MATRIX
ENVIRONMENTAL TECHNOLOGIES INC.
Remediation, Water Treatment and Environmental Engineering
716.662.0745 | www.matrixbiotech.com

March 15, 2019

Mr. Ben McPherson
New York State Department of Environmental Conservation - Region 9
Division of Environmental Remediation
270 Michigan Avenue
Buffalo, New York 14203

RE: Subsurface Investigation Report
Lake Avenue Apartments
65-67 Lake Avenue
Lancaster, NY 14086
Site No. 915344
METI Project #18-046

Dear Mr. McPherson:

Matrix Environmental Technologies Inc. (METI) on behalf of 65 Lake Avenue LLC is providing the attached Subsurface Investigation Report for the above referenced location. The report includes results of a sampling event completed on February 11, 2019.

If you should have any questions or would like to discuss, please contact the undersigned.

Sincerely,
Matrix Environmental Technologies Inc.

Steven L. Marchetti
Senior Project Manager

Enclosures

cc: Mr. Mark Aquino, 65 Lake Avenue LLC
Mr. Chad Staniszewski, NYSDEC

SUBSURFACE INVESTIGATION REPORT

Lake Avenue Apartments
65-67 Lake Avenue
Lancaster, NY 14086

Site No. 915344
METI Project #18-046

March 15, 2019

SUBMITTED TO:

Mr. Mark Aquino
65 Lake Avenue LLC

PREPARED BY:

MATRIX
ENVIRONMENTAL TECHNOLOGIES INC.
3730 California Road
Orchard Park, New York 14127

Christine M. Curtis, P.E.
Project Engineer

Steven L. Marchetti
Senior Project Manager

TABLE OF CONTENTS

1.0 SITE DESCRIPTION AND BACKGROUND

The Site is currently utilized as a residential apartment complex in a moderately developed residential area in the Town of Lancaster, Erie County, New York. Onsite structures include a two-story apartment building constructed in 1903 and three two-story townhomes constructed in 2006. The Site is bordered by residences to the north, east, south, and west. Cayuga Creek is located approximately 200 feet to the southwest.

The eastern portion of the Site was utilized as a dry cleaner from at least 1949 through 1980. According to historical records, one tank identified as "TN4 1000 (size)" was installed in 1958. Based on the nature of historic development, it is likely that this tank would have been located on the eastern portion of the property.

A limited subsurface investigation was completed at the Site in 2005 by Lender Consulting Services, Inc. (LCS). LCS states that the investigation was limited to the collection of soil samples from excavations associated with development of the townhome structures. A second subsurface investigation was completed in May 2018 to locate the historic tank and to further evaluate the quality of soil and groundwater at the Site. Soil and groundwater samples were collected from the eastern portion of the Site and submitted for laboratory analysis of volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs). The results indicated exceedances of NYSDEC Soil Cleanup Objectives (SCOs) for unrestricted use and NYSDEC Groundwater Quality Standards. No anomalies associated with USTs were identified. For additional details, refer to the May 15, 2018 *Limited and Focused Geophysical Survey and Limited and Focused Subsurface Investigation Report* (LCS).

2.0 SITE GEOLOGY

According to the Surficial Geologic Map of New York, Niagara Sheet (1988) by Donald H. Cadwell and the U.S. Department of Agriculture Soil Conservation Service General Soil Map of Erie County, New York, soils underlying the Site consist of proglacial lake deposits, namely laminated clays and silts. According to the Geologic Map of New York, 1970 (Richard and Fisher), the bedrock underlying the Site is shale and/or limestone of the Skaneateles Formation (Hamilton Group) from the Upper Devonian Period (383 to 358 million years ago). Cayuga Creek, a tributary of the Buffalo River which discharges into Lake Erie, is located approximately 260 feet southwest of the Site. The direction of flow in Cayuga Creek (closest to the Site) is to the west. The topographic elevation at the center of the Site (as depicted on Google Earth) is 672 feet above sea level. The elevation of Cayuga Creek closest to the Site is 644 feet above sea level. The Site is generally flat with a gentle slope to the west and southwest towards the Cayuga Creek floodplain.

3.0 OBJECTIVES AND SCOPE OF WORK

The objective of the subsurface investigation was to delineate subsurface impacts at the Site. The scope of work included the following tasks:

- Identified the location of buried utilities through the Underground Facilities Protection Organization (UFPO).

- Advanced eight (8) soil borings to a maximum depth of approximately 18 feet below ground surface (bgs) using direct-push technology. Continuous soil sampling methodology was utilized for each boring.

- Inspected the soil samples for physical indications of hydrocarbon impact, documented the soil type, screened for volatile organic compounds using an organic vapor meter (OVM), and containerized for potential laboratory analysis.

- Submitted soil samples for laboratory analysis for Target Compound List (TCL) and CP-51 List VOCs and CP-51 List SVOCs.

- Collected groundwater samples from two (2) basement sumps of Building 2 and submitted for laboratory analysis of TCL and CP-51 List VOCs and CP-51 List SVOCs.

- Prepared this report that summarizes the methods and results of the assessment as well as an interpretation of the data.

4.0 METHODS OF INVESTIGATION

4.1 Site Preparation

Prior to commencing site work, Matrix Environmental Technologies Inc. (METI) contacted the UFPO for the location of underground utilities.

4.2 Soil Sampling

Soil samples from borings designated SB1 through SB8 were obtained by driving a 2.125-inch OD, 48-inch long stainless-steel macrocore sampler with an internal acetate sleeve into the ground using a track-mounted Geoprobe® direct-push rig. Once the sampler was driven to the desired depth, the sampler was removed, opened, and the acetate sleeve was removed and cut open to expose the soil sample. The locations of soil borings are shown on **Figure 1**.

The soil samples were inspected for hydrocarbon impact (sheen, discoloration, odor, etc.) and characterized lithologically. The samples were placed in airtight containers to allow vapors to accumulate in the headspace. The headspace was then screened for VOCs, expressed in parts per million (ppm), using a hand-held MiniRAE 3000 OVM equipped with a 11.7 eV lamp photoionization detector (PID).

Selection of soil samples for analysis was based on screening results with the OVM, visual and olfactory indications, and engineering judgment (i.e. proximity to areas of concern or former Site features). Unscreened portions of the soil samples chosen for laboratory analysis were collected from the sampler with a stainless-steel spoon and placed in laboratory-supplied containers. for analysis of TCL and CP-51 List VOCs via EPA SW-846 Method 8260 and CP-51 List SVOCs via EPA SW-846 Method 8270.

4.3 Groundwater Sampling

Samples were collected from the basement sumps of Apartment A2 and A4 in Building 2. Prior to sampling, the sumps were pumped down to ensure that a representative groundwater sample was collected.

4.4 Laboratory Analysis

A total of eight (8) soil samples and two (2) groundwater samples were collected and submitted under chain-of-custody protocol to Pace Analytical (New York/TNI Certification #10888), of Greensburg, Pennsylvania. Samples were analyzed for TCL and CP-51 List VOCs via EPA SW-846 Method 8260 and CP-51 List SVOCs via EPA SW-846 Method 8270.

The soil analytical results were compared to 6 NYCRR Part 375 Unrestricted Use SCOs. The groundwater analytical results were compared to NYSDEC Groundwater Standards (Class GA).

5.0 RESULTS

5.1 Field Observations

On February 11, 2019, METI completed eight (8) soil borings that extended to a maximum depth of 18 feet bgs. The boring locations are depicted on **Figure 1**.

Characterization of soil samples collected during the subsurface investigation depict the subsurface environment as:

- Surface to 4 feet below grade – sandy fill material with gravel and silt (fill material)
- 4 to 11.5 feet below grade – laminated silt and clay (lacustrine)
- 11.5 to 16 feet – gravelly silt with sand (alluvium)
- 16 to 18 feet – top of weathered shale (black)

The laminated clay and silt are proglacial lake sediments as indicated in the references described in Section 2.0. It is possible the gravelly silt with sand is alluvium due to the proximity of Cayuga Creek. Boring SB6 and boring SB8 which are closest to the Creek showed sand and gravel within the silt matrix at higher elevations than the other borings (approximately 8 to 11 feet below grade). The water table was estimated at approximately 8 feet below grade in the clay and silt sediments. Based on topographic slope and the location/flow direction of Cayuga Creek, groundwater flow direction at the Site is estimated to the southwest. The groundwater gradient onsite is estimated to be low (i.e. 0.001). Between the Site and Cayuga Creek the gradient is estimated to be moderate (i.e. 0.01 feet) due to the difference in elevation (28 feet).

Refer to **Appendix A** for soil boring logs.

5.2 Soil

VOCs, including acetone, tetrachloroethene (PCE), and 1,2-dichloroethene (DCE), and SVOCs were detected in six (6) soil samples collected from SB1 through SB5 and SB7 at depths ranging from 8 to 18 feet bgs. No single VOC or SVOC in any sample exceeded the respective Unrestricted Use SCO.

The soil analytical results are summarized in **Tables 1** and **2**. A summary of soil results from the subsurface investigations completed in 2018 and 2019 is shown in **Figure 2**. Copies of the laboratory analytical reports are included as **Appendix B**.

5.3 Groundwater

PCE was detected in both groundwater samples at a concentration of 4.0 µg/L in Apartment A2 and 11.9 µg/L in Apartment A4. SVOCs were non-detect in both samples.

The water elevation maintained by the basement sumps was approximately 9 feet below grade (7 to 8 inches below the top of the basement slab) at the time of sampling.

6.0 CONCLUSIONS AND RECOMMENDATIONS

METI was retained to delineate subsurface impacts at the Site. On February 11, 2019, METI completed eight (8) soil borings designated as SB1 through SB8 and collected groundwater samples from the basement sumps in Building 2. Soil samples from each boring and basement sump were submitted for laboratory analysis of VOCs and SVOCs.

Laboratory analytical results indicate that VOCs and SVOCs were non-detect or below the respective SCOs in all soil samples. Based on the results of the three subsurface investigations, soil impacts are confined to the footprint of the former dry cleaner and are most elevated in shallow soils from 4 to 6 feet bgs.

Groundwater analytical results indicate that PCE is present in concentrations exceeding groundwater standards in Building 2. Installation of three (3) groundwater monitoring wells to the top of bedrock is recommended to assess groundwater quality in the vicinity of the former dry cleaner and to provide groundwater flow direction at the Site. A site map showing proposed monitoring well locations is included as **Figure 3**.

7.0 LIMITATIONS

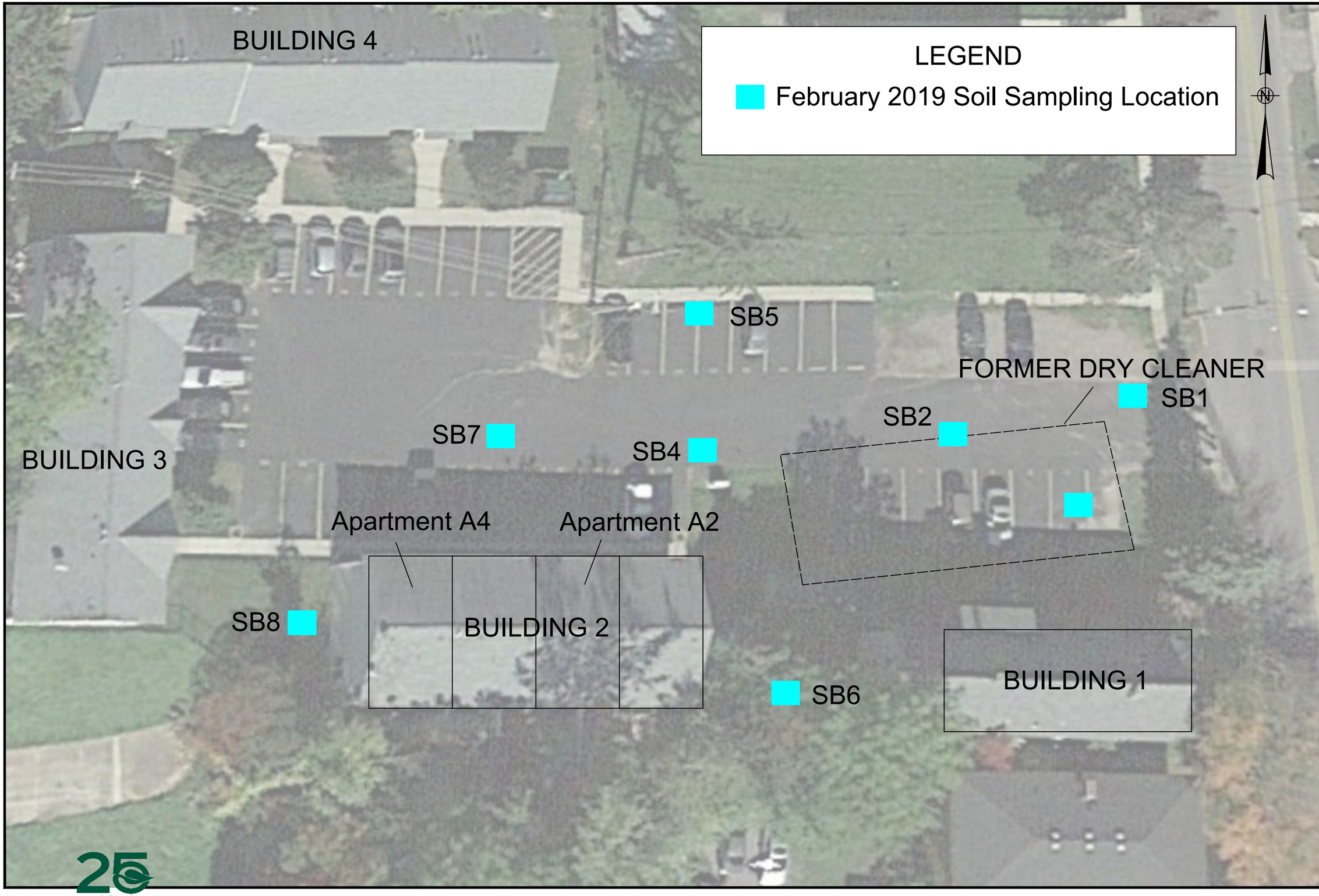
This report is based on a limited number of soil samples and chemical analyses. The conclusions presented in this report are based only on the observations made during this investigation and data provided by others. The report presents a description of the subsurface conditions observed at each sample location during this investigation. Subsurface conditions may vary significantly with time, particularly with respect to groundwater elevations and groundwater quality. Conclusions and recommendations set forth are applicable only to the facts and conditions at the time of this investigation.

In performing professional services, METI uses the degree of care and skill exercised under similar circumstances by members of the environmental profession practicing in the same or similar locality under similar conditions.

The standard of care shall be judged exclusively as of the time these services are rendered and not according to later standards. METI makes no express or implied warranty beyond its conformance

to this standard. METI shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed for this report. METI believes that all information contained in this report is factual; however, no guarantee is made or implied.

FIGURES



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PREPARED FOR:
65 Lake Avenue LLC

PROJECT MGR: SLM

DESIGNED BY: CMC

REVIEWED BY: SRC

DRAWN BY: CMC

REVISION	
BY	DATE

SCALE IN FEET: 1" = 20'
0 20

PROJECT NAME / LOCATION:
Lake Avenue Apartments
65-67 Lake Avenue
Lancaster, New York

Site No. 915344

TITLE:
Soil Sampling Locations

DATE: February 11, 2019

PROJECT NO.: 18-046

FIGURE: 1

25 years dedicated to a CLEANER ENVIRONMENT 1991-2016

Boring ID
Sample Interval (ft. below grade)
Total VOCs
Total SVOCs
PCE
TCE
1,2-DCE (Total)
Acetone

February 2019 Soil Sampling Location

May 2018 Sampling Location

NOTES:

All concentrations shown in µg/kg.

Gold shaded values indicate analyte exceeds Part 375 Residental SCOs.

Yellow shaded values indicate analyte exceeds Part 375 Unrestricted Use SCOs.

SB5
10'-12'
27.6
24.4
ND
ND
ND
27.6

BH5
10'-12'
130
588
110
2.44
1.64
ND

SB2
16'-18'
10.3
136.4
ND
ND
ND
10.3

SB1
14'-15.8'
16.8
154.8
ND
ND
ND
16.8

BUILDING 3

SB8
4'-6'
ND
ND
ND
ND
ND
ND

SB7
12'-14'
19.2
55.6
ND
ND
ND
19.2

SB4
8'-10'
117.7
32.3
ND
ND
87.9
29.8

BH6
12'-14'
47.4
ND
2.71
1.19
2.03
18.3

SB3
12'-13.5'
22.5
9.8
ND
ND
ND
12.7

BUILDING 1

SB6
6'-8'
ND
ND
ND
ND
ND
ND

BH4	
4'-6'	8'-10'
1,557	135
7,160	434
118	20.4
241	6.68
733	7.28
417	44.7

BH1
4'-6'
24,025
408.9
13,000
8,260
2,693
ND

25 years dedicated to a CLEANER ENVIRONMENT 1991-2016

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REVISION

BY	DATE

SCALE IN FEET: 1" = 20'

0 20

PROJECT NAME / LOCATION:

Lake Avenue Apartments
65-67 Lake Avenue
Lancaster, New York

Site No. 915344

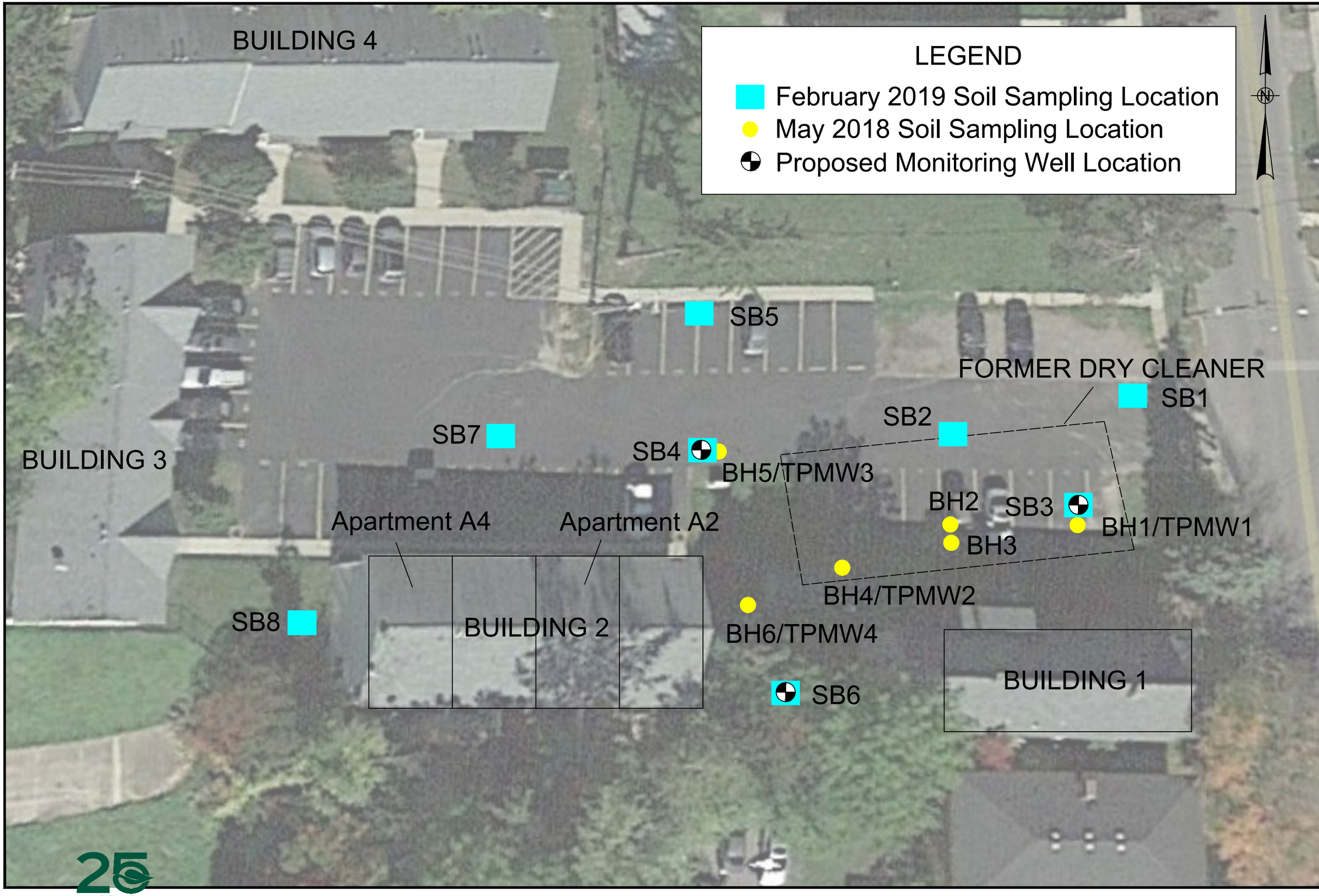
TITLE:

