

PROJECT:

Green Meadow Elementary School -
Early Site Package
5 Tiger Drive
Maynard, MA 01754
Project No.

ADDENDUM NO. 3 06/14/2024

Posted: 06/14/2024 at 2:22PM EDT

Awarding Authority/Owner:

Town of Maynard
195 Main Street
Maynard, MA 01754

Reference Contract Documents (drawings and specifications) dated 05/22/2024

The attention of Bidders submitting proposals for the above subject project is called to the following addendum to the specifications and drawings. The items set forth herein, whether of omission, addition, substitution, or clarifications are all to be included in and form a part of the proposal submitted.

THE NUMBER OF THIS ADDENDUM (3) MUST BE ENTERED IN THE APPROPRIATE SPACE "B" PROVIDED AFTER THE WORD "NUMBERS" OF THE CONTRACT FORM ENTITLED "FORM FOR GENERAL BID," AND IN SPACE "B" OF THE "FORM FOR SUB-BID."

BID DOCUMENT MODIFICATIONS ARE AS FOLLOWS.

General Bid Date Changes:

Modify the general bid date as follows.
Change the general bid date and time from 06/20/2024 at 2:00PM EDT to read **06/27/2024 at 2:00PM EDT.**

Specifications:

- Replace the following technical sections in their entirety. (See attached)
00 41 13 Form for General Bid

Clarifications:

GENERAL

RFI #8 - Type: General

Drawing ref: N/A

Section ref: 01-00-00 General Requirements

Other ref: N/A

Question:

Please provide a scope of work defining the work to be performed under this lump sum project. Under section 1.04 E, "Basis of Design" heading, it gives a brief description of the work but does not mention anything about the geothermal wells or piping.

Response: (Prime Designer)

Refer to project bid/addendum documents for geothermal well and piping scope of work.

RFI #16 - Type: General

Drawing ref: N/A

Section ref: 01-22-00 Unit Prices

Other ref: N/A

Question:

Are the Unit Prices on the bid form - add or deduct? Are we required to carry the cost for the 100 cubic yard quantity stated for each item, in our base bid?

Response: (Prime Designer)

Refer to section 01 22 00 Unit Prices for additional information regarding unit prices.

RFI #20 - Type: General

Drawing ref: N/A

Section ref: Earth Moving 31-20-00

Other ref: Blasting

Question:

Under the Blasting specification it prohibits blasting for occurring during school hours, and Weekends, with no one present in the school building. With 20,000 cy of rock to blast, when will the Contractor be allowed to perform the blasting operation?

Response: (Prime Designer)

Refer to section 31 20 00 Earth Moving spec issued in addendum 2 for updated information.

CIVIL

RFI #3 - Type: Civil

Drawing ref: All

Section ref: 31 20 00, 31 09 13

Question:

Will we be provided any additional borings/test pits where we are performing deep excavations? We do not have any borings where the wall excavations are, and there are a few large outcroppings. The provided borings are only where the proposed building is.

Response: (Prime Designer)

Refer to Geotechnical Reports included/issued in bid/addendum documents for extent of borings/test pits.

RFI #37 - Type: Civil

Section ref: Disposal

Question:

In Addendum #2 the site LSP has not provided a report with his testing. If the site LSP going to provide site contractors with a report indicating the disposal site he would like excess material taken? Do these sites need an ACO? If this material is clean the site LSP should be indicating in his report this excess material can be removed from the site as unregulated with no restrictions. If not the transportation and disposal of excess material should be completed on a unit price basis. treated

Response: (Prime Designer)

Refer to all environmental reports included in the bid/addendum documents.

RFI #40 - Type: Civil

Drawing ref: none

Section ref: 31 20 00 3.01.F.3

Other ref: none

Question:

Earthmoving spec section 3.01.F.3 mentions credit for quantities less than given. Where shall bidders carry/list these unit prices for topsoil removal, unsuitables, cut to fill onsite material, and fill with import?

Response: (Prime Designer)

Refer to spec section 01 22 00 Unit Prices for additional information.

Other Modifications / Attachments:

The following attachment includes additional modifications, clarifications and/or provisions not included in the items above in this Addendum.

See document at the end of document.

All other of the portions of the Contract Documents remain **unchanged**. Please be reminded to acknowledge this Addendum on the bid forms.

ATTACHMENTS

00 41 13 Form for General Bid
Addendum 03 Combined Documents.pdf

--- End of Addendum No. **3** ---

ADDENDUM NO. 3
to the Contract Documents Bid Set dated May 22, 2024

GREEN MEADOW ELEMETARY SCHOOL PROJECT
EARLY SITE BID PACKAGE
Maynard, Massachusetts

Mount Vernon Group Architects, Inc.
264 Exchange Street
Suite G4
Chicopee, MA 01013

Addendum Date: **June 14, 2024**

TO ALL BIDDERS AND SUB-BIDDERS

This Addendum modifies, amends, and supplements designated parts of the Contract Documents for – Green Meadow Elementary School Early Site Bid Package, Maynard, Massachusetts bid set dated May 22, 2024, Addendum No. 01 dated June 07, 2024, Addendum NO. 02 dated June 12, 2024, and is hereby made a part thereof by reference and shall be as binding as though inserted in its entirety in the locations designated hereunder. It shall be the responsibility of each General Bidder to notify all sub-contractors and suppliers he/she proposes to use for the various parts of the works, of any changes or modifications contained in this Addendum. No claims for additional compensation because of the lack of knowledge of the contents of this Addendum will be considered.

THE NUMBER OF THIS ADDENDUM MUST BE INSERTED IN PARAGRAPH B. OF THE “FORM FOR GENERAL BID”

THIS ADDENDUM CONSISTS OF PAGES NUMBERED: **AD3-1 through AD3-2**

NEW SPECIFICATIONS: 00 41 13_Form for General Bid_ADD3
Soil Sampling Report_ADD3

CHANGES TO THE BID SET PROJECT MANUAL

SECTION 00 00 10 – TABLE OF CONTENTS

- ITEM 01: At page 1, Division 00, delete “Section 00 41 13 – Form for General Bid” and replace with the following:
“(1)00 41 13 – Form for General Bid_ADD3 June 14, 2024”
- ITEM 02: At page 2, Division 31, below “Phase 1 – Environmental Site Assessment” add the following:
“Soil Sampling Report_ADD3 June 14, 2024
31 09 13.1 - DD Phase Geotechnical Report Dated April 27, 2024 April 27, 2024
31 09 16.1 - Soil Sampling Report Green Meadow School April 2024 April 8, 2024”
- ITEM 03: At page 2, Division 31, after “31 20 00 - Earth Moving” add “_ADD3”.
- ITEM 04: At page 2, Division 31, below “31 25 00 – Erosion and Sedimentation Controls” add the following:
“33 61 38 - Geothermal Test Loop Memo February 1, 2024”
- ITEM 05: At page 2, Division 31, above “33 32 23 - Segmental Retaining Walls” add the following:
“33 10 00 – Water Utilities June 4, 2024”

SECTION 00 11 16 – INVITATION TO BID

- ITEM 01: At page 1, delete second paragraph and replace with the following:
“The Green Meadow Elementary School – Early Site Package shall include Work, but not limited to; site demolition including walks, stairs and paved areas, removal of trees and stumps, cutting and capping of utility pipes that will remain on-site, removal and disposal of utility services, excavation and removal of fill, excavation and removal of ledge and rock, installation, and compaction of fill, grading to subgrade, slope stabilization, sediment, and erosion control, installation of site retaining walls and fencing, installation of geothermal wells and piping.”
- ITEM 02: At page 1, third paragraph, delete “\$4,500,000.00” and replace with “\$4,500,000”.
- ITEM 03: At page 1, sixth paragraph, Sealed Bid for the General Contract, delete “June 20, 2024” and replace with “June 27, 2024”.

SECTION 00 41 13 – FORM FOR GENERAL BID

- ITEM 01: Delete Section in its entirety and replace with attached 00 41 13_Form for General Bid_ADD3.

SECTION 01 22 00 – UNIT PRICES

- ITEM 01: At page 2, Paragraph 1.04C, Unit Price No. 1, after “removal of petroleum”, add “and”.
- ITEM 02: At page 2, Paragraph 1.04C, add the following unit price:
“Unit Price No. 4: Excavation, stockpiling, and removal of unsuitable soil materials and replace with imported suitable backfill materials compacted in place that is more than or less than 100 cubic yards specified in accordance with requirements of Section 31 20 00 - Earth Moving.”

END OF ADDENDUM NO. 3

SECTION 00 41 13

FORM FOR GENERAL BID

FROM:

TO BE FILLED ONLINE

TO BE FILLED ONLINE

TO BE FILLED ONLINE

TO:

A. The undersigned proposes to furnish all labor and materials required for the Green Meadow Elementary School – Early Site Package, 5 Tiger Drive, Maynard, MA 01754, in accordance with the accompanying Plans and Specifications prepared by the Mount Vernon Group Architects, Inc., 264 Exchange St., Suite G7, Chicopee, MA 01013, (413) 592-9700, for the Contract Price specified below, subject to additions and deductions according to the terms of the Specifications.

B. This Bid includes addenda numbered: _____ TO BE FILLED ONLINE

C. The Proposed Contract Price is: _____ TO BE FILLED ONLINE

_____ TO BE FILLED ONLINE Dollars (\$) _____ TO BE FILLED ONLINE)

D. UNIT PRICES

As authorized by the Owner, should the quantities of certain classes of work to be increased or decreased, as described below, the Unit Prices listed below shall be the basis of payment to the General Contractor, or credit to the Owner, for such increase or decrease in the Work. The Unit Prices shall represent the exact net amount, per unit, to be paid to the General Contractor, in the case of additions. No additional adjustment shall be allowed for overhead, profit, insurance, or other direct or indirect expenses of the General Contractor. No additional adjustments shall be allowed for over excavation, or other related work, without prior written approval of the Owner. The Owner reserves the right to negotiate total additive or deductive change value for any line items which deviate more than 25% from the stated quantities below. Unit prices to be included in the General Contractors base bid.

Unit Price No. 1: Excavation, stockpiling, and removal of petroleum and contaminated soil materials and replace with imported suitable backfill materials compacted in place that is more than or less than 100 cubic yards at \$ _____ per cubic yard, for a total of _____ (\$ _____).

GREEN MEADOW ELEMENTARY SCHOOL - EARLY SITE PACKAGE

5 TIGER DRIVE, MAYNARD, MA 01754

Mount Vernon Group Architects, Inc., Project No. 02021.10

JUNE 14, 2024

ADDENDUM NO. 3

Unit Price No. 2: Excavation, stockpiling, and removal of ledge and boulders measured at 2 cubic yards and larger for the open site excavation and replace with imported suitable backfill materials compacted in place that is more than or less than 100 cubic yards at

\$ _____ per cubic yard, for a total of _____
_____ (\$_____).

Unit Price No. 3: Excavation, stockpiling, and removal of ledge and boulders measured at 2 cubic yards and larger to provide trenches for utility pipes, conduits, and structures and replace with imported suitable backfill materials compacted in place that is more than or less than 100 cubic yards at

\$ _____ per cubic yard, for a total of _____
_____ (\$_____).

Unit Price No. 4: Excavation, stockpiling, and removal of unsuitable soil materials and replace with imported suitable backfill materials compacted in place that is more than or less than 100 cubic yards at

\$ _____ per cubic yard, for a total of _____
_____ (\$_____).

The undersigned agrees that if he is selected as General Contractor, he shall promptly confer with the Awarding Authority on the question of Sub-bidders and that the Awarding Authority may substitute for any sub-bid listed above a sub-bid duly filed with the Awarding Authority by another sub-bidder for the sub-trade, against whose standing and ability the undersigned makes no objection; and that the undersigned shall use all such finally selected sub-bidders at the amount named in their respective sub-bids and be in every way responsible for them and their Work as if they had been originally named in this General Bid the total Contract Price being adjusted to conform thereto.

The undersigned agrees that, if he is selected as General Contractor, he shall within days, Saturdays, Sundays and legal holidays excluded, after presentation thereof by the Awarding Authority, execute a Contract in accordance with the terms of this General Bid and furnish a performance bond and also a labor and materials or payment bond each of a surety company qualified to do business under the laws of the Commonwealth and satisfactory to the Awarding Authority and each in the sum of one hundred percent (100%) of the Contract Price, the premiums for which are to be paid by the General Contractor and are included in the Contract Price.

The undersigned hereby certifies that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the Work; that all employees to be employed at the worksite shall have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and that he shall comply fully with all laws and regulations applicable to awards made subject to Massachusetts General Laws, Chapter 149 as amended to date.

The undersigned hereby certifies under the penalties of perjury that this bid is in all respects bona fide, fair, and made without collusion, fraud, and conflict of interest with any other person. As used in this subsection the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity.

The undersigned further certifies under penalty of perjury that the said undersigned is not presently debarred from doing public construction work in the Commonwealth under the provisions of section twenty-nine F of chapter twenty-nine, or any other applicable debarment provisions of any other chapter of the General Laws or any other rule or regulation promulgated thereunder.

The undersigned certifies that he shall comply with the provisions of the "Supplemental Equal Employment Opportunity Anti-Discrimination and Affirmative Action Program" as set forth in the contract, Article XII, included under Section 00 73 43 - Labor Standard of the Commonwealth.

**GREEN MEADOW ELEMENTARY SCHOOL - EARLY SITE PACKAGE
5 TIGER DRIVE, MAYNARD, MA 01754**

**JUNE 14, 2024
ADDENDUM NO. 3**

Mount Vernon Group Architects, Inc., Project No. 02021.10

Should the notice to General Contractors, bid form, contract, plans or specifications require submission of special data to accompany the bid, the awarding authority reserved the right to rule the bidder's failure to submit such data an informality and to receive said bid subsequently, within reasonable time as set by the awarding authority.

TAXES: Required by MGL Chapter 62c, Section 49A, the undersigned certifies that he or she has complied with all laws of the Commonwealth relating to taxes, reporting of employees and General Contractors, and withholding and remitting child support.

