.6	28.4	18.3	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			3.6106	0.5320	0.3305	0.1203				
□				0.7897	0.4913	0.1925				

	Material Description	USCS	AASHTO
○			
□			

Project No. **Client:** MOSER PILON NELSON ARCHITECTS

Project: GRASSO TECHNICAL HIGH SCHOOL

○ **Source of Sample:** B-84A **Depth:** 5.0 **Sample Number:** 3

□ **Source of Sample:** B-84B **Depth:** 10.0 **Sample Number:** 4

Remarks:

○Water Content - 7.5%

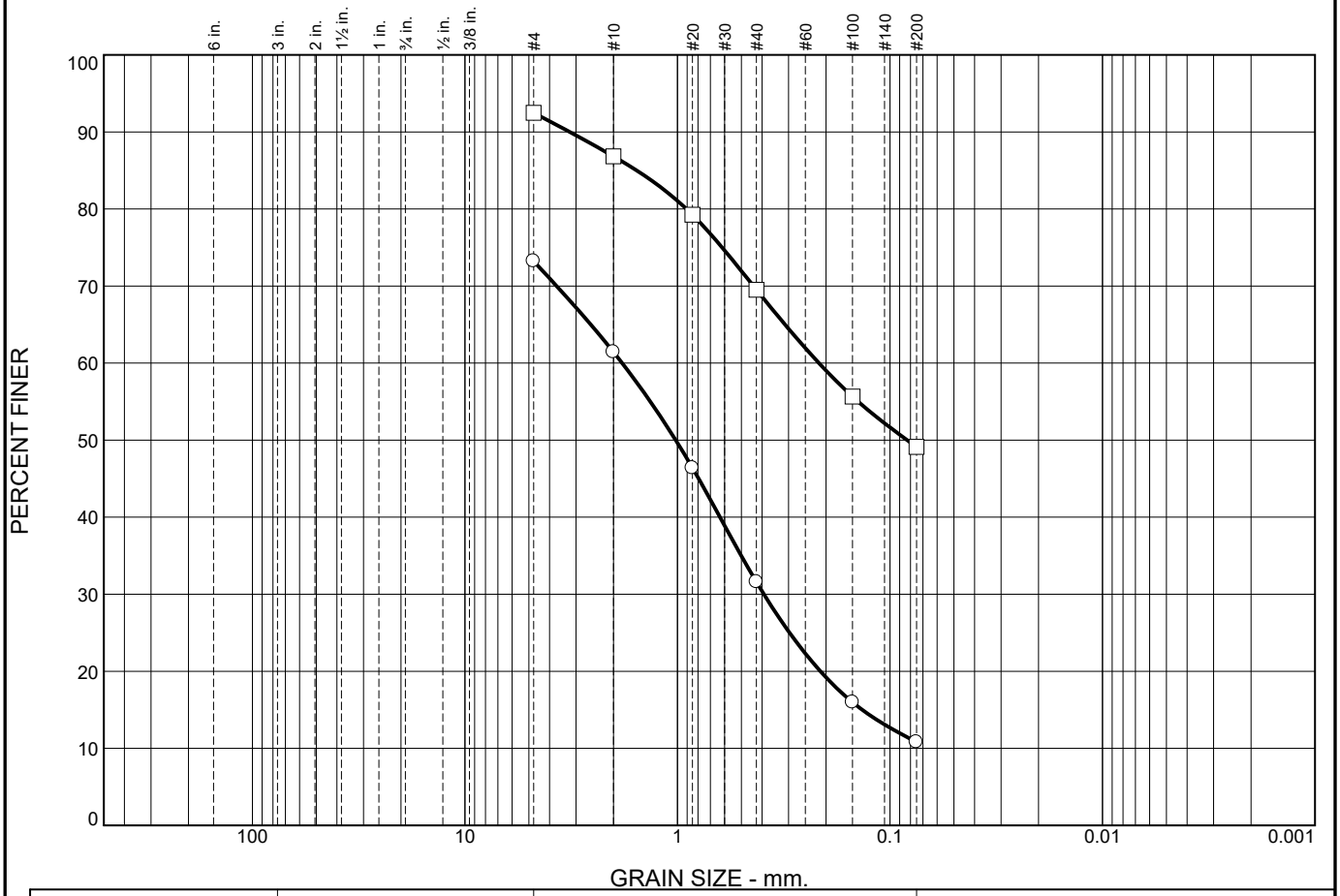
□Water Content - 5.5%

CLARENCE WELTI ASSOCIATES, INC.

Figure

ISSUED for BID

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○				11.8	29.8	20.8	10.8	
□				5.7	17.3	20.4	49.1	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○				1.8208	1.0192	0.3921	0.1350			
□			1.5561	0.2159	0.0829					

	Material Description	USCS	AASHTO
○			
□			

Project No. **Client:** MOSER PILON NELSON ARCHITECTS
Project: GRASSO TECHNICAL HIGH SCHOOL

○ **Source of Sample:** TP-7 **Depth:** 0.30
□ **Source of Sample:** TP-7 **Depth:** 1.0

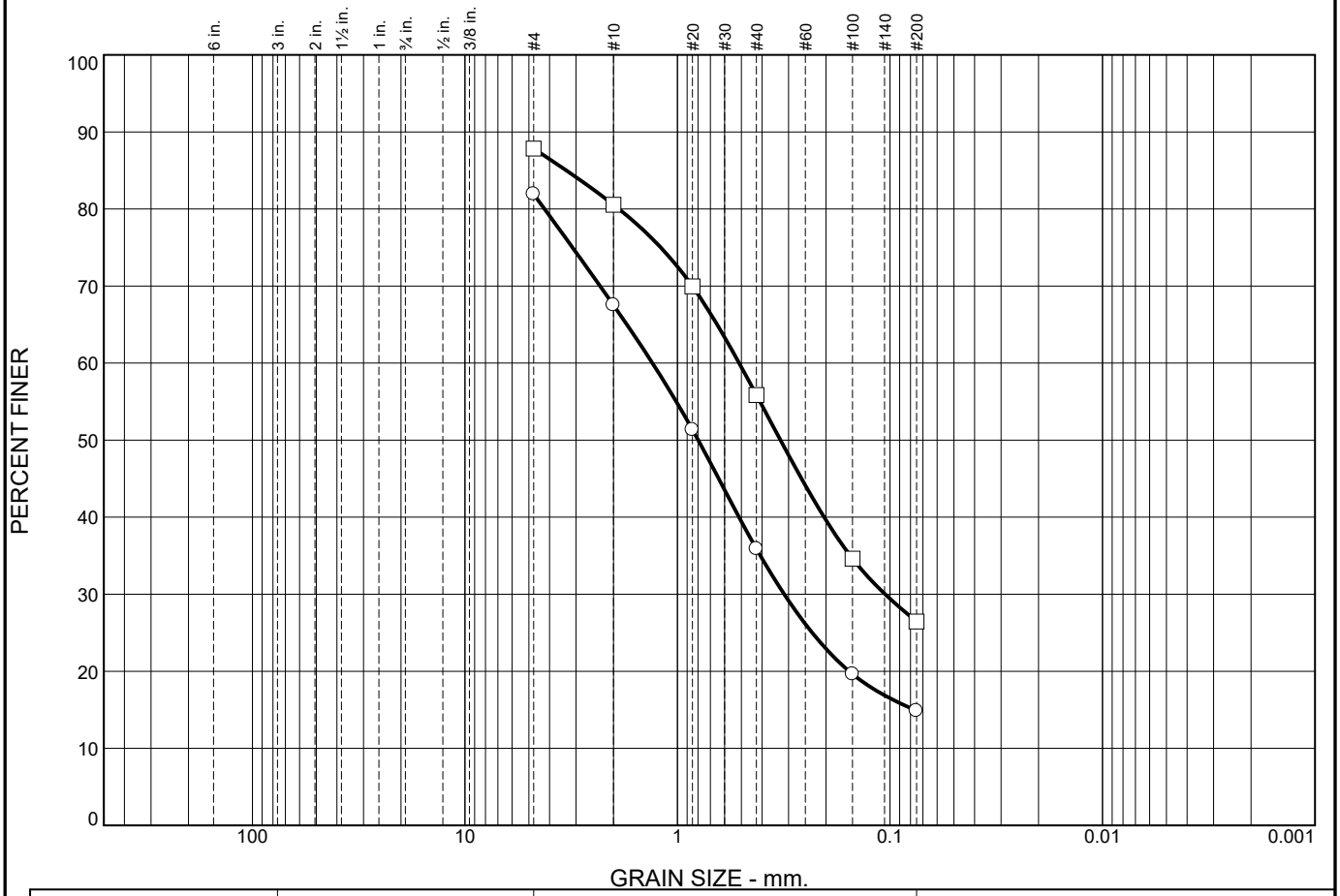
Remarks:

CLARENCE WELTI ASSOCIATES, INC.

Figure

ISSUED for BID

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○				14.4	31.6	21.0	14.9	
□				7.2	24.7	29.4	26.5	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○				1.3110	0.7987	0.3145	0.0768			
□			3.3339	0.5126	0.3275	0.1054				

	Material Description	USCS	AASHTO
○			
□			

Project No. **Client:** MOSER PILON NELSON ARCHITECTS

Project: GRASSO TECHNICAL HIGH SCHOOL

○ **Source of Sample:** TP-8 **Depth:** 0.30

□ **Source of Sample:** TP-8 **Depth:** 1.0

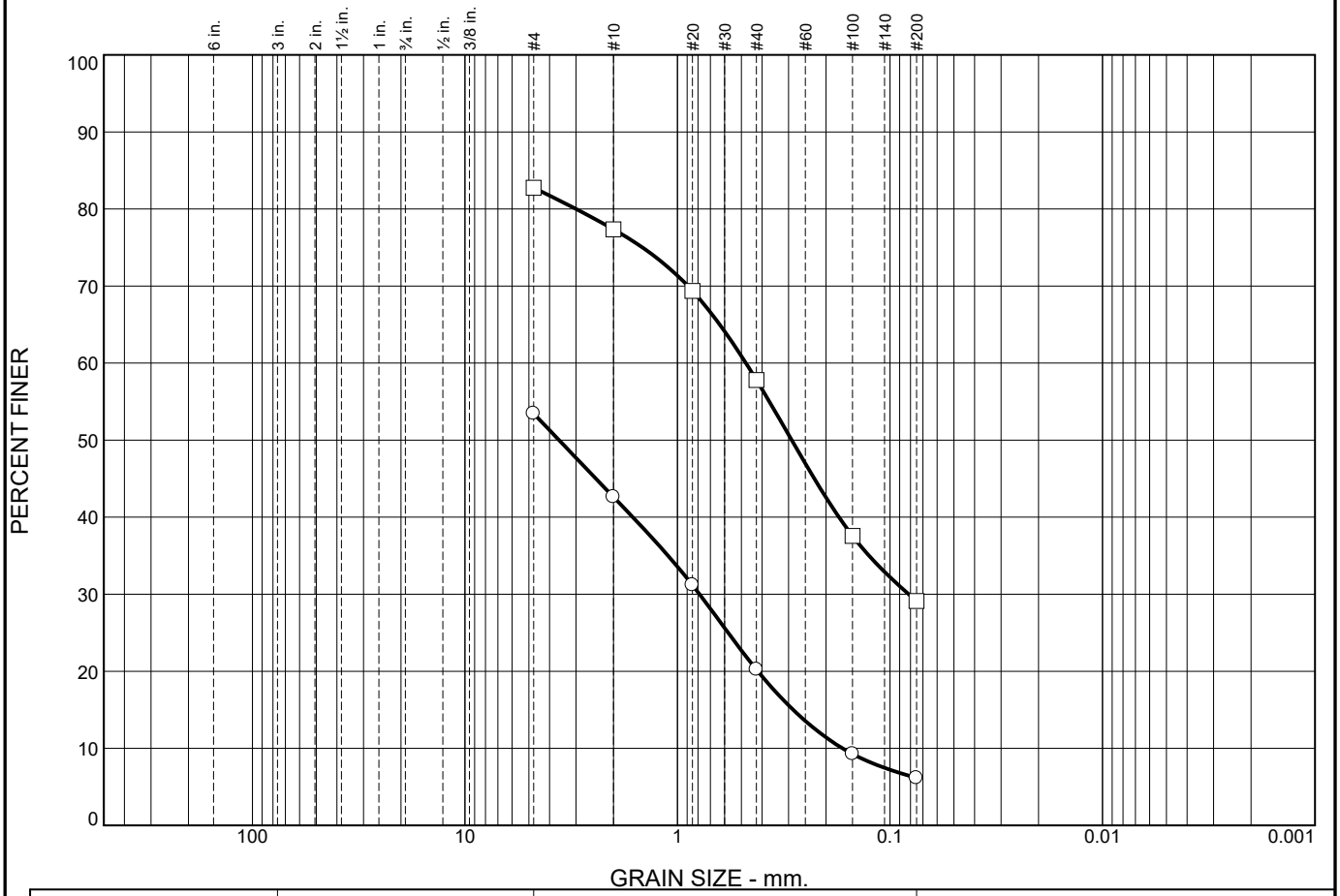
Remarks:

CLARENCE WELTI ASSOCIATES, INC.

