

## Report of Analysis

|                    |                                           |                 |                  |
|--------------------|-------------------------------------------|-----------------|------------------|
| Client:            | Louis Berger U.S., Inc., A WSP Company    | Date Collected: | 01/18/23         |
| Project:           | NYCDDC Phase II SCI Arthur Kill Road CEQR | Date Received:  | 01/19/23         |
| Client Sample ID:  | B-P-19B                                   | SDG No.:        | O1232            |
| Lab Sample ID:     | O1232-07                                  | Matrix:         | SOIL             |
| Analytical Method: | SW8270                                    | % Solid:        | 88               |
| Sample Wt/Vol:     | 30.05 Units: g                            | Final Vol:      | 1000 uL          |
| Soil Aliquot Vol:  | uL                                        | Test:           | SVOC-TCL BNA -20 |
| Extraction Type :  | Decanted : N                              | Level :         | LOW              |
| Injection Volume : | GPC Factor : 1.0                          | GPC Cleanup :   | N PH :           |
| Prep Method :      | SW3541                                    |                 |                  |

|                   |           |                |                |               |
|-------------------|-----------|----------------|----------------|---------------|
| File ID/Qc Batch: | Dilution: | Prep Date      | Date Analyzed  | Prep Batch ID |
| BG056414.D        | 1         | 01/20/23 12:30 | 01/24/23 22:35 | PB150378      |

| CAS Number     | Parameter                   | Conc. | Qualifier | MDL  | LOQ / CRQL | Units(Dry Weight) |
|----------------|-----------------------------|-------|-----------|------|------------|-------------------|
| <b>TARGETS</b> |                             |       |           |      |            |                   |
| 100-52-7       | Benzaldehyde                | 160   | U         | 160  | 370        | ug/Kg             |
| 108-95-2       | Phenol                      | 76.8  | U         | 76.8 | 190        | ug/Kg             |
| 111-44-4       | bis(2-Chloroethyl)ether     | 91.1  | U         | 91.1 | 190        | ug/Kg             |
| 95-57-8        | 2-Chlorophenol              | 77.5  | U         | 77.5 | 190        | ug/Kg             |
| 95-48-7        | 2-Methylphenol              | 120   | U         | 120  | 190        | ug/Kg             |
| 108-60-1       | 2,2-oxybis(1-Chloropropane) | 110   | U         | 110  | 190        | ug/Kg             |
| 98-86-2        | Acetophenone                | 90.9  | U         | 90.9 | 190        | ug/Kg             |
| 65794-96-9     | 3+4-Methylphenols           | 110   | U         | 110  | 370        | ug/Kg             |
| 621-64-7       | n-Nitroso-di-n-propylamine  | 86.3  | U         | 86.3 | 90.8       | ug/Kg             |
| 67-72-1        | Hexachloroethane            | 83.6  | U         | 83.6 | 190        | ug/Kg             |
| 98-95-3        | Nitrobenzene                | 83.8  | U         | 83.8 | 190        | ug/Kg             |
| 78-59-1        | Isophorone                  | 75.6  | U         | 75.6 | 190        | ug/Kg             |
| 88-75-5        | 2-Nitrophenol               | 110   | U         | 110  | 190        | ug/Kg             |
| 105-67-9       | 2,4-Dimethylphenol          | 110   | U         | 110  | 190        | ug/Kg             |
| 111-91-1       | bis(2-Chloroethoxy)methane  | 120   | U         | 120  | 190        | ug/Kg             |
| 120-83-2       | 2,4-Dichlorophenol          | 92.7  | U         | 92.7 | 190        | ug/Kg             |
| 91-20-3        | Naphthalene                 | 83.8  | U         | 83.8 | 190        | ug/Kg             |
| 106-47-8       | 4-Chloroaniline             | 110   | U         | 110  | 190        | ug/Kg             |
| 87-68-3        | Hexachlorobutadiene         | 110   | U         | 110  | 190        | ug/Kg             |
| 105-60-2       | Caprolactam                 | 110   | U         | 110  | 370        | ug/Kg             |
| 59-50-7        | 4-Chloro-3-methylphenol     | 89.3  | U         | 89.3 | 190        | ug/Kg             |
| 91-57-6        | 2-Methylnaphthalene         | 85.1  | U         | 85.1 | 190        | ug/Kg             |
| 77-47-4        | Hexachlorocyclopentadiene   | 200   | U         | 200  | 370        | ug/Kg             |
| 88-06-2        | 2,4,6-Trichlorophenol       | 96.9  | U         | 96.9 | 190        | ug/Kg             |
| 95-95-4        | 2,4,5-Trichlorophenol       | 94.8  | U         | 94.8 | 190        | ug/Kg             |
| 92-52-4        | 1,1-Biphenyl                | 98.1  | U         | 98.1 | 190        | ug/Kg             |
| 91-58-7        | 2-Chloronaphthalene         | 97.0  | U         | 97.0 | 190        | ug/Kg             |
| 88-74-4        | 2-Nitroaniline              | 120   | U         | 120  | 190        | ug/Kg             |
| 131-11-3       | Dimethylphthalate           | 91.8  | U         | 91.8 | 190        | ug/Kg             |
| 208-96-8       | Acenaphthylene              | 77.9  | U         | 77.9 | 190        | ug/Kg             |
| 606-20-2       | 2,6-Dinitrotoluene          | 88.6  | U         | 88.6 | 190        | ug/Kg             |