DATE _____

(Name of General Bidder)

Federal Employer's
Identification Number _____

(Signature) (Title)

(Telephone)

(Business Address)

(City, State and Zip Code)

END OF SECTION

GREEN MEADOW ELEMENTARY SCHOOL - EARLY SITE PACKAGE
5 TIGER DRIVE, MAYNARD, MA 01754
Mount Vernon Group Architects, Inc., Project No. 02021.10

JUNE 14, 2024
ADDENDUM NO. 3

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April 5, 2023

Christopher LeBlanc
Mount Vernon Group Architects, Inc.
264 Exchange Street, Suite G4
Chicopee, MA 02013

RE: Soil Sampling and Analysis:
Green Meadow Elementary School
5 Tiger Drive
Maynard, Massachusetts

Dear Christopher:

In accordance with the March 15, 2023 proposal, approved by Mount Vernon Group Architects, Inc. (MVG), Lord Environmental, Inc. (LEI) has completed soil sampling and analyses at the referenced property. The objective of this work has been to evaluate shallow soil at the proposed new building location to determine the extent, if any, of urban fill, including benzo (b) fluoranthene, previously detected on an abutting property as summarized in a report titled "*Response Action Outcome Statement, Maynard Public School Department, Green Meadow School Soccer Field, Off Great Road, Maynard, Massachusetts, Release Tracking Number 2-12298*", dated July 1998 which indicated contamination on the soccer field located on Parcel 2, Sheet 24 on the Town of Maynard Assessor's Map. Additional sampling and analysis was completed in the area of the subject property adjacent to the previously-identified benzo (b) fluoranthene (north and west perimeter of the playground east of the school). A Site Plan is attached as Figure 1.

Soil Sampling and Organic Vapor Screening

A total of seventy-three (73) soil borings, designated B-1 to B-73, were advanced at the Site on March 22 and March 24, 2023 to evaluate shallow soil conditions. Soil borings were advanced with a GeoProbe® 6712DT track-mounted, direct-push drill rig in locations as shown on the attached Site Plan (Figure 1). Continuous soil samples were collected in acetate sleeves to a depth of 3 feet below surface grade in all borings. Generally, soil encountered during drilling consisted of a loam topsoil to depths ranging from 2-8 inches with underlying coarse to fine sand and varying amounts of gravel and trace silt. Soil sample descriptions are attached in Table 1. No groundwater was detected.

All soil samples were screened in the field for total organic vapors (TOV) using a MiniRAE photoionization detector (PID) capable of detecting organic vapors from petroleum and solvents in soil at concentrations above 0.1 parts per million by volume (ppmv). No organic vapors were detected above the PID detection limit in any of the soil samples.

Laboratory Analyses of Soil

Twelve soil samples were submitted to a Massachusetts certified laboratory for analyses of extractable petroleum hydrocarbons (EPH) with target polycyclic aromatic hydrocarbons (PAH) via MADEP Methodologies. As is shown in Table 2 attached, no PAH compounds were detected above their respective laboratory detection limits.

EPH fractions C₁₉-C₃₆ aliphatic hydrocarbons and C₁₁-C₂₂ aromatic hydrocarbons were detected. C₁₉-C₃₆ aliphatics were detected in two soil samples at concentrations of 17.7 milligram per kilogram (mg/kg) in B-2 and 15.7 mg/kg in B-52. Both detected concentrations of C₁₉-C₃₆ aliphatics are slightly above the laboratory detection limit of 15.1 mg/kg and well below the MADEP S-1 Reportable Concentration of 3,000 mg/kg.

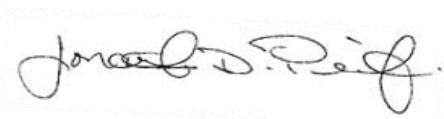
C₁₁-C₂₂ aliphatics were detected in two soil samples at concentrations of 21 mg/kg in B-18 and 8.7 mg/kg in B-52. Both detected concentrations of C₁₁-C₂₂ aliphatics are slightly above the laboratory detection limit of approximately 7.5 mg/kg and well below the MADEP S-1 Reportable Concentration of 1,000 mg/kg.

Conclusions

No organic vapors were detected above the field screening instrument detection limit. No PAHs were detected above the laboratory detection limits. EPH fractions were detected in three soil samples but at concentrations well below the MADEP S-1 Reportable Concentrations.

Feel free to call with any questions or comments. We appreciate the opportunity to provide our professional environmental consulting and analytical services.

Sincerely,
LORD ENVIRONMENTAL, INC.



Jonathon D. Puliafico, CPG
Senior Project Manager



Ralph J. Tella, LSP, CHMM
President

Enc: Limitations
Site Plan
Tables
Laboratory Analysis Report

Limitations

No warranty, whether expressed or implied, is given with respect to this report or any opinions expressed herein. It is expressly understood that this report and the opinions expressed herein are based upon Site conditions as they existed only at the time of assessment.

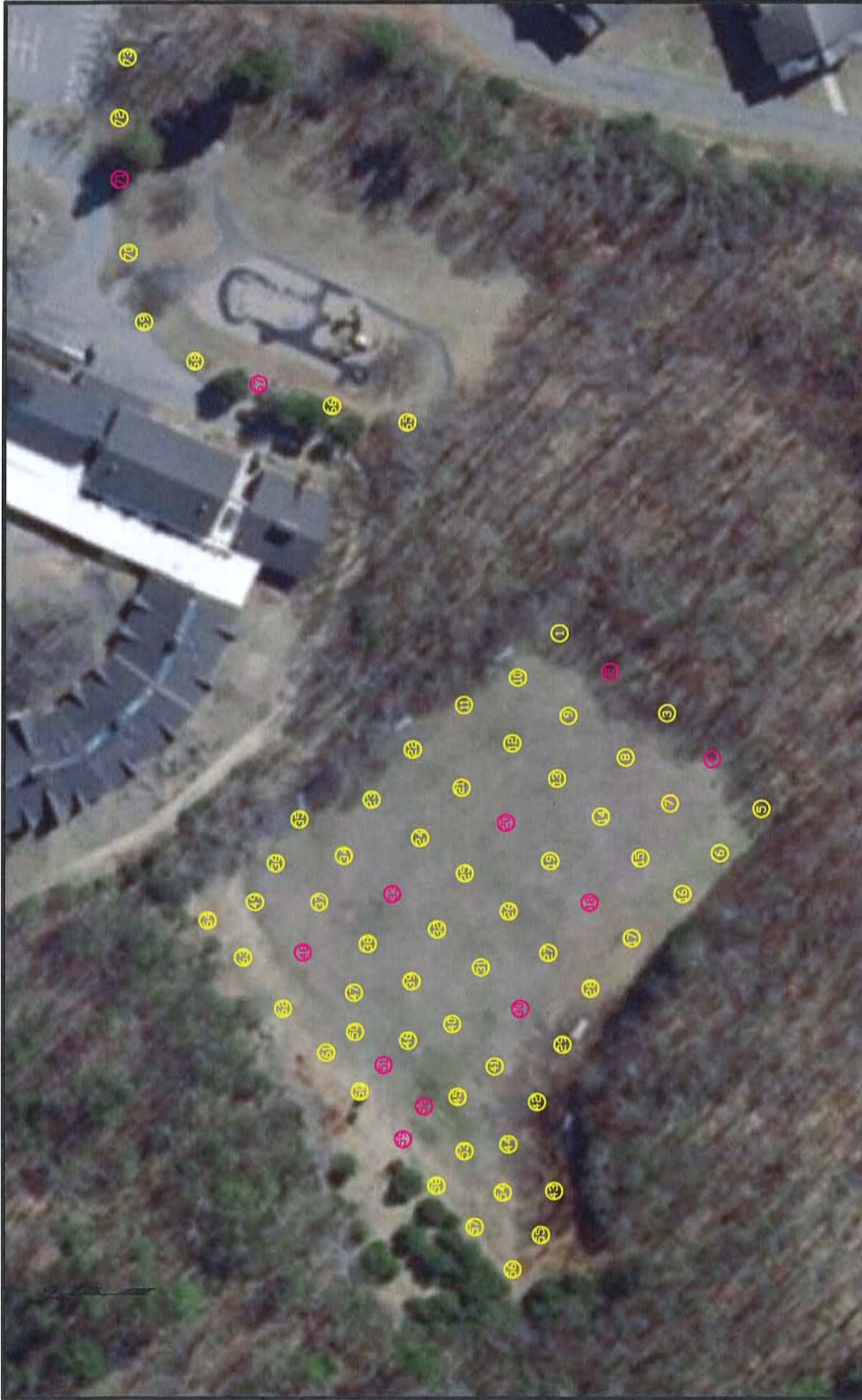
The data reported and the findings, observations, and opinions expressed in the report are limited by the Scope of Work. The Scope of Work was performed based on budgetary, time, and other constraints imposed by the Client, and the agencies and persons reviewed.

Due to the fact that geological and soil formations are inherently random, variable and indeterminate (heterogeneous) in nature, the professional services and opinions provided by Lord Associates, Inc. under our agreement are not guaranteed to be a representation of complete Site conditions, which are variable and subject to change with time or the result of natural or man-made processes.

Although our services are extensive, opinions, findings and conclusions presented are limited to and by the data supplied, reported and obtained. Lord Associates, Inc. makes no expressed or implied representations, warranties or guarantees regarding any changes in condition of the premises after the date of the on-site inspection(s).

In preparing this report, Lord Associates, Inc. has relied upon and presumed accurate certain information about the Site and adjacent properties provided by governmental agencies, the client and others identified in the report. Except as otherwise stated in the report, Lord Associates, Inc. has not attempted to verify the accuracy or completeness of any such information.

FIGURES



LORD ENVIRONMENTAL, INC.
 1506 PROVIDENCE HWY #30 (781) 255-5554
 NORWOOD, MA FAX (781) 255-5535

SITE:
 GREEN MEADOW ELEMENTARY SCHOOL
 5 TIGER DRIVE
 MAYNARD, MA

TITLE:
SAMPLING PLAN

FILE:
 Soil Sampling Plan

DRAWN BY:
 JDP

SHEET:
 1 of 1

FIGURE:
 1

DATE/REV:
 4/4/2023

LEGEND:



SOIL SAMPLING LOCATION w/LAB ANALYSIS

NOTES:

Scale: 1" = 100' (approx)

TABLES

Table 1**SOIL BORING LOGS - FIELD SCREENING****5 TIGER DRIVE, MAYNARD, MA****BORING METHOD: Geoprobe 6712DT Track Rig DATES: March 22 and 24, 2023**

Boring	Depth (ft)	PID Reading (ppm)	Soil Description
B-1	0-3	ND	3" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-2	0-3	ND	6" Loam topsoil. Brown, medium to fine sand, little coarse sand, trace silt
B-3	0-3	ND	4" Loam topsoil. Brown, coarse to fine sand, little coarse sand, trace silt
B-4	0-3	ND	3" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-5	0-3	ND	3" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-6	0-3	ND	7" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-7	0-3	ND	2" Loam topsoil. Brown, medium to fine sand, little coarse sand, trace gravel, silt
B-8	0-3	ND	7" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-9	0-3	ND	3" Loam topsoil. Brown, coarse to fine sand and gravel
B-10	0-3	ND	4" Loam topsoil. Brown, coarse to fine sand and gravel
B-11	0-3	ND	4" Loam topsoil. Brown, coarse to fine sand and gravel
B-12	0-3	ND	3" Loam topsoil. Brown, coarse to fine sand, some gravel, trace silt
B-13	0-3	ND	3" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-14	0-3	ND	2" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-15	0-3	ND	2" Loam topsoil. Brown, coarse to fine sand, some gravel, trace silt
B-16	0-3	ND	3" Loam topsoil. Brown, coarse to fine sand, some gravel, trace silt
B-17	0-3	ND	2" Loam topsoil. Brown, coarse to fine sand, some gravel, trace silt
B-18	0-3	ND	2" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-19	0-3	ND	2" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-20	0-3	ND	2" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-21	0-3	ND	3" Loam topsoil. Brown, coarse to fine sand, some gravel, trace silt
B-22	0-3	ND	2" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-23	0-3	ND	3" Loam topsoil. Brown, coarse to fine sand, some gravel, trace silt
B-24	0-3	ND	2" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-25	0-3	ND	2" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-26	0-3	ND	2" Loam topsoil. Red brown, coarse to fine sand, some gravel, trace silt
B-27	0-3	ND	2" Loam topsoil. Red brown, coarse to fine sand, some gravel, trace silt
B-28	0-3	ND	Brown, coarse to fine sand, some gravel, trace silt
B-29	0-3	ND	6" Loam topsoil. Red brown, coarse to fine sand, some gravel, trace silt
B-30	0-3	ND	6" Loam topsoil. Red brown, coarse to fine sand, some gravel, trace silt
B-31	0-3	ND	6" Loam topsoil. Red brown, coarse to fine sand, some gravel, trace silt
B-32	0-3	ND	4" Loam topsoil. Red brown, medium to fine sand, some gravel, little coarse sand, trace silt
B-33	0-3	ND	4" Loam topsoil. Red brown, medium to fine sand, some gravel, little coarse sand, trace silt
B-34	0-3	ND	4" Loam topsoil. Red brown, medium to fine sand, some gravel, little coarse sand, trace silt
B-35	0-3	ND	Red brown, coarse to fine sand, some gravel, trace silt
B-36	0-3	ND	Red brown, coarse to fine sand, some gravel, trace silt
B-37	0-3	ND	6" Loam topsoil. Brown, medium to fine sand, little coarse sand, trace silt
B-38	0-3	ND	6" Loam topsoil. Brown, coarse to fine sand and gravel. One 1' boulder
B-39	0-3	ND	3" Loam topsoil. Brown, medium to fine sand, little coarse sand, trace silt
B-40	0-3	ND	Brown, coarse to fine sand, little gravel, trace silt
B-41	0-3	ND	Brown, coarse to fine sand, little gravel, trace silt
B-42	0-3	ND	3" Loam topsoil. Brown, medium to fine sand, little coarse sand, trace silt
B-43	0-3	ND	4" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt

Table 1**SOIL BORING LOGS - FIELD SCREENING****5 TIGER DRIVE, MAYNARD, MA****BORING METHOD: Geoprobe 6712DT Track Rig DATES: March 22 and 24, 2023**