Figure

ISSUED for BID

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○				10.8	22.4	14.1	6.1	
□				5.4	19.6	28.7	29.1	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○					3.6074	0.7872	0.2854	0.1672		
□				0.4764	0.2900	0.0815				

	Material Description	USCS	AASHTO
○			
□			

Project No. **Client:** MOSER PILON NELSON ARCHITECTS
Project: GRASSO TECHNICAL HIGH SCHOOL

○ **Source of Sample:** TP-9 **Depth:** 0.30
□ **Source of Sample:** TP-9 **Depth:** 1.0

Remarks:

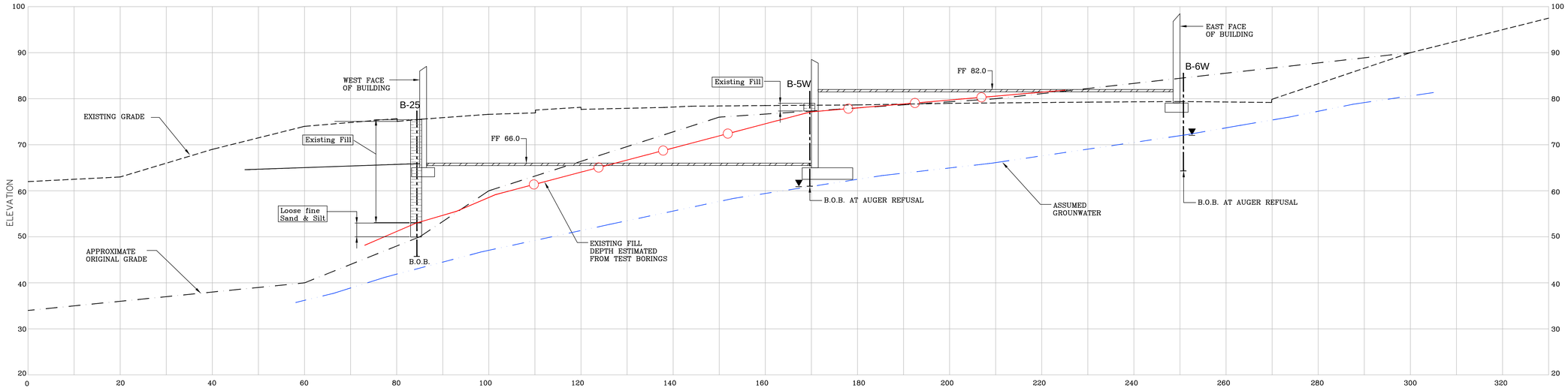
CLARENCE WELTI ASSOCIATES, INC.

Figure

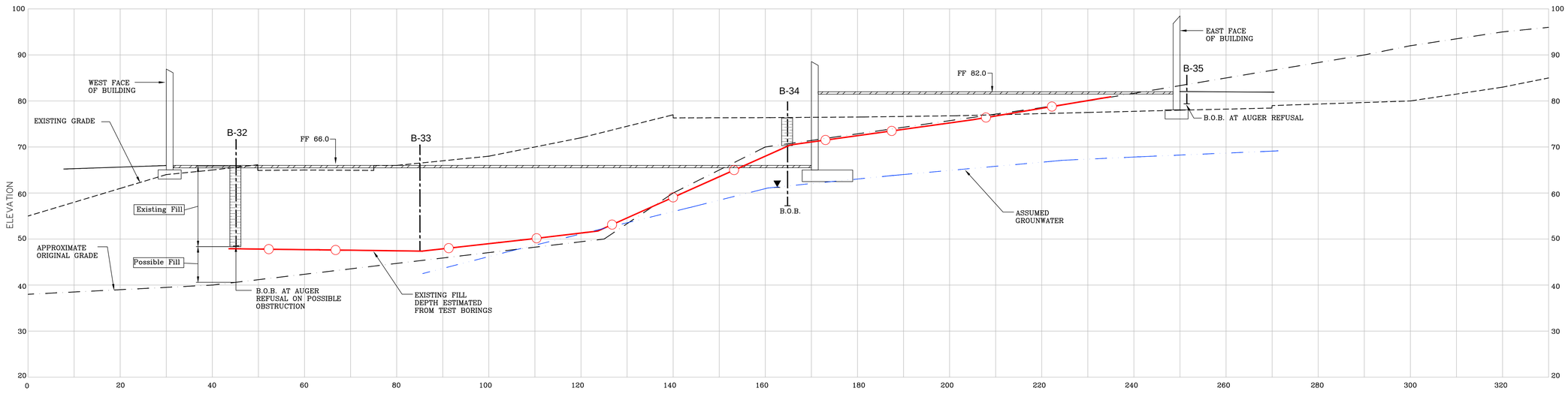
ISSUED for BID

APPENDIX 3

CROSS SECTIONS + SLOPE DETAILS



SECTION A



SECTION B

EXISTING FILL AT BORING

EXISTING GRADE

APPROXIMATE ORIGINAL (PRE-DEVELOPED) GRADE

EXISTING FILL DEPTH

OBSERVED WATER TABLE

EXISTING FILL LINE ESTIMATED FROM BORINGS

ASSUMED WATER TABLE

ELEVATIONS SHOWN ARE REFERENCED TO NAVD88

FOUNDATIONS SHOWN ARE SCHEMATIC

100% DESIGN DEVELOPMENT

GEOTECHNICAL CROSS SECTIONS
PREPARED BY CLARENCE WELTI ASSOCIATES, INC.
P.O. Box 397, Glastonbury, CT 06033
JULY, 2016

drawing title: GEOTECHNICAL CROSS SECTIONS

REVISIONS

mark	date	description

STATE OF CONNECTICUT
DEPARTMENT OF ADMINISTRATIVE SERVICES

drawing prepared by
MOSER PILON NELSON ARCHITECTS
30 JORDAN LANE
WETHERSFIELD, CT. 06109

project
ADDITIONS and RENOVATIONS to:
GRASSO TECHNICAL HIGH SCHOOL
189 Fort Hill Road
Groton, CT.

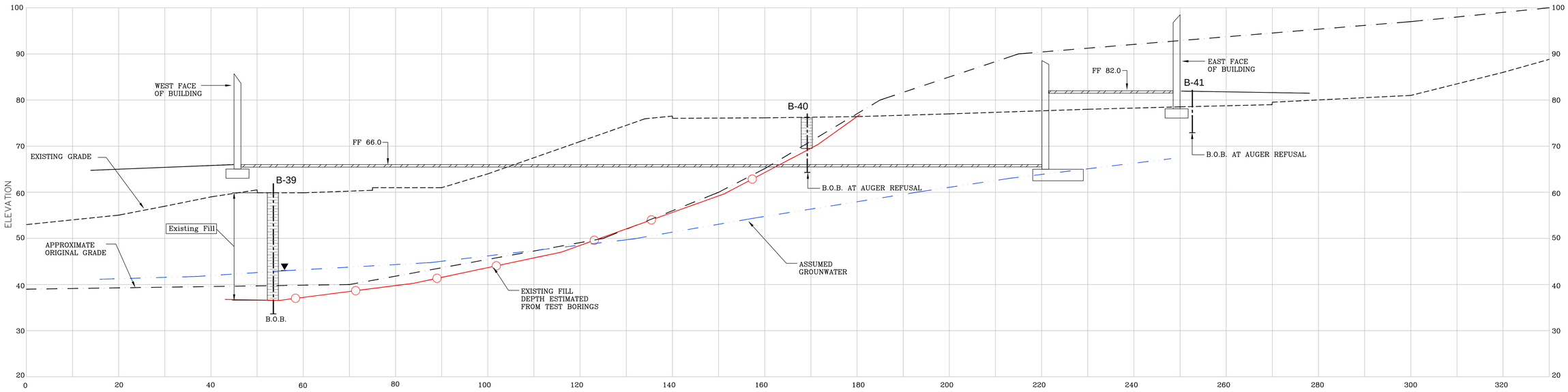
CAD no.

project no.
BI-RT-877

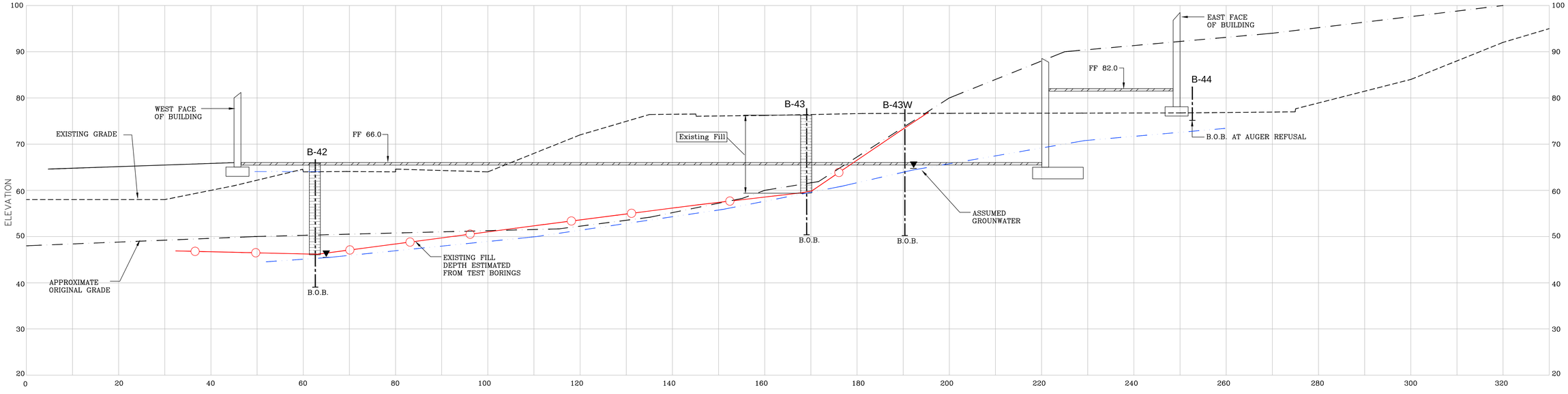
date: 07/22/2016
scale: 1" = 10'
drawn by: JB
approved by: MW
drawing no.: GCS-1

ISSUED for BID

MPN Project Number:



SECTION C



SECTION D

EXISTING FILL AT BORING

EXISTING GRADE

APPROXIMATE ORIGINAL (PRE-DEVELOPED) GRADE

EXISTING FILL DEPTH

OBSERVED WATER TABLE

EXISTING FILL LINE ESTIMATED FROM BORINGS

ASSUMED WATER TABLE

ELEVATIONS SHOWN ARE REFERENCED TO NAVD88

FOUNDATIONS SHOWN ARE SCHEMATIC

GEOTECHNICAL CROSS SECTIONS
PREPARED BY CLARENCE WELTI ASSOCIATES, INC.
P.O. Box 397, Glastonbury, CT 06033
JULY, 2016

100% DESIGN DEVELOPMENT

drawing title
GEOTECHNICAL CROSS SECTIONS

REVISIONS

mark	date	description

STATE OF CONNECTICUT
DEPARTMENT OF ADMINISTRATIVE SERVICES

drawing prepared by
MOSER PILON NELSON ARCHITECTS
30 JORDAN LANE
WETHERSFIELD, CT. 06109