Soil Analytical Data Summary

DATE: February 11, 2019

PROJECT NO.: 18-046

FIGURE: 2



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REVISION	
BY	DATE

SCALE IN FEET: 1" = 20'
0 20

PROJECT NAME / LOCATION:
Lake Avenue Apartments
65-67 Lake Avenue
Lancaster, New York

Site No. 915344

TITLE:
Proposed Monitoring Well Locations

DATE: N/A

PROJECT NO.: 18-046

FIGURE: 3

25 years dedicated to a CLEANER ENVIRONMENT 1991-2016

TABLES

Table 1
Soil VOC Concentrations Summary
65-67 Lake Avenue, Lancaster, New York

PARAMETER	Unrestricted Use SCO[1]	SB1 14-15.8'	SB2 16-18'	SB3 12-13.5'	SB4 8-10'	SB5 10-12'	SB6 6-8'	SB7 12-14'	SB8 4-6'
1,1,1-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane		ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane		ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene		ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene		ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)		ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane		ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethene (Total)	NA	ND	ND	ND	87.9	ND	ND	ND	ND
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene		ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)		ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone		ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)		ND	ND	ND	ND	ND	ND	ND	ND
Acetone	50	16.8	10.3	12.7	29.8	27.6	ND	19.2	ND
Benzene		ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane		ND	ND	ND	ND	ND	ND	ND	ND
Bromoform		ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane		ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide		ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride		ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane		ND	ND	ND	ND	ND	ND	ND	ND
Chloroform		ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane		ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane		ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene		ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene (Cumene)		ND	ND	ND	ND	ND	ND	ND	ND
Methyl-tert-butyl ether		ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride		ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene		ND	ND	ND	ND	ND	ND	ND	ND
Styrene		ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1,300	ND	ND	9.8	ND	ND	ND	ND	ND
Toluene		ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene		ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride		ND	ND	ND	ND	ND	ND	ND	ND
Xylene (Total)		ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	250	ND	ND	ND	81.7	ND	ND	ND	ND
cis-1,3-Dichloropropene		ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene		ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene		ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene		ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene		ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene		ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene		ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene		ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	190	ND	ND	ND	6.2	ND	ND	ND	ND
trans-1,3-Dichloropropene		ND	ND	ND	ND	ND	ND	ND	ND
Total		**16.8**	**10.3**	**22.5**	**117.7**	**27.6**	**ND**	**19.2**	**ND**

[1]NYCRR Part 375 Table 375-6.8(b)

NOTES:
1. Analytical testing for VOCs via EPA Method 8260C by Pace Analytical.
2. Results present in μg/kg.
3. ND = Not Detected
4. Regulatory standards shown for detected compounds only.
5. NA = Not Applicable

Table 2
Soil SVOC Concentrations Summary
65-67 Lake Avenue, Lancaster, New York

PARAMETER	Unrestricted Use SCO[1]	SB1 14-15.8'	SB2 16-18'	SB3 12-13.5'	SB4 8-10'	SB5 10-12'	SB6 6-8'	SB7 12-14'	SB8 4-6'
Acenaphthene		ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene		ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	100,000	ND	11	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	1,000	8.6	ND	9.9	ND	ND	ND	ND	ND
Benzo(a)pyrene	1,000	ND	ND	10.8	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	1,000	14	ND	20.4	ND	ND	ND	7.7	ND
Benzo(g,h,i)perylene	100,000	ND	ND	11.1	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	800	12.7	ND	ND	ND	ND	ND	ND	ND
Chrysene	1,000	25.0	52.1	32.3	32.3	14.4	ND	18.8	ND
Dibenz(a,h)anthracene		ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100,000	25.7	ND	22	ND	ND	ND	11.1	ND
Fluorene		ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene		ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene		ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	100,000	34.9	59.6	11	ND	ND	ND	7.5	ND
Pyrene	100,000	33.9	13.7	21.6	ND	10	ND	10.5	ND
Total		**154.8**	**136.4**	**139.1**	**32.3**	**24.4**	**ND**	**55.6**	**ND**

[1]NYCRR Part 375 Table 375-6.8(b)

NOTES:
1. Analytical testing for SVOCs via EPA Method 8270D by Pace Analytical.
2. Results present in μg/kg.
3. ND = Not Detected
4. Regulatory standards shown for detected compounds only.

Table 3
Groundwater VOC Concentrations Summary
65-67 Lake Avenue, Lancaster, New York

PARAMETER	NYSDEC Groundwater Quality Standard	A2	A4
1,1,1-Trichloroethane		ND	ND
1,1,2,2-Tetrachloroethane		ND	ND
1,1,2-Trichloroethane		ND	ND
1,1-Dichloroethane		ND	ND
1,1-Dichloroethene		ND	ND
1,2,4-Trimethylbenzene		ND	ND
1,2-Dibromoethane (EDB)		ND	ND
1,2-Dichlorobenzene		ND	ND
1,2-Dichloroethane		ND	ND
1,2-Dichloroethene (Total)		ND	ND
1,2-Dichloropropane		ND	ND
1,3,5-Trimethylbenzene		ND	ND
1,3-Dichlorobenzene		ND	ND
1,4-Dichlorobenzene		ND	ND
2-Butanone (MEK)		ND	ND
2-Hexanone		ND	ND
4-Methyl-2-pentanone (MIBK)		ND	ND
Acetone		ND	ND
Benzene		ND	ND
Bromodichloromethane		ND	ND
Bromoform		ND	ND
Bromomethane		ND	ND
Carbon disulfide		ND	ND
Carbon tetrachloride		ND	ND
Chlorobenzene		ND	ND
Chloroethane		ND	ND
Chloroform		ND	ND
Chloromethane		ND	ND
Dibromochloromethane		ND	ND
Ethylbenzene		ND	ND
Isopropylbenzene (Cumene)		ND	ND
Methyl-tert-butyl ether		ND	ND
Methylene Chloride		ND	ND
Naphthalene		ND	ND
Styrene		ND	ND
Tetrachloroethene	5	4.0	11.9
Toluene		ND	ND
Trichloroethene		ND	ND
Vinyl chloride		ND	ND
Xylene (Total)		ND	ND
cis-1,2-Dichloroethene		ND	ND
cis-1,3-Dichloropropene		ND	ND
m&p-Xylene		ND	ND
n-Butylbenzene		ND	ND
n-Propylbenzene		ND	ND
o-Xylene		ND	ND
p-Isopropyltoluene		ND	ND
sec-Butylbenzene		ND	ND
tert-Butylbenzene		ND	ND
trans-1,2-Dichloroethene		ND	ND
trans-1,3-Dichloropropene		ND	ND
Total		**4.0**	**11.9**

NOTES:
1. Analytical testing for VOCs via EPA Method 8260C by Pace Analytical.
2. Results present in μg/L.
3. ND = Not Detected
4. Regulatory standards shown for detected compounds only.

Table 4
Groundwater SVOC Concentrations Summary
65-67 Lake Avenue, Lancaster, New York

PARAMETER	A2	A4
Acenaphthene	ND	ND
Acenaphthylene	ND	ND
Anthracene	ND	ND
Benzo(a)anthracene	ND	ND
Benzo(a)pyrene	ND	ND
Benzo(b)fluoranthene	ND	ND
Benzo(g,h,i)perylene	ND	ND
Benzo(k)fluoranthene	ND	ND
Chrysene	ND	ND
Dibenz(a,h)anthracene	ND	ND
Fluoranthene	ND	ND
Fluorene	ND	ND
Indeno(1,2,3-cd)pyrene	ND	ND
Naphthalene	ND	ND
Phenanthrene	ND	ND
Pyrene	ND	ND
Total	**ND**	**ND**

NOTES:
1. Analytical testing for SVOCs via EPA Method 8270D by Pace Analytical.
2. Results present in μg/L.
3. ND = Not Detected

APPENDIX A
Soil Boring Logs

Matrix Environmental Technologies Inc. **SUBSURFACE LOG**

PROJECT & LOCATION: 65-67 Lake Ave., Lancaster, NY PROJECT No. 18-046

CLIENT: Aquino WELL/BORING ID: **SB1**

START DATE: 2/11/19 COMPLETION DATE: 2/11/2019 RECORDED BY: C. Zink

GROUNDWATER DEPTH WHILE DRILLING: approx. 6 feet GROUNDWATER DEPTH AFTER COMPLETION: approx. 9 feet

WEATHER: cloudy, 25 F CONTRACTOR/DRILLERS: Matrix Environmental Technologies / P. Bliek

DRILL RIG: Geoprobe 5410 DRILL SIZE & TYPE: Direct Push 2 1/2" NPT HAMMER Type: Hydraulic

Sampler Type: macrocore (L=48", OD=2.125")

Sample Depth (ft)	Sample No.	Sample Interval (feet)	OVM Reading (ppm)	Recovery (inches)	USCS Group Symbol	SOIL DESCRIPTION AND DRILLING COMMENTS Unified Soil Classification System f-fine m-medium c-coarse sr - subrounded, r - rounded, sa - subangular, a - angular
	1	0-4	0.8 0.8	28	GP	Asphalt over gray, POORLY GRADED GRAVEL (cf) WITH SAND (cf), loose, dry, Quaternary Fill
1					SM	Brown SILTY SAND (mf) WITH GRAVEL (cf), medium dense, moist, Quaternary Fill.
2						
3						
4	2	4.0 - 8.0	1.3	18	SP	Brown, POORLY GRADED SAND (mf) WITH SILT AND GRAVEL (cf), medium dense, moist, Quaternary Fill.
5						
6						
7						
8	3	8.0-12.0	1.9	12	SP	Brown, POORLY GRADED SAND (cf) WITH GRAVEL (f), loose, saturated, Colluvium.
9						
10						
11						
12	4	12.0-16.0	1.0	24	MH	Tan CLAYEY SILT, medium plasticity, medium stiff, saturated, Lacustine
13					ML	Dark gray CLAYEY SILT, trace gravel (weathered bedrock), medium plasticity, medium stiff, saturated, Lacustine
14						
15						
16						

Notes: Refusal at 16 feet.

Matrix Environmental Technologies Inc. **SUBSURFACE LOG**

PROJECT & LOCATION:	65-67 Lake Ave., Lancaster, NY	PROJECT No.	18-046
CLIENT:	Aquino	WELL/BORING ID:	**SB2**
START DATE:	2/11/19	COMPLETION DATE: 2/11/2019	RECORDED BY: C. Zink
GROUNDWATER DEPTH WHILE DRILLING:	approx. 6 feet	GROUNDWATER DEPTH AFTER DRILLING COMPLETION:	approx. 9 feet
WEATHER:	cloudy, 25 F	CONTRACTOR/DRILLERS:	Matrix Environmental Technologies / P. Bliek
DRILL RIG:	Geoprobe 5410	DRILL SIZE & TYPE: Direct Push 2 1/2" NPT	HAMMER Type: Hydraulic
		Sampler Type:	macrocore (L=48", OD=2.125")

Sample Depth (ft)	Sample No.	Sample Interval (feet)	OVM Reading (ppm)	Recovery (inches)	USCS Group Symbol	SOIL DESCRIPTION AND DRILLING COMMENTS Unified Soil Classification System f-fine m-medium c-coarse sr - subrounded, r - rounded, sa - subangular, a - angular
					GP	Asphalt over gravel fill over sand and gravel fill.
1	1	0-4	0.8	32	GP	Gray POORLY GRADED GRAVEL (cf) WITH SAND (cf), loose, dry, odor of asphalt, Quaternary Fill
2					CL	Reddish brown SILTY CLAY, very stiff, moist, Quaternary Fill
					SP	Brown and gray POORLY GRADED GRAVELLY SAND (cf) WITH SILT, medium dense, moist, Quaternary Fill or Colluvium.
3						
4	2	4.0 - 8.0 4.0-6.0	12.9	36	SW	Brown, tan and brownish WELL GRADED SAND (cf) WITH GRAVEL (mf, sr),trace Silt, medium dense, moist, Quaternary Fill or Colluvium.
5						
6		6.0-7.0	81		CL, ML	Reddish brown and olive brown laminated SILTY CLAY, stiff, medium plasticity (6") overlying olive brown CLAYEY SILT, medium stiff, low plasticity, wet, Lacustrine.
7						
8	3	8.0-12.0 8.0-10.0	1.9 55.0	48	CL,ML	Reddish brown CLAY laminated with Gray SILT, stiff, medium plasticity, saturated Lacustine, 1 foot resample.
9						
10		10.0-12.0	210			
11						
12	4	12.0-16.0 12.0-14.0	107	48	MH	Gray SILT WITH GRAVEL (cf, sr), trace Sand (f), medium stiff, saturated, Lacustine or possibly Alluvium, sand increases with depth.
13						
14		14.0-16.0	123			
15						
					SM	Gray SILTY SAND (mf) WITH GRAVEL (mf, sa to a), medium dense, saturated, Lacustrine or possibly Alluvium.
16	5	16.0-18.0	1323	48	ML	Dark Gray GRAVELLY SILT WITH SAND, very dense, saturated, non-plastic, blocky, Lacustrine or possibly Alluvium, appears to be 3 feet of resample.
17						
18						

Notes Refusal at 18 feet.

Matrix Environmental Technologies Inc. **SUBSURFACE LOG**

PROJECT & LOCATION:	65-67 Lake Ave., Lancaster, NY	PROJECT No.	18-046
CLIENT:	Aquino	WELL/BORING ID:	**SB3**
START DATE:	2/11/19	COMPLETION DATE: 2/11/2019	RECORDED BY: C. Zink
GROUNDWATER DEPTH WHILE DRILLING:	approx. 6 feet	GROUNDWATER DEPTH AFTER DRILLING COMPLETION:	approx. 9 feet
WEATHER:	cloudy, 25 F	CONTRACTOR/DRILLERS:	Matrix Environmental Technologies / P. Bliek
DRILL RIG:	Geoprobe 5410	DRILL SIZE & TYPE: Direct Push 2 1/2" NPT	HAMMER Type: Hydraulic
		Sampler Type:	macrocore (L=48", OD=2.125")

Sample Depth (ft)	Sample No.	Sample Interval (feet)	OVM Reading (ppm)	Recovery (inches)	USCS Group Symbol	SOIL DESCRIPTION AND DRILLING COMMENTS Unified Soil Classification System f-fine m-medium c-coarse sr - subrounded, r - rounded, sa - subangular, a - angular
1	1	0-4	415	27	CL, GP	3 inches TOPSOIL over 4 inches reddish brown CLAY, medium plasticity, stiff, dry, over Brown POORLY GRADED GRAVEL WITH SAND,trace Silt, medium dense, dry, Quaternary Fill.
2						
3						
4	2	4.0 - 8.0		36		
5		4.0-6.0	296		ML, CL	Gray CLAYEY SILT, medium plasticity laminated with Brown CLAY, high plasticity, moist, occasional fine Sand lenses (1/8"), density varies from medium in 4' to 6' and where there is sand to very stiff, Lacustrine.
6						
7		6.0-8.0	278			
8	3	8.0 - 12.0		48		
9		8.0-10.0	212		ML	Brown SILT, hard, low plasticity, wet, Lacustrine.
10					ML	Gray CLAYEY SILT, stiff, medium plasticity, wet, Lacustine.
11		10.0-12.0	320			
12	4	12.0 -16.0		38	CL	Mottled gray and brown SILTY CLAY, medium stiff, medium plasticity, saturated, Lacustine.
13		12.0-13.5	720			
14		13.5-15.5	352		CL	Mottled gray and brown SILTY CLAY WITH SAND (f), trace GRAVEL (f), medium stiff, medium plasticity, saturated, Lacustine.
15						
16						

Notes: Refusal at 15.5 feet.

Matrix Environmental Technologies Inc. **SUBSURFACE LOG**

PROJECT & LOCATION:	65-67 Lake Ave., Lancaster, NY	PROJECT No.	18-046
CLIENT:	Aquino	WELL/BORING ID:	**SB4**
START DATE:	2/11/19	COMPLETION DATE: 2/11/2019	RECORDED BY: C. Zink
GROUNDWATER DEPTH WHILE DRILLING:	approx. 6 feet	GROUNDWATER DEPTH AFTER COMPLETION:	approx. 9 feet
WEATHER:	cloudy, 25 F	DRILLING CONTRACTOR/DRILLERS:	Matrix Environmental Technologies / P. Bliek
DRILL RIG:	Geoprobe 5410	DRILL SIZE & TYPE: Direct Push 2 1/2" NPT	HAMMER Type: Hydraulic
		Sampler Type:	macrocore (L=48", OD=2.125")

Sample Depth (ft)	Sample No.	Sample Interval (feet)	OVM Reading (ppm)	Recovery (inches)	USCS Group Symbol	SOIL DESCRIPTION AND DRILLING COMMENTS Unified Soil Classification System f-fine m-medium c-coarse sr - subrounded, r - rounded, sa - subangular, a - angular
	1	0-4		35	ML, SW	Asphalt over sand and gravel fill overlying brown SILT bedded with WELL GRADED SAND (mf),
1		0-2.0	50			loose, non-plastic, moist, Quaternary Fill.
2					SW	Brown WELL GRADED SAND (m,f) WITH SILT, trace GRAVEL, loose, moist, Quaternary Fill.
3		2.0-4.0	75			
4	2	4.0 - 8.0 4.0-5.0	35	18	SP, ML	Grayish Brown POORLY GRADED SAND (cf) WITH GRAVEL (mf, sr), bedded with SILT, medium dense, moist.
5		5.0-5.75	111		CL, ML	Brown CLAY, very stiff, high plasticity, laminated with gray SILT, very stiff, moist, Lacustrine
6						
7		6.0-8.0	278			
8	3	8.0 - 12.0		48		
9		8.0-10.0	203		CL, ML	Reddish brown CLAY laminated with gray SILT, very stiff, wet, Lacustrine.
10						
11		10.0-12.0	135			
12	4	12.0 -16.0		38		
13		12.0-13.5	720		ML	Brown GRAVELLY SILT WITH SAND (cf), possibly a layer of silt within SAND and GRAVEL,
14		13.5-15.5	352			Lacustrine or possibly Alluvium. Sample tubes broke so the view of the sample was in a plastic bag.
15						
16						

Notes: Refusal at 15.5 feet.