Boring	Depth (ft)	PID Reading (ppm)	Soil Description
B-44	0-3	ND	4" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-45	0-3	ND	4" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-46	0-3	ND	4" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-47	0-3	ND	8" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-48	0-3	ND	3" Loam topsoil. Brown, medium to fine sand, some silt
B-49	0-3	ND	4" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-50	0-3	ND	10" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-51	0-3	ND	3" Loam topsoil. Brown, coarse to fine sand, trace gravel, silt
B-52	0-3	ND	Brown and grey, coarse to fine sand, little gravel, silt
B-53	0-3	ND	Brown, coarse to fine sand, little gravel, trace
B-54	0-3	ND	Brown and grey, coarse to fine sand, little gravel, silt
B-55	0-3	ND	4" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-56	0-3	ND	4" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-57	0-3	ND	4" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-58	0-3	ND	3" Loam topsoil. Brown, medium to fine sand, little gravel, coarse sand, trace silt
B-59	0-3	ND	3" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-60	0-3	ND	3" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-61	0-3	ND	3" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-62	0-3	ND	3" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-63	0-3	ND	4" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-64	0-3	ND	8" Loam topsoil. Brown, coarse to fine sand, little cobbles, gravel, trace silt
B-65	0-3	ND	4" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-66	0-3	ND	4" Loam topsoil. Brown, medium to fine sand, trace gravel, coarse sand, silt
B-67	0-3	ND	2" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-68	0-3	ND	6" Loam topsoil. Brown, coarse to fine sand, little gravel, trace silt
B-69	0-3	ND	2" Loam topsoil. Brown, coarse to fine sand, some gravel, trace silt
B-70	0-3	ND	2" Loam topsoil. Brown, coarse to fine sand, some gravel, trace silt
B-71	0-3	ND	Brown, coarse to fine sand, little gravel, trace silt
B-72	0-3	ND	Brown, medium to fine sand, trace gravel, coarse sand, silt
B-73	0-3	ND	Brown, coarse to fine sand, little gravel, trace silt

Notes:

ND – Not Detected

Table 2
Soil Analysis Results (mg/kg), 3/24/2023
5 Tiger Drive, Maynard, MA

Sample	B-2		B-4		B-18		B-20		B-30		B-33		B-48		B-51		B-52		B-59		B-67		B-71		MADEP Standards	
	3/22/23		3/22/23		3/22/23		3/22/23		3/24/23		3/24/23		3/24/23		3/24/23		3/24/23		3/24/23		3/24/23		3/24/23		RC-S1	RC-S2
Date Sampled:	Sample Result	RL	Sample Result	RL	Sample Result	RL	Sample Result	RL	Sample Result	RL	Sample Result	RL	Sample Result	RL	Sample Result	RL	Sample Result	RL	Sample Result	RL	Sample Result	RL	Sample Result	RL		
EPH and PAH																										
Unadjusted C11-C22 Aromatic Hydrocarbons	ND	7.59	ND	7.48	21	8.46	ND	6.99	ND	7.04	ND	7.47	ND	7.57	ND	7.57	8.7	7.53	ND	7.63	ND	7.26	ND	7.33		
Naphthalene	ND	0.38	ND	0.37	ND	0.42	ND	0.35	ND	0.35	ND	0.37	ND	0.37	ND	0.37	ND	0.37	ND	0.38	ND	0.36	ND	0.36	4	20
2-Methylnaphthalene	ND	0.38	ND	0.37	ND	0.42	ND	0.35	ND	0.35	ND	0.37	ND	0.37	ND	0.37	ND	0.37	ND	0.38	ND	0.36	ND	0.36	0.7	80
Phenanthrene	ND	0.38	ND	0.37	ND	0.42	ND	0.35	ND	0.35	ND	0.37	ND	0.37	ND	0.37	ND	0.37	ND	0.38	ND	0.36	ND	0.36	10	1000
Acenaphthene	ND	0.38	ND	0.37	ND	0.42	ND	0.35	ND	0.35	ND	0.37	ND	0.37	ND	0.37	ND	0.37	ND	0.38	ND	0.36	ND	0.36	4	3000
Acenaphthylene	ND	0.38	ND	0.37	ND	0.42	ND	0.35	ND	0.35	ND	0.37	ND	0.37	ND	0.37	ND	0.37	ND	0.38	ND	0.36	ND	0.36	1	10
Fluorene	ND	0.38	ND	0.37	ND	0.42	ND	0.35	ND	0.35	ND	0.37	ND	0.37	ND	0.37	ND	0.37	ND	0.38	ND	0.36	ND	0.36	1000	3000
Anthracene	ND	0.38	ND	0.37	ND	0.42	ND	0.35	ND	0.35	ND	0.37	ND	0.37	ND	0.37	ND	0.37	ND	0.38	ND	0.36	ND	0.36	1000	3000
Fluoranthene	ND	0.38	ND	0.37	ND	0.42	ND	0.35	ND	0.35	ND	0.37	ND	0.37	ND	0.37	ND	0.37	ND	0.38	ND	0.36	ND	0.36	1000	3000
Pyrene	ND	0.38	ND	0.37	ND	0.42	ND	0.35	ND	0.35	ND	0.37	ND	0.37	ND	0.37	ND	0.37	ND	0.38	ND	0.36	ND	0.36	1000	3000
Benzo(a)anthracene	ND	0.38	ND	0.37	ND	0.42	ND	0.35	ND	0.35	ND	0.37	ND	0.37	ND	0.37	ND	0.37	ND	0.38	ND	0.36	ND	0.36	7	40
Chrysene	ND	0.38	ND	0.37	ND	0.42	ND	0.35	ND	0.35	ND	0.37	ND	0.37	ND	0.37	ND	0.37	ND	0.38	ND	0.36	ND	0.36	70	400
Benzo(b)fluoranthene	ND	0.38	ND	0.37	ND	0.42	ND	0.35	ND	0.35	ND	0.37	ND	0.37	ND	0.37	ND	0.37	ND	0.38	ND	0.36	ND	0.36	7	40
Benzo(k)fluoranthene	ND	0.38	ND	0.37	ND	0.42	ND	0.35	ND	0.35	ND	0.37	ND	0.37	ND	0.37	ND	0.37	ND	0.38	ND	0.36	ND	0.36	70	400
Benzo(a)pyrene	ND	0.38	ND	0.37	ND	0.42	ND	0.35	ND	0.35	ND	0.37	ND	0.37	ND	0.37	ND	0.37	ND	0.38	ND	0.36	ND	0.36	2	7
Indeno(1,2,3-cd)pyrene	ND	0.38	ND	0.37	ND	0.42	ND	0.35	ND	0.35	ND	0.37	ND	0.37	ND	0.37	ND	0.37	ND	0.38	ND	0.36	ND	0.36	7	40
Dibenz(a,h)anthracene	ND	0.38	ND	0.37	ND	0.42	ND	0.35	ND	0.35	ND	0.37	ND	0.37	ND	0.37	ND	0.37	ND	0.38	ND	0.36	ND	0.36	0.7	4
Benzo(g,h,i)perylene	ND	0.38	ND	0.37	ND	0.42	ND	0.35	ND	0.35	ND	0.37	ND	0.37	ND	0.37	ND	0.37	ND	0.38	ND	0.36	ND	0.36	1000	3000
C9-C18 Aliphatic Hydrocarbons	ND	15.1	ND	14.9	ND	16.9	ND	13.9	ND	14	ND	14.9	ND	15.1	ND	15.1	ND	15	ND	15.2	ND	14.5	ND	14.6	1000	3000
C19-C36 Aliphatic Hydrocarbons	17.7	15.1	ND	14.9	ND	16.9	ND	13.9	ND	14	ND	14.9	ND	15.1	ND	15.1	15.7	15	ND	15.2	ND	14.5	ND	14.6	3000	5000
C11-C22 Aromatic Hydrocarbons	ND	7.59	ND	7.48	21	8.46	ND	6.99	ND	7.04	ND	7.47	ND	7.57	ND	7.57	8.7	7.53	ND	7.63	ND	7.26	ND	7.33	1000	3000

Notes
mg/kg: Milligrams per kilogram
EPH: Extractable Petroleum Hydrocarbons
PAH: Polycyclic Aromatic Hydrocarbons
RL: Reporting Limit
RC-S1: MassDEP Reportable Concentration S-1
RC-S2: MassDEP Reportable Concentration S-2
Detected analytes are highlighted blue
No analytes were detected above their MADEP S-1 Reportable Concentrations

LABORATORY REPORTS



New England Testing Laboratory, Inc.
(401) 353-3420

REPORT OF ANALYTICAL RESULTS

NETLAB Work Order Number: 3C27022
Client Project: 3096 - MVG Green

Report Date: 04-April-2023

Prepared for:

Jon Puliafico
Lord Environmental, Inc.
1506 Providence Highway, Suite 30
Norwood, MA 02062

Richard Warila, Laboratory Director
New England Testing Laboratory, Inc.
59 Greenhill Street
West Warwick, RI 02893
rich.warila@newenglandtesting.com

Samples Submitted :

The samples listed below were submitted to New England Testing Laboratory on 03/27/23. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to the sample(s) provided to us by the client which are indicated on the custody record. The case number for this sample submission is 3C27022. Custody records are included in this report.

Lab ID	Sample	Matrix	Date Sampled	Date Received
3C27022-01	B-2	Soil	03/22/2023	03/27/2023
3C27022-02	B-4	Soil	03/22/2023	03/27/2023
3C27022-03	B-18	Soil	03/22/2023	03/27/2023
3C27022-04	B-20	Soil	03/22/2023	03/27/2023
3C27022-05	B-30	Soil	03/24/2023	03/27/2023
3C27022-06	B-33	Soil	03/24/2023	03/27/2023
3C27022-07	B-48	Soil	03/24/2023	03/27/2023
3C27022-08	B-51	Soil	03/24/2023	03/27/2023
3C27022-09	B-52	Soil	03/24/2023	03/27/2023
3C27022-10	B-59	Soil	03/24/2023	03/27/2023
3C27022-11	B-67	Soil	03/24/2023	03/27/2023
3C27022-12	B-71	Soil	03/24/2023	03/27/2023

Request for Analysis

At the client's request, the analyses presented in the following table were performed on the samples submitted.

B-18 (Lab Number: 3C27022-03)

Analysis

MADEP EPH

Method

MADEP EPH

B-2 (Lab Number: 3C27022-01)

Analysis

MADEP EPH

Method

MADEP EPH

B-20 (Lab Number: 3C27022-04)

Analysis

MADEP EPH

Method

MADEP EPH

B-30 (Lab Number: 3C27022-05)

Analysis

MADEP EPH

Method

MADEP EPH

B-33 (Lab Number: 3C27022-06)

Analysis

MADEP EPH

Method

MADEP EPH

B-4 (Lab Number: 3C27022-02)

Analysis

MADEP EPH

Method

MADEP EPH

B-48 (Lab Number: 3C27022-07)

Analysis

MADEP EPH

Method

MADEP EPH

B-51 (Lab Number: 3C27022-08)

Analysis

MADEP EPH

Method

MADEP EPH

B-52 (Lab Number: 3C27022-09)

Analysis

MADEP EPH

Method

MADEP EPH

B-59 (Lab Number: 3C27022-10)

Analysis

MADEP EPH

Method

MADEP EPH

B-67 (Lab Number: 3C27022-11)

Analysis

MADEP EPH

Method

MADEP EPH

B-71 (Lab Number: 3C27022-12)

Analysis

MADEP EPH

Method

MADEP EPH

Method References

Method for the Determination of Extractable Petroleum Hydrocarbons, Rev. 2.1, Massachusetts Department of Environmental Protection, 2004

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, USEPA

Case Narrative

Sample Receipt:

The samples associated with this work order were received in appropriately cooled and preserved containers. The chain of custody was adequately completed and corresponded to the samples submitted.

Exceptions: None

Analysis:

All samples were prepared and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control requirements and allowances. Results for all soil samples, unless otherwise indicated, are reported on a dry weight basis.

Exceptions: None

**Extractable Petroleum Hydrocarbons
Sample: B-2 (3C27022-01)**

SAMPLE INFORMATION

Matrix	Soil
Containers	Satisfactory
Aqueous Preservatives	NA
Temperature	Received on Ice Received at: 4+/-2 C°
Extraction Method	EPA Method 3546

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 4-1.1	Client ID	B-2				
Method for Target Analytes: MADEP EPH 4-1.1	Lab ID	3C27022-01				
EPH Surrogate Standards: Aliphatic: Chlorooctadecane Aromatic: o-Terphenyl	Date Collected	03/22/23				
	Date Received	03/27/23				
	Date Thawed	NA				
	Date Extracted	03/30/23				
EPH Fractionation Surrogates: (1) 2-Fluorobiphenyl (2) 2-Bromonaphthalene	Percent Moisture	12.70				
RANGE/TARGET ANALYTE	Dilution	RL	Units	Result	Analyzed	
Unadjusted C11-C22 Aromatic Hydrocarbons [1]	1X	7.59	mg/kg	<7.59	04/03/23 17:27	
Diesel PAH Analytes	Naphthalene	1X	0.38	mg/kg	<0.38	04/03/23 17:27
	2-Methylnaphthalene	1X	0.38	mg/kg	<0.38	04/03/23 17:27
	Phenanthrene	1X	0.38	mg/kg	<0.38	04/03/23 17:27
	Acenaphthene	1X	0.38	mg/kg	<0.38	04/03/23 17:27
Other Target PAH Analytes	Acenaphthylene	1X	0.38	mg/kg	<0.38	04/03/23 17:27
	Fluorene	1X	0.38	mg/kg	<0.38	04/03/23 17:27
	Anthracene	1X	0.38	mg/kg	<0.38	04/03/23 17:27
	Fluoranthene	1X	0.38	mg/kg	<0.38	04/03/23 17:27
	Pyrene	1X	0.38	mg/kg	<0.38	04/03/23 17:27
	Benzo(a)anthracene	1X	0.38	mg/kg	<0.38	04/03/23 17:27
	Chrysene	1X	0.38	mg/kg	<0.38	04/03/23 17:27
	Benzo(b)fluoranthene	1X	0.38	mg/kg	<0.38	04/03/23 17:27
	Benzo(k)fluoranthene	1X	0.38	mg/kg	<0.38	04/03/23 17:27
	Benzo(a)pyrene	1X	0.38	mg/kg	<0.38	04/03/23 17:27
	Indeno(1,2,3-cd)pyrene	1X	0.38	mg/kg	<0.38	04/03/23 17:27
	Dibenz(a,h)anthracene	1X	0.38	mg/kg	<0.38	04/03/23 17:27
Benzo(g,h,i)perylene	1X	0.38	mg/kg	<0.38	04/03/23 17:27	
C9-C18 Aliphatic Hydrocarbons [1]	1X	15.1	mg/kg	<15.1	04/03/23 23:00	
C19-C36 Aliphatic Hydrocarbons [1]	1X	15.1	mg/kg	17.7	04/03/23 23:00	
C11-C22 Aromatic Hydrocarbons [1,2]	1X	7.59	mg/kg	<7.59	04/03/23 17:27	
Chlorooctadecane (Sample Surrogate)			%	90.3	04/03/23 23:00	
o-Terphenyl (Sample Surrogate)			%	76.0	04/03/23 17:27	
2-Fluorobiphenyl (Fractionation Surrogate)			%	99.8	04/03/23 17:27	
2-Bromonaphthalene (Fractionation Surrogate)			%	97.6	04/03/23 17:27	
Surrogate Acceptance Range [3]			%	40 - 140		

[1] Hydrocarbon range data excludes area counts of any surrogate(s) and/or internal standards eluting in that range.