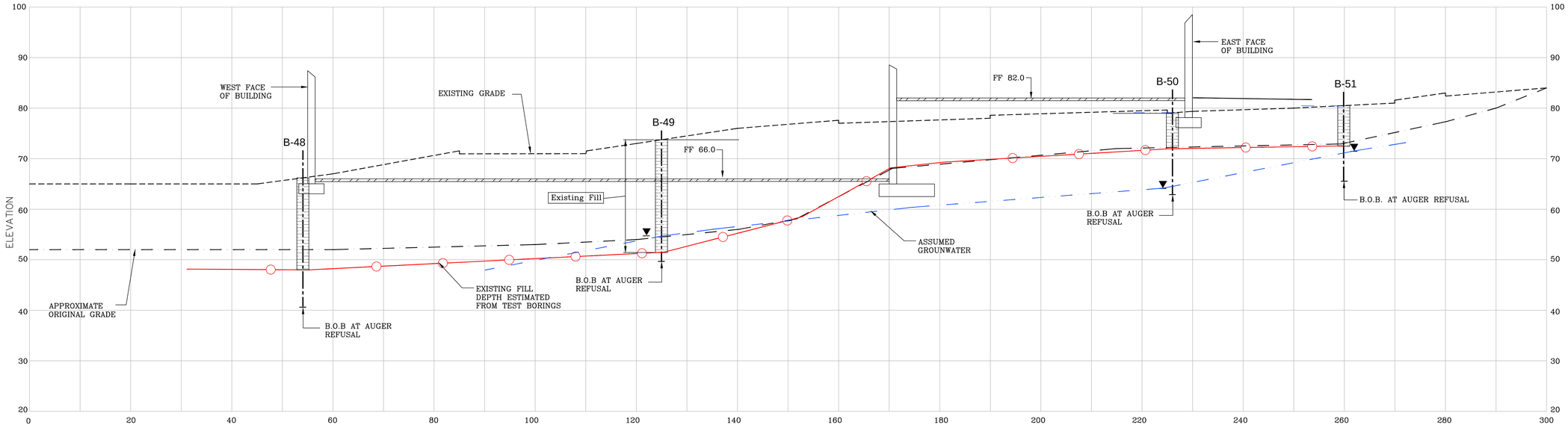
project
ADDITIONS and RENOVATIONS to:
GRASSO TECHNICAL HIGH SCHOOL
189 Fort Hill Road
Groton, CT.

CAD no.
project no. BI-RT-877

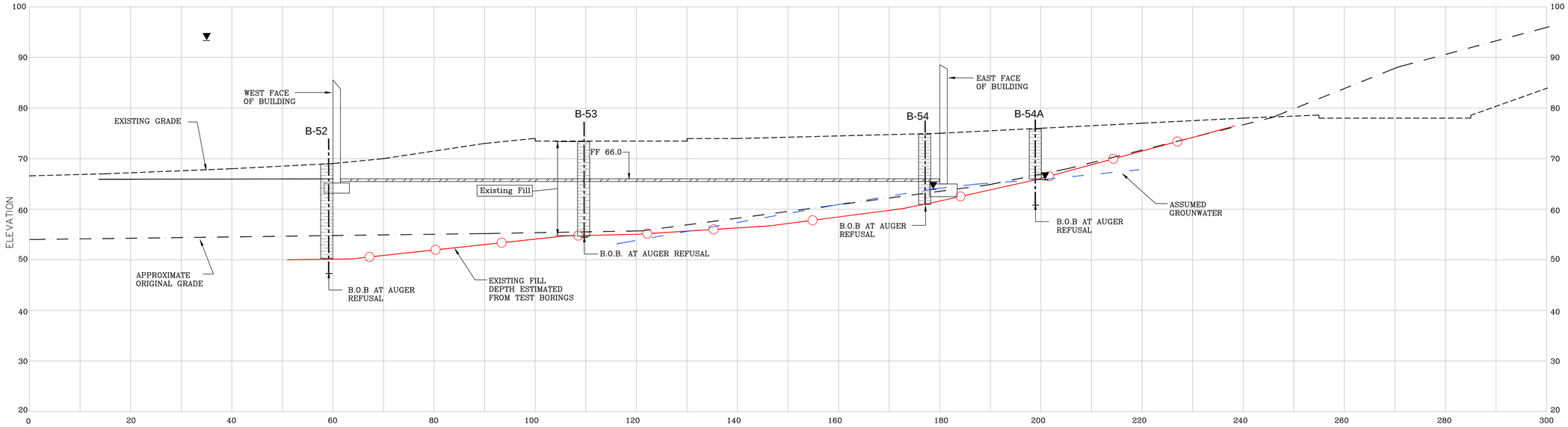
date 07/22/2016
scale 1" = 10'
drawn by JB
approved by MW
drawing no. GCS-2

ISSUED for BID

MPN Project Number



SECTION E



SECTION F

EXISTING FILL AT BORING

EXISTING GRADE

APPROXIMATE ORIGINAL (PRE-DEVELOPED) GRADE

EXISTING FILL DEPTH

OBSERVED WATER TABLE

EXISTING FILL LINE ESTIMATED FROM BORINGS

ASSUMED WATER TABLE

ELEVATIONS SHOWN ARE REFERENCED TO NAVD88

FOUNDATIONS SHOWN ARE SCHEMATIC

GEOTECHNICAL CROSS SECTIONS
PREPARED BY CLARENCE WELTI ASSOCIATES, INC.
P.O. Box 397, Glastonbury, CT 06033
JULY, 2016

100% DESIGN DEVELOPMENT

drawing title: GEOTECHNICAL CROSS SECTIONS

REVISIONS

mark	date	description

STATE OF CONNECTICUT
DEPARTMENT OF ADMINISTRATIVE SERVICES

drawing prepared by
MOSER PILON NELSON ARCHITECTS
30 JORDAN LANE
WETHERSFIELD, CT. 06109

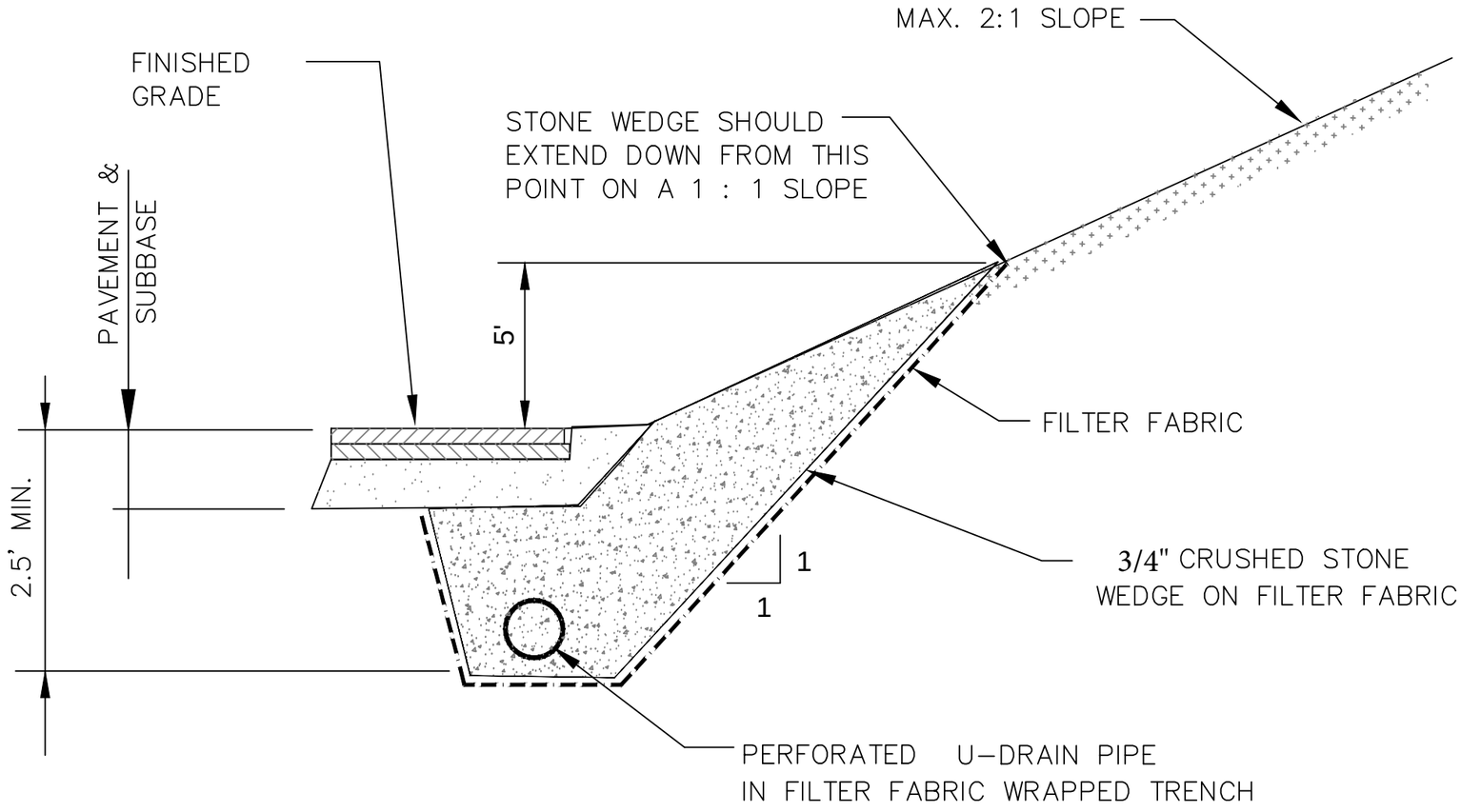
project
ADDITIONS and RENOVATIONS to:
GRASSO TECHNICAL HIGH SCHOOL
189 Fort Hill Road
Groton, CT.