Matrix Environmental Technologies Inc. **SUBSURFACE LOG**

PROJECT & LOCATION:	65-67 Lake Ave., Lancaster, NY	PROJECT No.	18-046
CLIENT:	Aquino	WELL/BORING ID:	**SB5**
START DATE:	2/11/19	COMPLETION DATE: 2/11/2019	RECORDED BY: C. Zink
GROUNDWATER DEPTH WHILE DRILLING:	approx. 6 feet	GROUNDWATER DEPTH AFTER COMPLETION:	approx. 9 feet
WEATHER:	cloudy, 25 F	DRILLING CONTRACTOR/DRILLERS:	Matrix Environmental Technologies / P. Bliek
DRILL RIG:	Geoprobe 5410	DRILL SIZE & TYPE: Direct Push 2 1/2" NPT	HAMMER Type: Hydraulic
		Sampler Type:	macrocore (L=48", OD=2.125")

Sample Depth (ft)	Sample No.	Sample Interval (feet)	OVM Reading (ppm)	Recovery (inches)	USCS Group Symbol	SOIL DESCRIPTION AND DRILLING COMMENTS Unified Soil Classification System f-fine m-medium c-coarse sr - subrounded, r - rounded, sa - subangular, a - angular
	1	0-4	19.4	24	SW, SP, SM	Asphalt over 4 inches of WELL GRADED dark gray SAND (cf) WITH GRAVEL (cf) over 6 inches of POORLY GRADED brown SAND (mf) WITH SILT AND GRAVEL (mf) over brown SILTY SAND (mf) WITH GRAVEL (mf), medium dense, dry, Quaternary Fill.
1						
2						
3						
4	2	4.0 - 8.0		48	CL	Brown CLAY, very stiff, high plasticity, moist, varved in bottom half of sample, Lacustrine.
5		4.0-6.0	24			
6						
7		6.0-8.0	44			
8	3	8.0 - 12.0		48	CL, ML	Reddish Brown CLAY, dense, high plasticity laminated with Gray SILT, dense, wet, Lacustine, 8 inches of resample.
9		8.0-10.0	122			
10						
11		10.0-12.0	182			
12	4	12.0 -16.0		48	ML	Gray SILT, trace SAND (f), soft, saturated, Lacustine.
13		12.0-14.0	20.5			
14						
15		14.0-16.0	18.7			
16						

Notes: Refusal at 15.8 feet.

Matrix Environmental Technologies Inc. **SUBSURFACE LOG**

PROJECT & LOCATION:	65-67 Lake Ave., Lancaster, NY	PROJECT No.	18-046
CLIENT:	Aquino	WELL/BORING ID:	**SB6**
START DATE:	2/11/19	COMPLETION DATE: 2/11/2019	RECORDED BY: C. Zink
GROUNDWATER DEPTH WHILE DRILLING:	approx. 6 feet	GROUNDWATER DEPTH AFTER DRILLING COMPLETION:	approx. 9 feet
WEATHER:	cloudy, 25 F	CONTRACTOR/DRILLERS:	Matrix Environmental Technologies / P. Bliek
DRILL RIG:	Geoprobe 5410	DRILL SIZE & TYPE: Direct Push 2 1/2" NPT	HAMMER Type: Hydraulic
		Sampler Type:	macrocore (L=48", OD=2.125")

Sample Depth (ft)	Sample No.	Sample Interval (feet)	OVM Reading (ppm)	Recovery (inches)	USCS Group Symbol	SOIL DESCRIPTION AND DRILLING COMMENTS Unified Soil Classification System f-fine m-medium c-coarse sr - subrounded, r - rounded, sa - subangular, a - angular
	1	0-4		31		
1		0-2.0	34		SM,SP	Topsoil over 9 inches Brown SILTY SAND (cf), with roots, loose, dry over POORLY GRADED brownish gray SAND (mf) with SILT and GRAVEL (mf, a), loose, dry, Quaternary Fill.
2					SM,SP	as above
3		2.0-4.0	38			
					SM	Brownish gray SILTY SAND (f) with GRAVEL (mf, a), loose, moist, Quaternary Fill.
4	2	4.0 - 8.0		31		
5		4.0-6.0	16		SM	Brown SILTY SAND (f), medium dense, wet, Quaternary Fill.
6					SM	Brown SILTY SAND (mf) WITH GRAVEL, medium dense, wet, occasional 2" lenses of reddish brown CLAY, Lacustine.
7		6.0-8.0	47			
8	3	8.0 - 12.0		40	SM	as above
9		8.0-10.0	39.6		CL	Brown CLAY, varved, stiff, high plasticity, wet, lense of brown SANDY SILT, stiff, at 9.7-9.9', Lacustrine.
10					ML, CL	Gray SILT laminated with reddish brown CLAY, very stiff, medium plasticity, saturated, Lacustine.
11		10.0-12.0	32		ML	Gray SILT, trace CLAY, trace GRAVEL (f), stiff, non-plastic, saturated, possibly Alluvium.
12	4	12.0 -16.0		48		
13		12.0-13.5	720		ML	Gray SANDY SILT WITH GRAVEL (cf, a to sa, black), trace CLAY, medium stiff, non-plastic, saturated, likely Alluvium due to close proximity of Cayuga Creek.
14		13.5-15.5	352			
15						
16					SM	Gray SILTY SAND (mf) WITH GRAVEL (cf, a to sa, black), trace CLAY, medium stiff, non-plastic, saturated, likely Alluvium.

Notes: Refusal at 16.1 feet.

Matrix Environmental Technologies Inc. **SUBSURFACE LOG**

PROJECT & LOCATION:	65-67 Lake Ave., Lancaster, NY	PROJECT No.	18-046
CLIENT:	Aquino	WELL/BORING ID:	**SB7**
START DATE:	2/11/19	COMPLETION DATE: 2/11/2019	RECORDED BY: C. Zink
GROUNDWATER DEPTH WHILE DRILLING:	approx. 6 feet DRILLING	GROUNDWATER DEPTH AFTER COMPLETION:	approx. 9 feet
WEATHER:	cloudy, 25 F	CONTRACTOR/DRILLERS:	Matrix Environmental Technologies / P. Bliek
DRILL RIG:	Geoprobe 5410	DRILL SIZE & TYPE: Direct Push 2 1/2" NPT	HAMMER Type: Hydraulic
		Sampler Type:	macrocore (L=48", OD=2.125")

Sample Depth (ft)	Sample No.	Sample Interval (feet)	OVM Reading (ppm)	Recovery (inches)	USCS Group Symbol	SOIL DESCRIPTION AND DRILLING COMMENTS Unified Soil Classification System f-fine m-medium c-coarse sr - subrounded, r - rounded, sa - subangular, a - angular
	1	0-4		42		
1		0-2.0	67		GM, SM, SP	Asphalt over 12 inches grayish brown SANDY GRAVEL over 6 inches dark brown SILTY SAND (f) over orangeish brown POORLY GRADED SAND (f) WITH SILT, medium dense, moist, Quaternary Fill.
2						
3		2.0-4.0	47			
4	2	4.0 - 8.0		19	SP, CL	4 inches of resample, poor recovery, Olive POORLY GRADED SAND (f) thinnly bedded with reddish brown CLAY, grades to olive brown CLAYEY SILT thinnly bedded with reddish brown CLAY, medium dense, clay has high plasticity, moist, Lacustrine.
5		4.0-6.0	19			
6						
7		6.0-8.0	NR			
8	3	8.0 - 12.0		40	CL	Brownish olive CLAY thinly bedded with reddish brown CLAY, medium stiff, high plasticity, wet, Lacustrine.
9		8.0-10.0	39.6			
10						
11		10.0-12.0	32			
					SM	Gray SILTY SAND (f) WITH GRAVEL, (sr to sa), medium stiff, saturated, Lacustrine or possibly Alluvium.
12	4	12.0 -16.0		48	SM	as above with occasional lenses (1/8 to 1/4-inch) reddish brown CLAY, soft, Lacustrine or possibly Alluvium.
13		12.0-14.0	68			
14		14.0-16.0	44			
15					SP, SM	4 inches of Gray POORLY GRADED SAND WITH GRAVEL (cf, sa), stiff, saturated, overlying dark gray SILTY SAND WITH GRAVEL (weathered dolostone), stiff, saturated, Lacustine or possibly Alluvium.
16						

Notes Refusal at 16.1 feet.

Matrix Environmental Technologies Inc. **SUBSURFACE LOG**

PROJECT & LOCATION:	65-67 Lake Ave., Lancaster, NY	PROJECT No.	18-046
CLIENT:	Aquino	WELL/BORING ID:	**SB8**
START DATE:	2/11/19	COMPLETION DATE: 2/11/2019	RECORDED BY: C. Zink
GROUNDWATER DEPTH WHILE DRILLING:	approx. 6 feet DRILLING	GROUNDWATER DEPTH AFTER COMPLETION:	approx. 9 feet
WEATHER:	cloudy, 25 F	CONTRACTOR/DRILLERS:	Matrix Environmental Technologies / P. Bliek
DRILL RIG:	Geoprobe 5410	DRILL SIZE & TYPE: Direct Push 2 1/2" NPT	HAMMER Type: Hydraulic
		Sampler Type:	macrocore (L=48", OD=2.125")

Sample Depth (ft)	Sample No.	Sample Interval (feet)	OVM Reading (ppm)	Recovery (inches)	USCS Group Symbol	SOIL DESCRIPTION AND DRILLING COMMENTS Unified Soil Classification System f-fine m-medium c-coarse sr - subrounded, r - rounded, sa - subangular, a - angular
	1	0-4		16	SM	Topsoil over 4 inches of Brown SILTY SAND WITH GRAVEL, medium dense, moist, Quaternary Fill.
1		0-1.3	14.9			
2						
3						
4	2	4.0 - 8.0		44	SP, CL	Olive POORLY GRADED SAND (f) thinly bedded with reddish brown CLAY, grades to olive brown CLAYEY SILT thinly bedded with reddish brown CLAY, medium dense, clay has high plasticity, moist, Lacustrine, 5 inches of resample.
5		4.0-6.0	14.6			
6					CL	Brownish olive CLAY, thinly bedded with reddish brown CLAY, medium stiff, high plasticity, wet, Lacustrine.
7		6.0-8.0	22.0			
8	3	8.0 - 12.0		48		
9		8.0-10.0	1.1		SM, CL	Olive brown SILTY SAND (mf) interbedded with and sometimes mottled with Reddish brown CLAY WITH GRAVEL (cf, sr to sa), dense, wet, Lacustrine.
10						
11		10.0-12.0	1.1		SM	Gray SILTY SAND (f) with GRAVEL, (sr to sa), medium stiff, saturated, likely Alluvium due to close proximity to Cayuga Creek.
12	4	12.0 -16.0		48		
13		12.0-14.0	1.4			
14		14.0-15.5	1.4		SM, ML	Gray SILTY SAND (f), trace Gravel c, bedded with Gray SANDY SILT with GRAVEL (f, a to sa), soft to medium stiff, saturated, likely Alluvium due to close proximity to Cayuga Creek.
15						
16		15.5 - 16.0	1.3			

Notes

APPENDIX B
Laboratory Analytical Reports

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

March 01, 2019

Mr. Steve Marchetti
Matrix Environmental Technologies, Inc.
PO Box 427
Orchard Park, NY 14127

RE: Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Dear Mr. Marchetti:
Enclosed are the analytical results for sample(s) received by the laboratory on February 15, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
724-850-5611
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: Matrix Environmental
Date: March 01, 2019

General Information:
8 samples were analyzed for EPA 8270D by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

ip: Benzo(b)fluoranthene and benzo(k)fluoranthene were separated in the check standard but did not meet the resolution criteria in SW846 Method 8270D. Whereas sample results included are reported as individual isomers, the lab and the customer must recognize them as an isomeric pair.

- SB1 14'-15.8' (Lab ID: 30280422001)
- SB2 16'-18' (Lab ID: 30280422002)
- SB4 8'-10' (Lab ID: 30280422004)
- SB5 10'-12' (Lab ID: 30280422005)
- SB6 6'-8' (Lab ID: 30280422006)

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: Matrix Environmental
Date: March 01, 2019

Analyte Comments:

QC Batch: 330800

2c: The read back of the low concentration calibration standard for this compound is not within 30% of the true value. The results may be biased high and should be considered estimated

- BLANK (Lab ID: 1609537)
  - Naphthalene
- LCS (Lab ID: 1609538)
  - Naphthalene
- MS (Lab ID: 1609539)
  - Naphthalene
- MSD (Lab ID: 1609540)
  - Naphthalene
- SB1 14'-15.8' (Lab ID: 30280422001)
  - Naphthalene
- SB2 16'-18' (Lab ID: 30280422002)
  - Naphthalene
- SB3 12'-13.5' (Lab ID: 30280422003)
  - Naphthalene
- SB4 8'-10' (Lab ID: 30280422004)
  - Naphthalene
- SB5 10'-12' (Lab ID: 30280422005)
  - Naphthalene
- SB6 6'-8' (Lab ID: 30280422006)
  - Naphthalene
- SB7 12'-14' (Lab ID: 30280422007)
  - Naphthalene
- SB8 4'-6' (Lab ID: 30280422008)
  - Naphthalene

Pace Analytical Services, LLC
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Greensburg, PA 15601
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PROJECT NARRATIVE

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Matrix Environmental
Date: March 01, 2019

General Information:
8 samples were analyzed for EPA 8260C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 5035A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 331064

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- BLANK (Lab ID: 1610669)
  - Bromomethane
- LCS (Lab ID: 1610670)
  - Bromomethane
- MS (Lab ID: 1610671)
  - Bromomethane
- MSD (Lab ID: 1610672)
  - Bromomethane
- SB1 14'-15.8' (Lab ID: 30280422001)
  - Bromomethane
- SB2 16'-18' (Lab ID: 30280422002)
  - Bromomethane
- SB3 12'-13.5' (Lab ID: 30280422003)
  - Bromomethane
- SB4 8'-10' (Lab ID: 30280422004)
  - Bromomethane
- SB5 10'-12' (Lab ID: 30280422005)
  - Bromomethane
- SB6 6'-8' (Lab ID: 30280422006)
  - Bromomethane
- SB7 12'-14' (Lab ID: 30280422007)
  - Bromomethane
- SB8 4'-6' (Lab ID: 30280422008)
  - Bromomethane

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Matrix Environmental
Date: March 01, 2019

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 331064

L2: Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.

- LCS (Lab ID: 1610670)
  - 1,1,2,2-Tetrachloroethane

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 331064

1c: RF below method recommended limit.

- BLANK (Lab ID: 1610669)
  - Acetone
- LCS (Lab ID: 1610670)
  - Acetone
- MS (Lab ID: 1610671)
  - Acetone
- MSD (Lab ID: 1610672)
  - Acetone
- SB1 14'-15.8' (Lab ID: 30280422001)
  - Acetone
- SB2 16'-18' (Lab ID: 30280422002)
  - Acetone
- SB3 12'-13.5' (Lab ID: 30280422003)
  - Acetone
- SB4 8'-10' (Lab ID: 30280422004)
  - Acetone
- SB5 10'-12' (Lab ID: 30280422005)
  - Acetone
- SB6 6'-8' (Lab ID: 30280422006)
  - Acetone
- SB7 12'-14' (Lab ID: 30280422007)
  - Acetone

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PROJECT NARRATIVE

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Method: **EPA 8260C**
Description: 8260C MSV 5035 Low Level
Client: Matrix Environmental
Date: March 01, 2019

Analyte Comments:

QC Batch: 331064

1c: RF below method recommended limit.

- SB8 4'-6' (Lab ID: 30280422008)
  - Acetone

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Sample: SB1 14'-15.8' **Lab ID: 30280422001** Collected: 02/11/19 09:03 Received: 02/15/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546							
Acenaphthene	ND	ug/kg	7.6	1	02/20/19 08:40	02/21/19 17:56	83-32-9	
Acenaphthylene	ND	ug/kg	7.6	1	02/20/19 08:40	02/21/19 17:56	208-96-8	
Anthracene	ND	ug/kg	7.6	1	02/20/19 08:40	02/21/19 17:56	120-12-7	
Benzo(a)anthracene	**8.6**	ug/kg	7.6	1	02/20/19 08:40	02/21/19 17:56	56-55-3	
Benzo(a)pyrene	ND	ug/kg	7.6	1	02/20/19 08:40	02/21/19 17:56	50-32-8	
Benzo(b)fluoranthene	**14.0**	ug/kg	7.6	1	02/20/19 08:40	02/21/19 17:56	205-99-2	ip
Benzo(g,h,i)perylene	ND	ug/kg	7.6	1	02/20/19 08:40	02/21/19 17:56	191-24-2	
Benzo(k)fluoranthene	**12.7**	ug/kg	7.6	1	02/20/19 08:40	02/21/19 17:56	207-08-9	ip
Chrysene	**25.0**	ug/kg	7.6	1	02/20/19 08:40	02/21/19 17:56	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	7.6	1	02/20/19 08:40	02/21/19 17:56	53-70-3	
Fluoranthene	**25.7**	ug/kg	7.6	1	02/20/19 08:40	02/21/19 17:56	206-44-0	
Fluorene	ND	ug/kg	7.6	1	02/20/19 08:40	02/21/19 17:56	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	7.6	1	02/20/19 08:40	02/21/19 17:56	193-39-5	
Naphthalene	ND	ug/kg	7.6	1	02/20/19 08:40	02/21/19 17:56	91-20-3	2c
Phenanthrene	**34.9**	ug/kg	7.6	1	02/20/19 08:40	02/21/19 17:56	85-01-8	
Pyrene	**33.9**	ug/kg	7.6	1	02/20/19 08:40	02/21/19 17:56	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	70	%.	43-97	1	02/20/19 08:40	02/21/19 17:56	321-60-8	
Terphenyl-d14 (S)	74	%.	56-106	1	02/20/19 08:40	02/21/19 17:56	1718-51-0	
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
Acetone	**16.8**	ug/kg	11.5	1	02/21/19 12:24	02/21/19 17:46	67-64-1	1c
Benzene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	71-43-2	
Bromodichloromethane	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	75-27-4	
Bromoform	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	75-25-2	
Bromomethane	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	74-83-9	CL
TOTAL BTEX	ND	ug/kg	34.5	1	02/21/19 12:24	02/21/19 17:46		
2-Butanone (MEK)	ND	ug/kg	11.5	1	02/21/19 12:24	02/21/19 17:46	78-93-3	
n-Butylbenzene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	98-06-6	
Carbon disulfide	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	75-15-0	
Carbon tetrachloride	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	56-23-5	
Chlorobenzene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	108-90-7	
Chloroethane	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	75-00-3	
Chloroform	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	67-66-3	
Chloromethane	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	74-87-3	
Dibromochloromethane	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	106-93-4	
1,2-Dichlorobenzene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	106-46-7	
1,1-Dichloroethane	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/kg	11.5	1	02/21/19 12:24	02/21/19 17:46	540-59-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Sample: SB1 14'-15.8' **Lab ID: 30280422001** Collected: 02/11/19 09:03 Received: 02/15/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1-Dichloroethene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	78-87-5	
cis-1,3-Dichloropropene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	10061-02-6	
Ethylbenzene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	100-41-4	
2-Hexanone	ND	ug/kg	11.5	1	02/21/19 12:24	02/21/19 17:46	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	99-87-6	
Methylene Chloride	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11.5	1	02/21/19 12:24	02/21/19 17:46	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	1634-04-4	
Naphthalene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	91-20-3	
n-Propylbenzene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	103-65-1	
Styrene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	79-34-5	L2
Tetrachloroethene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	127-18-4	
Toluene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	108-88-3	
1,1,1-Trichloroethane	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	79-00-5	
Trichloroethene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	108-67-8	
Vinyl chloride	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	75-01-4	
Xylene (Total)	ND	ug/kg	17.2	1	02/21/19 12:24	02/21/19 17:46	1330-20-7	
m&p-Xylene	ND	ug/kg	11.5	1	02/21/19 12:24	02/21/19 17:46	179601-23-1	
o-Xylene	ND	ug/kg	5.7	1	02/21/19 12:24	02/21/19 17:46	95-47-6	
Surrogates								
Toluene-d8 (S)	100	%.	70-130	1	02/21/19 12:24	02/21/19 17:46	2037-26-5	
4-Bromofluorobenzene (S)	103	%.	70-130	1	02/21/19 12:24	02/21/19 17:46	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%.	70-130	1	02/21/19 12:24	02/21/19 17:46	17060-07-0	
Dibromofluoromethane (S)	94	%.	70-130	1	02/21/19 12:24	02/21/19 17:46	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**13.0**	%	0.10	1		02/26/19 14:04		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
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ANALYTICAL RESULTS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Sample: SB2 16'-18' **Lab ID: 30280422002** Collected: 02/11/19 11:05 Received: 02/15/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546							
Acenaphthene	ND	ug/kg	7.0	1	02/20/19 08:40	02/21/19 18:14	83-32-9	
Acenaphthylene	ND	ug/kg	7.0	1	02/20/19 08:40	02/21/19 18:14	208-96-8	
Anthracene	**11.0**	ug/kg	7.0	1	02/20/19 08:40	02/21/19 18:14	120-12-7	
Benzo(a)anthracene	ND	ug/kg	7.0	1	02/20/19 08:40	02/21/19 18:14	56-55-3	
Benzo(a)pyrene	ND	ug/kg	7.0	1	02/20/19 08:40	02/21/19 18:14	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	7.0	1	02/20/19 08:40	02/21/19 18:14	205-99-2	ip
Benzo(g,h,i)perylene	ND	ug/kg	7.0	1	02/20/19 08:40	02/21/19 18:14	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	7.0	1	02/20/19 08:40	02/21/19 18:14	207-08-9	ip
Chrysene	**52.1**	ug/kg	7.0	1	02/20/19 08:40	02/21/19 18:14	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	7.0	1	02/20/19 08:40	02/21/19 18:14	53-70-3	
Fluoranthene	ND	ug/kg	7.0	1	02/20/19 08:40	02/21/19 18:14	206-44-0	
Fluorene	ND	ug/kg	7.0	1	02/20/19 08:40	02/21/19 18:14	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	7.0	1	02/20/19 08:40	02/21/19 18:14	193-39-5	
Naphthalene	ND	ug/kg	7.0	1	02/20/19 08:40	02/21/19 18:14	91-20-3	2c
Phenanthrene	**59.6**	ug/kg	7.0	1	02/20/19 08:40	02/21/19 18:14	85-01-8	
Pyrene	**13.7**	ug/kg	7.0	1	02/20/19 08:40	02/21/19 18:14	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	60	%.	43-97	1	02/20/19 08:40	02/21/19 18:14	321-60-8	
Terphenyl-d14 (S)	75	%.	56-106	1	02/20/19 08:40	02/21/19 18:14	1718-51-0	
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
Acetone	**10.3**	ug/kg	10	1	02/21/19 12:24	02/21/19 18:12	67-64-1	1c
Benzene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	71-43-2	
Bromodichloromethane	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	75-27-4	
Bromoform	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	75-25-2	
Bromomethane	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	74-83-9	CL
TOTAL BTEX	ND	ug/kg	29.9	1	02/21/19 12:24	02/21/19 18:12		
2-Butanone (MEK)	ND	ug/kg	10	1	02/21/19 12:24	02/21/19 18:12	78-93-3	
n-Butylbenzene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	98-06-6	
Carbon disulfide	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	75-15-0	
Carbon tetrachloride	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	56-23-5	
Chlorobenzene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	108-90-7	
Chloroethane	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	75-00-3	
Chloroform	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	67-66-3	
Chloromethane	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	74-87-3	
Dibromochloromethane	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	106-93-4	
1,2-Dichlorobenzene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	106-46-7	
1,1-Dichloroethane	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/kg	10	1	02/21/19 12:24	02/21/19 18:12	540-59-0	