[2] C11-C22 Aromatic Hydrocarbons excludes the concentration of Target PAH Analytes.

[3] See the case narrative in cases where a dash (-) is entered in the surrogate recovery block.

**Extractable Petroleum Hydrocarbons
Sample: B-4 (3C27022-02)**

SAMPLE INFORMATION

Matrix	Soil
Containers	Satisfactory
Aqueous Preservatives	NA
Temperature	Received on Ice Received at: 4+/-2 C°
Extraction Method	EPA Method 3546

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 4-1.1		Client ID		B-4		
Method for Target Analytes: MADEP EPH 4-1.1		Lab ID		3C27022-02		
EPH Surrogate Standards: Aliphatic: Chlorooctadecane Aromatic: o-Terphenyl		Date Collected		03/22/23		
		Date Received		03/27/23		
		Date Thawed		NA		
		Date Extracted		03/30/23		
EPH Fractionation Surrogates: (1) 2-Fluorobiphenyl (2) 2-Bromonaphthalene		Percent Moisture		11.40		
RANGE/TARGET ANALYTE		Dilution	RL	Units	Result	Analyzed
Unadjusted C11-C22 Aromatic Hydrocarbons [1]		1X	7.48	mg/kg	<7.48	04/03/23 17:04
Diesel PAH Analytes	Naphthalene	1X	0.37	mg/kg	<0.37	04/03/23 17:04
	2-Methylnaphthalene	1X	0.37	mg/kg	<0.37	04/03/23 17:04
	Phenanthrene	1X	0.37	mg/kg	<0.37	04/03/23 17:04
	Acenaphthene	1X	0.37	mg/kg	<0.37	04/03/23 17:04
Other Target PAH Analytes	Acenaphthylene	1X	0.37	mg/kg	<0.37	04/03/23 17:04
	Fluorene	1X	0.37	mg/kg	<0.37	04/03/23 17:04
	Anthracene	1X	0.37	mg/kg	<0.37	04/03/23 17:04
	Fluoranthene	1X	0.37	mg/kg	<0.37	04/03/23 17:04
	Pyrene	1X	0.37	mg/kg	<0.37	04/03/23 17:04
	Benzo(a)anthracene	1X	0.37	mg/kg	<0.37	04/03/23 17:04
	Chrysene	1X	0.37	mg/kg	<0.37	04/03/23 17:04
	Benzo(b)fluoranthene	1X	0.37	mg/kg	<0.37	04/03/23 17:04
	Benzo(k)fluoranthene	1X	0.37	mg/kg	<0.37	04/03/23 17:04
	Benzo(a)pyrene	1X	0.37	mg/kg	<0.37	04/03/23 17:04
	Indeno(1,2,3-cd)pyrene	1X	0.37	mg/kg	<0.37	04/03/23 17:04
	Dibenz(a,h)anthracene	1X	0.37	mg/kg	<0.37	04/03/23 17:04
Benzo(g,h,i)perylene	1X	0.37	mg/kg	<0.37	04/03/23 17:04	
C9-C18 Aliphatic Hydrocarbons [1]		1X	14.9	mg/kg	<14.9	04/03/23 23:24
C19-C36 Aliphatic Hydrocarbons [1]		1X	14.9	mg/kg	<14.9	04/03/23 23:24
C11-C22 Aromatic Hydrocarbons [1,2]		1X	7.48	mg/kg	<7.48	04/03/23 17:04
Chlorooctadecane (Sample Surrogate)				%	71.3	04/03/23 23:24
o-Terphenyl (Sample Surrogate)				%	68.3	04/03/23 17:04
2-Fluorobiphenyl (Fractionation Surrogate)				%	92.2	04/03/23 17:04
2-Bromonaphthalene (Fractionation Surrogate)				%	89.8	04/03/23 17:04
Surrogate Acceptance Range [3]				%	40 - 140	

[1] Hydrocarbon range data excludes area counts of any surrogate(s) and/or internal standards eluting in that range.

[2] C11-C22 Aromatic Hydrocarbons excludes the concentration of Target PAH Analytes.

[3] See the case narrative in cases where a dash (-) is entered in the surrogate recovery block.

**Extractable Petroleum Hydrocarbons
Sample: B-18 (3C27022-03)**

SAMPLE INFORMATION

Matrix	Soil
Containers	Satisfactory
Aqueous Preservatives	NA
Temperature	Received on Ice Received at: 4+/-2 C°
Extraction Method	EPA Method 3546

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 4-1.1	Client ID	B-18				
Method for Target Analytes: MADEP EPH 4-1.1	Lab ID	3C27022-03				
EPH Surrogate Standards: Aliphatic: Chlorooctadecane Aromatic: o-Terphenyl	Date Collected	03/22/23				
	Date Received	03/27/23				
	Date Thawed	NA				
	Date Extracted	03/30/23				
EPH Fractionation Surrogates: (1) 2-Fluorobiphenyl (2) 2-Bromonaphthalene	Percent Moisture	21.70				
RANGE/TARGET ANALYTE	Dilution	RL	Units	Result	Analyzed	
Unadjusted C11-C22 Aromatic Hydrocarbons [1]	1X	8.46	mg/kg	21.0	04/03/23 17:50	
Diesel PAH Analytes	Naphthalene	1X	0.42	mg/kg	<0.42	04/03/23 17:50
	2-Methylnaphthalene	1X	0.42	mg/kg	<0.42	04/03/23 17:50
	Phenanthrene	1X	0.42	mg/kg	<0.42	04/03/23 17:50
	Acenaphthene	1X	0.42	mg/kg	<0.42	04/03/23 17:50
Other Target PAH Analytes	Acenaphthylene	1X	0.42	mg/kg	<0.42	04/03/23 17:50
	Fluorene	1X	0.42	mg/kg	<0.42	04/03/23 17:50
	Anthracene	1X	0.42	mg/kg	<0.42	04/03/23 17:50
	Fluoranthene	1X	0.42	mg/kg	<0.42	04/03/23 17:50
	Pyrene	1X	0.42	mg/kg	<0.42	04/03/23 17:50
	Benzo(a)anthracene	1X	0.42	mg/kg	<0.42	04/03/23 17:50
	Chrysene	1X	0.42	mg/kg	<0.42	04/03/23 17:50
	Benzo(b)fluoranthene	1X	0.42	mg/kg	<0.42	04/03/23 17:50
	Benzo(k)fluoranthene	1X	0.42	mg/kg	<0.42	04/03/23 17:50
	Benzo(a)pyrene	1X	0.42	mg/kg	<0.42	04/03/23 17:50
	Indeno(1,2,3-cd)pyrene	1X	0.42	mg/kg	<0.42	04/03/23 17:50
	Dibenz(a,h)anthracene	1X	0.42	mg/kg	<0.42	04/03/23 17:50
Benzo(g,h,i)perylene	1X	0.42	mg/kg	<0.42	04/03/23 17:50	
C9-C18 Aliphatic Hydrocarbons [1]	1X	16.9	mg/kg	<16.9	04/03/23 23:49	
C19-C36 Aliphatic Hydrocarbons [1]	1X	16.9	mg/kg	<16.9	04/03/23 23:49	
C11-C22 Aromatic Hydrocarbons [1,2]	1X	8.46	mg/kg	21.0	04/03/23 17:50	
Chlorooctadecane (Sample Surrogate)			%	74.2	04/03/23 23:49	
o-Terphenyl (Sample Surrogate)			%	62.8	04/03/23 17:50	
2-Fluorobiphenyl (Fractionation Surrogate)			%	89.2	04/03/23 17:50	
2-Bromonaphthalene (Fractionation Surrogate)			%	85.6	04/03/23 17:50	
Surrogate Acceptance Range [3]			%	40 - 140		

[1] Hydrocarbon range data excludes area counts of any surrogate(s) and/or internal standards eluting in that range.

[2] C11-C22 Aromatic Hydrocarbons excludes the concentration of Target PAH Analytes.

[3] See the case narrative in cases where a dash (-) is entered in the surrogate recovery block.

**Extractable Petroleum Hydrocarbons
Sample: B-20 (3C27022-04)**

SAMPLE INFORMATION

Matrix	Soil
Containers	Satisfactory
Aqueous Preservatives	NA
Temperature	Received on Ice Received at: 4+/-2 C°
Extraction Method	EPA Method 3546

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 4-1.1	Client ID	B-20				
Method for Target Analytes: MADEP EPH 4-1.1	Lab ID	3C27022-04				
EPH Surrogate Standards: Aliphatic: Chlorooctadecane Aromatic: o-Terphenyl	Date Collected	03/22/23				
	Date Received	03/27/23				
	Date Thawed	NA				
	Date Extracted	03/30/23				
EPH Fractionation Surrogates: (1) 2-Fluorobiphenyl (2) 2-Bromonaphthalene	Percent Moisture	5.10				
RANGE/TARGET ANALYTE	Dilution	RL	Units	Result	Analyzed	
Unadjusted C11-C22 Aromatic Hydrocarbons [1]	1X	6.99	mg/kg	<6.99	04/03/23 16:42	
Diesel PAH Analytes	Naphthalene	1X	0.35	mg/kg	<0.35	04/03/23 16:42
	2-Methylnaphthalene	1X	0.35	mg/kg	<0.35	04/03/23 16:42
	Phenanthrene	1X	0.35	mg/kg	<0.35	04/03/23 16:42
	Acenaphthene	1X	0.35	mg/kg	<0.35	04/03/23 16:42
Other Target PAH Analytes	Acenaphthylene	1X	0.35	mg/kg	<0.35	04/03/23 16:42
	Fluorene	1X	0.35	mg/kg	<0.35	04/03/23 16:42
	Anthracene	1X	0.35	mg/kg	<0.35	04/03/23 16:42
	Fluoranthene	1X	0.35	mg/kg	<0.35	04/03/23 16:42
	Pyrene	1X	0.35	mg/kg	<0.35	04/03/23 16:42
	Benzo(a)anthracene	1X	0.35	mg/kg	<0.35	04/03/23 16:42
	Chrysene	1X	0.35	mg/kg	<0.35	04/03/23 16:42
	Benzo(b)fluoranthene	1X	0.35	mg/kg	<0.35	04/03/23 16:42
	Benzo(k)fluoranthene	1X	0.35	mg/kg	<0.35	04/03/23 16:42
	Benzo(a)pyrene	1X	0.35	mg/kg	<0.35	04/03/23 16:42
	Indeno(1,2,3-cd)pyrene	1X	0.35	mg/kg	<0.35	04/03/23 16:42
	Dibenz(a,h)anthracene	1X	0.35	mg/kg	<0.35	04/03/23 16:42
Benzo(g,h,i)perylene	1X	0.35	mg/kg	<0.35	04/03/23 16:42	
C9-C18 Aliphatic Hydrocarbons [1]	1X	13.9	mg/kg	<13.9	04/04/23 00:14	
C19-C36 Aliphatic Hydrocarbons [1]	1X	13.9	mg/kg	<13.9	04/04/23 00:14	
C11-C22 Aromatic Hydrocarbons [1,2]	1X	6.99	mg/kg	<6.99	04/03/23 16:42	
Chlorooctadecane (Sample Surrogate)			%	98.5	04/04/23 00:14	
o-Terphenyl (Sample Surrogate)			%	80.3	04/03/23 16:42	
2-Fluorobiphenyl (Fractionation Surrogate)			%	99.5	04/03/23 16:42	
2-Bromonaphthalene (Fractionation Surrogate)			%	96.1	04/03/23 16:42	
Surrogate Acceptance Range [3]			%	40 - 140		

[1] Hydrocarbon range data excludes area counts of any surrogate(s) and/or internal standards eluting in that range.

[2] C11-C22 Aromatic Hydrocarbons excludes the concentration of Target PAH Analytes.

[3] See the case narrative in cases where a dash (-) is entered in the surrogate recovery block.

**Extractable Petroleum Hydrocarbons
Sample: B-30 (3C27022-05)**

SAMPLE INFORMATION

Matrix	Soil
Containers	Satisfactory
Aqueous Preservatives	NA
Temperature	Received on Ice Received at: 4+/-2 C°
Extraction Method	EPA Method 3546

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 4-1.1	Client ID	B-30				
Method for Target Analytes: MADEP EPH 4-1.1	Lab ID	3C27022-05				
EPH Surrogate Standards: Aliphatic: Chlorooctadecane Aromatic: o-Terphenyl	Date Collected	03/24/23				
	Date Received	03/27/23				
	Date Thawed	NA				
	Date Extracted	03/30/23				
EPH Fractionation Surrogates: (1) 2-Fluorobiphenyl (2) 2-Bromonaphthalene	Percent Moisture	5.90				
RANGE/TARGET ANALYTE	Dilution	RL	Units	Result	Analyzed	
Unadjusted C11-C22 Aromatic Hydrocarbons [1]	1X	7.04	mg/kg	<7.04	04/04/23 01:52	
Diesel PAH Analytes	Naphthalene	1X	0.35	mg/kg	<0.35	04/04/23 01:52
	2-Methylnaphthalene	1X	0.35	mg/kg	<0.35	04/04/23 01:52
	Phenanthrene	1X	0.35	mg/kg	<0.35	04/04/23 01:52
	Acenaphthene	1X	0.35	mg/kg	<0.35	04/04/23 01:52
Other Target PAH Analytes	Acenaphthylene	1X	0.35	mg/kg	<0.35	04/04/23 01:52
	Fluorene	1X	0.35	mg/kg	<0.35	04/04/23 01:52
	Anthracene	1X	0.35	mg/kg	<0.35	04/04/23 01:52
	Fluoranthene	1X	0.35	mg/kg	<0.35	04/04/23 01:52
	Pyrene	1X	0.35	mg/kg	<0.35	04/04/23 01:52
	Benzo(a)anthracene	1X	0.35	mg/kg	<0.35	04/04/23 01:52
	Chrysene	1X	0.35	mg/kg	<0.35	04/04/23 01:52
	Benzo(b)fluoranthene	1X	0.35	mg/kg	<0.35	04/04/23 01:52
	Benzo(k)fluoranthene	1X	0.35	mg/kg	<0.35	04/04/23 01:52
	Benzo(a)pyrene	1X	0.35	mg/kg	<0.35	04/04/23 01:52
	Indeno(1,2,3-cd)pyrene	1X	0.35	mg/kg	<0.35	04/04/23 01:52
	Dibenz(a,h)anthracene	1X	0.35	mg/kg	<0.35	04/04/23 01:52
Benzo(g,h,i)perylene	1X	0.35	mg/kg	<0.35	04/04/23 01:52	
C9-C18 Aliphatic Hydrocarbons [1]	1X	14.0	mg/kg	<14.0	04/04/23 03:56	
C19-C36 Aliphatic Hydrocarbons [1]	1X	14.0	mg/kg	<14.0	04/04/23 03:56	
C11-C22 Aromatic Hydrocarbons [1,2]	1X	7.04	mg/kg	<7.04	04/04/23 01:52	
Chlorooctadecane (Sample Surrogate)			%	109	04/04/23 03:56	
o-Terphenyl (Sample Surrogate)			%	94.6	04/04/23 01:52	
2-Fluorobiphenyl (Fractionation Surrogate)			%	111	04/04/23 01:52	
2-Bromonaphthalene (Fractionation Surrogate)			%	107	04/04/23 01:52	
Surrogate Acceptance Range [3]			%	40 - 140		

[1] Hydrocarbon range data excludes area counts of any surrogate(s) and/or internal standards eluting in that range.