CAD no.
project no. BI-RT-877

date 07/22/2016
scale 1" = 10'
drawn by JB
approved by MW
drawing no. GCS-3

ISSUED for BID

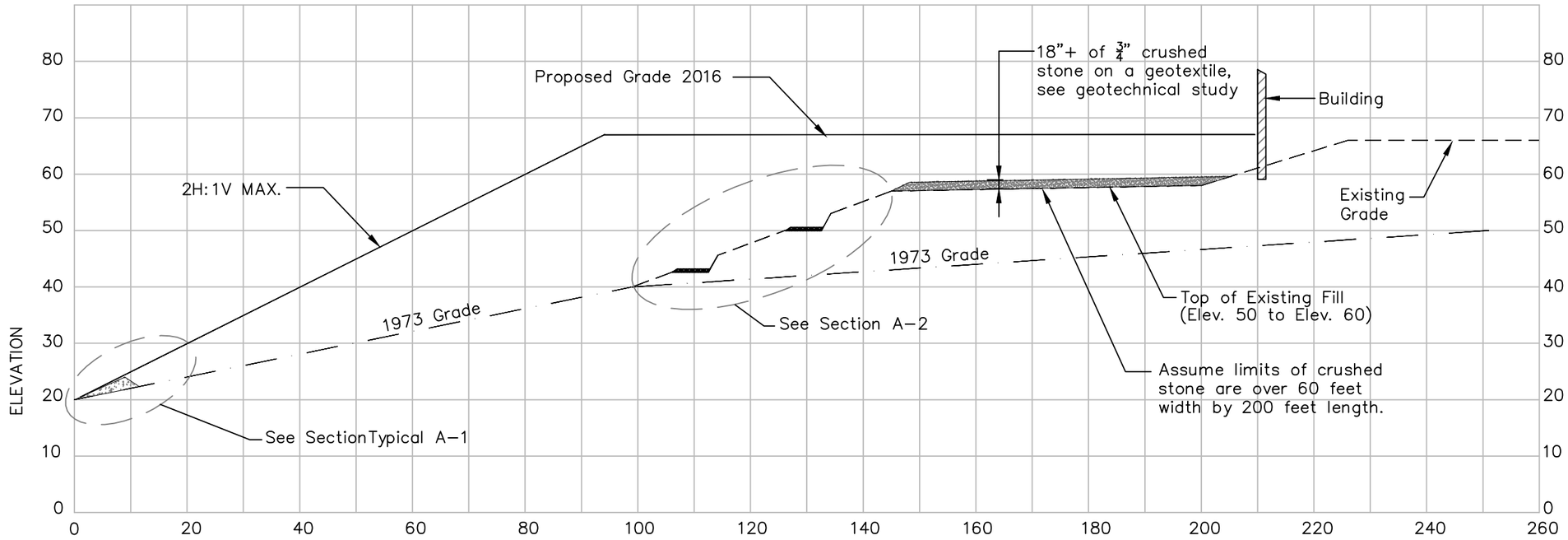
MPN Project Number



TYPICAL SECTION STONE WEDGE

ISSUED for BID

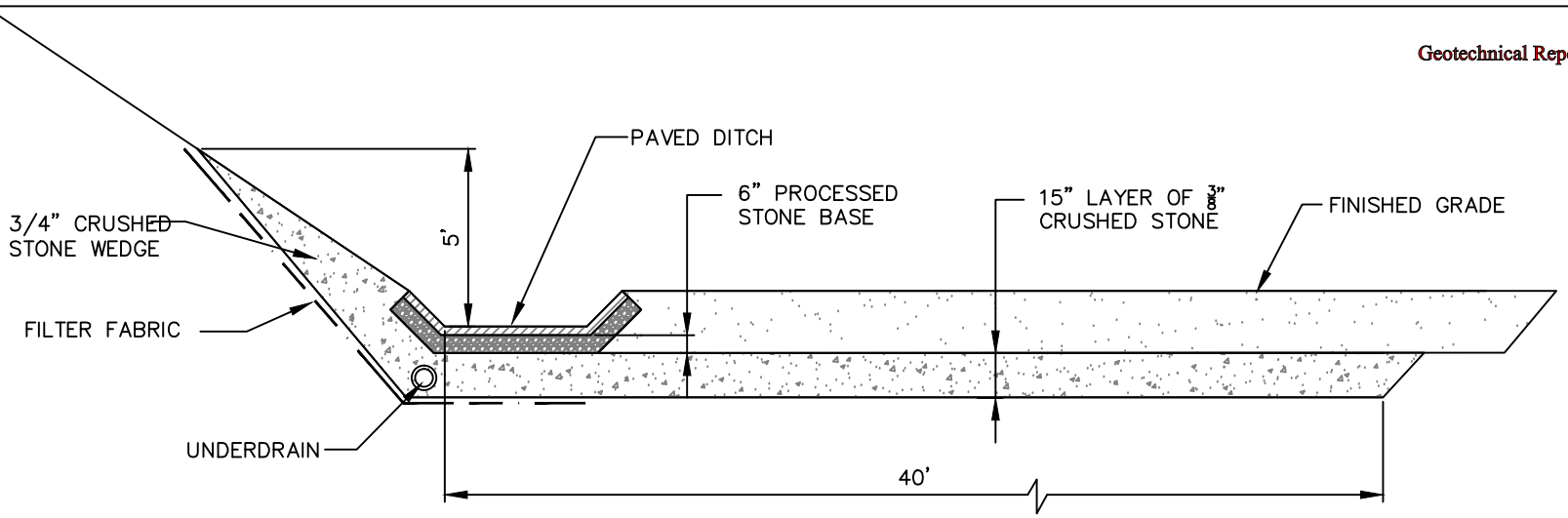
ADDITIONS AND RENOVATIONS TO GRASSO TECHNICAL HIGH SCHOOL 189 FORT HILL ROAD, GROTON, CT		
TYPICAL SECTION AT CUT SLOPES		
REVISED:	SCALE: 1" = 20'	DATE: July, 2016
DR. CLARENCE WELTI, P.E., P.C. 227 WILLIAMS STREET, P.O. BOX 397 GLASTONBURY, CONNECTICUT 06033		SHEET 3



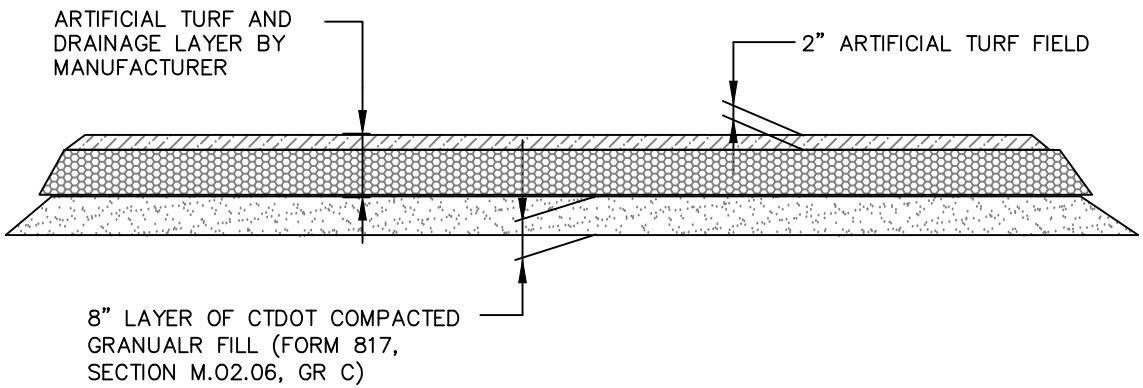
SECTION A–A

ISSUED for BID

ADDITIONS AND RENOVATIONS TO GRASSO TECHNICAL HIGH SCHOOL 189 FORT HILL ROAD, GROTON, CT		
TYPICAL SECTION WEST SLOPE TO BROOK		
REVISED: 11/16/16	SCALE: 1" = 20'	DATE: July, 2016
DR. CLARENCE WELTI, P.E., P.C. 227 WILLIAMS STREET, P.O. BOX 397 GLASTONBURY, CONNECTICUT 06033		SHEET 1