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ANALYTICAL RESULTS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Sample: SB2 16'-18' **Lab ID: 30280422002** Collected: 02/11/19 11:05 Received: 02/15/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1-Dichloroethene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	78-87-5	
cis-1,3-Dichloropropene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	10061-02-6	
Ethylbenzene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	100-41-4	
2-Hexanone	ND	ug/kg	10	1	02/21/19 12:24	02/21/19 18:12	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	99-87-6	
Methylene Chloride	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10	1	02/21/19 12:24	02/21/19 18:12	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	1634-04-4	
Naphthalene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	91-20-3	
n-Propylbenzene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	103-65-1	
Styrene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	79-34-5	L2
Tetrachloroethene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	127-18-4	
Toluene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	108-88-3	
1,1,1-Trichloroethane	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	79-00-5	
Trichloroethene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	108-67-8	
Vinyl chloride	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	75-01-4	
Xylene (Total)	ND	ug/kg	14.9	1	02/21/19 12:24	02/21/19 18:12	1330-20-7	
m&p-Xylene	ND	ug/kg	10	1	02/21/19 12:24	02/21/19 18:12	179601-23-1	
o-Xylene	ND	ug/kg	5.0	1	02/21/19 12:24	02/21/19 18:12	95-47-6	
Surrogates								
Toluene-d8 (S)	100	%.	70-130	1	02/21/19 12:24	02/21/19 18:12	2037-26-5	
4-Bromofluorobenzene (S)	108	%.	70-130	1	02/21/19 12:24	02/21/19 18:12	460-00-4	
1,2-Dichloroethane-d4 (S)	88	%.	70-130	1	02/21/19 12:24	02/21/19 18:12	17060-07-0	
Dibromofluoromethane (S)	97	%.	70-130	1	02/21/19 12:24	02/21/19 18:12	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**4.6**	%	0.10	1		02/26/19 14:04		D6