[2] C11-C22 Aromatic Hydrocarbons excludes the concentration of Target PAH Analytes.

[3] See the case narrative in cases where a dash (-) is entered in the surrogate recovery block.

**Extractable Petroleum Hydrocarbons
Sample: B-33 (3C27022-06)**

SAMPLE INFORMATION

Matrix	Soil
Containers	Satisfactory
Aqueous Preservatives	NA
Temperature	Received on Ice Received at: 4+/-2 C°
Extraction Method	EPA Method 3546

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 4-1.1	Client ID	B-33				
Method for Target Analytes: MADEP EPH 4-1.1	Lab ID	3C27022-06				
EPH Surrogate Standards: Aliphatic: Chlorooctadecane Aromatic: o-Terphenyl	Date Collected	03/24/23				
	Date Received	03/27/23				
	Date Thawed	NA				
	Date Extracted	03/30/23				
EPH Fractionation Surrogates: (1) 2-Fluorobiphenyl (2) 2-Bromonaphthalene	Percent Moisture	11.30				
RANGE/TARGET ANALYTE	Dilution	RL	Units	Result	Analyzed	
Unadjusted C11-C22 Aromatic Hydrocarbons [1]	1X	7.47	mg/kg	<7.47	04/04/23 13:14	
Diesel PAH Analytes	Naphthalene	1X	0.37	mg/kg	<0.37	04/04/23 13:14
	2-Methylnaphthalene	1X	0.37	mg/kg	<0.37	04/04/23 13:14
	Phenanthrene	1X	0.37	mg/kg	<0.37	04/04/23 13:14
	Acenaphthene	1X	0.37	mg/kg	<0.37	04/04/23 13:14
Other Target PAH Analytes	Acenaphthylene	1X	0.37	mg/kg	<0.37	04/04/23 13:14
	Fluorene	1X	0.37	mg/kg	<0.37	04/04/23 13:14
	Anthracene	1X	0.37	mg/kg	<0.37	04/04/23 13:14
	Fluoranthene	1X	0.37	mg/kg	<0.37	04/04/23 13:14
	Pyrene	1X	0.37	mg/kg	<0.37	04/04/23 13:14
	Benzo(a)anthracene	1X	0.37	mg/kg	<0.37	04/04/23 13:14
	Chrysene	1X	0.37	mg/kg	<0.37	04/04/23 13:14
	Benzo(b)fluoranthene	1X	0.37	mg/kg	<0.37	04/04/23 13:14
	Benzo(k)fluoranthene	1X	0.37	mg/kg	<0.37	04/04/23 13:14
	Benzo(a)pyrene	1X	0.37	mg/kg	<0.37	04/04/23 13:14
	Indeno(1,2,3-cd)pyrene	1X	0.37	mg/kg	<0.37	04/04/23 13:14
	Dibenz(a,h)anthracene	1X	0.37	mg/kg	<0.37	04/04/23 13:14
Benzo(g,h,i)perylene	1X	0.37	mg/kg	<0.37	04/04/23 13:14	
C9-C18 Aliphatic Hydrocarbons [1]	1X	14.9	mg/kg	<14.9	04/04/23 04:20	
C19-C36 Aliphatic Hydrocarbons [1]	1X	14.9	mg/kg	<14.9	04/04/23 04:20	
C11-C22 Aromatic Hydrocarbons [1,2]	1X	7.47	mg/kg	<7.47	04/04/23 13:14	
Chlorooctadecane (Sample Surrogate)			%	103	04/04/23 04:20	
o-Terphenyl (Sample Surrogate)			%	80.9	04/04/23 13:14	
2-Fluorobiphenyl (Fractionation Surrogate)			%	97.7	04/04/23 13:14	
2-Bromonaphthalene (Fractionation Surrogate)			%	91.3	04/04/23 13:14	
Surrogate Acceptance Range [3]			%	40 - 140		

[1] Hydrocarbon range data excludes area counts of any surrogate(s) and/or internal standards eluting in that range.

[2] C11-C22 Aromatic Hydrocarbons excludes the concentration of Target PAH Analytes.

[3] See the case narrative in cases where a dash (-) is entered in the surrogate recovery block.

**Extractable Petroleum Hydrocarbons
Sample: B-48 (3C27022-07)**

SAMPLE INFORMATION

Matrix	Soil
Containers	Satisfactory
Aqueous Preservatives	NA
Temperature	Received on Ice Received at: 4+/-2 C°
Extraction Method	EPA Method 3546

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 4-1.1	Client ID	B-48				
Method for Target Analytes: MADEP EPH 4-1.1	Lab ID	3C27022-07				
EPH Surrogate Standards: Aliphatic: Chlorooctadecane Aromatic: o-Terphenyl	Date Collected	03/24/23				
	Date Received	03/27/23				
	Date Thawed	NA				
	Date Extracted	03/30/23				
EPH Fractionation Surrogates: (1) 2-Fluorobiphenyl (2) 2-Bromonaphthalene	Percent Moisture	12.50				
RANGE/TARGET ANALYTE	Dilution	RL	Units	Result	Analyzed	
Unadjusted C11-C22 Aromatic Hydrocarbons [1]	1X	7.57	mg/kg	<7.57	04/04/23 13:37	
Diesel PAH Analytes	Naphthalene	1X	0.37	mg/kg	<0.37	04/04/23 13:37
	2-Methylnaphthalene	1X	0.37	mg/kg	<0.37	04/04/23 13:37
	Phenanthrene	1X	0.37	mg/kg	<0.37	04/04/23 13:37
	Acenaphthene	1X	0.37	mg/kg	<0.37	04/04/23 13:37
Other Target PAH Analytes	Acenaphthylene	1X	0.37	mg/kg	<0.37	04/04/23 13:37
	Fluorene	1X	0.37	mg/kg	<0.37	04/04/23 13:37
	Anthracene	1X	0.37	mg/kg	<0.37	04/04/23 13:37
	Fluoranthene	1X	0.37	mg/kg	<0.37	04/04/23 13:37
	Pyrene	1X	0.37	mg/kg	<0.37	04/04/23 13:37
	Benzo(a)anthracene	1X	0.37	mg/kg	<0.37	04/04/23 13:37
	Chrysene	1X	0.37	mg/kg	<0.37	04/04/23 13:37
	Benzo(b)fluoranthene	1X	0.37	mg/kg	<0.37	04/04/23 13:37
	Benzo(k)fluoranthene	1X	0.37	mg/kg	<0.37	04/04/23 13:37
	Benzo(a)pyrene	1X	0.37	mg/kg	<0.37	04/04/23 13:37
	Indeno(1,2,3-cd)pyrene	1X	0.37	mg/kg	<0.37	04/04/23 13:37
	Dibenz(a,h)anthracene	1X	0.37	mg/kg	<0.37	04/04/23 13:37
Benzo(g,h,i)perylene	1X	0.37	mg/kg	<0.37	04/04/23 13:37	
C9-C18 Aliphatic Hydrocarbons [1]	1X	15.1	mg/kg	<15.1	04/04/23 04:45	
C19-C36 Aliphatic Hydrocarbons [1]	1X	15.1	mg/kg	<15.1	04/04/23 04:45	
C11-C22 Aromatic Hydrocarbons [1,2]	1X	7.57	mg/kg	<7.57	04/04/23 13:37	
Chlorooctadecane (Sample Surrogate)			%	98.6	04/04/23 04:45	
o-Terphenyl (Sample Surrogate)			%	83.4	04/04/23 13:37	
2-Fluorobiphenyl (Fractionation Surrogate)			%	104	04/04/23 13:37	
2-Bromonaphthalene (Fractionation Surrogate)			%	99.7	04/04/23 13:37	
Surrogate Acceptance Range [3]			%	40 - 140		

[1] Hydrocarbon range data excludes area counts of any surrogate(s) and/or internal standards eluting in that range.

[2] C11-C22 Aromatic Hydrocarbons excludes the concentration of Target PAH Analytes.

[3] See the case narrative in cases where a dash (-) is entered in the surrogate recovery block.

**Extractable Petroleum Hydrocarbons
Sample: B-51 (3C27022-08)**

SAMPLE INFORMATION

Matrix	Soil
Containers	Satisfactory
Aqueous Preservatives	NA
Temperature	Received on Ice Received at: 4+/-2 C°
Extraction Method	EPA Method 3546

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 4-1.1	Client ID	B-51				
Method for Target Analytes: MADEP EPH 4-1.1	Lab ID	3C27022-08				
EPH Surrogate Standards: Aliphatic: Chlorooctadecane Aromatic: o-Terphenyl	Date Collected	03/24/23				
	Date Received	03/27/23				
	Date Thawed	NA				
	Date Extracted	03/30/23				
EPH Fractionation Surrogates: (1) 2-Fluorobiphenyl (2) 2-Bromonaphthalene	Percent Moisture	12.40				
RANGE/TARGET ANALYTE	Dilution	RL	Units	Result	Analyzed	
Unadjusted C11-C22 Aromatic Hydrocarbons [1]	1X	7.57	mg/kg	<7.57	04/04/23 03:45	
Diesel PAH Analytes	Naphthalene	1X	0.37	mg/kg	<0.37	04/04/23 03:45
	2-Methylnaphthalene	1X	0.37	mg/kg	<0.37	04/04/23 03:45
	Phenanthrene	1X	0.37	mg/kg	<0.37	04/04/23 03:45
	Acenaphthene	1X	0.37	mg/kg	<0.37	04/04/23 03:45
Other Target PAH Analytes	Acenaphthylene	1X	0.37	mg/kg	<0.37	04/04/23 03:45
	Fluorene	1X	0.37	mg/kg	<0.37	04/04/23 03:45
	Anthracene	1X	0.37	mg/kg	<0.37	04/04/23 03:45
	Fluoranthene	1X	0.37	mg/kg	<0.37	04/04/23 03:45
	Pyrene	1X	0.37	mg/kg	<0.37	04/04/23 03:45
	Benzo(a)anthracene	1X	0.37	mg/kg	<0.37	04/04/23 03:45
	Chrysene	1X	0.37	mg/kg	<0.37	04/04/23 03:45
	Benzo(b)fluoranthene	1X	0.37	mg/kg	<0.37	04/04/23 03:45
	Benzo(k)fluoranthene	1X	0.37	mg/kg	<0.37	04/04/23 03:45
	Benzo(a)pyrene	1X	0.37	mg/kg	<0.37	04/04/23 03:45
	Indeno(1,2,3-cd)pyrene	1X	0.37	mg/kg	<0.37	04/04/23 03:45
	Dibenz(a,h)anthracene	1X	0.37	mg/kg	<0.37	04/04/23 03:45
Benzo(g,h,i)perylene	1X	0.37	mg/kg	<0.37	04/04/23 03:45	
C9-C18 Aliphatic Hydrocarbons [1]	1X	15.1	mg/kg	<15.1	04/04/23 05:09	
C19-C36 Aliphatic Hydrocarbons [1]	1X	15.1	mg/kg	<15.1	04/04/23 05:09	
C11-C22 Aromatic Hydrocarbons [1,2]	1X	7.57	mg/kg	<7.57	04/04/23 03:45	
Chlorooctadecane (Sample Surrogate)			%	115	04/04/23 05:09	
o-Terphenyl (Sample Surrogate)			%	102	04/04/23 03:45	
2-Fluorobiphenyl (Fractionation Surrogate)			%	113	04/04/23 03:45	
2-Bromonaphthalene (Fractionation Surrogate)			%	108	04/04/23 03:45	
Surrogate Acceptance Range [3]			%	40 - 140		

[1] Hydrocarbon range data excludes area counts of any surrogate(s) and/or internal standards eluting in that range.

[2] C11-C22 Aromatic Hydrocarbons excludes the concentration of Target PAH Analytes.

[3] See the case narrative in cases where a dash (-) is entered in the surrogate recovery block.