TYPICAL SECTION EAST SIDE OF TRACK



SECTION ARTIFICIAL TURF BALLFIELD UNDERLAY

ADDITIONS AND RENOVATIONS TO GRASSO TECHNICAL HIGH SCHOOL

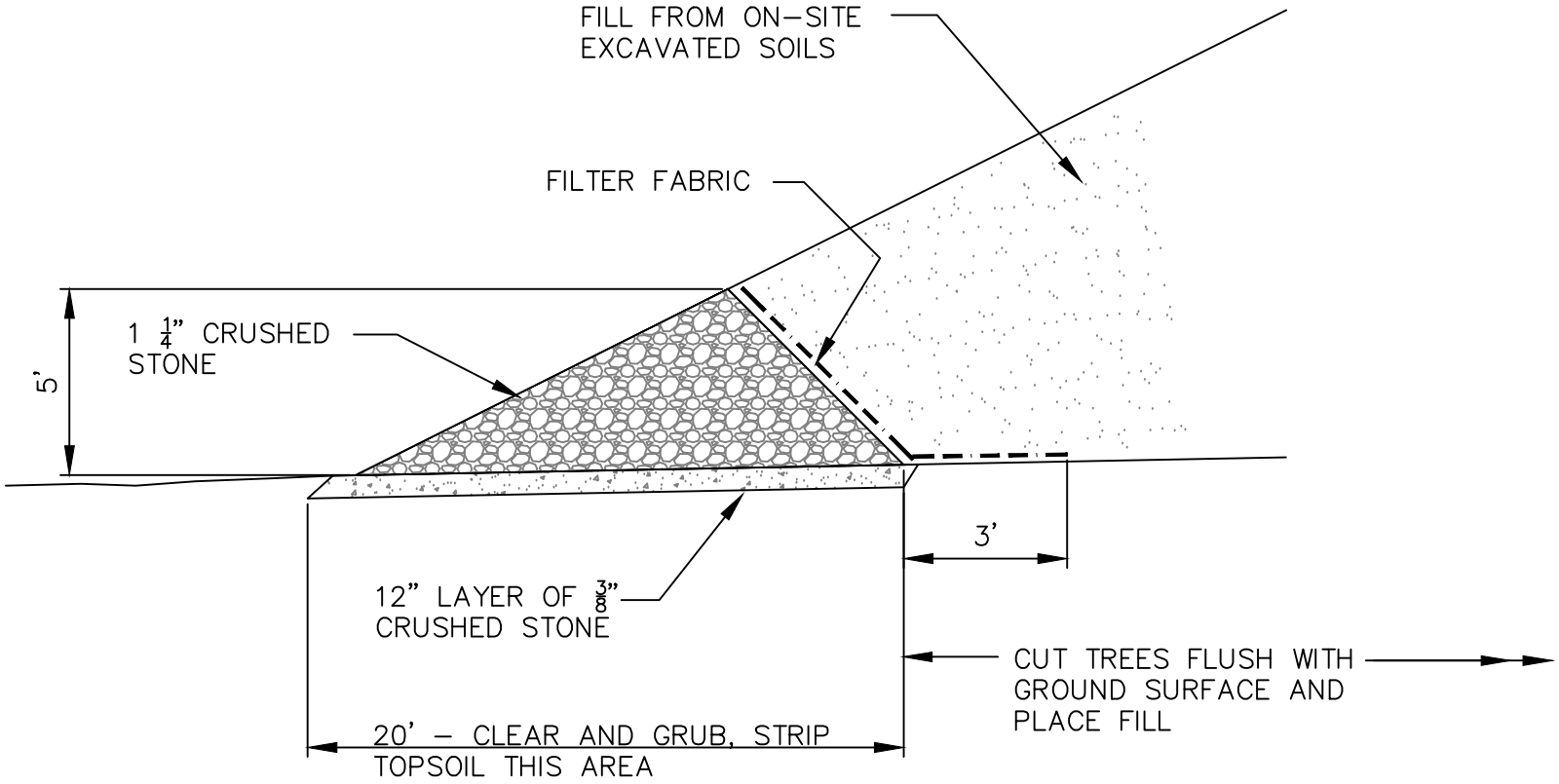
189 FORT HILL ROAD, GROTON, CT

ISSUED for BID

SLOPE DETAILS

SHEET NO. :	D4
SCALE:	NONE
DATE REVISED:	12/14/16

DR. CLARENCE WELTI, P.E., P.C.
227 WILLIAMS STREET, P.O. BOX 397
GLASTONBURY, CONNECTICUT 06033



SECTION A-1

ADDITIONS AND RENOVATIONS TO GRASSO TECHNICAL HIGH SCHOOL

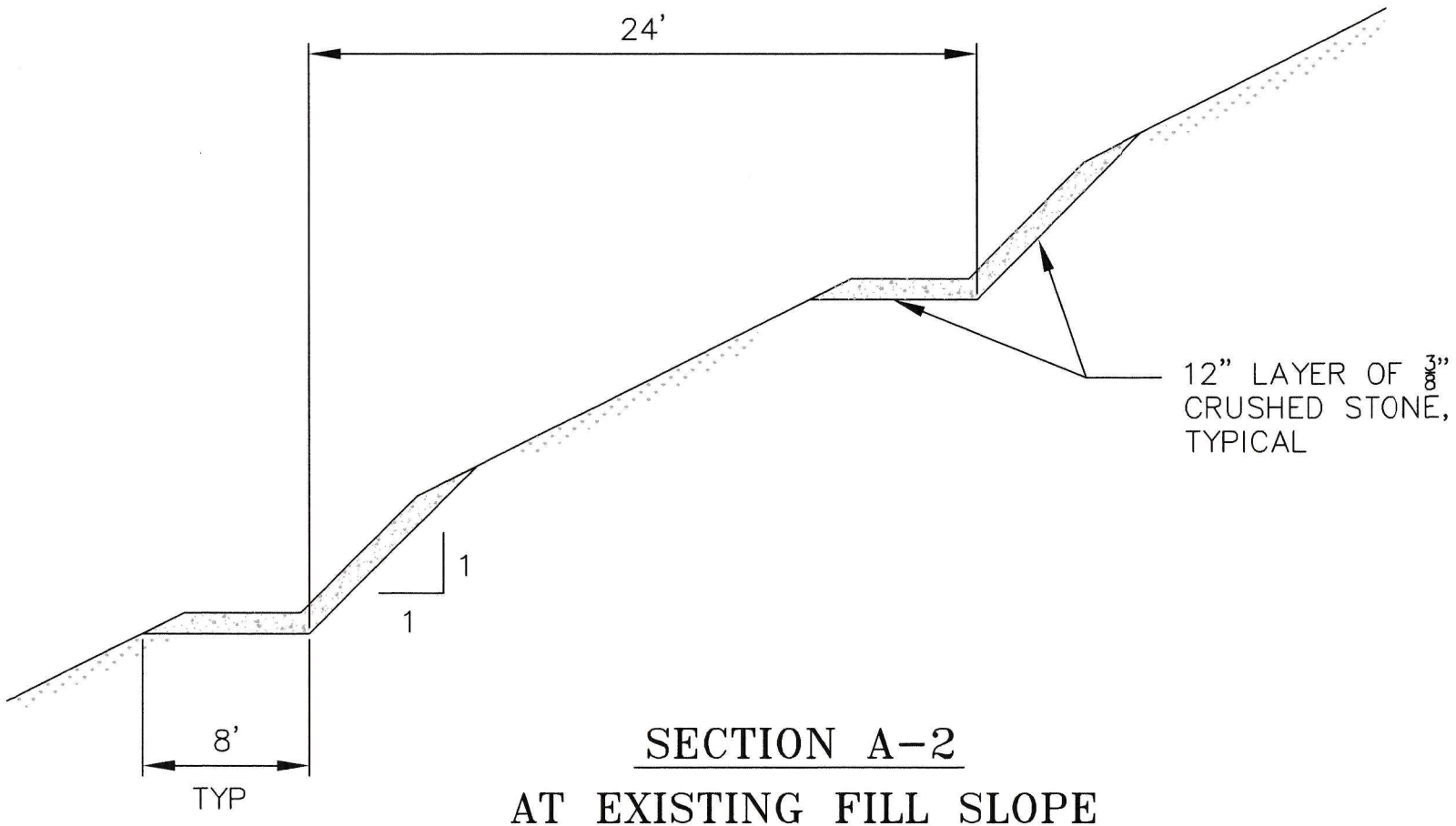
189 FORT HILL ROAD, GROTON, CT

ISSUED for BID

SLOPE DETAILS

SHEET NO. :	D3
SCALE:	NONE
DATE PREPARED:	JULY, 2016

DR. CLARENCE WELTI, P.E., P.C.
227 WILLIAMS STREET, P.O. BOX 397
GLASTONBURY, CONNECTICUT 06033



SECTION A-2
AT EXISTING FILL SLOPE

ADDITIONS AND RENOVATIONS TO GRASSO TECHNICAL HIGH SCHOOL 189 FORT HILL ROAD, GROTON, CT	SHEET NO.: D2
	SCALE: NONE
	DATE PREPARED: JULY, 2016
SLOPE DETAILS	DR. CLARENCE WELTI, P.E., P.C. 227 WILLIAMS STREET, P.O. BOX 397 GLASTONBURY, CONNECTICUT 06033

WELTI GEOTECHNICAL, P.C.
Formerly Dr. Clarence Welti, PE.PC.

227 Williams Street · P.O. Box 397
Glastonbury, CT 06033-0397

(860) 633-4623 / FAX (860) 657-2514

November 18, 2019

Mr. Richard Brown, AIA
Moser Pilon Nelson
30 Jordan Lane
Wethersfield, CT06109

Re: Grasso Technical High School, Groton, CT; Geotechnical Study for Proposed Reconstruction of Athletic Fields in Southwest Area of Site (West of Fort Hill Brook)

Dear Richard:

1.0 The applicable boring data from the 2013 borings at the subject site were B-11, B-12 and B14 thru B-16. The data from these borings with the boring location plan are in the Appendix. *The borings were drilled by Clarence Welti Associates, Inc. and sampling was conducted by this firm solely to obtain indications of subsurface conditions as part of a geotechnical exploration program. No services were performed to evaluate subsurface environmental conditions.*

2.0 The **Subject Project** includes new baseball and softball fields plus drainage improvements. The major considerations are related to achieving all weather athletic fields in an area that is understood to have a potential for flooding. The fields are proposed to be under drained. A small toilet building and two parking lots are also proposed. One of the parking lots would have a gravel surface and the other would have an asphalt surface.

2.1 Topographically the site is relatively flat with existing grades between Elev. 10 and Elev. 13. The indicated proposed grades are generally within a foot of the existing grades.

3.0 The **Geologic origin** of the natural soils is generally from glacial lake deposits. These deposits consist generally of stratified sands with little silt and gravel to 16+ feet below grade. The site been filled over substantial parts of the area with excess material from the excavation at the original buildings and parking areas.

3.1 The **Soils Cross Section** from the borings is generally as follows:

Topsoil to 7" to 10"

FILL; fine to medium SAND, little to some Silt, little Gravel, trace Roots and Wood to 3 to 7

feet, loose to dense

Locally; fine to medium SAND and SILT, trace Roots and Wood to about 3 feet below FILL, medium compact

Fine to coarse SAND, little Silt, little Gravel to 16+ feet, medium compact

3.2 The **Water Table** was evident at 4 to 8 feet below the existing grades at the completion of the borings. These water table readings were in the fall season and may not be representative spring season water tables. In general the soil up to 2 feet above the hydrostatic water level are saturated from capillary water. The area drains into Fort Hill Brook, which empties into Mumford Cove. FEMA mapping of the area indicates that portions of the proposed athletic fields are in a FEMA AE flood zone with the base flood at Elev.10.

4.0 The **Performance Criteria for Proposed Athletic Fields are assumed as follows**

1. Following a rainfall of 3" of precipitation per day the field should be playable within 2 days.

2.Within 2 days following recession of flooding of the field the ground water should be no higher than within 18" of the playing surface and the field surface should be playable with ground water at 18" or more below the field grades.

5.0 The above criteria will require at least 24" of well drained sand or sand and gravel with permeability of at least 40 feet/day plus under drainage at 30 feet on centers**.** It is assumed that the field outside the infield would have 11" to 12" of topsoil and subsoil atop the drainage layer. The bottom of the drainage layer should be sufficiently high in elevation to be free draining after heavy rains or backwater flooding.

6.0 At the baseball field the applicable borings B-14 thru B-16 indicate about 10" of topsoil atop fills with variable silt content. In general these soils would not meet the required permeability cited in section 5.0 above. The water table in boring B-16 was at 5 feet below grade with saturated soils probably within 3 feet of grade. The bottom of Fort Hill Brook immediately east of the baseball field is at Elev. 5 to Elev. + 6, which indicates the water table in the area within 30 to 40 feet of the brook is probably 2 to 3 feet above the brook bottom in dry season and rainy seasons could be 4 to 5 feet above the brook level or Elev. 10 to Elev. 11. The gradient on the brook is very flat with a substantial upland watershed, which results in irregular peaks in the brook levels. The indicated proposed grading would have the under drain inverts as low as Elev. 10.

6.1 Based on the assumed performance criteria, particularly the water table level in proximity to playing field grade, the field should probably be raised at least 1 to 1.5 feet above the existing grades. By raising the grade, the amount of excavation and disposal of existing soils could be reduced. If the field can not be raised due to FEMA limitations, the alternative to raising the grade would be a pumping system for the under drainage.

7.0 Regarding the softball field (Boring B-11) the soils consist of 7 feet of fill with silt contents in excess of 30 %. The water table at the boring was within 4 feet of grade. The recommendation on raising the proposed grade, as cited for the baseball field would also apply here.

8.0 Regarding the proposed parking for buses and passenger vehicles, the initial preparation should include stripping of topsoil and subsoil. If the sub-grade is stable, place and compact 18" of gravel sub-base conforming to CTDOT Specification 817 Section M.02.06 Grading A in two lifts. If the sub-grade is saturated the initial lift should be with a minimum 10" layer of 3/4" crushed stone on a geotextile (Mirafi RS380i or equal) and a 9" layer of gravel subbase would be placed over the crushed stone. The surface course should be with 6" of 3/4" minus processed base conforming to the following gradation:

Percent Passing	Sieve Size
100	1.25"
90 - 100	1"
75 - 100	3/4"
10 - 35	1/4"
3 - 12	No. 100
0 - 5	No 200

The gravel subbase and processed stone base should be compacted to at least 95% of modified density (ASTM 1557D).

The bituminous concrete thickness should be 3.5".

9.0 Regarding the proposed structure the floor level is shown on the plan as Elev11.5 and the existing grades appear to be between about Elev. 11 and Elev.11. It is recommended that the floor level and surrounding grades be raised by 1 to 2 feet, if possible . All topsoil should be stripped and there should be at least 2 feet of gravel subbase beneath building floor to address frost and areal flooding. Footings should be on the natural soils or on a controlled fill placed after the removal of any existing fills and organic soils. There should be a minimum 6" layer of 3/4" crushed stone on a geotextile beneath footings on the natural soils and as an initial layer beneath controlled fills where atop a wet sub grade. The footings should be at least 3.5 feet below finished exterior grades for frost protection. The allowable bearing pressure can be 2,000 psf.

10.0 This report has been prepared for specific application to the subject project in accordance with generally accepted soil and foundation engineering practices. No other warranty, express or implied, is made. In the event that any changes in the nature, design and location of structures are planned, the conclusions and recommendations contained in this report should not be considered valid unless

the changes are reviewed and conclusions of this report modified or verified in writing.

The analyses and recommendations submitted in this report are based in part upon data obtained from referenced explorations. The extent of variations between explorations may not become evident until construction. If variations then appear evident, it will be necessary to re-evaluate the recommendations of this report.

Welti Geotechnical, P.C., should perform a general review of the final design and specifications in order that geotechnical design recommendations may be properly interpreted and implemented as they were intended.

If you have any questions please call me.

Very truly yours,

Clarence Welti, Ph.D., P.E.
Vice President, Welti Geotechnical, P.C.

c: Herbert May, P. E. hmay@macchiengineers.com

UTILITY NOTES:

1. ALL UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH EACH UTILITY COMPANY'S REGULATIONS. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE RESPECTIVE UTILITY COMPANY (TOWN OF GROTON, EVERSOURCE, FRONTIER, ETC.)
2. UTILITY INFORMATION SHOWN IS TAKEN FROM UTILITY MAPS AND LIMITED FIELD INFORMATION. CONTRACTOR IS RESPONSIBLE FOR FINAL VERIFICATION OF UTILITY LOCATIONS AFFECTING THE PROPOSED WORK AND ANY ASSOCIATED FIELD MODIFICATIONS. TEST PITS ARE REQUIRED AND SHALL BE INCLUDED . ANY MODIFICATION TO THE WORK OUTLINED IN THESE PLANS OR THE PROJECT SPECIFICATIONS SHALL BE TO THE SATISFACTION OF THE ENGINEER.
3. THE SITE CONTRACTOR SHALL PROVIDE ALL PLUMBING CONNECTION APPURTENANCES, (FITTINGS, REDUCERS, ENLARGERS, WYES, TEES, ETC.) AS REQUIRED TO MAKE THE NECESSARY CONNECTIONS. REFER TO BUILDING PLUMBING PLANS FOR ADDITIONAL UTILITY INFORMATION.
4. SITE ELECTRICAL AND LIGHTING IS SHOWN FOR REFERENCE ONLY. REFER TO ELECTRICAL PLANS, DETAILS, AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. CONTACT CALL BEFORE YOU DIG (811) AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION AND AS EACH UTILITY IS TO BE INSTALLED. IN THE EVENT CALL BEFORE YOU DIG IS UNABLE TO LOCATE THE UTILITIES IT SHALL BE THE CONTRACTORS REASONABILITY TO HIRE A PRIVATE UTILITY LOCATING COMPANY AT NO COST TO THE OWNER.
6. ALL EXISTING MANHOLE FRAMES AND COVERS, UTILITY BOXES AND VALVE COVERS SHALL BE ADJUSTED TO FINAL GRADE AS REQUIRED.
7. ALL EXISTING UTILITIES SYSTEMS SHALL REMAIN IN OPERATION UNTIL NEW STORM DRAINAGE SYSTEM HAS BEEN INSTALLED.