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Sample: SB3 12'-13.5' **Lab ID: 30280422003** Collected: 02/11/19 11:33 Received: 02/15/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546							
Acenaphthene	ND	ug/kg	7.9	1	02/20/19 08:40	02/21/19 18:32	83-32-9	
Acenaphthylene	ND	ug/kg	7.9	1	02/20/19 08:40	02/21/19 18:32	208-96-8	
Anthracene	ND	ug/kg	7.9	1	02/20/19 08:40	02/21/19 18:32	120-12-7	
Benzo(a)anthracene	**9.9**	ug/kg	7.9	1	02/20/19 08:40	02/21/19 18:32	56-55-3	
Benzo(a)pyrene	**10.8**	ug/kg	7.9	1	02/20/19 08:40	02/21/19 18:32	50-32-8	
Benzo(b)fluoranthene	**20.4**	ug/kg	7.9	1	02/20/19 08:40	02/21/19 18:32	205-99-2	
Benzo(g,h,i)perylene	**11.1**	ug/kg	7.9	1	02/20/19 08:40	02/21/19 18:32	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	7.9	1	02/20/19 08:40	02/21/19 18:32	207-08-9	
Chrysene	**32.3**	ug/kg	7.9	1	02/20/19 08:40	02/21/19 18:32	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	7.9	1	02/20/19 08:40	02/21/19 18:32	53-70-3	
Fluoranthene	**22.0**	ug/kg	7.9	1	02/20/19 08:40	02/21/19 18:32	206-44-0	
Fluorene	ND	ug/kg	7.9	1	02/20/19 08:40	02/21/19 18:32	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	7.9	1	02/20/19 08:40	02/21/19 18:32	193-39-5	
Naphthalene	ND	ug/kg	7.9	1	02/20/19 08:40	02/21/19 18:32	91-20-3	2c
Phenanthrene	**11.0**	ug/kg	7.9	1	02/20/19 08:40	02/21/19 18:32	85-01-8	
Pyrene	**21.6**	ug/kg	7.9	1	02/20/19 08:40	02/21/19 18:32	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	70	%.	43-97	1	02/20/19 08:40	02/21/19 18:32	321-60-8	
Terphenyl-d14 (S)	65	%.	56-106	1	02/20/19 08:40	02/21/19 18:32	1718-51-0	
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
Acetone	**12.7**	ug/kg	10.4	1	02/21/19 12:24	02/21/19 18:39	67-64-1	1c
Benzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	71-43-2	
Bromodichloromethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	75-27-4	
Bromoform	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	75-25-2	
Bromomethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	74-83-9	CL
TOTAL BTEX	ND	ug/kg	31.2	1	02/21/19 12:24	02/21/19 18:39		
2-Butanone (MEK)	ND	ug/kg	10.4	1	02/21/19 12:24	02/21/19 18:39	78-93-3	
n-Butylbenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	98-06-6	
Carbon disulfide	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	75-15-0	
Carbon tetrachloride	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	56-23-5	
Chlorobenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	108-90-7	
Chloroethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	75-00-3	
Chloroform	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	67-66-3	
Chloromethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	74-87-3	
Dibromochloromethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	106-93-4	
1,2-Dichlorobenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	106-46-7	
1,1-Dichloroethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/kg	10.4	1	02/21/19 12:24	02/21/19 18:39	540-59-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Sample: SB3 12'-13.5' **Lab ID: 30280422003** Collected: 02/11/19 11:33 Received: 02/15/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1-Dichloroethene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	78-87-5	
cis-1,3-Dichloropropene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	10061-02-6	
Ethylbenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	100-41-4	
2-Hexanone	ND	ug/kg	10.4	1	02/21/19 12:24	02/21/19 18:39	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	99-87-6	
Methylene Chloride	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10.4	1	02/21/19 12:24	02/21/19 18:39	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	1634-04-4	
Naphthalene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	91-20-3	
n-Propylbenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	103-65-1	
Styrene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	79-34-5	L2
Tetrachloroethene	**9.8**	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	127-18-4	
Toluene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	108-88-3	
1,1,1-Trichloroethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	79-00-5	
Trichloroethene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	108-67-8	
Vinyl chloride	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	75-01-4	
Xylene (Total)	ND	ug/kg	15.6	1	02/21/19 12:24	02/21/19 18:39	1330-20-7	
m&p-Xylene	ND	ug/kg	10.4	1	02/21/19 12:24	02/21/19 18:39	179601-23-1	
o-Xylene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 18:39	95-47-6	
Surrogates								
Toluene-d8 (S)	102	%.	70-130	1	02/21/19 12:24	02/21/19 18:39	2037-26-5	
4-Bromofluorobenzene (S)	98	%.	70-130	1	02/21/19 12:24	02/21/19 18:39	460-00-4	
1,2-Dichloroethane-d4 (S)	88	%.	70-130	1	02/21/19 12:24	02/21/19 18:39	17060-07-0	
Dibromofluoromethane (S)	98	%.	70-130	1	02/21/19 12:24	02/21/19 18:39	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**14.9**	%	0.10	1		02/26/19 14:04		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Sample: SB4 8'-10' **Lab ID: 30280422004** Collected: 02/11/19 11:55 Received: 02/15/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546							
Acenaphthene	ND	ug/kg	8.4	1	02/20/19 08:40	02/21/19 18:49	83-32-9	
Acenaphthylene	ND	ug/kg	8.4	1	02/20/19 08:40	02/21/19 18:49	208-96-8	
Anthracene	ND	ug/kg	8.4	1	02/20/19 08:40	02/21/19 18:49	120-12-7	
Benzo(a)anthracene	ND	ug/kg	8.4	1	02/20/19 08:40	02/21/19 18:49	56-55-3	
Benzo(a)pyrene	ND	ug/kg	8.4	1	02/20/19 08:40	02/21/19 18:49	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	8.4	1	02/20/19 08:40	02/21/19 18:49	205-99-2	ip
Benzo(g,h,i)perylene	ND	ug/kg	8.4	1	02/20/19 08:40	02/21/19 18:49	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	8.4	1	02/20/19 08:40	02/21/19 18:49	207-08-9	ip
Chrysene	**32.3**	ug/kg	8.4	1	02/20/19 08:40	02/21/19 18:49	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	8.4	1	02/20/19 08:40	02/21/19 18:49	53-70-3	
Fluoranthene	ND	ug/kg	8.4	1	02/20/19 08:40	02/21/19 18:49	206-44-0	
Fluorene	ND	ug/kg	8.4	1	02/20/19 08:40	02/21/19 18:49	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	8.4	1	02/20/19 08:40	02/21/19 18:49	193-39-5	
Naphthalene	ND	ug/kg	8.4	1	02/20/19 08:40	02/21/19 18:49	91-20-3	2c
Phenanthrene	ND	ug/kg	8.4	1	02/20/19 08:40	02/21/19 18:49	85-01-8	
Pyrene	ND	ug/kg	8.4	1	02/20/19 08:40	02/21/19 18:49	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	61	%.	43-97	1	02/20/19 08:40	02/21/19 18:49	321-60-8	
Terphenyl-d14 (S)	78	%.	56-106	1	02/20/19 08:40	02/21/19 18:49	1718-51-0	
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
Acetone	**29.8**	ug/kg	10.6	1	02/21/19 12:24	02/21/19 19:05	67-64-1	1c
Benzene	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	71-43-2	
Bromodichloromethane	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	75-27-4	
Bromoform	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	75-25-2	
Bromomethane	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	74-83-9	CL
TOTAL BTEX	ND	ug/kg	31.7	1	02/21/19 12:24	02/21/19 19:05		
2-Butanone (MEK)	ND	ug/kg	10.6	1	02/21/19 12:24	02/21/19 19:05	78-93-3	
n-Butylbenzene	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	98-06-6	
Carbon disulfide	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	75-15-0	
Carbon tetrachloride	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	56-23-5	
Chlorobenzene	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	108-90-7	
Chloroethane	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	75-00-3	
Chloroform	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	67-66-3	
Chloromethane	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	74-87-3	
Dibromochloromethane	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	106-93-4	
1,2-Dichlorobenzene	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	106-46-7	
1,1-Dichloroethane	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	107-06-2	
1,2-Dichloroethene (Total)	**87.9**	ug/kg	10.6	1	02/21/19 12:24	02/21/19 19:05	540-59-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Sample: SB4 8'-10' **Lab ID: 30280422004** Collected: 02/11/19 11:55 Received: 02/15/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1-Dichloroethene	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	75-35-4	
cis-1,2-Dichloroethene	**81.7**	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	156-59-2	
trans-1,2-Dichloroethene	**6.2**	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	78-87-5	
cis-1,3-Dichloropropene	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	10061-02-6	
Ethylbenzene	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	100-41-4	
2-Hexanone	ND	ug/kg	10.6	1	02/21/19 12:24	02/21/19 19:05	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	99-87-6	
Methylene Chloride	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10.6	1	02/21/19 12:24	02/21/19 19:05	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	1634-04-4	
Naphthalene	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	91-20-3	
n-Propylbenzene	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	103-65-1	
Styrene	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	79-34-5	L2
Tetrachloroethene	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	127-18-4	
Toluene	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	108-88-3	
1,1,1-Trichloroethane	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	79-00-5	
Trichloroethene	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	108-67-8	
Vinyl chloride	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	75-01-4	
Xylene (Total)	ND	ug/kg	15.9	1	02/21/19 12:24	02/21/19 19:05	1330-20-7	
m&p-Xylene	ND	ug/kg	10.6	1	02/21/19 12:24	02/21/19 19:05	179601-23-1	
o-Xylene	ND	ug/kg	5.3	1	02/21/19 12:24	02/21/19 19:05	95-47-6	
Surrogates								
Toluene-d8 (S)	98	%.	70-130	1	02/21/19 12:24	02/21/19 19:05	2037-26-5	
4-Bromofluorobenzene (S)	98	%.	70-130	1	02/21/19 12:24	02/21/19 19:05	460-00-4	
1,2-Dichloroethane-d4 (S)	89	%.	70-130	1	02/21/19 12:24	02/21/19 19:05	17060-07-0	
Dibromofluoromethane (S)	95	%.	70-130	1	02/21/19 12:24	02/21/19 19:05	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**20.2**	%	0.10	1		02/26/19 14:04		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Sample: SB5 10'-12' **Lab ID: 30280422005** Collected: 02/11/19 12:40 Received: 02/15/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546							
Acenaphthene	ND	ug/kg	8.5	1	02/20/19 08:40	02/21/19 19:07	83-32-9	
Acenaphthylene	ND	ug/kg	8.5	1	02/20/19 08:40	02/21/19 19:07	208-96-8	
Anthracene	ND	ug/kg	8.5	1	02/20/19 08:40	02/21/19 19:07	120-12-7	
Benzo(a)anthracene	ND	ug/kg	8.5	1	02/20/19 08:40	02/21/19 19:07	56-55-3	
Benzo(a)pyrene	ND	ug/kg	8.5	1	02/20/19 08:40	02/21/19 19:07	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	8.5	1	02/20/19 08:40	02/21/19 19:07	205-99-2	ip
Benzo(g,h,i)perylene	ND	ug/kg	8.5	1	02/20/19 08:40	02/21/19 19:07	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	8.5	1	02/20/19 08:40	02/21/19 19:07	207-08-9	ip
Chrysene	**14.4**	ug/kg	8.5	1	02/20/19 08:40	02/21/19 19:07	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	8.5	1	02/20/19 08:40	02/21/19 19:07	53-70-3	
Fluoranthene	ND	ug/kg	8.5	1	02/20/19 08:40	02/21/19 19:07	206-44-0	
Fluorene	ND	ug/kg	8.5	1	02/20/19 08:40	02/21/19 19:07	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	8.5	1	02/20/19 08:40	02/21/19 19:07	193-39-5	
Naphthalene	ND	ug/kg	8.5	1	02/20/19 08:40	02/21/19 19:07	91-20-3	2c
Phenanthrene	ND	ug/kg	8.5	1	02/20/19 08:40	02/21/19 19:07	85-01-8	
Pyrene	**10.0**	ug/kg	8.5	1	02/20/19 08:40	02/21/19 19:07	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	69	%.	43-97	1	02/20/19 08:40	02/21/19 19:07	321-60-8	
Terphenyl-d14 (S)	63	%.	56-106	1	02/20/19 08:40	02/21/19 19:07	1718-51-0	
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
Acetone	**27.6**	ug/kg	12.7	1	02/21/19 12:24	02/21/19 19:32	67-64-1	1c
Benzene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	71-43-2	
Bromodichloromethane	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	75-27-4	
Bromoform	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	75-25-2	
Bromomethane	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	74-83-9	CL
TOTAL BTEX	ND	ug/kg	38.2	1	02/21/19 12:24	02/21/19 19:32		
2-Butanone (MEK)	ND	ug/kg	12.7	1	02/21/19 12:24	02/21/19 19:32	78-93-3	
n-Butylbenzene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	104-51-8	
sec-Butylbenzene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	135-98-8	
tert-Butylbenzene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	98-06-6	
Carbon disulfide	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	75-15-0	
Carbon tetrachloride	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	56-23-5	
Chlorobenzene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	108-90-7	
Chloroethane	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	75-00-3	
Chloroform	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	67-66-3	
Chloromethane	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	74-87-3	
Dibromochloromethane	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	106-93-4	
1,2-Dichlorobenzene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	106-46-7	
1,1-Dichloroethane	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	75-34-3	
1,2-Dichloroethane	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/kg	12.7	1	02/21/19 12:24	02/21/19 19:32	540-59-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Sample: SB5 10'-12' **Lab ID: 30280422005** Collected: 02/11/19 12:40 Received: 02/15/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1-Dichloroethene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	156-60-5	
1,2-Dichloropropane	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	78-87-5	
cis-1,3-Dichloropropene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	10061-02-6	
Ethylbenzene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	100-41-4	
2-Hexanone	ND	ug/kg	12.7	1	02/21/19 12:24	02/21/19 19:32	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	98-82-8	
p-Isopropyltoluene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	99-87-6	
Methylene Chloride	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	12.7	1	02/21/19 12:24	02/21/19 19:32	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	1634-04-4	
Naphthalene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	91-20-3	
n-Propylbenzene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	103-65-1	
Styrene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	79-34-5	L2
Tetrachloroethene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	127-18-4	
Toluene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	108-88-3	
1,1,1-Trichloroethane	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	79-00-5	
Trichloroethene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	108-67-8	
Vinyl chloride	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	75-01-4	
Xylene (Total)	ND	ug/kg	19.1	1	02/21/19 12:24	02/21/19 19:32	1330-20-7	
m&p-Xylene	ND	ug/kg	12.7	1	02/21/19 12:24	02/21/19 19:32	179601-23-1	
o-Xylene	ND	ug/kg	6.4	1	02/21/19 12:24	02/21/19 19:32	95-47-6	
Surrogates								
Toluene-d8 (S)	97	%.	70-130	1	02/21/19 12:24	02/21/19 19:32	2037-26-5	
4-Bromofluorobenzene (S)	97	%.	70-130	1	02/21/19 12:24	02/21/19 19:32	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%.	70-130	1	02/21/19 12:24	02/21/19 19:32	17060-07-0	
Dibromofluoromethane (S)	94	%.	70-130	1	02/21/19 12:24	02/21/19 19:32	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**21.9**	%	0.10	1		02/26/19 14:04		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Sample: SB6 6'-8' **Lab ID: 30280422006** Collected: 02/11/19 13:40 Received: 02/15/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546							
Acenaphthene	ND	ug/kg	7.8	1	02/20/19 08:40	02/21/19 19:25	83-32-9	
Acenaphthylene	ND	ug/kg	7.8	1	02/20/19 08:40	02/21/19 19:25	208-96-8	
Anthracene	ND	ug/kg	7.8	1	02/20/19 08:40	02/21/19 19:25	120-12-7	
Benzo(a)anthracene	ND	ug/kg	7.8	1	02/20/19 08:40	02/21/19 19:25	56-55-3	
Benzo(a)pyrene	ND	ug/kg	7.8	1	02/20/19 08:40	02/21/19 19:25	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	7.8	1	02/20/19 08:40	02/21/19 19:25	205-99-2	ip
Benzo(g,h,i)perylene	ND	ug/kg	7.8	1	02/20/19 08:40	02/21/19 19:25	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	7.8	1	02/20/19 08:40	02/21/19 19:25	207-08-9	ip
Chrysene	ND	ug/kg	7.8	1	02/20/19 08:40	02/21/19 19:25	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	7.8	1	02/20/19 08:40	02/21/19 19:25	53-70-3	
Fluoranthene	ND	ug/kg	7.8	1	02/20/19 08:40	02/21/19 19:25	206-44-0	
Fluorene	ND	ug/kg	7.8	1	02/20/19 08:40	02/21/19 19:25	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	7.8	1	02/20/19 08:40	02/21/19 19:25	193-39-5	
Naphthalene	ND	ug/kg	7.8	1	02/20/19 08:40	02/21/19 19:25	91-20-3	2c
Phenanthrene	ND	ug/kg	7.8	1	02/20/19 08:40	02/21/19 19:25	85-01-8	
Pyrene	ND	ug/kg	7.8	1	02/20/19 08:40	02/21/19 19:25	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	68	%.	43-97	1	02/20/19 08:40	02/21/19 19:25	321-60-8	
Terphenyl-d14 (S)	68	%.	56-106	1	02/20/19 08:40	02/21/19 19:25	1718-51-0	
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
Acetone	ND	ug/kg	10.4	1	02/21/19 12:24	02/21/19 19:58	67-64-1	1c
Benzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	71-43-2	
Bromodichloromethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	75-27-4	
Bromoform	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	75-25-2	
Bromomethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	74-83-9	CL
TOTAL BTEX	ND	ug/kg	31.3	1	02/21/19 12:24	02/21/19 19:58		
2-Butanone (MEK)	ND	ug/kg	10.4	1	02/21/19 12:24	02/21/19 19:58	78-93-3	
n-Butylbenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	98-06-6	
Carbon disulfide	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	75-15-0	
Carbon tetrachloride	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	56-23-5	
Chlorobenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	108-90-7	
Chloroethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	75-00-3	
Chloroform	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	67-66-3	
Chloromethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	74-87-3	
Dibromochloromethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	106-93-4	
1,2-Dichlorobenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	106-46-7	
1,1-Dichloroethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/kg	10.4	1	02/21/19 12:24	02/21/19 19:58	540-59-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Sample: SB6 6'-8' **Lab ID: 30280422006** Collected: 02/11/19 13:40 Received: 02/15/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1-Dichloroethene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	78-87-5	
cis-1,3-Dichloropropene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	10061-02-6	
Ethylbenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	100-41-4	
2-Hexanone	ND	ug/kg	10.4	1	02/21/19 12:24	02/21/19 19:58	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	99-87-6	
Methylene Chloride	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10.4	1	02/21/19 12:24	02/21/19 19:58	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	1634-04-4	
Naphthalene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	91-20-3	
n-Propylbenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	103-65-1	
Styrene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	79-34-5	L2
Tetrachloroethene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	127-18-4	
Toluene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	108-88-3	
1,1,1-Trichloroethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	79-00-5	
Trichloroethene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	108-67-8	
Vinyl chloride	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	75-01-4	
Xylene (Total)	ND	ug/kg	15.7	1	02/21/19 12:24	02/21/19 19:58	1330-20-7	
m&p-Xylene	ND	ug/kg	10.4	1	02/21/19 12:24	02/21/19 19:58	179601-23-1	
o-Xylene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 19:58	95-47-6	
Surrogates								
Toluene-d8 (S)	100	%.	70-130	1	02/21/19 12:24	02/21/19 19:58	2037-26-5	
4-Bromofluorobenzene (S)	96	%.	70-130	1	02/21/19 12:24	02/21/19 19:58	460-00-4	
1,2-Dichloroethane-d4 (S)	89	%.	70-130	1	02/21/19 12:24	02/21/19 19:58	17060-07-0	
Dibromofluoromethane (S)	93	%.	70-130	1	02/21/19 12:24	02/21/19 19:58	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**14.9**	%	0.10	1		02/26/19 14:04		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Sample: SB7 12'-14' **Lab ID: 30280422007** Collected: 02/11/19 14:45 Received: 02/15/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546							
Acenaphthene	ND	ug/kg	7.4	1	02/20/19 08:40	02/21/19 19:43	83-32-9	
Acenaphthylene	ND	ug/kg	7.4	1	02/20/19 08:40	02/21/19 19:43	208-96-8	
Anthracene	ND	ug/kg	7.4	1	02/20/19 08:40	02/21/19 19:43	120-12-7	
Benzo(a)anthracene	ND	ug/kg	7.4	1	02/20/19 08:40	02/21/19 19:43	56-55-3	
Benzo(a)pyrene	ND	ug/kg	7.4	1	02/20/19 08:40	02/21/19 19:43	50-32-8	
Benzo(b)fluoranthene	**7.7**	ug/kg	7.4	1	02/20/19 08:40	02/21/19 19:43	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	7.4	1	02/20/19 08:40	02/21/19 19:43	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	7.4	1	02/20/19 08:40	02/21/19 19:43	207-08-9	
Chrysene	**18.8**	ug/kg	7.4	1	02/20/19 08:40	02/21/19 19:43	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	7.4	1	02/20/19 08:40	02/21/19 19:43	53-70-3	
Fluoranthene	**11.1**	ug/kg	7.4	1	02/20/19 08:40	02/21/19 19:43	206-44-0	
Fluorene	ND	ug/kg	7.4	1	02/20/19 08:40	02/21/19 19:43	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	7.4	1	02/20/19 08:40	02/21/19 19:43	193-39-5	
Naphthalene	ND	ug/kg	7.4	1	02/20/19 08:40	02/21/19 19:43	91-20-3	2c
Phenanthrene	**7.5**	ug/kg	7.4	1	02/20/19 08:40	02/21/19 19:43	85-01-8	
Pyrene	**10.5**	ug/kg	7.4	1	02/20/19 08:40	02/21/19 19:43	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	63	%.	43-97	1	02/20/19 08:40	02/21/19 19:43	321-60-8	
Terphenyl-d14 (S)	66	%.	56-106	1	02/20/19 08:40	02/21/19 19:43	1718-51-0	
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
Acetone	**19.2**	ug/kg	11.2	1	02/21/19 12:24	02/21/19 20:25	67-64-1	1c
Benzene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	71-43-2	
Bromodichloromethane	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	75-27-4	
Bromoform	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	75-25-2	
Bromomethane	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	74-83-9	CL
TOTAL BTEX	ND	ug/kg	33.5	1	02/21/19 12:24	02/21/19 20:25		
2-Butanone (MEK)	ND	ug/kg	11.2	1	02/21/19 12:24	02/21/19 20:25	78-93-3	
n-Butylbenzene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	98-06-6	
Carbon disulfide	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	75-15-0	
Carbon tetrachloride	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	56-23-5	
Chlorobenzene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	108-90-7	
Chloroethane	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	75-00-3	
Chloroform	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	67-66-3	
Chloromethane	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	74-87-3	
Dibromochloromethane	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	106-93-4	
1,2-Dichlorobenzene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	106-46-7	
1,1-Dichloroethane	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/kg	11.2	1	02/21/19 12:24	02/21/19 20:25	540-59-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Sample: SB7 12'-14' **Lab ID: 30280422007** Collected: 02/11/19 14:45 Received: 02/15/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1-Dichloroethene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	78-87-5	
cis-1,3-Dichloropropene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	10061-02-6	
Ethylbenzene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	100-41-4	
2-Hexanone	ND	ug/kg	11.2	1	02/21/19 12:24	02/21/19 20:25	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	99-87-6	
Methylene Chloride	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11.2	1	02/21/19 12:24	02/21/19 20:25	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	1634-04-4	
Naphthalene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	91-20-3	
n-Propylbenzene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	103-65-1	
Styrene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	79-34-5	L2
Tetrachloroethene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	127-18-4	
Toluene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	108-88-3	
1,1,1-Trichloroethane	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	79-00-5	
Trichloroethene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	108-67-8	
Vinyl chloride	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	75-01-4	
Xylene (Total)	ND	ug/kg	16.8	1	02/21/19 12:24	02/21/19 20:25	1330-20-7	
m&p-Xylene	ND	ug/kg	11.2	1	02/21/19 12:24	02/21/19 20:25	179601-23-1	
o-Xylene	ND	ug/kg	5.6	1	02/21/19 12:24	02/21/19 20:25	95-47-6	
Surrogates								
Toluene-d8 (S)	97	%.	70-130	1	02/21/19 12:24	02/21/19 20:25	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	70-130	1	02/21/19 12:24	02/21/19 20:25	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%.	70-130	1	02/21/19 12:24	02/21/19 20:25	17060-07-0	
Dibromofluoromethane (S)	102	%.	70-130	1	02/21/19 12:24	02/21/19 20:25	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**10.0**	%	0.10	1		02/26/19 14:04		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Sample: SB8 4'-6' **Lab ID: 30280422008** Collected: 02/11/19 15:12 Received: 02/15/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3546							
Acenaphthene	ND	ug/kg	7.6	1	02/20/19 08:40	02/26/19 14:11	83-32-9	
Acenaphthylene	ND	ug/kg	7.6	1	02/20/19 08:40	02/26/19 14:11	208-96-8	
Anthracene	ND	ug/kg	7.6	1	02/20/19 08:40	02/26/19 14:11	120-12-7	
Benzo(a)anthracene	ND	ug/kg	7.6	1	02/20/19 08:40	02/26/19 14:11	56-55-3	
Benzo(a)pyrene	ND	ug/kg	7.6	1	02/20/19 08:40	02/26/19 14:11	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	7.6	1	02/20/19 08:40	02/26/19 14:11	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	7.6	1	02/20/19 08:40	02/26/19 14:11	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	7.6	1	02/20/19 08:40	02/26/19 14:11	207-08-9	
Chrysene	ND	ug/kg	7.6	1	02/20/19 08:40	02/26/19 14:11	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	7.6	1	02/20/19 08:40	02/26/19 14:11	53-70-3	
Fluoranthene	ND	ug/kg	7.6	1	02/20/19 08:40	02/26/19 14:11	206-44-0	
Fluorene	ND	ug/kg	7.6	1	02/20/19 08:40	02/26/19 14:11	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	7.6	1	02/20/19 08:40	02/26/19 14:11	193-39-5	
Naphthalene	ND	ug/kg	7.6	1	02/20/19 08:40	02/26/19 14:11	91-20-3	2c
Phenanthrene	ND	ug/kg	7.6	1	02/20/19 08:40	02/26/19 14:11	85-01-8	
Pyrene	ND	ug/kg	7.6	1	02/20/19 08:40	02/26/19 14:11	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	67	%.	43-97	1	02/20/19 08:40	02/26/19 14:11	321-60-8	
Terphenyl-d14 (S)	71	%.	56-106	1	02/20/19 08:40	02/26/19 14:11	1718-51-0	
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
Acetone	ND	ug/kg	10.5	1	02/21/19 12:24	02/21/19 20:52	67-64-1	1c
Benzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	71-43-2	
Bromodichloromethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	75-27-4	
Bromoform	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	75-25-2	
Bromomethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	74-83-9	CL
TOTAL BTEX	ND	ug/kg	31.5	1	02/21/19 12:24	02/21/19 20:52		
2-Butanone (MEK)	ND	ug/kg	10.5	1	02/21/19 12:24	02/21/19 20:52	78-93-3	
n-Butylbenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	104-51-8	
sec-Butylbenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	135-98-8	
tert-Butylbenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	98-06-6	
Carbon disulfide	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	75-15-0	
Carbon tetrachloride	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	56-23-5	
Chlorobenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	108-90-7	
Chloroethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	75-00-3	
Chloroform	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	67-66-3	
Chloromethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	74-87-3	
Dibromochloromethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	106-93-4	
1,2-Dichlorobenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	106-46-7	
1,1-Dichloroethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	75-34-3	
1,2-Dichloroethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/kg	10.5	1	02/21/19 12:24	02/21/19 20:52	540-59-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Sample: SB8 4'-6' **Lab ID: 30280422008** Collected: 02/11/19 15:12 Received: 02/15/19 09:30 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.
Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV 5035 Low Level	Analytical Method: EPA 8260C Preparation Method: EPA 5035A							
1,1-Dichloroethene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	156-60-5	
1,2-Dichloropropane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	78-87-5	
cis-1,3-Dichloropropene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	10061-02-6	
Ethylbenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	100-41-4	
2-Hexanone	ND	ug/kg	10.5	1	02/21/19 12:24	02/21/19 20:52	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	98-82-8	
p-Isopropyltoluene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	99-87-6	
Methylene Chloride	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10.5	1	02/21/19 12:24	02/21/19 20:52	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	1634-04-4	
Naphthalene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	91-20-3	
n-Propylbenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	103-65-1	
Styrene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	79-34-5	L2
Tetrachloroethene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	127-18-4	
Toluene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	108-88-3	
1,1,1-Trichloroethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	79-00-5	
Trichloroethene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	108-67-8	
Vinyl chloride	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	75-01-4	
Xylene (Total)	ND	ug/kg	15.7	1	02/21/19 12:24	02/21/19 20:52	1330-20-7	
m&p-Xylene	ND	ug/kg	10.5	1	02/21/19 12:24	02/21/19 20:52	179601-23-1	
o-Xylene	ND	ug/kg	5.2	1	02/21/19 12:24	02/21/19 20:52	95-47-6	
Surrogates								
Toluene-d8 (S)	96	%.	70-130	1	02/21/19 12:24	02/21/19 20:52	2037-26-5	
4-Bromofluorobenzene (S)	97	%.	70-130	1	02/21/19 12:24	02/21/19 20:52	460-00-4	
1,2-Dichloroethane-d4 (S)	89	%.	70-130	1	02/21/19 12:24	02/21/19 20:52	17060-07-0	
Dibromofluoromethane (S)	95	%.	70-130	1	02/21/19 12:24	02/21/19 20:52	1868-53-7	
Percent Moisture	Analytical Method: ASTM D2974-87							
Percent Moisture	**12.1**	%	0.10	1		02/26/19 14:04		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

QC Batch: 331064 Analysis Method: EPA 8260C
QC Batch Method: EPA 5035A Analysis Description: 8260C MSV 5035 Low
Associated Lab Samples: 30280422001, 30280422002, 30280422003, 30280422004, 30280422005, 30280422006, 30280422007, 30280422008

METHOD BLANK: 1610669 Matrix: Solid
Associated Lab Samples: 30280422001, 30280422002, 30280422003, 30280422004, 30280422005, 30280422006, 30280422007, 30280422008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/kg	ND	5.0	02/21/19 13:20	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.0	02/21/19 13:20	
1,1,2-Trichloroethane	ug/kg	ND	5.0	02/21/19 13:20	
1,1-Dichloroethane	ug/kg	ND	5.0	02/21/19 13:20	
1,1-Dichloroethene	ug/kg	ND	5.0	02/21/19 13:20	
1,2,4-Trimethylbenzene	ug/kg	ND	5.0	02/21/19 13:20	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.0	02/21/19 13:20	
1,2-Dichlorobenzene	ug/kg	ND	5.0	02/21/19 13:20	
1,2-Dichloroethane	ug/kg	ND	5.0	02/21/19 13:20	
1,2-Dichloroethene (Total)	ug/kg	ND	10.0	02/21/19 13:20	
1,2-Dichloropropane	ug/kg	ND	5.0	02/21/19 13:20	
1,3,5-Trimethylbenzene	ug/kg	ND	5.0	02/21/19 13:20	
1,3-Dichlorobenzene	ug/kg	ND	5.0	02/21/19 13:20	
1,4-Dichlorobenzene	ug/kg	ND	5.0	02/21/19 13:20	
2-Butanone (MEK)	ug/kg	ND	10.0	02/21/19 13:20	
2-Hexanone	ug/kg	ND	10.0	02/21/19 13:20	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	10.0	02/21/19 13:20	
Acetone	ug/kg	ND	10.0	02/21/19 13:20	1c
Benzene	ug/kg	ND	5.0	02/21/19 13:20	
Bromodichloromethane	ug/kg	ND	5.0	02/21/19 13:20	
Bromoform	ug/kg	ND	5.0	02/21/19 13:20	
Bromomethane	ug/kg	ND	5.0	02/21/19 13:20	CL
Carbon disulfide	ug/kg	ND	5.0	02/21/19 13:20	
Carbon tetrachloride	ug/kg	ND	5.0	02/21/19 13:20	
Chlorobenzene	ug/kg	ND	5.0	02/21/19 13:20	
Chloroethane	ug/kg	ND	5.0	02/21/19 13:20	
Chloroform	ug/kg	ND	5.0	02/21/19 13:20	
Chloromethane	ug/kg	ND	5.0	02/21/19 13:20	
cis-1,2-Dichloroethene	ug/kg	ND	5.0	02/21/19 13:20	
cis-1,3-Dichloropropene	ug/kg	ND	5.0	02/21/19 13:20	
Dibromochloromethane	ug/kg	ND	5.0	02/21/19 13:20	
Ethylbenzene	ug/kg	ND	5.0	02/21/19 13:20	
Isopropylbenzene (Cumene)	ug/kg	ND	5.0	02/21/19 13:20	
m&p-Xylene	ug/kg	ND	10.0	02/21/19 13:20	
Methyl-tert-butyl ether	ug/kg	ND	5.0	02/21/19 13:20	
Methylene Chloride	ug/kg	ND	5.0	02/21/19 13:20	
n-Butylbenzene	ug/kg	ND	5.0	02/21/19 13:20	
n-Propylbenzene	ug/kg	ND	5.0	02/21/19 13:20	
Naphthalene	ug/kg	ND	5.0	02/21/19 13:20	
o-Xylene	ug/kg	ND	5.0	02/21/19 13:20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