**Extractable Petroleum Hydrocarbons
Sample: B-52 (3C27022-09)**

SAMPLE INFORMATION

Matrix	Soil
Containers	Satisfactory
Aqueous Preservatives	NA
Temperature	Received on Ice Received at: 4+/-2 C°
Extraction Method	EPA Method 3546

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 4-1.1	Client ID	B-52				
Method for Target Analytes: MADEP EPH 4-1.1	Lab ID	3C27022-09				
EPH Surrogate Standards: Aliphatic: Chlorooctadecane Aromatic: o-Terphenyl	Date Collected	03/24/23				
	Date Received	03/27/23				
	Date Thawed	NA				
	Date Extracted	03/30/23				
EPH Fractionation Surrogates: (1) 2-Fluorobiphenyl (2) 2-Bromonaphthalene	Percent Moisture	12.00				
RANGE/TARGET ANALYTE	Dilution	RL	Units	Result	Analyzed	
Unadjusted C11-C22 Aromatic Hydrocarbons [1]	1X	7.53	mg/kg	8.70	04/04/23 02:37	
Diesel PAH Analytes	Naphthalene	1X	0.37	mg/kg	<0.37	04/04/23 02:37
	2-Methylnaphthalene	1X	0.37	mg/kg	<0.37	04/04/23 02:37
	Phenanthrene	1X	0.37	mg/kg	<0.37	04/04/23 02:37
	Acenaphthene	1X	0.37	mg/kg	<0.37	04/04/23 02:37
Other Target PAH Analytes	Acenaphthylene	1X	0.37	mg/kg	<0.37	04/04/23 02:37
	Fluorene	1X	0.37	mg/kg	<0.37	04/04/23 02:37
	Anthracene	1X	0.37	mg/kg	<0.37	04/04/23 02:37
	Fluoranthene	1X	0.37	mg/kg	<0.37	04/04/23 02:37
	Pyrene	1X	0.37	mg/kg	<0.37	04/04/23 02:37
	Benzo(a)anthracene	1X	0.37	mg/kg	<0.37	04/04/23 02:37
	Chrysene	1X	0.37	mg/kg	<0.37	04/04/23 02:37
	Benzo(b)fluoranthene	1X	0.37	mg/kg	<0.37	04/04/23 02:37
	Benzo(k)fluoranthene	1X	0.37	mg/kg	<0.37	04/04/23 02:37
	Benzo(a)pyrene	1X	0.37	mg/kg	<0.37	04/04/23 02:37
	Indeno(1,2,3-cd)pyrene	1X	0.37	mg/kg	<0.37	04/04/23 02:37
	Dibenz(a,h)anthracene	1X	0.37	mg/kg	<0.37	04/04/23 02:37
Benzo(g,h,i)perylene	1X	0.37	mg/kg	<0.37	04/04/23 02:37	
C9-C18 Aliphatic Hydrocarbons [1]	1X	15.0	mg/kg	<15.0	04/04/23 05:34	
C19-C36 Aliphatic Hydrocarbons [1]	1X	15.0	mg/kg	15.7	04/04/23 05:34	
C11-C22 Aromatic Hydrocarbons [1,2]	1X	7.53	mg/kg	8.70	04/04/23 02:37	
Chlorooctadecane (Sample Surrogate)			%	89.2	04/04/23 05:34	
o-Terphenyl (Sample Surrogate)			%	70.4	04/04/23 02:37	
2-Fluorobiphenyl (Fractionation Surrogate)			%	98.7	04/04/23 02:37	
2-Bromonaphthalene (Fractionation Surrogate)			%	96.4	04/04/23 02:37	
Surrogate Acceptance Range [3]			%	40 - 140		

[1] Hydrocarbon range data excludes area counts of any surrogate(s) and/or internal standards eluting in that range.

[2] C11-C22 Aromatic Hydrocarbons excludes the concentration of Target PAH Analytes.

[3] See the case narrative in cases where a dash (-) is entered in the surrogate recovery block.

**Extractable Petroleum Hydrocarbons
Sample: B-59 (3C27022-10)**

SAMPLE INFORMATION

Matrix	Soil
Containers	Satisfactory
Aqueous Preservatives	NA
Temperature	Received on Ice Received at: 4+/-2 C°
Extraction Method	EPA Method 3546

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 4-1.1	Client ID	B-59				
Method for Target Analytes: MADEP EPH 4-1.1	Lab ID	3C27022-10				
EPH Surrogate Standards: Aliphatic: Chlorooctadecane Aromatic: o-Terphenyl	Date Collected	03/24/23				
	Date Received	03/27/23				
	Date Thawed	NA				
	Date Extracted	03/30/23				
EPH Fractionation Surrogates: (1) 2-Fluorobiphenyl (2) 2-Bromonaphthalene	Percent Moisture	13.20				
RANGE/TARGET ANALYTE	Dilution	RL	Units	Result	Analyzed	
Unadjusted C11-C22 Aromatic Hydrocarbons [1]	1X	7.63	mg/kg	<7.63	04/04/23 02:15	
Diesel PAH Analytes	Naphthalene	1X	0.38	mg/kg	<0.38	04/04/23 02:15
	2-Methylnaphthalene	1X	0.38	mg/kg	<0.38	04/04/23 02:15
	Phenanthrene	1X	0.38	mg/kg	<0.38	04/04/23 02:15
	Acenaphthene	1X	0.38	mg/kg	<0.38	04/04/23 02:15
Other Target PAH Analytes	Acenaphthylene	1X	0.38	mg/kg	<0.38	04/04/23 02:15
	Fluorene	1X	0.38	mg/kg	<0.38	04/04/23 02:15
	Anthracene	1X	0.38	mg/kg	<0.38	04/04/23 02:15
	Fluoranthene	1X	0.38	mg/kg	<0.38	04/04/23 02:15
	Pyrene	1X	0.38	mg/kg	<0.38	04/04/23 02:15
	Benzo(a)anthracene	1X	0.38	mg/kg	<0.38	04/04/23 02:15
	Chrysene	1X	0.38	mg/kg	<0.38	04/04/23 02:15
	Benzo(b)fluoranthene	1X	0.38	mg/kg	<0.38	04/04/23 02:15
	Benzo(k)fluoranthene	1X	0.38	mg/kg	<0.38	04/04/23 02:15
	Benzo(a)pyrene	1X	0.38	mg/kg	<0.38	04/04/23 02:15
	Indeno(1,2,3-cd)pyrene	1X	0.38	mg/kg	<0.38	04/04/23 02:15
	Dibenz(a,h)anthracene	1X	0.38	mg/kg	<0.38	04/04/23 02:15
Benzo(g,h,i)perylene	1X	0.38	mg/kg	<0.38	04/04/23 02:15	
C9-C18 Aliphatic Hydrocarbons [1]	1X	15.2	mg/kg	<15.2	04/04/23 05:58	
C19-C36 Aliphatic Hydrocarbons [1]	1X	15.2	mg/kg	<15.2	04/04/23 05:58	
C11-C22 Aromatic Hydrocarbons [1,2]	1X	7.63	mg/kg	<7.63	04/04/23 02:15	
Chlorooctadecane (Sample Surrogate)			%	96.2	04/04/23 05:58	
o-Terphenyl (Sample Surrogate)			%	54.3	04/04/23 02:15	
2-Fluorobiphenyl (Fractionation Surrogate)			%	65.9	04/04/23 02:15	
2-Bromonaphthalene (Fractionation Surrogate)			%	63.1	04/04/23 02:15	
Surrogate Acceptance Range [3]			%	40 - 140		

[1] Hydrocarbon range data excludes area counts of any surrogate(s) and/or internal standards eluting in that range.

[2] C11-C22 Aromatic Hydrocarbons excludes the concentration of Target PAH Analytes.

[3] See the case narrative in cases where a dash (-) is entered in the surrogate recovery block.

**Extractable Petroleum Hydrocarbons
Sample: B-67 (3C27022-11)**

SAMPLE INFORMATION

Matrix	Soil
Containers	Satisfactory
Aqueous Preservatives	NA
Temperature	Received on Ice Received at: 4+/-2 C°
Extraction Method	EPA Method 3546

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 4-1.1	Client ID	B-67				
Method for Target Analytes: MADEP EPH 4-1.1	Lab ID	3C27022-11				
EPH Surrogate Standards: Aliphatic: Chlorooctadecane Aromatic: o-Terphenyl	Date Collected	03/24/23				
	Date Received	03/27/23				
	Date Thawed	NA				
	Date Extracted	03/30/23				
EPH Fractionation Surrogates: (1) 2-Fluorobiphenyl (2) 2-Bromonaphthalene	Percent Moisture	8.80				
RANGE/TARGET ANALYTE	Dilution	RL	Units	Result	Analyzed	
Unadjusted C11-C22 Aromatic Hydrocarbons [1]	1X	7.26	mg/kg	<7.26	04/04/23 13:59	
Diesel PAH Analytes	Naphthalene	1X	0.36	mg/kg	<0.36	04/04/23 13:59
	2-Methylnaphthalene	1X	0.36	mg/kg	<0.36	04/04/23 13:59
	Phenanthrene	1X	0.36	mg/kg	<0.36	04/04/23 13:59
	Acenaphthene	1X	0.36	mg/kg	<0.36	04/04/23 13:59
Other Target PAH Analytes	Acenaphthylene	1X	0.36	mg/kg	<0.36	04/04/23 13:59
	Fluorene	1X	0.36	mg/kg	<0.36	04/04/23 13:59
	Anthracene	1X	0.36	mg/kg	<0.36	04/04/23 13:59
	Fluoranthene	1X	0.36	mg/kg	<0.36	04/04/23 13:59
	Pyrene	1X	0.36	mg/kg	<0.36	04/04/23 13:59
	Benzo(a)anthracene	1X	0.36	mg/kg	<0.36	04/04/23 13:59
	Chrysene	1X	0.36	mg/kg	<0.36	04/04/23 13:59
	Benzo(b)fluoranthene	1X	0.36	mg/kg	<0.36	04/04/23 13:59
	Benzo(k)fluoranthene	1X	0.36	mg/kg	<0.36	04/04/23 13:59
	Benzo(a)pyrene	1X	0.36	mg/kg	<0.36	04/04/23 13:59
	Indeno(1,2,3-cd)pyrene	1X	0.36	mg/kg	<0.36	04/04/23 13:59
	Dibenz(a,h)anthracene	1X	0.36	mg/kg	<0.36	04/04/23 13:59
Benzo(g,h,i)perylene	1X	0.36	mg/kg	<0.36	04/04/23 13:59	
C9-C18 Aliphatic Hydrocarbons [1]	1X	14.5	mg/kg	<14.5	04/04/23 06:23	
C19-C36 Aliphatic Hydrocarbons [1]	1X	14.5	mg/kg	<14.5	04/04/23 06:23	
C11-C22 Aromatic Hydrocarbons [1,2]	1X	7.26	mg/kg	<7.26	04/04/23 13:59	
Chlorooctadecane (Sample Surrogate)			%	112	04/04/23 06:23	
o-Terphenyl (Sample Surrogate)			%	71.3	04/04/23 13:59	
2-Fluorobiphenyl (Fractionation Surrogate)			%	78.9	04/04/23 13:59	
2-Bromonaphthalene (Fractionation Surrogate)			%	75.1	04/04/23 13:59	
Surrogate Acceptance Range [3]			%	40 - 140		

[1] Hydrocarbon range data excludes area counts of any surrogate(s) and/or internal standards eluting in that range.

[2] C11-C22 Aromatic Hydrocarbons excludes the concentration of Target PAH Analytes.

[3] See the case narrative in cases where a dash (-) is entered in the surrogate recovery block.

**Extractable Petroleum Hydrocarbons
Sample: B-71 (3C27022-12)**

SAMPLE INFORMATION

Matrix	Soil
Containers	Satisfactory
Aqueous Preservatives	NA
Temperature	Received on Ice Received at: 4+/-2 C°
Extraction Method	EPA Method 3546

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 4-1.1	Client ID	B-71				
Method for Target Analytes: MADEP EPH 4-1.1	Lab ID	3C27022-12				
EPH Surrogate Standards: Aliphatic: Chlorooctadecane Aromatic: o-Terphenyl	Date Collected	03/24/23				
	Date Received	03/27/23				
	Date Thawed	NA				
	Date Extracted	03/30/23				
EPH Fractionation Surrogates: (1) 2-Fluorobiphenyl (2) 2-Bromonaphthalene	Percent Moisture	9.70				
RANGE/TARGET ANALYTE	Dilution	RL	Units	Result	Analyzed	
Unadjusted C11-C22 Aromatic Hydrocarbons [1]	1X	7.33	mg/kg	<7.33	04/04/23 03:22	
Diesel PAH Analytes	Naphthalene	1X	0.36	mg/kg	<0.36	04/04/23 03:22
	2-Methylnaphthalene	1X	0.36	mg/kg	<0.36	04/04/23 03:22
	Phenanthrene	1X	0.36	mg/kg	<0.36	04/04/23 03:22
	Acenaphthene	1X	0.36	mg/kg	<0.36	04/04/23 03:22
Other Target PAH Analytes	Acenaphthylene	1X	0.36	mg/kg	<0.36	04/04/23 03:22
	Fluorene	1X	0.36	mg/kg	<0.36	04/04/23 03:22
	Anthracene	1X	0.36	mg/kg	<0.36	04/04/23 03:22
	Fluoranthene	1X	0.36	mg/kg	<0.36	04/04/23 03:22
	Pyrene	1X	0.36	mg/kg	<0.36	04/04/23 03:22
	Benzo(a)anthracene	1X	0.36	mg/kg	<0.36	04/04/23 03:22
	Chrysene	1X	0.36	mg/kg	<0.36	04/04/23 03:22
	Benzo(b)fluoranthene	1X	0.36	mg/kg	<0.36	04/04/23 03:22
	Benzo(k)fluoranthene	1X	0.36	mg/kg	<0.36	04/04/23 03:22
	Benzo(a)pyrene	1X	0.36	mg/kg	<0.36	04/04/23 03:22
	Indeno(1,2,3-cd)pyrene	1X	0.36	mg/kg	<0.36	04/04/23 03:22
	Dibenz(a,h)anthracene	1X	0.36	mg/kg	<0.36	04/04/23 03:22
Benzo(g,h,i)perylene	1X	0.36	mg/kg	<0.36	04/04/23 03:22	
C9-C18 Aliphatic Hydrocarbons [1]	1X	14.6	mg/kg	<14.6	04/04/23 06:47	
C19-C36 Aliphatic Hydrocarbons [1]	1X	14.6	mg/kg	<14.6	04/04/23 06:47	
C11-C22 Aromatic Hydrocarbons [1,2]	1X	7.33	mg/kg	<7.33	04/04/23 03:22	
Chlorooctadecane (Sample Surrogate)			%	100	04/04/23 06:47	
o-Terphenyl (Sample Surrogate)			%	82.6	04/04/23 03:22	
2-Fluorobiphenyl (Fractionation Surrogate)			%	96.6	04/04/23 03:22	
2-Bromonaphthalene (Fractionation Surrogate)			%	93.2	04/04/23 03:22	
Surrogate Acceptance Range [3]			%	40 - 140		

[1] Hydrocarbon range data excludes area counts of any surrogate(s) and/or internal standards eluting in that range.

[2] C11-C22 Aromatic Hydrocarbons excludes the concentration of Target PAH Analytes.

[3] See the case narrative in cases where a dash (-) is entered in the surrogate recovery block.