GRADING NOTES:

1. PROVIDE POSITIVE DRAINAGE AWAY FROM FACE OF ALL BUILDINGS
2. PRIOR TO COMMENCING EXCAVATION WORK, THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES IN ACCORDANCE WITH "DIG SAFE" NOTIFICATION PROCEDURES PROMOTED BY RESPECTIVE UTILITY COMPANIES.
3. THE CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY INTO EXISTING EARTHWORK.
4. CONTRACTOR SHALL VERIFY ALL EXISTING GRADES IN THE FIELD AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE COLLEGE'S REPRESENTATIVE PRIOR TO STARTING WORK.
5. ANY AREA OUTSIDE THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO THE OWNER.
6. PITCH EVENLY BETWEEN SPOT GRADES. ALL PAVED AREAS MUST PITCH TO DRAIN AT A MINIMUM OF ONE-EIGHTH INCH (1/8") PER FOOT.
7. WHERE NEW PAVING MEETS EXISTING PAVING, MEET LINE AND GRADE OF EXISTING WITH NEW ONE.
8. EXCAVATION REQUIRED WITHIN PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OF STRUCTURE INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.
9. ALL PROPOSED TOP OF CURB ELEVATIONS ARE SIX INCHES (6") ABOVE BOTTOM OF CURB UNLESS SHOWN OTHERWISE.

SCHEMATIC DESIGN / DESIGN DEVELOPMENT

SCALE: 1" = 30' - 0"

PROJECT NORTH

drawing title: SITE GRADING AND UTILITY PLAN

REVISIONS

mark	date	description

STATE OF CONNECTICUT
DEPARTMENT OF ADMINISTRATIVE SERVICES
DIVISION OF CONSTRUCTION SERVICES

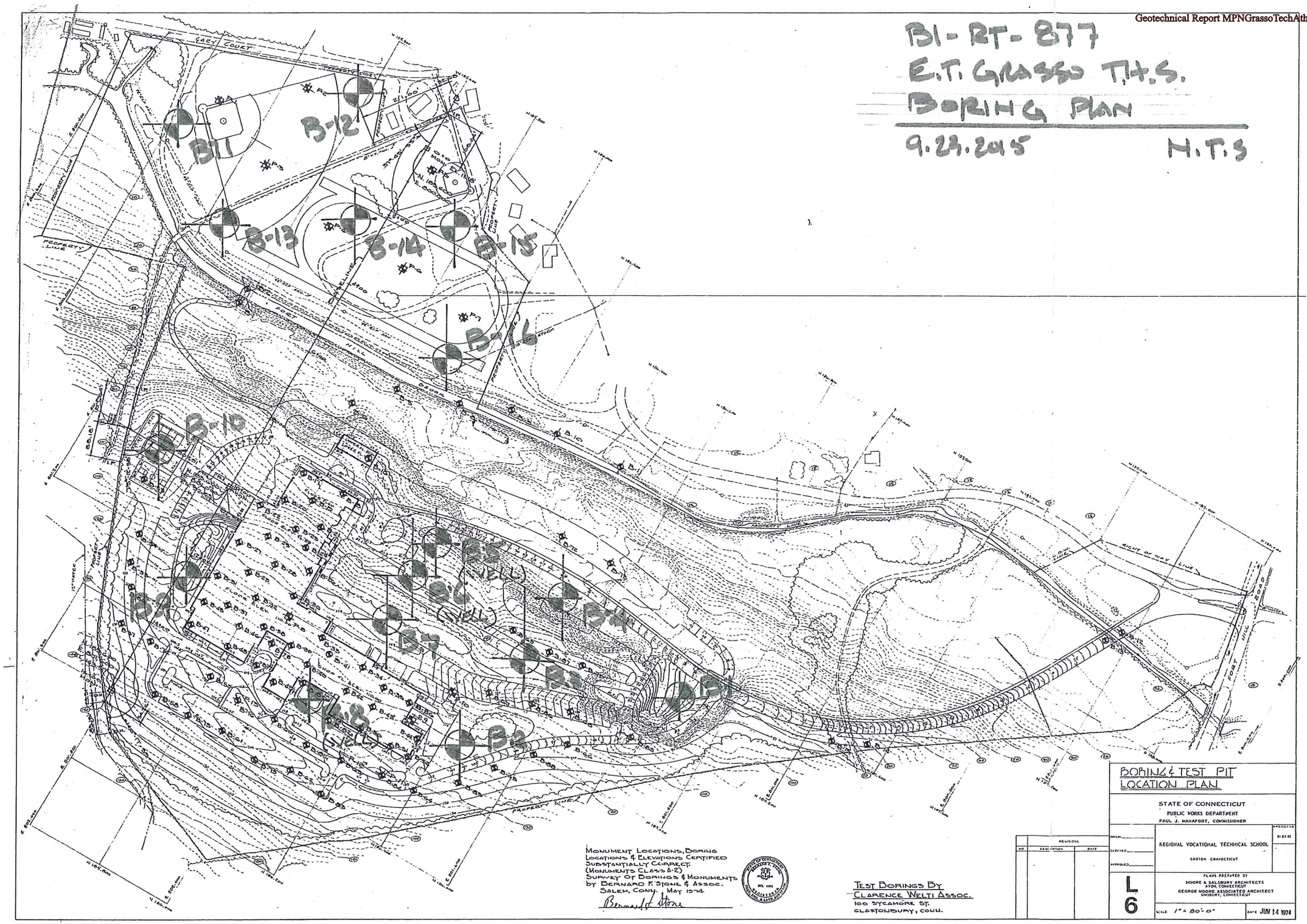
DRAWING PREPARED BY
MACCHI ENGINEERS, LLC
44 Gillett Street
Hartford, Connecticut

project
Athletic Field Construction
Ella Grasso Technical High School
189 Fort Hill Road
Groton, Connecticut 06340

CAD no | DAS/DCS Project no BI-RT-877A | OSCGR Project no 900-0014

date 10/31/2019
scale 1" = 30'-0"
drawn by HSM
approved by MRP
drawing no. SB-1 C3.0

B1-RT-877
E.T. GRASSO T.H.S.
BORING PLAN
9.23.2015 N.T.S



MONUMENT LOCATIONS, BORING LOCATIONS & ELEVATIONS CERTIFIED SUBSTANTIALLY CORRECT.
(MONUMENTS CLASS A-2)
SURVEY OF BORINGS & MONUMENTS by BERNARD F. STONE & ASSOC.
SALEM, CONN. MAY 1974
Bernard F. Stone

TEST BORINGS BY
CLARENCE WELTI ASSOC.
100 SYCAMORE ST.
GLASTONBURY, CONN.

REVISIONS		
NO	DESCRIPTION	DATE

BORING & TEST PIT LOCATION PLAN

STATE OF CONNECTICUT
PUBLIC WORKS DEPARTMENT
PAUL J. MANAFORT, COMMISSIONER

DRAWN ____
CHECKED ____
APPROVED ____

REGIONAL VOCATIONAL TECHNICAL SCHOOL
GROTON, CONNECTICUT

PROJECT NO
BI-RT-72

PLANS PREPARED BY
MOORE & SALSBURY ARCHITECTS
AVON, CONNECTICUT
GEORGE MOORE ASSOCIATED ARCHITECT
SIMSBURY, CONNECTICUT

L 6

SCALE 1" = 80'-0"
DATE JUN 14 1974

50 40 03

~~Geotechnical Report MPNGrassoTechAthleticFields191118~~

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL
LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. B-11

GROUND WATER OBSERVATIONS
AT 4.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 10/9/15
FINISH DATE 10/9/15

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	2-11-10-14	0.0'-2.0'		TOPSOIL .08	
					GREY FINE-MED. SAND, LITTLE SILT, TRACE GRAVEL, FEW COBBLES - FILL	
	2	60	2.0'-2.5'			
5	3	60	5.0'-5.9'		GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL - FILL 5.0	
					DARK BR. FINE-MED. SAND AND SILT, TRACE ROOTS & WOOD 7.0	
10	4	8-17-20-20	10.0'-12.0'		GREY FINE-CRS. SAND, LITTLE SILT & GRAVEL 10.0	
15	5	10-13-15	15.0'-16.5'		BR. FINE-CRS. SAND, TRACE SILT & GRAVEL 16.0	
					BOTTOM OF BORING @ 16.5' 16.5	
20						
25						
30						
35						

LEGEND: COL. A:

SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON

PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-11**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL
LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. B-12

GROUND WATER OBSERVATIONS
AT 8.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 10/9/15
FINISH DATE 10/9/15

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	1-6-7-15	0.0'-2.0'		TOPSOIL 0.56	
					BR. FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES	
	2	60	2.0'-2.3'			
5	3	8-60	5.0'-5.8'		5.0	
					GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL & COBBLES, FEW BOULDERS	
10	4	5-6-6	10.0'-11.5'			
15	5	7-8-12	15.0'-16.5'		15.5	
					BR. FINE SAND AND SILT	
					16.5	
					BOTTOM OF BORING @ 16.5'	
20						
25						
30						
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-12**

ISSUED for BID

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL

LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. B-14

GROUND WATER OBSERVATIONS
AT 6.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 10/13/15
FINISH DATE 10/13/15

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	1-3-2-2	0.0'-2.0'		TOPSOIL 0.83	
					BR. FINE-CRS.SAND, SOME GRAVEL, TRACE SILT	
	2	1-1-1-2	2.0'-4.0'			
	3	3-6-8-9	4.0'-6.0'		4.5	
5					GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL	
					8.0	
					GREY FINE-CRS. SAND, LITTLE SILT & GRAVEL	
10	4	5-5-6	10.0'-11.5'			
15	5	7-6-8	15.0'-16.5'			
					16.5	
					BOTTOM OF BORING @ 16.5'	
20						
25						
30						
35						

LEGEND: COL. A:

SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON

PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-14**

ISSUED for BID

50 40 03

Geotechnical Report MPNGrassoTechAthleticFields191118

CLARENCE WELTI ASSOC., INC.
P.O. BOX 397
GLASTONBURY, CONN 06033

CLIENT
MOSER PILON NELSON ARCHITECTS

PROJECT NAME
GRASSO TECHNICAL HIGH SCHOOL
LOCATION
189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. B-15

GROUND WATER OBSERVATIONS
AT 7.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 10/13/15
FINISH DATE 10/13/15

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	2-3-9-7	0.0'-2.0'		TOPSOIL 0.83	
					BR. FINE-MED. SAND, SOME SILT, TRACE GRAVEL - FILL	
	2	12-10-10-6	2.0'-4.0'		3.0	
					DARK BR. FINE-CRS.SAND, SOME SILT, TRACE GRAVEL	
5	3	10-14-9-4	4.0'-6.0'			
	4	6-10-10-10	6.0'-8.0'		6.5	
					GREY FINE-CRS. SAND, LITTLE SILT & GRAVEL	
10	5	6-8-11	10.0'-11.5'			
15	6	10-10-11	15.0'-16.5'		16.5	
					BOTTOM OF BORING @ 16.5'	
20						
25						
30						
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-15**

ISSUED for BID

50 40 03

Geotechnical Report MPNGrassoTechAthleticFields191118

CLARENCE WELTI ASSOC., INC. P.O. BOX 397 GLASTONBURY, CONN 06033	CLIENT MOSER PILON NELSON ARCHITECTS	PROJECT NAME GRASSO TECHNICAL HIGH SCHOOL LOCATION 189 FORT HILL ROAD, GROTON, CT

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. B-16

GROUND WATER OBSERVATIONS
AT 5.0 FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 10/13/15
FINISH DATE 10/13/15

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	3-4-10-9	0.0'-2.0'		TOPSOIL 0.83	
					GREY/BR. FINE-MED. SAND, SOME SILT, TRACE GRAVEL, FEW COBBLES - FILL	
	2	6-6-8-8	3.0'-5.0'		3.0 GREY FINE-MED. SAND, SOME SILT, LITTLE GRAVEL	
5	3	7-8-10-12	5.5'-7.5'		5.5 GREY FINE-CRS.SAND, SOME SILT & GRAVEL	
10						
15					16.5 BOTTOM OF BORING @ 16.5'	
20						
25						
30						
35						