METHOD BLANK: 1610669 Matrix: Solid
Associated Lab Samples: 30280422001, 30280422002, 30280422003, 30280422004, 30280422005, 30280422006, 30280422007, 30280422008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
p-Isopropyltoluene	ug/kg	ND	5.0	02/21/19 13:20	
sec-Butylbenzene	ug/kg	ND	5.0	02/21/19 13:20	
Styrene	ug/kg	ND	5.0	02/21/19 13:20	
tert-Butylbenzene	ug/kg	ND	5.0	02/21/19 13:20	
Tetrachloroethene	ug/kg	ND	5.0	02/21/19 13:20	
Toluene	ug/kg	ND	5.0	02/21/19 13:20	
TOTAL BTEX	ug/kg	ND	30.0	02/21/19 13:20	
trans-1,2-Dichloroethene	ug/kg	ND	5.0	02/21/19 13:20	
trans-1,3-Dichloropropene	ug/kg	ND	5.0	02/21/19 13:20	
Trichloroethene	ug/kg	ND	5.0	02/21/19 13:20	
Vinyl chloride	ug/kg	ND	5.0	02/21/19 13:20	
Xylene (Total)	ug/kg	ND	15.0	02/21/19 13:20	
1,2-Dichloroethane-d4 (S)	%.	91	70-130	02/21/19 13:20	
4-Bromofluorobenzene (S)	%.	98	70-130	02/21/19 13:20	
Dibromofluoromethane (S)	%.	97	70-130	02/21/19 13:20	
Toluene-d8 (S)	%.	95	70-130	02/21/19 13:20	

LABORATORY CONTROL SAMPLE: 1610670

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	20	16.4	82	62-113	
1,1,2,2-Tetrachloroethane	ug/kg	20	13.4	67	70-130	L2
1,1,2-Trichloroethane	ug/kg	20	14.6	73	70-130	
1,1-Dichloroethane	ug/kg	20	18.0	90	63-110	
1,1-Dichloroethene	ug/kg	20	18.1	91	45-124	
1,2,4-Trimethylbenzene	ug/kg	20	17.7	88	70-130	
1,2-Dibromoethane (EDB)	ug/kg	20	14.7	73	70-130	
1,2-Dichlorobenzene	ug/kg	20	16.1	81	70-130	
1,2-Dichloroethane	ug/kg	20	14.8	74	57-110	
1,2-Dichloroethene (Total)	ug/kg	40	34.2	86	62-108	
1,2-Dichloropropane	ug/kg	20	17.5	87	62-111	
1,3,5-Trimethylbenzene	ug/kg	20	17.2	86	70-130	
1,3-Dichlorobenzene	ug/kg	20	16.7	83	70-130	
1,4-Dichlorobenzene	ug/kg	20	15.6	78	70-130	
2-Butanone (MEK)	ug/kg	20	14.5	73	46-117	
2-Hexanone	ug/kg	20	15.8	79	58-115	
4-Methyl-2-pentanone (MIBK)	ug/kg	20	15.0	75	40-136	
Acetone	ug/kg	20	19.1	96	36-163	1c
Benzene	ug/kg	20	18.0	90	63-110	
Bromodichloromethane	ug/kg	20	15.4	77	68-119	
Bromoform	ug/kg	20	13.7	69	63-107	
Bromomethane	ug/kg	20	12.3	62	12-166	CL
Carbon disulfide	ug/kg	20	16.8	84	52-106	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

LABORATORY CONTROL SAMPLE: 1610670

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/kg	20	17.2	86	59-114	
Chlorobenzene	ug/kg	20	16.1	80	70-130	
Chloroethane	ug/kg	20	19.5	97	56-160	
Chloroform	ug/kg	20	15.6	78	65-108	
Chloromethane	ug/kg	20	21.0	105	33-148	
cis-1,2-Dichloroethene	ug/kg	20	16.8	84	61-107	
cis-1,3-Dichloropropene	ug/kg	20	16.1	80	62-106	
Dibromochloromethane	ug/kg	20	14.3	72	67-108	
Ethylbenzene	ug/kg	20	16.7	84	68-109	
Isopropylbenzene (Cumene)	ug/kg	20	17.8	89	70-130	
m&p-Xylene	ug/kg	40	34.9	87	70-130	
Methyl-tert-butyl ether	ug/kg	20	14.0	70	62-101	
Methylene Chloride	ug/kg	20	19.5	97	42-135	
n-Butylbenzene	ug/kg	20	17.2	86	65-129	
n-Propylbenzene	ug/kg	20	17.3	87	66-123	
Naphthalene	ug/kg	20	14.7	73	70-130	
o-Xylene	ug/kg	20	16.3	81	70-130	
p-Isopropyltoluene	ug/kg	20	18.2	91	70-130	
sec-Butylbenzene	ug/kg	20	17.9	90	68-131	
Styrene	ug/kg	20	16.5	82	70-130	
tert-Butylbenzene	ug/kg	20	19.1	95	70-130	
Tetrachloroethene	ug/kg	20	15.9	79	64-114	
Toluene	ug/kg	20	16.3	81	68-108	
TOTAL BTEX	ug/kg		102			
trans-1,2-Dichloroethene	ug/kg	20	17.4	87	61-108	
trans-1,3-Dichloropropene	ug/kg	20	15.7	78	64-102	
Trichloroethene	ug/kg	20	17.0	85	61-112	
Vinyl chloride	ug/kg	20	20.9	105	54-142	
Xylene (Total)	ug/kg	60	51.1	85	70-130	
1,2-Dichloroethane-d4 (S)	%.			91	70-130	
4-Bromofluorobenzene (S)	%.			95	70-130	
Dibromofluoromethane (S)	%.			96	70-130	
Toluene-d8 (S)	%.			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1610671 1610672

Parameter	Units	30280666001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/kg	ND	20.6	20.7	13.9	14.1	67	68	23-128	2	
1,1,2,2-Tetrachloroethane	ug/kg	ND	20.6	20.7	8.3	8.8	40	42	10-134	6	
1,1,2-Trichloroethane	ug/kg	ND	20.6	20.7	9.9	9.2	48	44	19-115	7	
1,1-Dichloroethane	ug/kg	ND	20.6	20.7	14.4	14.3	70	69	27-119	1	
1,1-Dichloroethene	ug/kg	ND	20.6	20.7	12.5	13.3	61	65	10-133	7	
1,2,4-Trimethylbenzene	ug/kg	ND	20.6	20.7	7.4	7.5	36	36	10-124	1	
1,2-Dibromoethane (EDB)	ug/kg	ND	20.6	20.7	6.4	6.8	31	33	19-115	6	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		1610671			1610672						
Parameter	Units	30280666001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dichlorobenzene	ug/kg	ND	20.6	20.7	3.8J	3.8J	19	18	10-132		
1,2-Dichloroethane	ug/kg	ND	20.6	20.7	9.3	9.5	45	46	24-111	2	
1,2-Dichloroethene (Total)	ug/kg	ND	41.2	41.3	22.5	21.8	54	53	21-116	3	
1,2-Dichloropropane	ug/kg	ND	20.6	20.7	13.4	13.3	65	64	25-115	1	
1,3,5-Trimethylbenzene	ug/kg	ND	20.6	20.7	9.6	9.7	47	47	10-124	0	
1,3-Dichlorobenzene	ug/kg	ND	20.6	20.7	3.5J	3.4J	17	16	10-132		
1,4-Dichlorobenzene	ug/kg	ND	20.6	20.7	2.8J	2.7J	14	13	10-133		
2-Butanone (MEK)	ug/kg	ND	20.6	20.7	16.6	15.5	81	75	10-175	7	
2-Hexanone	ug/kg	ND	20.6	20.7	7.6J	7.6J	37	37	14-129		
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	20.6	20.7	11.9	11.0	58	53	23-135	8	
Acetone	ug/kg	86.2	20.6	20.7	101	95.8	70	46	10-175	5	1c
Benzene	ug/kg	25.6	20.6	20.7	35.6	37.2	48	56	15-121	4	
Bromodichloromethane	ug/kg	ND	20.6	20.7	10.2	10.5	49	51	25-119	3	
Bromoform	ug/kg	ND	20.6	20.7	6.9	6.9	33	33	10-108	0	
Bromomethane	ug/kg	ND	20.6	20.7	6.5	7.6	32	37	10-131	16	CL
Carbon disulfide	ug/kg	ND	20.6	20.7	9.2	9.9	35	38	10-108	8	
Carbon tetrachloride	ug/kg	ND	20.6	20.7	14.5	14.0	70	68	20-125	4	
Chlorobenzene	ug/kg	ND	20.6	20.7	7.1	6.7	34	32	10-122	6	
Chloroethane	ug/kg	ND	20.6	20.7	13.0	13.0	63	63	14-146	1	
Chloroform	ug/kg	ND	20.6	20.7	12.1	11.6	58	56	27-117	4	
Chloromethane	ug/kg	ND	20.6	20.7	10.5	10.4	51	50	10-126	1	
cis-1,2-Dichloroethene	ug/kg	ND	20.6	20.7	11.2	11.0	54	53	23-114	2	
cis-1,3-Dichloropropene	ug/kg	ND	20.6	20.7	7.3	7.1	35	34	13-116	3	
Dibromochloromethane	ug/kg	ND	20.6	20.7	8.7	8.1	42	39	14-110	8	
Ethylbenzene	ug/kg	ND	20.6	20.7	10.2	9.5	49	46	10-118	6	
Isopropylbenzene (Cumene)	ug/kg	ND	20.6	20.7	11.7	11.4	57	55	10-120	3	
m&p-Xylene	ug/kg	ND	41.2	41.3	19.6	19.6	44	44	10-124	0	
Methyl-tert-butyl ether	ug/kg	ND	20.6	20.7	11.9	12.1	58	58	26-107	1	
Methylene Chloride	ug/kg	ND	20.6	20.7	13.1	14.1	54	59	13-120	7	
n-Butylbenzene	ug/kg	ND	20.6	20.7	6.8	6.2	33	30	10-162	8	
n-Propylbenzene	ug/kg	ND	20.6	20.7	8.7	8.5	42	41	10-155	2	
Naphthalene	ug/kg	ND	20.6	20.7	2.1J	2.4J	10	12	10-128		
o-Xylene	ug/kg	ND	20.6	20.7	9.9	10	48	48	10-120	1	
p-Isopropyltoluene	ug/kg	ND	20.6	20.7	9.2	9.4	44	45	10-146	2	
sec-Butylbenzene	ug/kg	ND	20.6	20.7	10.2	9.9	49	48	10-147	3	
Styrene	ug/kg	ND	20.6	20.7	4.5J	4J	22	19	10-128		
tert-Butylbenzene	ug/kg	ND	20.6	20.7	12.9	12.9	62	63	22-138	1	
Tetrachloroethene	ug/kg	ND	20.6	20.7	11.1	10.7	54	52	13-125	4	
Toluene	ug/kg	27.6	20.6	20.7	42.6	44.0	73	79	10-115	3	
TOTAL BTEX	ug/kg	53.3			118	120				2	
trans-1,2-Dichloroethene	ug/kg	ND	20.6	20.7	11.3	10.9	55	52	20-120	4	
trans-1,3-Dichloropropene	ug/kg	ND	20.6	20.7	5.2	5.1J	25	25	10-107		
Trichloroethene	ug/kg	ND	20.6	20.7	10.7	10.6	52	51	10-133	1	
Vinyl chloride	ug/kg	ND	20.6	20.7	11.6	11.3	56	54	10-133	3	
Xylene (Total)	ug/kg	ND	61.9	62	29.5	29.5	45	45	10-122	0	
1,2-Dichloroethane-d4 (S)	%.						99	94	70-130		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1610671 1610672

Parameter	Units	30280666001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
4-Bromofluorobenzene (S)	%.						99	106	70-130		
Dibromofluoromethane (S)	%.						97	96	70-130		
Toluene-d8 (S)	%.						103	102	70-130		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

QC Batch: 330800 Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3546 Analysis Description: 8270D/3546 MSSV PAH by SIM
Associated Lab Samples: 30280422001, 30280422002, 30280422003, 30280422004, 30280422005, 30280422006, 30280422007, 30280422008

METHOD BLANK: 1609537 Matrix: Solid
Associated Lab Samples: 30280422001, 30280422002, 30280422003, 30280422004, 30280422005, 30280422006, 30280422007, 30280422008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	ND	6.7	02/21/19 12:53	
Acenaphthylene	ug/kg	ND	6.7	02/21/19 12:53	
Anthracene	ug/kg	ND	6.7	02/21/19 12:53	
Benzo(a)anthracene	ug/kg	ND	6.7	02/21/19 12:53	
Benzo(a)pyrene	ug/kg	ND	6.7	02/21/19 12:53	
Benzo(b)fluoranthene	ug/kg	ND	6.7	02/21/19 12:53	
Benzo(g,h,i)perylene	ug/kg	ND	6.7	02/21/19 12:53	
Benzo(k)fluoranthene	ug/kg	ND	6.7	02/21/19 12:53	
Chrysene	ug/kg	ND	6.7	02/21/19 12:53	
Dibenz(a,h)anthracene	ug/kg	ND	6.7	02/21/19 12:53	
Fluoranthene	ug/kg	ND	6.7	02/21/19 12:53	
Fluorene	ug/kg	ND	6.7	02/21/19 12:53	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	6.7	02/21/19 12:53	
Naphthalene	ug/kg	ND	6.7	02/21/19 12:53	2c
Phenanthrene	ug/kg	ND	6.7	02/21/19 12:53	
Pyrene	ug/kg	ND	6.7	02/21/19 12:53	
2-Fluorobiphenyl (S)	%.	55	43-97	02/21/19 12:53	
Terphenyl-d14 (S)	%.	78	56-106	02/21/19 12:53	

LABORATORY CONTROL SAMPLE: 1609538

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	133	104	78	48-101	
Acenaphthylene	ug/kg	133	98.5	74	42-109	
Anthracene	ug/kg	133	118	89	54-110	
Benzo(a)anthracene	ug/kg	133	126	95	59-119	
Benzo(a)pyrene	ug/kg	133	125	94	55-125	
Benzo(b)fluoranthene	ug/kg	133	148	111	54-131	
Benzo(g,h,i)perylene	ug/kg	133	116	87	54-122	
Benzo(k)fluoranthene	ug/kg	133	140	106	57-123	
Chrysene	ug/kg	133	117	88	62-111	
Dibenz(a,h)anthracene	ug/kg	133	118	89	60-124	
Fluoranthene	ug/kg	133	117	88	60-116	
Fluorene	ug/kg	133	112	84	49-110	
Indeno(1,2,3-cd)pyrene	ug/kg	133	115	87	59-122	
Naphthalene	ug/kg	133	110	83	42-97	2c
Phenanthrene	ug/kg	133	110	83	52-107	
Pyrene	ug/kg	133	114	86	60-117	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

LABORATORY CONTROL SAMPLE: 1609538

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Fluorobiphenyl (S)	%.			77	43-97	
Terphenyl-d14 (S)	%.			76	56-106	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1609539 1609540

Parameter	Units	30280668001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Acenaphthene	ug/kg	ND	168	167	121	123	72	73	23-129	2	
Acenaphthylene	ug/kg	ND	168	167	134	135	80	81	26-144	1	
Anthracene	ug/kg	ND	168	167	141	141	83	84	10-166	0	
Benzo(a)anthracene	ug/kg	ND	168	167	159	154	92	89	10-175	3	
Benzo(a)pyrene	ug/kg	ND	168	167	127	150	73	87	10-175	17	
Benzo(b)fluoranthene	ug/kg	10.1	168	167	136	165	75	93	10-175	19	
Benzo(g,h,i)perylene	ug/kg	ND	168	167	93.1	105	52	60	10-171	12	
Benzo(k)fluoranthene	ug/kg	ND	168	167	128	147	74	86	10-160	14	
Chrysene	ug/kg	ND	168	167	146	142	82	81	10-175	3	
Dibenz(a,h)anthracene	ug/kg	ND	168	167	101	114	59	67	10-149	12	
Fluoranthene	ug/kg	ND	168	167	158	158	89	90	10-175	0	
Fluorene	ug/kg	ND	168	167	131	134	78	80	31-136	2	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	168	167	100	113	58	66	10-151	12	
Naphthalene	ug/kg	ND	168	167	115	120	66	70	10-149	4	2c
Phenanthrene	ug/kg	ND	168	167	139	136	79	78	10-175	2	
Pyrene	ug/kg	8.7	168	167	161	157	91	89	10-175	3	
2-Fluorobiphenyl (S)	%.						68	69	43-97		
Terphenyl-d14 (S)	%.						77	80	56-106		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

QC Batch: 331360 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 30280422001, 30280422002, 30280422003, 30280422004, 30280422005, 30280422006, 30280422007, 30280422008

SAMPLE DUPLICATE: 1612782

Parameter	Units	30280422001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	13.0	13.7	5	

SAMPLE DUPLICATE: 1612783

Parameter	Units	30280422002 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	4.6	5.7	21	D6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

1c	RF below method recommended limit.
2c	The read back of the low concentration calibration standard for this compound is not within 30% of the true value. The results may be biased high and should be considered estimated
CL	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
ip	Benzo(b)fluoranthene and benzo(k)fluoranthene were separated in the check standard but did not meet the resolution criteria in SW846 Method 8270D. Whereas sample results included are reported as individual isomers, the lab and the customer must recognize them as an isomeric pair.