Quality Control

Extractable Petroleum Hydrocarbons (MADEP-EPH)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B3C1293 - EPA 3546										
Blank (B3C1293-BLK1)										
					Prepared: 03/30/23 Analyzed: 04/03/23					
Unadjusted C11-C22 Aromatic Hydrocarbons	ND		6.63	mg/kg						
Naphthalene	ND		0.33	mg/kg						
2-Methylnaphthalene	ND		0.33	mg/kg						
Phenanthrene	ND		0.33	mg/kg						
Acenaphthene	ND		0.33	mg/kg						
Acenaphthylene	ND		0.33	mg/kg						
Fluorene	ND		0.33	mg/kg						
Anthracene	ND		0.33	mg/kg						
Fluoranthene	ND		0.33	mg/kg						
Pyrene	ND		0.33	mg/kg						
Benzo(a)anthracene	ND		0.33	mg/kg						
Chrysene	ND		0.33	mg/kg						
Benzo(b)fluoranthene	ND		0.33	mg/kg						
Benzo(k)fluoranthene	ND		0.33	mg/kg						
Benzo(a)pyrene	ND		0.33	mg/kg						
Indeno(1,2,3-cd)pyrene	ND		0.33	mg/kg						
Dibenz(a,h)anthracene	ND		0.33	mg/kg						
Benzo(g,h,i)perylene	ND		0.33	mg/kg						
C9-C18 Aliphatic Hydrocarbons	ND		13.2	mg/kg						
C19-C36 Aliphatic Hydrocarbons	ND		13.2	mg/kg						
C11-C22 Aromatic Hydrocarbons	ND		6.63	mg/kg						
<hr/>										
<i>Surrogate: Chlorooctadecane</i>			7.41	mg/kg	8.28		89.5	40-140		
<i>Surrogate: o-Terphenyl</i>			5.29	mg/kg	8.28		63.9	40-140		
<i>Surrogate: 2-Fluorobiphenyl</i>			2.95	mg/kg	3.31		89.2	40-140		
<i>Surrogate: 2-Bromonaphthalene</i>			2.78	mg/kg	3.31		83.8	40-140		
<hr/>										
LCS (B3C1293-BS1)										
					Prepared: 03/30/23 Analyzed: 04/04/23					
Naphthalene	1.66		0.33	mg/kg	2.65		62.8	40-140		
2-Methylnaphthalene	1.66		0.33	mg/kg	2.65		62.5	40-140		
Phenanthrene	1.83		0.33	mg/kg	2.65		69.1	40-140		
Acenaphthene	1.81		0.33	mg/kg	2.65		68.2	40-140		
Acenaphthylene	1.71		0.33	mg/kg	2.65		64.5	40-140		
Fluorene	1.73		0.33	mg/kg	2.65		65.5	40-140		
Anthracene	1.78		0.33	mg/kg	2.65		67.0	40-140		
Fluoranthene	1.93		0.33	mg/kg	2.65		72.7	40-140		
Pyrene	1.93		0.33	mg/kg	2.65		72.7	40-140		
Benzo(a)anthracene	1.92		0.33	mg/kg	2.65		72.6	40-140		
Chrysene	2.03		0.33	mg/kg	2.65		76.8	40-140		
Benzo(b)fluoranthene	1.88		0.33	mg/kg	2.65		71.0	40-140		
Benzo(k)fluoranthene	1.98		0.33	mg/kg	2.65		74.8	40-140		
Benzo(a)pyrene	1.86		0.33	mg/kg	2.65		70.1	40-140		
Indeno(1,2,3-cd)pyrene	1.84		0.33	mg/kg	2.65		69.4	40-140		
Dibenz(a,h)anthracene	1.91		0.33	mg/kg	2.65		72.0	40-140		
Benzo(g,h,i)perylene	1.85		0.33	mg/kg	2.65		69.9	40-140		
EPH_LCS_Aliphatic_C19-C36	14.6		0.00	mg/kg	21.2		68.8	40-140		
EPH_LCS_Aliphatic_C9-C18	8.48		0.00	mg/kg	15.9		53.4	40-140		
EPH_LCS_Aromatic_C11-C22	31.3		0.00	mg/kg	45.0		69.5	40-140		
Nonane	0.88		0.33	mg/kg	2.65		33.2	30-140		
Decane	1.25		0.33	mg/kg	2.65		47.4	40-140		
Dodecane	1.50		0.33	mg/kg	2.65		56.8	40-140		
Tetradecane	1.55		0.33	mg/kg	2.65		58.6	40-140		
Hexadecane	1.60		0.33	mg/kg	2.65		60.2	40-140		
Octadecane	1.70		0.33	mg/kg	2.65		64.0	40-140		
Nonadecane	1.76		0.33	mg/kg	2.65		66.3	40-140		

Quality Control
(Continued)

Extractable Petroleum Hydrocarbons (MADEP-EPH) (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B3C1293 - EPA 3546 (Continued)										
LCS (B3C1293-BS1)										
					Prepared: 03/30/23 Analyzed: 04/03/23					
Eicosane	1.81		0.33	mg/kg	2.65		68.5	40-140		
Docosane	1.88		0.33	mg/kg	2.65		71.0	40-140		
Tetracosane	1.91		0.33	mg/kg	2.65		72.2	40-140		
Hexacosane	1.91		0.33	mg/kg	2.65		71.9	40-140		
Octacosane	1.89		0.33	mg/kg	2.65		71.3	40-140		
Triacotane	1.85		0.33	mg/kg	2.65		69.9	40-140		
Hexatriacontane	1.57		0.33	mg/kg	2.65		59.4	40-140		
<hr/>										
<i>Surrogate: Chlorooctadecane</i>			<i>6.48</i>	mg/kg	<i>8.28</i>		<i>78.3</i>	<i>40-140</i>		
<i>Surrogate: o-Terphenyl</i>			<i>6.31</i>	mg/kg	<i>8.28</i>		<i>76.2</i>	<i>40-140</i>		
<i>Surrogate: 2-Fluorobiphenyl</i>			<i>3.15</i>	mg/kg	<i>3.31</i>		<i>95.1</i>	<i>40-140</i>		
<i>Surrogate: 2-Bromonaphthalene</i>			<i>3.05</i>	mg/kg	<i>3.31</i>		<i>92.1</i>	<i>40-140</i>		
<hr/>										
LCS Dup (B3C1293-BSD1)										
					Prepared: 03/30/23 Analyzed: 04/03/23					
Naphthalene	1.66		0.33	mg/kg	2.65		62.5	40-140	0.439	25
2-Methylnaphthalene	1.63		0.33	mg/kg	2.65		61.6	40-140	1.57	25
Phenanthrene	1.81		0.33	mg/kg	2.65		68.2	40-140	1.35	25
Acenaphthene	1.79		0.33	mg/kg	2.65		67.6	40-140	0.847	25
Acenaphthylene	1.72		0.33	mg/kg	2.65		65.1	40-140	0.926	25
Fluorene	1.75		0.33	mg/kg	2.65		66.1	40-140	1.03	25
Anthracene	1.84		0.33	mg/kg	2.65		69.4	40-140	3.52	25
Fluoranthene	1.87		0.33	mg/kg	2.65		70.7	40-140	2.82	25
Pyrene	1.90		0.33	mg/kg	2.65		71.7	40-140	1.42	25
Benzo(a)anthracene	1.79		0.33	mg/kg	2.65		67.6	40-140	7.02	25
Chrysene	2.01		0.33	mg/kg	2.65		75.7	40-140	1.38	25
Benzo(b)fluoranthene	1.79		0.33	mg/kg	2.65		67.4	40-140	5.27	25
Benzo(k)fluoranthene	1.92		0.33	mg/kg	2.65		72.3	40-140	3.40	25
Benzo(a)pyrene	1.73		0.33	mg/kg	2.65		65.2	40-140	7.13	25
Indeno(1,2,3-cd)pyrene	1.53		0.33	mg/kg	2.65		57.9	40-140	18.1	25
Dibenz(a,h)anthracene	1.75		0.33	mg/kg	2.65		66.1	40-140	8.62	25
Benzo(g,h,i)perylene	1.77		0.33	mg/kg	2.65		66.7	40-140	4.65	25
EPH_LCS_Aliphatic_C19-C36	13.5		0.00	mg/kg	21.2		63.7	40-140	7.71	25
EPH_LCS_Aliphatic_C9-C18	7.46		0.00	mg/kg	15.9		46.9	40-140	12.8	25
EPH_LCS_Aromatic_C11-C22	30.2		0.00	mg/kg	45.0		67.2	40-140	3.42	25
Nonane	0.81		0.33	mg/kg	2.65		30.4	30-140	8.72	25
Decane	1.10		0.33	mg/kg	2.65		41.4	40-140	13.3	25
Dodecane	1.30		0.33	mg/kg	2.65		49.2	40-140	14.3	25
Tetradecane	1.30		0.33	mg/kg	2.65		49.1	40-140	17.6	25
Hexadecane	1.42		0.33	mg/kg	2.65		53.4	40-140	12.0	25
Octadecane	1.54		0.33	mg/kg	2.65		58.0	40-140	9.83	25
Nonadecane	1.62		0.33	mg/kg	2.65		61.0	40-140	8.29	25
Eicosane	1.68		0.33	mg/kg	2.65		63.2	40-140	7.93	25
Docosane	1.75		0.33	mg/kg	2.65		66.1	40-140	7.26	25
Tetracosane	1.79		0.33	mg/kg	2.65		67.4	40-140	6.95	25
Hexacosane	1.78		0.33	mg/kg	2.65		67.1	40-140	7.01	25
Octacosane	1.75		0.33	mg/kg	2.65		66.1	40-140	7.53	25
Triacotane	1.71		0.33	mg/kg	2.65		64.7	40-140	7.80	25
Hexatriacontane	1.43		0.33	mg/kg	2.65		54.1	40-140	9.29	25
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<i>Surrogate: Chlorooctadecane</i>			<i>5.94</i>	mg/kg	<i>8.28</i>		<i>71.8</i>	<i>40-140</i>		
<i>Surrogate: o-Terphenyl</i>			<i>6.53</i>	mg/kg	<i>8.28</i>		<i>78.9</i>	<i>40-140</i>		
<i>Surrogate: 2-Fluorobiphenyl</i>			<i>3.27</i>	mg/kg	<i>3.31</i>		<i>98.8</i>	<i>40-140</i>		
<i>Surrogate: 2-Bromonaphthalene</i>			<i>3.11</i>	mg/kg	<i>3.31</i>		<i>93.8</i>	<i>40-140</i>		

Quality Control
(Continued)

Extractable Petroleum Hydrocarbons (MADEP-EPH) (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B3C1325 - EPA 3546										
Blank (B3C1325-BLK1)										
					Prepared: 03/30/23 Analyzed: 04/04/23					
Unadjusted C11-C22 Aromatic Hydrocarbons	ND		6.63	mg/kg						
Naphthalene	ND		0.33	mg/kg						
2-Methylnaphthalene	ND		0.33	mg/kg						
Phenanthrene	ND		0.33	mg/kg						
Acenaphthene	ND		0.33	mg/kg						
Acenaphthylene	ND		0.33	mg/kg						
Fluorene	ND		0.33	mg/kg						
Anthracene	ND		0.33	mg/kg						
Fluoranthene	ND		0.33	mg/kg						
Pyrene	ND		0.33	mg/kg						
Benzo(a)anthracene	ND		0.33	mg/kg						
Chrysene	ND		0.33	mg/kg						
Benzo(b)fluoranthene	ND		0.33	mg/kg						
Benzo(k)fluoranthene	ND		0.33	mg/kg						
Benzo(a)pyrene	ND		0.33	mg/kg						
Indeno(1,2,3-cd)pyrene	ND		0.33	mg/kg						
Dibenz(a,h)anthracene	ND		0.33	mg/kg						
Benzo(g,h,i)perylene	ND		0.33	mg/kg						
C9-C18 Aliphatic Hydrocarbons	ND		13.2	mg/kg						
C19-C36 Aliphatic Hydrocarbons	ND		13.2	mg/kg						
C11-C22 Aromatic Hydrocarbons	ND		6.63	mg/kg						
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Surrogate: Chlorooctadecane			9.65	mg/kg	8.28		117	40-140		
Surrogate: o-Terphenyl			6.57	mg/kg	8.28		79.4	40-140		
Surrogate: 2-Fluorobiphenyl			2.78	mg/kg	3.31		83.9	40-140		
Surrogate: 2-Bromonaphthalene			2.63	mg/kg	3.31		79.4	40-140		
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LCS (B3C1325-BS1)										
					Prepared: 03/30/23 Analyzed: 04/04/23					
Naphthalene	2.15		0.33	mg/kg	2.65		81.2	40-140		
2-Methylnaphthalene	2.09		0.33	mg/kg	2.65		78.9	40-140		
Phenanthrene	2.22		0.33	mg/kg	2.65		83.6	40-140		
Acenaphthene	2.17		0.33	mg/kg	2.65		82.0	40-140		
Acenaphthylene	2.14		0.33	mg/kg	2.65		80.9	40-140		
Fluorene	2.14		0.33	mg/kg	2.65		80.9	40-140		
Anthracene	2.25		0.33	mg/kg	2.65		85.0	40-140		
Fluoranthene	2.35		0.33	mg/kg	2.65		88.6	40-140		
Pyrene	2.34		0.33	mg/kg	2.65		88.4	40-140		
Benzo(a)anthracene	2.30		0.33	mg/kg	2.65		87.0	40-140		
Chrysene	2.44		0.33	mg/kg	2.65		92.0	40-140		
Benzo(b)fluoranthene	2.26		0.33	mg/kg	2.65		85.4	40-140		
Benzo(k)fluoranthene	2.31		0.33	mg/kg	2.65		87.3	40-140		
Benzo(a)pyrene	2.15		0.33	mg/kg	2.65		81.1	40-140		
Indeno(1,2,3-cd)pyrene	2.05		0.33	mg/kg	2.65		77.3	40-140		
Dibenz(a,h)anthracene	2.05		0.33	mg/kg	2.65		77.2	40-140		
Benzo(g,h,i)perylene	2.13		0.33	mg/kg	2.65		80.5	40-140		
EPH_LCS_Aliphatic_C19-C36	18.7		0.00	mg/kg	21.2		88.0	40-140		
EPH_LCS_Aliphatic_C9-C18	10.3		0.00	mg/kg	15.9		65.0	40-140		
EPH_LCS_Aromatic_C11-C22	37.5		0.00	mg/kg	45.0		83.4	40-140		
Nonane	1.04		0.33	mg/kg	2.65		39.1	30-140		
Decane	1.50		0.33	mg/kg	2.65		56.8	40-140		
Dodecane	1.84		0.33	mg/kg	2.65		69.3	40-140		
Tetradecane	1.86		0.33	mg/kg	2.65		70.2	40-140		
Hexadecane	1.96		0.33	mg/kg	2.65		74.0	40-140		
Octadecane	2.14		0.33	mg/kg	2.65		80.9	40-140		
Nonadecane	2.25		0.33	mg/kg	2.65		85.1	40-140		
Eicosane	2.31		0.33	mg/kg	2.65		87.3	40-140		
Docosane	2.37		0.33	mg/kg	2.65		89.6	40-140		
Tetracosane	2.41		0.33	mg/kg	2.65		90.9	40-140		

Quality Control
(Continued)