LEGEND: COL. A:

SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON

PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

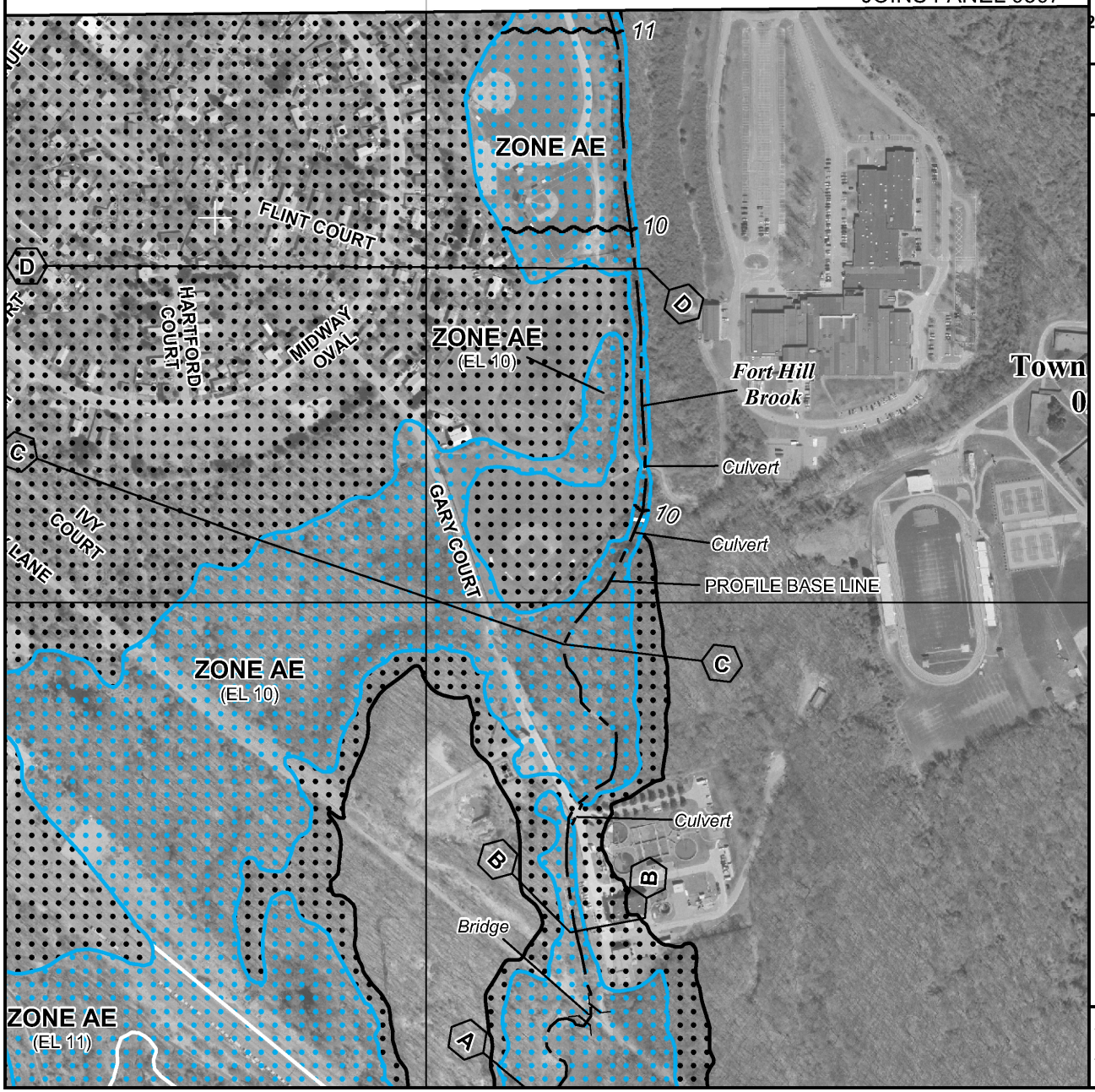
DRILLER: K. CHRISTIANA
INSPECTOR:

SHEET 1 OF 1 | HOLE NO. **B-16**

ISSUED for BID

1200000 FT

JOINS PANEL 0507



MAP SCALE 1" = 500'

250 0 500 1000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0509J

FIRM

FLOOD INSURANCE RATE MAP

NEW LONDON COUNTY, CONNECTICUT (ALL JURISDICTIONS)

PANEL 509 OF 554

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
GROTON LONG POINT ASSOCIATION	090167	0509	J
GROTON, TOWN OF	090097	0509	J
NOANK FIRE DISTRICT	090129	0509	J

-NOTE-
THIS MAP INCLUDES BOUNDARIES OF THE COASTAL BARRIER RESOURCES SYSTEM ESTABLISHED UNDER THE COASTAL BARRIER RESOURCES ACT OF 1982 AND/OR SUBSEQUENT ENABLING LEGISLATION.

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
09011C0509J

MAP REVISED
AUGUST 5, 2013

Federal Emergency Management Agency

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. The Construction Documents, consisting of Drawings, Specifications, and general provisions of the Contract, including Division 00 General and Supplementary Conditions and other Division 01 Specification Sections, are complimentary; they include and apply to this Section

1.2 SUMMARY

A. This Section includes administrative and procedural requirements required for compliance with the International Building Code, Chapter 17, Structural Tests and Special Inspections.

B. Structural testing and special inspection services are required to verify compliance with requirements specified or indicated. These services do not relieve contractor of responsibility for compliance with other construction document requirements.

1. Specific quality-assurance and -control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.

2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the construction document requirements.

3. Requirements for contractor to provide quality-assurance and -control services required by architect, owner, or authorities having jurisdiction are not limited by provisions of this section.

C. The owner will engage one or more qualified special inspectors and / or testing agencies to conduct structural tests and special inspections specified in this section and related sections and as maybe specified in other divisions of these specifications.

D. Related Sections include but are not limited to the following:

1. Division 3 Section “Cast-In-Place Concrete.”

2. Division 4 Section “Unit Masonry Assemblies.”

3. Division 5 Section “Structural Steel”

4. Division 6 Section “Timber Trusses”

5. Division 6 Section “Rough Carpentry”

6. Division 31 Section “Earthwork.”

1.3 DEFINITIONS

A. Approved Agency: An established and recognized agency regularly engaged in conducting tests or furnishing inspection services when such agency has been approved by the building official.

B. Construction Documents: Written, graphic and pictorial documents prepared or assembled for describing the design, location and physical characteristics of the elements of a project necessary for obtaining a building permit. Construction Documents include all supplemental instructions, sketches, addenda, and revisions to the drawings and specifications issued by the registered design professional beyond those issued for a building permit.

C. Shop Drawings / Submittal Data: Written, graphic and pictorial documents prepared and / or assembled by the contractor based on the Construction Documents.

D. Structural Observation: Visual observation of the structural system by a representative of the registered design professional’s office for general conformance to the approved construction documents. Structural observations are not considered part of the structural tests and special inspections and do not replace inspections and testing by the testing agency or special inspector.

E. Special Inspector: A qualified person who demonstrating competence, to the satisfaction of the code enforcement official and registered design professional in responsible charge, for inspection of the type of construction or operation requiring special inspection. The special inspector shall be a licensed professional engineer or engineering intern or a qualified representative from the testing agency.

F. Special Inspection, Continuous: The full-time observation of work requiring special inspection by an approved special inspector who is present in the area where the work is being performed.

G. Special Inspection, Periodic: The part-time or intermittent observation of work requiring special inspection by an approved special inspector who is present in the area where the work has been or is being performed and at the completion of the work.

H. Testing Agency: A qualified materials testing laboratory under the responsible charge of a licensed professional engineer, approved by the code enforcement official and the registered design professional in responsible charge, to measure, examine, test, calibrate, or otherwise determine the characteristics or performance of construction materials and verify confirmation with construction documents.

1.4 QUALITY ASSURANCE

A. Testing Agency Qualifications:

1. Minimum qualifications of inspection and testing agencies and their personnel shall comply with ASTM E329-03 Standard Specification for Agencies in the Testing and / or Inspection of Materials Used in Construction.

2. Inspectors and individuals performing tests shall be certified for the work being performed as outlined in the appendix of the ASTM E329. Certification by organizations other than those listed must be submitted to the building official for consideration before proceeding with work.

3. In addition to these requirements, local jurisdiction may have additional requirements. It is the responsibility of the testing and inspection agencies to meet local requirements and comply with local procedures.

1.5 CONFLICTING REQUIREMENTS, REPORTS, AND TEST RESULTS

A. General: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to the registered design professional in responsible charge for a decision before proceeding.

B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to the registered design profession in responsible charge for a decision before proceeding.

C. The special inspector's reports and testing agencies results shall have precedence over reports and test results provided by the contractor.

D. Where a conflict exists between the construction documents and approved shop drawings / submittal data, the construction documents shall govern unless the shop drawings / submittal data are more restrictive. All conflicts shall be brought to the attention of the registered design professional in responsible charge.

1.6 SUBMITTALS BY SPECIAL INSPECTOR AND / OR TESTING AGENCY

A. Special inspectors shall keep and distribute records of inspections. The special inspector shall furnish inspection reports to the building official, and to the registered design professional in responsible charge, contractor, architect, and owner. Reports shall indicate that work inspected was done in conformance to approved construction documents. Discrepancies shall be brought to the immediate attention of the contractor for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the building official and to the registered design professional in responsible charge prior to the completion of that phase of the work. A final report documenting required special inspections and correction of any discrepancies noted in the inspections shall be submitted at a point in time agreed upon by the permit applicant and the building official prior to the start of work.

1. Special inspection reports and test results shall include, but not be limited to, the following:

a. Date of inspection.

b. Description of inspections or tests performed including location (reference grid lines, floors, elevations, etc.).

c. Statement noting that the work, material, and / or product conforms or does not conform to the construction document requirements.

d. Name and signature of contractor's representative who was notified of work, material, and / or products that do not meet the construction document requirements.

e. Name and signature of special inspector and / or testing agency representative performing the work.

B. Schedule of Non-Compliant Work: Each agent shall maintain a log of work that does not meet the requirements of the construction documents. Include reference to original inspection / test report and subsequent dates of re-inspection / retesting.

C. Reports and tests shall be submitted within 1 week of inspection or test. Schedule of Non-Compliant Work shall be updated daily and submitted at monthly intervals.

D. Final Report of Special Inspections. Submitted by each agent listed in the schedule of Structural Testing and Special Inspections.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 CONTRACTOR'S RESPONSIBILITY

A. The contractor shall coordinate the inspection and testing services with the progress of the work. The contractor shall provide sufficient notice to allow proper scheduling of all personnel. The contractor shall provide safe access for performing inspection and on-site testing.

B. The contractor shall submit schedules to the owner, registered design professionals and testing and inspecting agencies. Schedules will note milestones and durations of time for materials requiring structural tests and special inspections.

C. Each contractor responsible for the construction of a seismic-force-resisting system, designated seismic system, or component listed in the quality assurance plan shall submit a written contractor's statement of responsibility to the building official and to the owner prior to the commencement of work on the system or component. The contractor's statement of responsibility shall contain the following:

1. Acknowledgment of awareness of the special requirements contained in the quality assurance plan.

2. Acknowledgment that control will be exercised to obtain conformance with the construction documents approved by the building official.

3. Procedures for exercising control within the contractor's organization, the method and frequency of reporting and the distribution of the reports.

4. Identification and qualifications of the person(s) exercising such control and their position(s) in the organization.

D. Each contractor responsible for the construction of a main windforce-resisting system or a wind-resisting component listed in the quality assurance plan shall submit a written statement of responsibility to the building official and the owner prior to the commencement of work on the system or component. The contractor's statement of responsibility shall contain the following:

1. Acknowledgment of awareness of the special requirements contained in the quality assurance plan.

2. Acknowledgment that control will be exercised to obtain conformance with the construction documents approved by the building official.