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280422

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30280422001	**SB1 14'-15.8'**	EPA 3546	330800	EPA 8270D by SIM	330958
30280422002	**SB2 16'-18'**	EPA 3546	330800	EPA 8270D by SIM	330958
30280422003	**SB3 12'-13.5'**	EPA 3546	330800	EPA 8270D by SIM	330958
30280422004	**SB4 8'-10'**	EPA 3546	330800	EPA 8270D by SIM	330958
30280422005	**SB5 10'-12'**	EPA 3546	330800	EPA 8270D by SIM	330958
30280422006	**SB6 6'-8'**	EPA 3546	330800	EPA 8270D by SIM	330958
30280422007	**SB7 12'-14'**	EPA 3546	330800	EPA 8270D by SIM	330958
30280422008	**SB8 4'-6'**	EPA 3546	330800	EPA 8270D by SIM	330958
30280422001	**SB1 14'-15.8'**	EPA 5035A	331064	EPA 8260C	331075
30280422002	**SB2 16'-18'**	EPA 5035A	331064	EPA 8260C	331075
30280422003	**SB3 12'-13.5'**	EPA 5035A	331064	EPA 8260C	331075
30280422004	**SB4 8'-10'**	EPA 5035A	331064	EPA 8260C	331075
30280422005	**SB5 10'-12'**	EPA 5035A	331064	EPA 8260C	331075
30280422006	**SB6 6'-8'**	EPA 5035A	331064	EPA 8260C	331075
30280422007	**SB7 12'-14'**	EPA 5035A	331064	EPA 8260C	331075
30280422008	**SB8 4'-6'**	EPA 5035A	331064	EPA 8260C	331075
30280422001	**SB1 14'-15.8'**	ASTM D2974-87	331360		
30280422002	**SB2 16'-18'**	ASTM D2974-87	331360		
30280422003	**SB3 12'-13.5'**	ASTM D2974-87	331360		
30280422004	**SB4 8'-10'**	ASTM D2974-87	331360		
30280422005	**SB5 10'-12'**	ASTM D2974-87	331360		
30280422006	**SB6 6'-8'**	ASTM D2974-87	331360		
30280422007	**SB7 12'-14'**	ASTM D2974-87	331360		
30280422008	**SB8 4'-6'**	ASTM D2974-87	331360		

WO# : 30280422

30280422

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Matrix Environmental	Report To: Steve Marchetti	Attention:
Address:	Copy To:	Company Name:
		Address:
Email To: Smarchetti@matrix...	Purchase Order No.: 13	Pace Quote Reference:
Phone: 585 704 4332 Fax: —	Project Name: Aquino 65-67 Lake Ave.	Pace Project Manager:
Requested Due Date/TAT: normal	Project Number: Lancaster 18-046	Pace Profile #: 9174

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER

☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NY

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	TCL+CP51 EPA 8260	CP51 EPA 8270	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	SB1 14'-15.8'	SL	C	2-11-19	9:03				2									X	X	X		001
2	SB2 16'-18'	SL	C	2-11	11:05				2									X	X	X		002
3	SB3 12'-13.5'	SL	C	2-11	11:33				2									X	X	X		003
4	SB4 8'-10'	SL	C	2-11	11:55				2									X	X	X		004
5	SB5 10'-12'	SL	C	2-11	12:40				2									X	X	X		005
6	SB6 6'-8'	SL	C	2-11	1:40				2									X	X	X		006
7	SB7 12'-14'	SL	C	2-11	2:45				2									X	X	X		007
8	SB8 4'-6'	SL	C	2-11	3:12				2									X	X	X		008
9																						~~009~~
10																						
11																						
12																						

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Craig Pyrzynski / Matrix	2-14-19	1111		2/14	1111				
		2/14/19	1700		02/15/19	(933)	2.0	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Craig Pyrzynski

SIGNATURE of SAMPLER: Craig Pyrzynski DATE Signed (MM/DD/YY): 2-12-19

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pittsburgh Lab Sample Condition Upon Receipt

30280422

Face Analytical

Client Name: Matrix Project #

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Label

Tracking #: 7744 7581 2644

LIMS Login

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Thermometer Used 10 Type of Ice: (Wet) Blue None

Cooler Temperature Observed Temp 2.0 °C Correction Factor: 0 °C Final Temp: 2.0 °C

Temp should be above freezing to 6°C

Comments:	Yes	No	N/A	pH paper Lot# NA / Date and Initials of person examining contents: 02/15/19 JLB
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:	✓			4.
Sample Labels match COC: -Includes date/time/ID Matrix: SL	✓			5.
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:	✓			9.
Correct Containers Used:	✓			10.
-Pace Containers Used:		✓		
Containers Intact:	✓			11.
Orthophosphate field filtered			✓	12.
Hex Cr Aqueous Compliance/NPDES sample field filtered			✓	13.
Organic Samples checked for dechlorination:			✓	14.
Filtered volume received for Dissolved tests			✓	15.
All containers have been checked for preservation.			✓	16.
All containers needing preservation are found to be in compliance with EPA recommendation.			✓	
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed JLB / Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			✓	17.
Trip Blank Present:		✓		18.
Trip Blank Custody Seals Present			✓	
Rad Aqueous Samples Screened > 0.5 mrem/hr			✓	Initial when completed: / Date:

Client Notification/ Resolution:

Person Contacted: Date/Time: Contacted By:

Comments/ Resolution:

☐ A check in this box indicates that additional information has been stored in ereports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

February 26, 2019

Mr. Steve Marchetti
Matrix Environmental Technologies, Inc.
PO Box 427
Orchard Park, NY 14127

RE: Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280421

Dear Mr. Marchetti:
Enclosed are the analytical results for sample(s) received by the laboratory on February 15, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
724-850-5611
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280421

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
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PROJECT NARRATIVE

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280421

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: Matrix Environmental
Date: February 26, 2019

General Information:
2 samples were analyzed for EPA 8270D by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 330438

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Analyte Comments:

QC Batch: 330438

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- Building 2- A2 (Lab ID: 30280421001)
  - Acenaphthene
  - Acenaphthylene
  - Anthracene
  - Benzo(k)fluoranthene

Pace Analytical Services, LLC
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PROJECT NARRATIVE

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280421

Method: **EPA 8270D by SIM**
Description: 8270D MSSV PAH by SIM
Client: Matrix Environmental
Date: February 26, 2019

Analyte Comments:

QC Batch: 330438

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- Building 2- A2 (Lab ID: 30280421001)
  - Benzo(g,h,i)perylene
  - Benzo(a)anthracene
  - Benzo(b)fluoranthene
  - Benzo(a)pyrene
  - Chrysene
  - Dibenz(a,h)anthracene
  - Fluorene
  - Fluoranthene
  - Indeno(1,2,3-cd)pyrene
  - Naphthalene
  - Phenanthrene
  - Pyrene
- Building 2- A4 (Lab ID: 30280421002)
  - Acenaphthene
  - Acenaphthylene
  - Anthracene
  - Benzo(k)fluoranthene
  - Benzo(g,h,i)perylene
  - Benzo(a)anthracene
  - Benzo(b)fluoranthene
  - Benzo(a)pyrene
  - Chrysene
  - Dibenz(a,h)anthracene
  - Fluorene
  - Fluoranthene
  - Indeno(1,2,3-cd)pyrene
  - Naphthalene
  - Phenanthrene
  - Pyrene

3c: The read back of the low concentration calibration standard for this compound is not within 30% of the true value. The results may be biased high and should be considered estimated

- BLANK (Lab ID: 1608448)
  - Naphthalene
- Building 2- A2 (Lab ID: 30280421001)
  - Naphthalene
- Building 2- A4 (Lab ID: 30280421002)
  - Naphthalene
- LCS (Lab ID: 1608449)
  - Naphthalene

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280421

Method: **EPA 8260C**
Description: 8260C MSV
Client: Matrix Environmental
Date: February 26, 2019

General Information:
2 samples were analyzed for EPA 8260C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 331110

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- BLANK (Lab ID: 1610947)
  - 2-Butanone (MEK)
  - Bromomethane
  - Carbon tetrachloride
  - Chloromethane
  - Methylene Chloride
- Building 2- A2 (Lab ID: 30280421001)
  - 2-Butanone (MEK)
  - Bromomethane
  - Carbon tetrachloride
  - Chloromethane
  - Methylene Chloride
- Building 2- A4 (Lab ID: 30280421002)
  - 2-Butanone (MEK)
  - Bromomethane
  - Carbon tetrachloride
  - Chloromethane
  - Methylene Chloride
- LCS (Lab ID: 1610948)
  - 2-Butanone (MEK)
  - Bromomethane
  - Carbon tetrachloride
  - Chloromethane
  - Methylene Chloride
- MS (Lab ID: 1610949)
  - 2-Butanone (MEK)
  - Bromomethane
  - Carbon tetrachloride
  - Chloromethane
  - Methylene Chloride

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280421

Method: **EPA 8260C**
Description: 8260C MSV
Client: Matrix Environmental
Date: February 26, 2019

QC Batch: 331110

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- MSD (Lab ID: 1610950)
  - 2-Butanone (MEK)
  - Bromomethane
  - Carbon tetrachloride
  - Chloromethane
  - Methylene Chloride

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 331110

2c: Minimum RF criteria not met

- BLANK (Lab ID: 1610947)
  - Acetone
- Building 2- A2 (Lab ID: 30280421001)
  - Acetone
- Building 2- A4 (Lab ID: 30280421002)
  - Acetone
- LCS (Lab ID: 1610948)
  - Acetone
- MS (Lab ID: 1610949)
  - Acetone
- MSD (Lab ID: 1610950)
  - Acetone

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280421

Sample: Building 2- A2 **Lab ID: 30280421001** Collected: 02/11/19 13:30 Received: 02/15/19 09:30 Matrix: Water

Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.
• Sample collection times were not present on the sample containers.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510C							
Acenaphthene	ND	ug/L	0.097	1	02/18/19 10:40	02/19/19 17:29	83-32-9	1c
Acenaphthylene	ND	ug/L	0.097	1	02/18/19 10:40	02/19/19 17:29	208-96-8	1c
Anthracene	ND	ug/L	0.097	1	02/18/19 10:40	02/19/19 17:29	120-12-7	1c
Benzo(a)anthracene	ND	ug/L	0.097	1	02/18/19 10:40	02/19/19 17:29	56-55-3	1c
Benzo(a)pyrene	ND	ug/L	0.097	1	02/18/19 10:40	02/19/19 17:29	50-32-8	1c
Benzo(b)fluoranthene	ND	ug/L	0.097	1	02/18/19 10:40	02/19/19 17:29	205-99-2	1c
Benzo(g,h,i)perylene	ND	ug/L	0.097	1	02/18/19 10:40	02/19/19 17:29	191-24-2	1c
Benzo(k)fluoranthene	ND	ug/L	0.097	1	02/18/19 10:40	02/19/19 17:29	207-08-9	1c
Chrysene	ND	ug/L	0.097	1	02/18/19 10:40	02/19/19 17:29	218-01-9	1c
Dibenz(a,h)anthracene	ND	ug/L	0.097	1	02/18/19 10:40	02/19/19 17:29	53-70-3	1c
Fluoranthene	ND	ug/L	0.097	1	02/18/19 10:40	02/19/19 17:29	206-44-0	1c
Fluorene	ND	ug/L	0.097	1	02/18/19 10:40	02/19/19 17:29	86-73-7	1c
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.097	1	02/18/19 10:40	02/19/19 17:29	193-39-5	1c
Naphthalene	ND	ug/L	0.097	1	02/18/19 10:40	02/19/19 17:29	91-20-3	1c,3c
Phenanthrene	ND	ug/L	0.097	1	02/18/19 10:40	02/19/19 17:29	85-01-8	1c
Pyrene	ND	ug/L	0.097	1	02/18/19 10:40	02/19/19 17:29	129-00-0	1c
Surrogates								
2-Fluorobiphenyl (S)	55	%.	19-97	1	02/18/19 10:40	02/19/19 17:29	321-60-8	
Terphenyl-d14 (S)	54	%.	47-105	1	02/18/19 10:40	02/19/19 17:29	1718-51-0	
8260C MSV	Analytical Method: EPA 8260C							
Acetone	ND	ug/L	10.0	1		02/21/19 19:47	67-64-1	2c
Benzene	ND	ug/L	1.0	1		02/21/19 19:47	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		02/21/19 19:47	75-27-4	
Bromoform	ND	ug/L	1.0	1		02/21/19 19:47	75-25-2	
Bromomethane	ND	ug/L	1.0	1		02/21/19 19:47	74-83-9	CL
TOTAL BTEX	ND	ug/L	6.0	1		02/21/19 19:47		
2-Butanone (MEK)	ND	ug/L	10.0	1		02/21/19 19:47	78-93-3	CL
n-Butylbenzene	ND	ug/L	1.0	1		02/21/19 19:47	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		02/21/19 19:47	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		02/21/19 19:47	98-06-6	
Carbon disulfide	ND	ug/L	1.0	1		02/21/19 19:47	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		02/21/19 19:47	56-23-5	CL
Chlorobenzene	ND	ug/L	1.0	1		02/21/19 19:47	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/21/19 19:47	75-00-3	
Chloroform	ND	ug/L	1.0	1		02/21/19 19:47	67-66-3	
Chloromethane	ND	ug/L	1.0	1		02/21/19 19:47	74-87-3	CL
Dibromochloromethane	ND	ug/L	1.0	1		02/21/19 19:47	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		02/21/19 19:47	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		02/21/19 19:47	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		02/21/19 19:47	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		02/21/19 19:47	106-46-7	
1,1-Dichloroethane	ND	ug/L	1.0	1		02/21/19 19:47	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		02/21/19 19:47	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	2.0	1		02/21/19 19:47	540-59-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280421

Sample: Building 2- A2 **Lab ID: 30280421001** Collected: 02/11/19 13:30 Received: 02/15/19 09:30 Matrix: Water

Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.
• Sample collection times were not present on the sample containers.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C							
1,1-Dichloroethene	ND	ug/L	1.0	1		02/21/19 19:47	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		02/21/19 19:47	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		02/21/19 19:47	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		02/21/19 19:47	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		02/21/19 19:47	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		02/21/19 19:47	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		02/21/19 19:47	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		02/21/19 19:47	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		02/21/19 19:47	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		02/21/19 19:47	99-87-6	
Methylene Chloride	ND	ug/L	1.0	1		02/21/19 19:47	75-09-2	CL
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		02/21/19 19:47	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		02/21/19 19:47	1634-04-4	
Naphthalene	ND	ug/L	2.0	1		02/21/19 19:47	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		02/21/19 19:47	103-65-1	
Styrene	ND	ug/L	1.0	1		02/21/19 19:47	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		02/21/19 19:47	79-34-5	
Tetrachloroethene	**4.0**	ug/L	1.0	1		02/21/19 19:47	127-18-4	
Toluene	ND	ug/L	1.0	1		02/21/19 19:47	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		02/21/19 19:47	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		02/21/19 19:47	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		02/21/19 19:47	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		02/21/19 19:47	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		02/21/19 19:47	108-67-8	
Vinyl chloride	ND	ug/L	1.0	1		02/21/19 19:47	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		02/21/19 19:47	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		02/21/19 19:47	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		02/21/19 19:47	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%.	78-122	1		02/21/19 19:47	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%.	80-120	1		02/21/19 19:47	17060-07-0	
Toluene-d8 (S)	99	%.	80-120	1		02/21/19 19:47	2037-26-5	
Dibromofluoromethane (S)	104	%.	80-120	1		02/21/19 19:47	1868-53-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280421

Sample: Building 2- A4 **Lab ID: 30280421002** Collected: 02/11/19 13:40 Received: 02/15/19 09:30 Matrix: Water

Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.
• Sample collection times were not present on the sample containers.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510C							
Acenaphthene	ND	ug/L	0.098	1	02/18/19 10:40	02/19/19 17:47	83-32-9	1c
Acenaphthylene	ND	ug/L	0.098	1	02/18/19 10:40	02/19/19 17:47	208-96-8	1c
Anthracene	ND	ug/L	0.098	1	02/18/19 10:40	02/19/19 17:47	120-12-7	1c
Benzo(a)anthracene	ND	ug/L	0.098	1	02/18/19 10:40	02/19/19 17:47	56-55-3	1c
Benzo(a)pyrene	ND	ug/L	0.098	1	02/18/19 10:40	02/19/19 17:47	50-32-8	1c
Benzo(b)fluoranthene	ND	ug/L	0.098	1	02/18/19 10:40	02/19/19 17:47	205-99-2	1c
Benzo(g,h,i)perylene	ND	ug/L	0.098	1	02/18/19 10:40	02/19/19 17:47	191-24-2	1c
Benzo(k)fluoranthene	ND	ug/L	0.098	1	02/18/19 10:40	02/19/19 17:47	207-08-9	1c
Chrysene	ND	ug/L	0.098	1	02/18/19 10:40	02/19/19 17:47	218-01-9	1c
Dibenz(a,h)anthracene	ND	ug/L	0.098	1	02/18/19 10:40	02/19/19 17:47	53-70-3	1c
Fluoranthene	ND	ug/L	0.098	1	02/18/19 10:40	02/19/19 17:47	206-44-0	1c
Fluorene	ND	ug/L	0.098	1	02/18/19 10:40	02/19/19 17:47	86-73-7	1c
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.098	1	02/18/19 10:40	02/19/19 17:47	193-39-5	1c
Naphthalene	ND	ug/L	0.098	1	02/18/19 10:40	02/19/19 17:47	91-20-3	1c,3c
Phenanthrene	ND	ug/L	0.098	1	02/18/19 10:40	02/19/19 17:47	85-01-8	1c
Pyrene	ND	ug/L	0.098	1	02/18/19 10:40	02/19/19 17:47	129-00-0	1c
Surrogates								
2-Fluorobiphenyl (S)	60	%.	19-97	1	02/18/19 10:40	02/19/19 17:47	321-60-8	
Terphenyl-d14 (S)	69	%.	47-105	1	02/18/19 10:40	02/19/19 17:47	1718-51-0	
8260C MSV	Analytical Method: EPA 8260C							
Acetone	ND	ug/L	10.0	1		02/21/19 20:11	67-64-1	2c
Benzene	ND	ug/L	1.0	1		02/21/19 20:11	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		02/21/19 20:11	75-27-4	
Bromoform	ND	ug/L	1.0	1		02/21/19 20:11	75-25-2	
Bromomethane	ND	ug/L	1.0	1		02/21/19 20:11	74-83-9	CL
TOTAL BTEX	ND	ug/L	6.0	1		02/21/19 20:11		
2-Butanone (MEK)	ND	ug/L	10.0	1		02/21/19 20:11	78-93-3	CL
n-Butylbenzene	ND	ug/L	1.0	1		02/21/19 20:11	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		02/21/19 20:11	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		02/21/19 20:11	98-06-6	
Carbon disulfide	ND	ug/L	1.0	1		02/21/19 20:11	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		02/21/19 20:11	56-23-5	CL
Chlorobenzene	ND	ug/L	1.0	1		02/21/19 20:11	108-90-7	
Chloroethane	ND	ug/L	1.0	1		02/21/19 20:11	75-00-3	
Chloroform	ND	ug/L	1.0	1		02/21/19 20:11	67-66-3	
Chloromethane	ND	ug/L	1.0	1		02/21/19 20:11	74-87-3	CL
Dibromochloromethane	ND	ug/L	1.0	1		02/21/19 20:11	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		02/21/19 20:11	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		02/21/19 20:11	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		02/21/19 20:11	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		02/21/19 20:11	106-46-7	
1,1-Dichloroethane	ND	ug/L	1.0	1		02/21/19 20:11	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		02/21/19 20:11	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	2.0	1		02/21/19 20:11	540-59-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280421

Sample: Building 2- A4 **Lab ID: 30280421002** Collected: 02/11/19 13:40 Received: 02/15/19 09:30 Matrix: Water

Comments: • Samples in this workorder were received in the laboratory without an associated trip blank.
• Sample collection times were not present on the sample containers.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C							
1,1-Dichloroethene	ND	ug/L	1.0	1		02/21/19 20:11	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		02/21/19 20:11	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		02/21/19 20:11	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		02/21/19 20:11	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		02/21/19 20:11	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		02/21/19 20:11	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		02/21/19 20:11	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		02/21/19 20:11	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		02/21/19 20:11	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		02/21/19 20:11	99-87-6	
Methylene Chloride	ND	ug/L	1.0	1		02/21/19 20:11	75-09-2	CL
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		02/21/19 20:11	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		02/21/19 20:11	1634-04-4	
Naphthalene	ND	ug/L	2.0	1		02/21/19 20:11	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		02/21/19 20:11	103-65-1	
Styrene	ND	ug/L	1.0	1		02/21/19 20:11	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		02/21/19 20:11	79-34-5	
Tetrachloroethene	**11.9**	ug/L	1.0	1		02/21/19 20:11	127-18-4	
Toluene	ND	ug/L	1.0	1		02/21/19 20:11	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		02/21/19 20:11	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		02/21/19 20:11	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		02/21/19 20:11	79-01-6	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		02/21/19 20:11	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		02/21/19 20:11	108-67-8	
Vinyl chloride	ND	ug/L	1.0	1		02/21/19 20:11	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		02/21/19 20:11	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		02/21/19 20:11	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		02/21/19 20:11	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%.	78-122	1		02/21/19 20:11	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%.	80-120	1		02/21/19 20:11	17060-07-0	
Toluene-d8 (S)	97	%.	80-120	1		02/21/19 20:11	2037-26-5	
Dibromofluoromethane (S)	105	%.	80-120	1		02/21/19 20:11	1868-53-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280421

QC Batch: 331110 Analysis Method: EPA 8260C
QC Batch Method: EPA 8260C Analysis Description: 8260C MSV
Associated Lab Samples: 30280421001, 30280421002