Extractable Petroleum Hydrocarbons (MADEP-EPH) (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B3C1325 - EPA 3546 (Continued)										
LCS (B3C1325-BS1)										
					Prepared: 03/30/23 Analyzed: 04/04/23					
Hexacosane	2.42		0.33	mg/kg	2.65		91.2	40-140		
Octacosane	2.40		0.33	mg/kg	2.65		90.7	40-140		
Triacotane	2.38		0.33	mg/kg	2.65		90.0	40-140		
Hexatriacontane	2.11		0.33	mg/kg	2.65		79.5	40-140		
<hr/>										
<i>Surrogate: Chlorooctadecane</i>			<i>8.41</i>	mg/kg	<i>8.28</i>		<i>102</i>	<i>40-140</i>		
<i>Surrogate: o-Terphenyl</i>			<i>7.92</i>	mg/kg	<i>8.28</i>		<i>95.7</i>	<i>40-140</i>		
<i>Surrogate: 2-Fluorobiphenyl</i>			<i>3.61</i>	mg/kg	<i>3.31</i>		<i>109</i>	<i>40-140</i>		
<i>Surrogate: 2-Bromonaphthalene</i>			<i>3.49</i>	mg/kg	<i>3.31</i>		<i>105</i>	<i>40-140</i>		
<hr/>										
LCS Dup (B3C1325-BSD1)										
					Prepared: 03/30/23 Analyzed: 04/04/23					
Naphthalene	2.24		0.33	mg/kg	2.65		84.4	40-140	3.90	25
2-Methylnaphthalene	2.16		0.33	mg/kg	2.65		81.7	40-140	3.49	25
Phenanthrene	2.20		0.33	mg/kg	2.65		83.1	40-140	0.630	25
Acenaphthene	2.23		0.33	mg/kg	2.65		84.0	40-140	2.44	25
Acenaphthylene	2.20		0.33	mg/kg	2.65		83.1	40-140	2.71	25
Fluorene	2.17		0.33	mg/kg	2.65		81.9	40-140	1.29	25
Anthracene	2.23		0.33	mg/kg	2.65		84.2	40-140	0.886	25
Fluoranthene	2.28		0.33	mg/kg	2.65		86.0	40-140	3.01	25
Pyrene	2.28		0.33	mg/kg	2.65		86.0	40-140	2.72	25
Benzo(a)anthracene	2.24		0.33	mg/kg	2.65		84.7	40-140	2.71	25
Chrysene	2.38		0.33	mg/kg	2.65		89.8	40-140	2.47	25
Benzo(b)fluoranthene	2.23		0.33	mg/kg	2.65		84.2	40-140	1.36	25
Benzo(k)fluoranthene	2.32		0.33	mg/kg	2.65		87.4	40-140	0.172	25
Benzo(a)pyrene	2.14		0.33	mg/kg	2.65		80.8	40-140	0.402	25
Indeno(1,2,3-cd)pyrene	2.02		0.33	mg/kg	2.65		76.3	40-140	1.37	25
Dibenz(a,h)anthracene	2.03		0.33	mg/kg	2.65		76.7	40-140	0.617	25
Benzo(g,h,i)perylene	2.19		0.33	mg/kg	2.65		82.5	40-140	2.45	25
EPH_LCS_Aliphatic_C19-C36	20.4		0.00	mg/kg	21.2		96.2	40-140	8.84	25
EPH_LCS_Aliphatic_C9-C18	11.9		0.00	mg/kg	15.9		74.6	40-140	13.7	25
EPH_LCS_Aromatic_C11-C22	37.5		0.00	mg/kg	45.0		83.4	40-140	0.0265	25
Nonane	1.34		0.33	mg/kg	2.65		50.5	30-140	25.6	25
Decane	1.83		0.33	mg/kg	2.65		68.9	40-140	19.3	25
Dodecane	2.11		0.33	mg/kg	2.65		79.5	40-140	13.7	25
Tetradecane	2.10		0.33	mg/kg	2.65		79.3	40-140	12.1	25
Hexadecane	2.17		0.33	mg/kg	2.65		81.8	40-140	9.98	25
Octadecane	2.31		0.33	mg/kg	2.65		87.4	40-140	7.63	25
Nonadecane	2.42		0.33	mg/kg	2.65		91.2	40-140	7.00	25
Eicosane	2.50		0.33	mg/kg	2.65		94.4	40-140	7.84	25
Docosane	2.60		0.33	mg/kg	2.65		98.1	40-140	9.06	25
Tetracosane	2.65		0.33	mg/kg	2.65		99.9	40-140	9.41	25
Hexacosane	2.65		0.33	mg/kg	2.65		100	40-140	9.38	25
Octacosane	2.64		0.33	mg/kg	2.65		99.7	40-140	9.45	25
Triacotane	2.61		0.33	mg/kg	2.65		98.4	40-140	8.92	25
Hexatriacontane	2.32		0.33	mg/kg	2.65		87.5	40-140	9.61	25
<hr/>										
<i>Surrogate: Chlorooctadecane</i>			<i>8.87</i>	mg/kg	<i>8.28</i>		<i>107</i>	<i>40-140</i>		
<i>Surrogate: o-Terphenyl</i>			<i>7.65</i>	mg/kg	<i>8.28</i>		<i>92.4</i>	<i>40-140</i>		
<i>Surrogate: 2-Fluorobiphenyl</i>			<i>3.30</i>	mg/kg	<i>3.31</i>		<i>99.5</i>	<i>40-140</i>		
<i>Surrogate: 2-Bromonaphthalene</i>			<i>3.12</i>	mg/kg	<i>3.31</i>		<i>94.3</i>	<i>40-140</i>		

Notes and Definitions

Item	Definition
Wet	Sample results reported on a wet weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.



PROJ. NO.		PROJECT NAME/LOCATION				PRESERVATIVE	TESTS*	REMARKS		
3096		MVG Green								
CLIENT						AQUEOUS	SOIL	OTHER	NO. OF CONTAINERS	
Lord Environmental										
REPORT TO:						DATE	TIME	PROC	GRP	SAMPLE I.D.
INVOICE TO:										
DATE	TIME	PROC	GRP	SAMPLE I.D.						
3/24/23	9:00	X		B-2	X					
	10:00	X		B-4	X					
	11:00	X		B-18	X					
	12:00	X		B-20	X					
3/24/23	9:00	X		B-30	X					
	9:30	X		B-33	X					
	10:00	X		B-48	X					
	10:30	X		B-51	X					
	11:00	X		B-52	X					
	11:30	X		B-59	X					
	12:30	X		B-67	X					
	1:00	X		B-71	X					

MADEP ETH with targets

PID = 0

Sampled by: (Signature) <i>[Signature]</i>	Date/Time 3/24/23 3:00 PM	Received by: (Signature) <i>[Signature]</i>	Date/Time 3/27/23 12:30	Laboratory Remarks: Temp. received: <u>5</u> Cooled <input type="checkbox"/>	Special Instructions: List Specific Detection Limit Requirements: MADEP S-1
Relinquished by: (Signature) <i>[Signature]</i>	Date/Time 3/27/23 12:20 PM	Received by: (Signature) <i>[Signature]</i>	Date/Time 3/27/23 12:30		
Relinquished by: (Signature) <i>[Signature]</i>	Date/Time 3/27/23 1500	Received for Laboratory by: (Signature) <i>[Signature]</i>	Date/Time 3/27/23 1500		

Turnaround (Business Days) 5

*Netlab subcontracts the following tests: Radiologicals, Radon, Asbestos, UCMRs, Perchlorate, Bromate, Bromide, Sieve, Salmonella, Carbamates, CT ETPH

MassDEP Analytical Protocol Certification Form

Laboratory Name: New England Testing Laboratory, Inc.

Project #: 3096

Project Location: MVG Green

RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
3C27022

Matrices: Groundwater/Surface Water Soil/Sediment Drinking Water Air Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A <input type="checkbox"/>	7470/7471 Hg CAM III B <input type="checkbox"/>	MassDEP VPH (GC/PID/FID) CAM IV A <input type="checkbox"/>	8082 PCB CAM V A <input type="checkbox"/>	9014 Total Cyanide/PAC CAM VI A <input type="checkbox"/>	6860 Perchlorate CAM VIII B <input type="checkbox"/>
8270 SVOC CAM II B <input type="checkbox"/>	7010 Metals CAM III C <input type="checkbox"/>	MassDEP VPH (GC/MS) CAM IV C <input type="checkbox"/>	8081 Pesticides CAM V B <input type="checkbox"/>	7196 Hex Cr CAM VI B <input type="checkbox"/>	MassDEP APH CAM IX A <input type="checkbox"/>
6010 Metals CAM III A <input type="checkbox"/>	6020 Metals CAM III D <input type="checkbox"/>	MassDEP EPH CAM IV B <input checked="" type="checkbox"/>	8151 Herbicides CAM V C <input type="checkbox"/>	8330 Explosives CAM VIII A <input type="checkbox"/>	TO-15 VOC CAM IX B <input type="checkbox"/>

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
E	VPH, EPH, APH, and TO-15 only a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
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Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No ¹

¹All negative responses must be addressed in an attached laboratory narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.

Signature: 

Position: Laboratory Director

Printed Name: Richard Warila

Date: 4/4/2023

SECTION 00 41 13

FORM FOR GENERAL BID

FROM:

TO BE FILLED ONLINE

TO BE FILLED ONLINE

TO BE FILLED ONLINE

TO:

A. The undersigned proposes to furnish all labor and materials required for the Green Meadow Elementary School – Early Site Package, 5 Tiger Drive, Maynard, MA 01754, in accordance with the accompanying Plans and Specifications prepared by the Mount Vernon Group Architects, Inc., 264 Exchange St., Suite G7, Chicopee, MA 01013, (413) 592-9700, for the Contract Price specified below, subject to additions and deductions according to the terms of the Specifications.

B. This Bid includes addenda numbered: _____ TO BE FILLED ONLINE

C. The Proposed Contract Price is: _____ TO BE FILLED ONLINE

_____ TO BE FILLED ONLINE Dollars (\$) _____ TO BE FILLED ONLINE)

D. UNIT PRICES

As authorized by the Owner, should the quantities of certain classes of work to be increased or decreased, as described below, the Unit Prices listed below shall be the basis of payment to the General Contractor, or credit to the Owner, for such increase or decrease in the Work. The Unit Prices shall represent the exact net amount, per unit, to be paid to the General Contractor, in the case of additions. No additional adjustment shall be allowed for overhead, profit, insurance, or other direct or indirect expenses of the General Contractor. No additional adjustments shall be allowed for over excavation, or other related work, without prior written approval of the Owner. The Owner reserves the right to negotiate total additive or deductive change value for any line items which deviate more than 25% from the stated quantities below. Unit prices to be included in the General Contractors base bid.

Unit Price No. 1: Excavation, stockpiling, and removal of petroleum and contaminated soil materials and replace with imported suitable backfill materials compacted in place that is more than or less than 100 cubic yards at \$ _____ per cubic yard, for a total of _____ (\$ _____).

Unit Price No. 2: Excavation, stockpiling, and removal of ledge and boulders measured at 2 cubic yards and larger for the open site excavation and replace with imported suitable backfill materials compacted in place that is more than or less than 100 cubic yards at

\$ _____ per cubic yard, for a total of _____
_____ (\$ _____).

Unit Price No. 3: Excavation, stockpiling, and removal of ledge and boulders measured at 2 cubic yards and larger to provide trenches for utility pipes, conduits, and structures and replace with imported suitable backfill materials compacted in place that is more than or less than 100 cubic yards at

\$ _____ per cubic yard, for a total of _____
_____ (\$ _____).

Unit Price No. 4: Excavation, stockpiling, and removal of unsuitable soil materials and replace with imported suitable backfill materials compacted in place that is more than or less than 100 cubic yards at

\$ _____ per cubic yard, for a total of _____
_____ (\$ _____).

The undersigned agrees that if he is selected as General Contractor, he shall promptly confer with the Awarding Authority on the question of Sub-bidders and that the Awarding Authority may substitute for any sub-bid listed above a sub-bid duly filed with the Awarding Authority by another sub-bidder for the sub-trade, against whose standing and ability the undersigned makes no objection; and that the undersigned shall use all such finally selected sub-bidders at the amount named in their respective sub-bids and be in every way responsible for them and their Work as if they had been originally named in this General Bid the total Contract Price being adjusted to conform thereto.

The undersigned agrees that, if he is selected as General Contractor, he shall within days, Saturdays, Sundays and legal holidays excluded, after presentation thereof by the Awarding Authority, execute a Contract in accordance with the terms of this General Bid and furnish a performance bond and also a labor and materials or payment bond each of a surety company qualified to do business under the laws of the Commonwealth and satisfactory to the Awarding Authority and each in the sum of one hundred percent (100%) of the Contract Price, the premiums for which are to be paid by the General Contractor and are included in the Contract Price.

The undersigned hereby certifies that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the Work; that all employees to be employed at the worksite shall have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and that he shall comply fully with all laws and regulations applicable to awards made subject to Massachusetts General Laws, Chapter 149 as amended to date.

The undersigned hereby certifies under the penalties of perjury that this bid is in all respects bona fide, fair, and made without collusion, fraud, and conflict of interest with any other person. As used in this subsection the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity.

The undersigned further certifies under penalty of perjury that the said undersigned is not presently debarred from doing public construction work in the Commonwealth under the provisions of section twenty-nine F of chapter twenty-nine, or any other applicable debarment provisions of any other chapter of the General Laws or any other rule or regulation promulgated thereunder.

The undersigned certifies that he shall comply with the provisions of the "Supplemental Equal Employment Opportunity Anti-Discrimination and Affirmative Action Program" as set forth in the contract, Article XII, included under Section 00 73 43 - Labor Standard of the Commonwealth.

Should the notice to General Contractors, bid form, contract, plans or specifications require submission of special data to accompany the bid, the awarding authority reserved the right to rule the bidder's failure to submit such data an informality and to receive said bid subsequently, within reasonable time as set by the awarding authority.

TAXES: Required by MGL Chapter 62c, Section 49A, the undersigned certifies that he or she has complied with all laws of the Commonwealth relating to taxes, reporting of employees and General Contractors, and withholding and remitting child support.

DATE _____ (Name of General Bidder)

Federal Employer's Identification Number _____ (Signature) (Title)

(Telephone) (Business Address)

(City, State and Zip Code)

END OF SECTION

Town of Maynard
Green Meadow Elementary School - Early Site Package
GREEN MEADOW ELEMENTARY SCHOOL - EARLY SITE PACKAGE
5 TIGER DRIVE, MAYNARD, MA 01754
Mount Vernon Group Architects, Inc., Project No. 02021.10

06/14/2024
Addendum 3
JUNE 14, 2024
ADDENDUM NO. 3

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