3. Procedures for exercising control within the contractor's organization, the method and frequen-

cy of reporting and the distribution of the reports.

4. Identification and qualifications of the person(s) exercising such control and their position(s) in the organization.

E. The contractor shall repair and / or replace work that does not meet the requirements of the construction documents.

1. Contractor shall engage an engineer / architect to prepare repair and / or replacement procedures.
2. Engineer / architect shall be registered in the state in which the project is located. Engineer shall be acceptable to the registered design professional in responsible charge, code enforcement official, and owner.
3. Procedures shall be submitted for review and acceptance by the registered design professional in responsible charge, code enforcement official, and owner before proceeding with corrective action.

F. The contractor shall be responsible for costs of:

1. Re-testing and re-inspection of materials, work, and / or products that do not meet the requirements of the construction documents and shop drawings / submittal data.
2. Review of proposed repair and / or replacement procedures by the registered design professional in responsible charge and the inspectors and testing agencies.
3. Repair or replacement of work that does not meet the requirements of the construction documents.

3.2 STRUCTURAL OBSERVATIONS

A. Structural observations may be made periodically as determined by the registered design professional in responsible charge.

3.3 TESTING AND INSPECTION

A. Testing and inspection shall be in accordance with the attached Schedule of Special Inspections.

B. Reference related specifications for the minimum level of inspections and testing. Provide additional inspections and testing as necessary to determine compliance with the construction drawings.

3.4 SCHEDULES AND FORMS (ATTACHED)

A. Statement of Special Inspections: Special Inspections will be performed according to the Statement of Special Inspections immediately following this Section.

END OF SECTION 507000

Statement of Special Inspections

Project: ***Grasso Technical High School - Athletic Field Construction***
State Project No. BI-RT-877A

Location: ***189 Fort Hill Road, Groton, CT***

Owner: ***State of Connecticut***

Design Professional in Responsible Charge: ***Macchi Engineers, LLC, Hartford, CT***

This *Statement of Special Inspections* is submitted as a condition for permit issuance in accordance with the Special Inspection and Structural Testing requirements of the Building Code. It includes a schedule of Special Inspection services applicable to this project as well as the name of the Special Inspection Coordinator and the identity of other approved agencies to be retained for conducting these inspections and tests. This *Statement of Special Inspections* encompass the following disciplines:

☒ Structural ☐ Mechanical/Electrical/Plumbing
☐ Architectural ☐ Other: _____

The Special Inspection Coordinator shall keep records of all inspections and shall furnish inspection reports to the Building Official and the Registered Design Professional in Responsible Charge. Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Registered Design Professional in Responsible Charge. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

Interim reports shall be submitted to the Building Official and the Registered Design Professional in Responsible Charge.

A *Final Report of Special Inspections* documenting completion of all required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Use and Occupancy.

Job site safety and means and methods of construction are solely the responsibility of the Contractor.

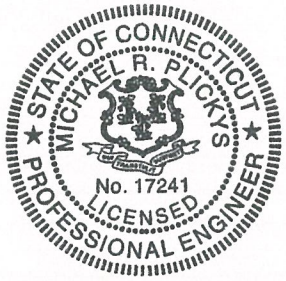
Interim Report Frequency: ***Weekly*** or ☐ per attached schedule.

Prepared by:

Michael R. Plickys, P.E.
(type or print name)

Mike Plickys
Signature

1/9/20
Date



Design Professional Seal

Owner's Authorization:

Signature Date

Building Official's Acceptance:

Signature Date

Schedule of Inspection and Testing Agencies

This Statement of Special Inspections / Quality Assurance Plan includes the following building systems:

- ☒ Soils and Foundations
- ☒ Cast-in-Place Concrete
- ☐ Precast Concrete
- ☒ Masonry
- ☒ Structural Steel
- ☐ Cold-Formed Steel Framing
- ☐ Spray Fire Resistant Material
- ☒ Wood Construction
- ☐ Exterior Insulation and Finish System
- ☐ Mechanical & Electrical Systems
- ☐ Architectural Systems
- ☐ Special Cases

Special Inspection Agencies	Firm	Address, Telephone, e-mail
1. **Special Inspection Coordinator**	Macchi Engineers, LLC Michael R. Plickys, P.E. CT No. 17241	44 Gillett Street Hartford, CT 06105 mplickys@macchiengineers.com (860) 549-6190
2. Inspector		
3. Inspector		
4. Testing Agency	TBD	
5. Testing Agency		
6. Other	Dr. Clarence Welti, P.E., P.C.	227 Williams Street Glastonbury, CT, 06033 (860) 633-4623

Note: The inspectors and testing agencies shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official, prior to commencing work.

Quality Assurance Plan

Quality Assurance for Seismic Resistance

Seismic Design Category	*B*
Quality Assurance Plan Required (Y/N)	*N*

Description of seismic force resisting system and designated seismic systems:
Combination Ordinary Moment Frame, and Shear Walls

Quality Assurance for Wind Requirements

Basic Wind Speed (3 second gust) 112 MPH	*Vasd (Groton)*
Wind Exposure Category	*B*
Quality Assurance Plan Required (Y/N)	*N*

Description of wind force resisting system and designated wind resisting components:
Same as Seismic

Statement of Responsibility

Each contractor responsible for the construction or fabrication of a system or component designated above must submit a Statement of Responsibility.

Qualifications of Inspectors and Testing Technicians

The qualifications of all personnel performing Special Inspection and testing activities are subject to the approval of the Building Official. The credentials of all Inspectors and testing technicians shall be provided if requested.

Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge deems it appropriate that the individual performing a stipulated test or inspection have a specific certification or license as indicated below, such designation shall appear below the *Agency Number* on the Schedule.

PE/SE	Structural Engineer – a licensed SE or PE specializing in the design of building structures
PE/GE	Geotechnical Engineer – a licensed PE specializing in soil mechanics and foundations
EIT	Engineer-In-Training – a graduate engineer who has passed the Fundamentals of Engineering examination

American Concrete Institute (ACI) Certification

ACI-CFTT	Concrete Field Testing Technician – Grade 1
ACI-CCI	Concrete Construction Inspector
ACI-LTT	Laboratory Testing Technician – Grade 1&2
ACI-STT	Strength Testing Technician

American Welding Society (AWS) Certification

AWS-CWI	Certified Welding Inspector
AWS/AISC-SSI	Certified Structural Steel Inspector

American Society of Non-Destructive Testing (ASNT) Certification

ASNT	Non-Destructive Testing Technician – Level II or III.

International Code Council (ICC) Certification

ICC-SMSI	Structural Masonry Special Inspector
ICC-SWSI	Structural Steel and Welding Special Inspector
ICC-SFSI	Spray-Applied Fireproofing Special Inspector
ICC-PCSI	Prestressed Concrete Special Inspector
ICC-RCSI	Reinforced Concrete Special Inspector

National Institute for Certification in Engineering Technologies (NICET)

NICET-CT	Concrete Technician – Levels I, II, III & IV
NICET-ST	Soils Technician - Levels I, II, III & IV
NICET-GET	Geotechnical Engineering Technician - Levels I, II, III & IV

Exterior Design Institute (EDI) Certification

EDI-EIFS	EIFS Third Party Inspector

Other

_____ _____

Soils and Foundations

Item	Agency # (Qualif.)	Scope
1. Shallow Foundations	4,6 PE/GE	Inspect soils below footings for adequate bearing capacity and consistency with geotechnical report. Inspect removal of unsuitable material and preparation of subgrade prior to placement of controlled fill Geotechnical Engineer to inspect subgrade prior to footing placement.
2. Controlled Structural Fill	4,6 PE/GE	Perform sieve tests (ASTM D422 & D1140) and modified Proctor tests (ASTM D1557) of each source of fill material. Inspect placement, lift thickness and compaction of controlled fill. Test density of each lift of fill by nuclear methods (ASTM D2922) Verify extent and slope of fill placement.
3. Deep Foundations	NA	
4. Load Testing	NA	
4. Other:	NA	

Item	Agency # (Qualif.)	Scope
1. Mix Design	1 ACI-CCI ICC-RCSI	Review concrete batch tickets and verify compliance with approved mix design. Verify that water added at the site does not exceed that allowed by the mix design.
2. Material Certification		
3. Reinforcement Installation	4 ACI-CCI ICC-RCSI	Inspect size, spacing, cover, positioning and grade of reinforcing steel. Verify that reinforcing bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters
4. Post-Tensioning Operations	NA	
5. Welding of Reinforcing	4 AWS-CWI	Visually inspect all reinforcing steel welds. Verify weldability of reinforcing steel. Inspect preheating of steel when required.
6. Anchor Rods	4	Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors.
7. Concrete Placement	4 ACI-CCI ICC-RCSI	Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.
8. Sampling and Testing of Concrete	4 ACI-CFTT ACI-STT	Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064).
9. Curing and Protection	1,4 ACI-CCI ICC-RCSI	Inspect curing, cold weather protection and hot weather protection procedures.
10. Other:		

Item	Agency # (Qualif.)	Scope
1. Material Certification	1	Review material certifications to confirm compliance with specifications.
2. Mixing of Mortar and Grout	4 ICC-SMSI	Inspect proportioning, mixing and retempering of mortar and grout.
3. Installation of Masonry	4 ICC-SMSI	Inspect size, layout, bonding and placement of masonry units.
4. Mortar Joints	4 ICC-SMSI	Inspect construction of mortar joints including tooling and filling of head joints.
5. Reinforcement Installation	4 ICC-SMSI AWS-CWI	Inspect placement, positioning and lapping of reinforcing steel. Inspect welding of reinforcing steel.
6. Prestressed Masonry	NA	
7. Grouting Operations	4 ICC-SMSI	Inspect placement and consolidation of grout. Inspect masonry clean-outs for high-lift grouting.
7. Weather Protection	1,4 ICC-SMSI	Inspect cold weather protection and hot weather protection procedures. Verify that wall cavities are protected against precipitation.
9. Evaluation of Masonry Strength	4 ICC-SMSI	Test compressive strength of mortar and grout cube samples (ASTM C780). Test compressive strength of masonry prisms (ASTM C1314). Take prisms every 5,000 s.f. of wall area.
10. Anchors and Ties	4 ICC-SMSI	Inspect size, location, spacing and embedment of dowels, anchors and ties.
11. Other:		

Item	Agency # (Qualif.)	Scope
1. Fabricator Certification/ Quality Control Procedures ☒ Fabricator Exempt	1,4 AWS/AIS C-SSI ICC-SWSI	Review shop fabrication and quality control procedures. Conduct one ½ day inspection of existing fabrication facilities to review shop standards and quality control procedures.
2. Material Certification	1 AWS/AIS C-SSI ICC-SWSI	Review certified mill test reports and identification markings on wide-flange shapes, high-strength bolts, nuts and welding electrodes
3. Open Web Steel Joists	NA	
4. Bolting	NA	
5. Welding	4 AWS-CWI ASNT	Visually inspect all welds. Inspect pre-heat, post-heat and surface preparation between passes. Verify size and length of fillet welds.
6. Shear Connectors	NA	
7. Structural Details	1,4 PE/SE	Inspect steel lintels for compliance with structural drawings, including bracing, member configuration and connection details.
8. Metal Deck		
9. Other:		

Item	Agency # (Qualif.)	Scope
1. Fabricator Certification/ Quality Control Procedures ☐ Fabricator Exempt	4	Review truss fabricators quality control procedures.
2. Material Grading	NA	
3. Connections	1,4	Connections to masonry walls, truss lateral bracing, and all blocking shall be inspected for compliance with design drawings and approved shop drawings.
4. Framing and Details	1,4	Inspect the installation of all trusses, truss lateral bracing and all connections to masonry walls f or compliance with design drawings and approved shop drawings.
5. Diaphragms and Shearwalls	4	Inspect installation of plywood sheathing to confirm plywood thickness and attachment to timber trusses.
6. Prefabricated Wood Trusses		See 3 above.
7. Permanent Truss Bracing	1,4	Inspect the installation of all timber truss bracing to ensure compliance with approved shop drawings.
8. Other:		