METHOD BLANK: 1610947 Matrix: Water
Associated Lab Samples: 30280421001, 30280421002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	02/21/19 16:06	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	02/21/19 16:06	
1,1,2-Trichloroethane	ug/L	ND	1.0	02/21/19 16:06	
1,1-Dichloroethane	ug/L	ND	1.0	02/21/19 16:06	
1,1-Dichloroethene	ug/L	ND	1.0	02/21/19 16:06	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	02/21/19 16:06	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	02/21/19 16:06	
1,2-Dichlorobenzene	ug/L	ND	1.0	02/21/19 16:06	
1,2-Dichloroethane	ug/L	ND	1.0	02/21/19 16:06	
1,2-Dichloroethene (Total)	ug/L	ND	2.0	02/21/19 16:06	
1,2-Dichloropropane	ug/L	ND	1.0	02/21/19 16:06	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	02/21/19 16:06	
1,3-Dichlorobenzene	ug/L	ND	1.0	02/21/19 16:06	
1,4-Dichlorobenzene	ug/L	ND	1.0	02/21/19 16:06	
2-Butanone (MEK)	ug/L	ND	10.0	02/21/19 16:06	CL
2-Hexanone	ug/L	ND	10.0	02/21/19 16:06	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	02/21/19 16:06	
Acetone	ug/L	ND	10.0	02/21/19 16:06	2c
Benzene	ug/L	ND	1.0	02/21/19 16:06	
Bromodichloromethane	ug/L	ND	1.0	02/21/19 16:06	
Bromoform	ug/L	ND	1.0	02/21/19 16:06	
Bromomethane	ug/L	ND	1.0	02/21/19 16:06	CL
Carbon disulfide	ug/L	ND	1.0	02/21/19 16:06	
Carbon tetrachloride	ug/L	ND	1.0	02/21/19 16:06	CL
Chlorobenzene	ug/L	ND	1.0	02/21/19 16:06	
Chloroethane	ug/L	ND	1.0	02/21/19 16:06	
Chloroform	ug/L	ND	1.0	02/21/19 16:06	
Chloromethane	ug/L	ND	1.0	02/21/19 16:06	CL
cis-1,2-Dichloroethene	ug/L	ND	1.0	02/21/19 16:06	
cis-1,3-Dichloropropene	ug/L	ND	1.0	02/21/19 16:06	
Dibromochloromethane	ug/L	ND	1.0	02/21/19 16:06	
Ethylbenzene	ug/L	ND	1.0	02/21/19 16:06	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	02/21/19 16:06	
m&p-Xylene	ug/L	ND	2.0	02/21/19 16:06	
Methyl-tert-butyl ether	ug/L	ND	1.0	02/21/19 16:06	
Methylene Chloride	ug/L	ND	1.0	02/21/19 16:06	CL
n-Butylbenzene	ug/L	ND	1.0	02/21/19 16:06	
n-Propylbenzene	ug/L	ND	1.0	02/21/19 16:06	
Naphthalene	ug/L	ND	2.0	02/21/19 16:06	
o-Xylene	ug/L	ND	1.0	02/21/19 16:06	
p-Isopropyltoluene	ug/L	ND	1.0	02/21/19 16:06	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280421

METHOD BLANK: 1610947 Matrix: Water
Associated Lab Samples: 30280421001, 30280421002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
sec-Butylbenzene	ug/L	ND	1.0	02/21/19 16:06	
Styrene	ug/L	ND	1.0	02/21/19 16:06	
tert-Butylbenzene	ug/L	ND	1.0	02/21/19 16:06	
Tetrachloroethene	ug/L	ND	1.0	02/21/19 16:06	
Toluene	ug/L	ND	1.0	02/21/19 16:06	
TOTAL BTEX	ug/L	ND	6.0	02/21/19 16:06	
trans-1,2-Dichloroethene	ug/L	ND	1.0	02/21/19 16:06	
trans-1,3-Dichloropropene	ug/L	ND	1.0	02/21/19 16:06	
Trichloroethene	ug/L	ND	1.0	02/21/19 16:06	
Vinyl chloride	ug/L	ND	1.0	02/21/19 16:06	
Xylene (Total)	ug/L	ND	3.0	02/21/19 16:06	
1,2-Dichloroethane-d4 (S)	%.	112	80-120	02/21/19 16:06	
4-Bromofluorobenzene (S)	%.	99	78-122	02/21/19 16:06	
Dibromofluoromethane (S)	%.	104	80-120	02/21/19 16:06	
Toluene-d8 (S)	%.	98	80-120	02/21/19 16:06	

LABORATORY CONTROL SAMPLE: 1610948

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	17.4	87	70-130	
1,1,2,2-Tetrachloroethane	ug/L	20	19.5	97	70-130	
1,1,2-Trichloroethane	ug/L	20	20.1	101	70-130	
1,1-Dichloroethane	ug/L	20	18.4	92	68-121	
1,1-Dichloroethene	ug/L	20	17.9	89	63-129	
1,2,4-Trimethylbenzene	ug/L	20	20.9	104	70-130	
1,2-Dibromoethane (EDB)	ug/L	20	19.3	97	70-130	
1,2-Dichlorobenzene	ug/L	20	19.1	96	70-130	
1,2-Dichloroethane	ug/L	20	18.1	90	67-117	
1,2-Dichloroethene (Total)	ug/L	40	35.7	89	65-119	
1,2-Dichloropropane	ug/L	20	18.6	93	69-121	
1,3,5-Trimethylbenzene	ug/L	20	20.6	103	70-130	
1,3-Dichlorobenzene	ug/L	20	19.0	95	70-130	
1,4-Dichlorobenzene	ug/L	20	18.8	94	70-130	
2-Butanone (MEK)	ug/L	20	13.2	66	59-128	CL
2-Hexanone	ug/L	20	16.2	81	49-145	
4-Methyl-2-pentanone (MIBK)	ug/L	20	17.1	85	63-126	
Acetone	ug/L	20	20.1	100	37-150	2c
Benzene	ug/L	20	19.6	98	70-130	
Bromodichloromethane	ug/L	20	18.5	93	70-130	
Bromoform	ug/L	20	15.4	77	65-130	
Bromomethane	ug/L	20	14.1	70	45-148	CL
Carbon disulfide	ug/L	20	16.0	80	55-123	
Carbon tetrachloride	ug/L	20	16.1	80	69-126	CL
Chlorobenzene	ug/L	20	19.4	97	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280421

LABORATORY CONTROL SAMPLE: 1610948

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloroethane	ug/L	20	20.3	101	68-146	
Chloroform	ug/L	20	17.6	88	69-116	
Chloromethane	ug/L	20	15.3	77	56-129	CL
cis-1,2-Dichloroethene	ug/L	20	17.8	89	66-118	
cis-1,3-Dichloropropene	ug/L	20	18.9	94	70-130	
Dibromochloromethane	ug/L	20	17.2	86	70-130	
Ethylbenzene	ug/L	20	19.6	98	70-130	
Isopropylbenzene (Cumene)	ug/L	20	21.2	106	70-130	
m&p-Xylene	ug/L	40	39.6	99	70-130	
Methyl-tert-butyl ether	ug/L	20	18.4	92	70-130	
Methylene Chloride	ug/L	20	16.7	84	65-124	CL
n-Butylbenzene	ug/L	20	20.5	102	71-138	
n-Propylbenzene	ug/L	20	21.5	108	70-130	
Naphthalene	ug/L	20	18.9	95	69-135	
o-Xylene	ug/L	20	19.2	96	70-130	
p-Isopropyltoluene	ug/L	20	19.9	99	70-130	
sec-Butylbenzene	ug/L	20	20.6	103	70-130	
Styrene	ug/L	20	19.3	96	70-130	
tert-Butylbenzene	ug/L	20	20.3	101	70-130	
Tetrachloroethene	ug/L	20	19.1	95	70-130	
Toluene	ug/L	20	19.8	99	70-130	
TOTAL BTEX	ug/L		118			
trans-1,2-Dichloroethene	ug/L	20	17.9	90	64-123	
trans-1,3-Dichloropropene	ug/L	20	19.2	96	68-119	
Trichloroethene	ug/L	20	17.7	89	70-130	
Vinyl chloride	ug/L	20	18.6	93	70-130	
Xylene (Total)	ug/L	60	58.8	98	70-130	
1,2-Dichloroethane-d4 (S)	%.			99	80-120	
4-Bromofluorobenzene (S)	%.			101	78-122	
Dibromofluoromethane (S)	%.			96	80-120	
Toluene-d8 (S)	%.			103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1610949 1610950

Parameter	Units	30280827002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	17.6	18.3	88	92	67-127	4	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	18.9	19.2	94	96	55-118	2	
1,1,2-Trichloroethane	ug/L	ND	20	20	19.1	19.6	96	98	60-117	2	
1,1-Dichloroethane	ug/L	ND	20	20	18.5	18.8	92	94	68-118	2	
1,1-Dichloroethene	ug/L	ND	20	20	18.6	18.8	93	94	62-126	1	
1,2,4-Trimethylbenzene	ug/L	ND	20	20	20.2	20.9	101	105	70-130	4	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	18.6	18.7	93	94	69-124	1	
1,2-Dichlorobenzene	ug/L	ND	20	20	18.2	19.2	91	96	66-116	5	
1,2-Dichloroethane	ug/L	ND	20	20	17.7	18.3	88	91	67-117	3	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280421

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1610949 1610950

Parameter	Units	30280827002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,2-Dichloroethene (Total)	ug/L	ND	40	40	35.9	37.8	90	94	70-130	5	
1,2-Dichloropropane	ug/L	ND	20	20	18.4	19.3	92	97	61-128	5	
1,3,5-Trimethylbenzene	ug/L	ND	20	20	19.9	20.7	99	104	70-130	4	
1,3-Dichlorobenzene	ug/L	ND	20	20	18.9	19.2	94	96	67-117	2	
1,4-Dichlorobenzene	ug/L	ND	20	20	18.3	19.1	91	95	68-116	4	
2-Butanone (MEK)	ug/L	ND	20	20	14.6	13.3	73	66	63-175	9	CL
2-Hexanone	ug/L	ND	20	20	16.0	15.8	80	79	65-151	1	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	15.9	16.6	80	83	66-149	4	
Acetone	ug/L	ND	20	20	18.4	18.9	80	83	10-175	3	2c
Benzene	ug/L	ND	20	20	19.2	20.0	96	100	67-119	4	
Bromodichloromethane	ug/L	ND	20	20	17.8	18.6	89	93	67-126	5	
Bromoform	ug/L	ND	20	20	13.1	13.3	65	66	43-114	1	
Bromomethane	ug/L	ND	20	20	12.7	14.7	63	74	10-164	15	CL
Carbon disulfide	ug/L	ND	20	20	16.2	16.4	81	82	37-135	1	
Carbon tetrachloride	ug/L	ND	20	20	15.9	16.5	79	83	60-137	4	CL
Chlorobenzene	ug/L	ND	20	20	19.1	19.2	95	96	68-119	1	
Chloroethane	ug/L	ND	20	20	21.0	21.4	105	107	54-169	2	
Chloroform	ug/L	ND	20	20	17.4	18.1	87	91	69-113	4	
Chloromethane	ug/L	ND	20	20	15.9	16.7	79	83	43-159	5	CL
cis-1,2-Dichloroethene	ug/L	ND	20	20	17.5	18.7	88	94	65-121	7	
cis-1,3-Dichloropropene	ug/L	ND	20	20	17.9	18.5	89	92	61-120	3	
Dibromochloromethane	ug/L	ND	20	20	15.5	15.6	77	78	56-121	1	
Ethylbenzene	ug/L	ND	20	20	19.3	19.4	97	97	69-127	0	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	20.9	21.6	104	108	70-130	4	
m&p-Xylene	ug/L	ND	40	40	40.1	39.9	100	100	70-129	0	
Methyl-tert-butyl ether	ug/L	ND	20	20	18.1	18.4	91	92	70-130	1	
Methylene Chloride	ug/L	ND	20	20	15.7	16.5	79	82	49-144	5	CL
n-Butylbenzene	ug/L	ND	20	20	20.3	20.6	102	103	54-128	1	
n-Propylbenzene	ug/L	ND	20	20	21.0	21.9	105	109	62-127	4	
Naphthalene	ug/L	ND	20	20	18.0	18.6	90	93	60-136	3	
o-Xylene	ug/L	ND	20	20	19.4	19.3	97	96	68-126	1	
p-Isopropyltoluene	ug/L	ND	20	20	19.1	19.9	96	100	60-125	4	
sec-Butylbenzene	ug/L	ND	20	20	20.5	21.0	103	105	63-125	2	
Styrene	ug/L	ND	20	20	18.9	19.3	95	96	65-120	2	
tert-Butylbenzene	ug/L	ND	20	20	19.9	20.3	99	101	64-124	2	
Tetrachloroethene	ug/L	ND	20	20	19.2	19.4	96	97	64-123	1	
Toluene	ug/L	ND	20	20	19.7	20.1	99	101	70-130	2	
TOTAL BTEX	ug/L	ND			118	119				1	
trans-1,2-Dichloroethene	ug/L	ND	20	20	18.4	19.1	92	95	66-119	3	
trans-1,3-Dichloropropene	ug/L	ND	20	20	17.8	18.2	89	91	52-117	2	
Trichloroethene	ug/L	ND	20	20	17.4	18.0	87	90	63-125	3	
Vinyl chloride	ug/L	ND	20	20	20.4	20.8	102	104	60-133	2	
Xylene (Total)	ug/L	ND	60	60	59.5	59.2	99	99	69-128	1	
1,2-Dichloroethane-d4 (S)	%.						102	103	80-120		
4-Bromofluorobenzene (S)	%.						101	102	78-122		
Dibromofluoromethane (S)	%.						96	98	80-120		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280421

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1610949 1610950

Parameter	Units	30280827002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Toluene-d8 (S)	%.						103	102	80-120		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280421

QC Batch: 330438 Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3510C Analysis Description: 8270D Water PAH by SIM MSSV
Associated Lab Samples: 30280421001, 30280421002

METHOD BLANK: 1608448 Matrix: Water
Associated Lab Samples: 30280421001, 30280421002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/L	ND	0.10	02/19/19 14:14	
Acenaphthylene	ug/L	ND	0.10	02/19/19 14:14	
Anthracene	ug/L	ND	0.10	02/19/19 14:14	
Benzo(a)anthracene	ug/L	ND	0.10	02/19/19 14:14	
Benzo(a)pyrene	ug/L	ND	0.10	02/19/19 14:14	
Benzo(b)fluoranthene	ug/L	ND	0.10	02/19/19 14:14	
Benzo(g,h,i)perylene	ug/L	ND	0.10	02/19/19 14:14	
Benzo(k)fluoranthene	ug/L	ND	0.10	02/19/19 14:14	
Chrysene	ug/L	ND	0.10	02/19/19 14:14	
Dibenz(a,h)anthracene	ug/L	ND	0.10	02/19/19 14:14	
Fluoranthene	ug/L	ND	0.10	02/19/19 14:14	
Fluorene	ug/L	ND	0.10	02/19/19 14:14	
Indeno(1,2,3-cd)pyrene	ug/L	ND	0.10	02/19/19 14:14	
Naphthalene	ug/L	ND	0.10	02/19/19 14:14	3c
Phenanthrene	ug/L	ND	0.10	02/19/19 14:14	
Pyrene	ug/L	ND	0.10	02/19/19 14:14	
2-Fluorobiphenyl (S)	%.	71	19-97	02/19/19 14:14	
Terphenyl-d14 (S)	%.	69	47-105	02/19/19 14:14	

LABORATORY CONTROL SAMPLE: 1608449

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/L	2	1.4	71	34-105	
Acenaphthylene	ug/L	2	1.6	78	30-121	
Anthracene	ug/L	2	1.5	76	39-113	
Benzo(a)anthracene	ug/L	2	1.6	78	51-115	
Benzo(a)pyrene	ug/L	2	1.5	77	46-117	
Benzo(b)fluoranthene	ug/L	2	1.6	80	50-126	
Benzo(g,h,i)perylene	ug/L	2	1.4	68	48-117	
Benzo(k)fluoranthene	ug/L	2	1.6	80	52-118	
Chrysene	ug/L	2	1.5	74	55-107	
Dibenz(a,h)anthracene	ug/L	2	1.3	66	53-118	
Fluoranthene	ug/L	2	1.6	78	45-122	
Fluorene	ug/L	2	1.5	77	36-113	
Indeno(1,2,3-cd)pyrene	ug/L	2	1.3	66	52-117	
Naphthalene	ug/L	2	1.4	69	29-101	3c
Phenanthrene	ug/L	2	1.4	72	40-109	
Pyrene	ug/L	2	1.5	77	45-122	
2-Fluorobiphenyl (S)	%.			71	19-97	
Terphenyl-d14 (S)	%.			67	47-105	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280421

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: 330438

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1c	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
2c	Minimum RF criteria not met
3c	The read back of the low concentration calibration standard for this compound is not within 30% of the true value. The results may be biased high and should be considered estimated
CL	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Aquino 65-67 Lake Ave
Pace Project No.: 30280421

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30280421001	**Building 2- A2**	EPA 3510C	330438	EPA 8270D by SIM	330617
30280421002	**Building 2- A4**	EPA 3510C	330438	EPA 8270D by SIM	330617
30280421001	**Building 2- A2**	EPA 8260C	331110		
30280421002	**Building 2- A4**	EPA 8260C	331110		

WO#: 30280421

30280421

Pace Analytical®
www.pacelabs.com

-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A Required Client Information:
Company: Matrix Environmental
Address:
Email To: SMarchetti@matrixbiotech.com
Phone: 585-770-4332 Fax:
Requested Due Date/TAT: Normal

Section B Required Project Information:
Report To: Steve Marchetti
Copy To:
Purchase Order No.: 13
Project Name: Aquino 65-67 Lake Ave
Project Number: 18-046

Section C Invoice Information:
Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 9174

REGULATORY AGENCY
- ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
- ☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NY

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	TCL + CP51 BN8260	CP51 EPA 8270	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	[illegible]																					
2	[illegible]																					
3	Building 2 - A2	W	3	2-11-19	11:30		1:30		4				X						X	X		001
4	Building 2 - A4	W	3	2-11-19	11:45		1:40		4				X						X	X		002
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	[signature]	2-11-19	12:9	[signature]	2/14	1111				
	[signature]	2/14/19	1700	[signature] PACE	02/15/19	0930	23	Y	N	Y
					JUS 02/15/19					

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Steve L. Marchetti
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 2-11-19

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pittsburgh Lab Sample Condition Upon Receipt

#_30280421

Face Analytical

Client Name: Matrix Project #

Label OVB
LIMS Login OVB

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 7744 7581 2646

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Thermometer Used 10 Type of Ice: (Wet) Blue None

Cooler Temperature Observed Temp 2.3 °C Correction Factor: 0 °C Final Temp: 2.3 °C

Temp should be above freezing to 6°C

pH paper Lot# NA | Date and Initials of person examining contents: 02/15/19 OVB

Comments:	Yes	No	N/A	
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:	✓			4.
Sample Labels match COC: -Includes date/time/ID Matrix: WT		✓		5. not time on Samples
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:	✓			9.
Correct Containers Used: -Pace Containers Used:	✓	✓		10.
Containers Intact:	✓			11.
Orthophosphate field filtered			✓	12.
Hex Cr Aqueous Compliance/NPDES sample field filtered			✓	13.
Organic Samples checked for dechlorination:	✓			14.
Filtered volume received for Dissolved tests			✓	15.
All containers have been checked for preservation. All containers needing preservation are found to be in compliance with EPA recommendation. exceptions: (VOA), coliform, TOC, O&G, Phenolics	✓			16. Initial when completed OVB Date/time of preservation Lot # of added preservative
Headspace in VOA Vials (>6mm):		✓		17.
Trip Blank Present:		✓		18.
Trip Blank Custody Seals Present			✓	
Rad Aqueous Samples Screened > 0.5 mrem/hr			✓	Initial when completed: Date:

Client Notification/ Resolution:

Person Contacted: Date/Time: Contacted By:

Comments/ Resolution:

☐ A check in this box indicates that additional information has been stored in ereports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.