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| Client Sample ID:  | B-P-19B                                   | SDG No.:        | O1232            |
| Lab Sample ID:     | O1232-07                                  | Matrix:         | SOIL             |
| Analytical Method: | SW8270                                    | % Solid:        | 88               |
| Sample Wt/Vol:     | 30.05 Units: g                            | Final Vol:      | 1000 uL          |
| Soil Aliquot Vol:  | uL                                        | Test:           | SVOC-TCL BNA -20 |
| Extraction Type :  | Decanted : N                              | Level :         | LOW              |
| Injection Volume : | GPC Factor : 1.0                          | GPC Cleanup :   | N PH :           |
| Prep Method :      | SW3541                                    |                 |                  |

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| File ID/Qc Batch: | Dilution: | Prep Date      | Date Analyzed  | Prep Batch ID |
| BG056414.D        | 1         | 01/20/23 12:30 | 01/24/23 22:35 | PB150378      |

| CAS Number | Parameter                  | Conc. | Qualifier | MDL  | LOQ / CRQL | Units(Dry Weight) |
|------------|----------------------------|-------|-----------|------|------------|-------------------|
| 99-09-2    | 3-Nitroaniline             | 110   | U         | 110  | 190        | ug/Kg             |
| 83-32-9    | Acenaphthene               | 89.5  | U         | 89.5 | 190        | ug/Kg             |
| 51-28-5    | 2,4-Dinitrophenol          | 150   | U         | 150  | 370        | ug/Kg             |
| 100-02-7   | 4-Nitrophenol              | 160   | U         | 160  | 370        | ug/Kg             |
| 132-64-9   | Dibenzofuran               | 84.2  | U         | 84.2 | 190        | ug/Kg             |
| 121-14-2   | 2,4-Dinitrotoluene         | 96.0  | U         | 96.0 | 190        | ug/Kg             |
| 84-66-2    | Diethylphthalate           | 91.3  | U         | 91.3 | 190        | ug/Kg             |
| 7005-72-3  | 4-Chlorophenyl-phenylether | 110   | U         | 110  | 190        | ug/Kg             |
| 86-73-7    | Fluorene                   | 89.4  | U         | 89.4 | 190        | ug/Kg             |
| 100-01-6   | 4-Nitroaniline             | 120   | U         | 120  | 190        | ug/Kg             |
| 534-52-1   | 4,6-Dinitro-2-methylphenol | 97.8  | U         | 97.8 | 370        | ug/Kg             |
| 86-30-6    | n-Nitrosodiphenylamine     | 93.3  | U         | 93.3 | 190        | ug/Kg             |
| 101-55-3   | 4-Bromophenyl-phenylether  | 110   | U         | 110  | 190        | ug/Kg             |
| 118-74-1   | Hexachlorobenzene          | 120   | U         | 120  | 190        | ug/Kg             |
| 1912-24-9  | Atrazine                   | 100   | U         | 100  | 190        | ug/Kg             |
| 87-86-5    | Pentachlorophenol          | 130   | U         | 130  | 370        | ug/Kg             |
| 85-01-8    | Phenanthrene               | 1000  |           | 94.8 | 190        | ug/Kg             |
| 120-12-7   | Anthracene                 | 180   | J         | 95.3 | 190        | ug/Kg             |
| 86-74-8    | Carbazole                  | 95.5  | U         | 95.5 | 190        | ug/Kg             |
| 84-74-2    | Di-n-butylphthalate        | 98.7  | U         | 98.7 | 190        | ug/Kg             |
| 206-44-0   | Fluoranthene               | 1000  |           | 90.5 | 190        | ug/Kg             |
| 129-00-0   | Pyrene                     | 1000  |           | 84.2 | 190        | ug/Kg             |
| 85-68-7    | Butylbenzylphthalate       | 93.8  | U         | 93.8 | 190        | ug/Kg             |
| 91-94-1    | 3,3-Dichlorobenzidine      | 160   | U         | 160  | 370        | ug/Kg             |
| 56-55-3    | Benzo(a)anthracene         | 500   |           | 98.5 | 190        | ug/Kg             |
| 218-01-9   | Chrysene                   | 480   |           | 97.0 | 190        | ug/Kg             |
| 117-81-7   | Bis(2-ethylhexyl)phthalate | 100   | U         | 100  | 190        | ug/Kg             |
| 117-84-0   | Di-n-octyl phthalate       | 100   | U         | 100  | 370        | ug/Kg             |
| 205-99-2   | Benzo(b)fluoranthene       | 480   |           | 78.3 | 190        | ug/Kg             |
| 207-08-9   | Benzo(k)fluoranthene       | 160   | J         | 83.5 | 190        | ug/Kg             |
| 50-32-8    | Benzo(a)pyrene             | 360   |           | 76.8 | 190        | ug/Kg             |
| 193-39-5   | Indeno(1,2,3-cd)pyrene     | 190   |           | 110  | 190        | ug/Kg             |
| 53-70-3    | Dibenzo(a,h)anthracene     | 120   | U         | 120  | 190        | ug/Kg             |

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| Client Sample ID:  | B-P-19B                                   | SDG No.:        | O1232            |
| Lab Sample ID:     | O1232-07                                  | Matrix:         | SOIL             |
| Analytical Method: | SW8270                                    | % Solid:        | 88               |
| Sample Wt/Vol:     | 30.05 Units: g                            | Final Vol:      | 1000 uL          |
| Soil Aliquot Vol:  | uL                                        | Test:           | SVOC-TCL BNA -20 |
| Extraction Type :  | Decanted : N                              | Level :         | LOW              |
| Injection Volume : | GPC Factor : 1.0                          | GPC Cleanup :   | N PH :           |
| Prep Method :      | SW3541                                    |                 |                  |

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| BG056414.D        | 1         | 01/20/23 12:30 | 01/24/23 22:35 | PB150378      |

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|------------|----------------------------|-------|-----------|------|------------|-------------------|
| 191-24-2   | Benzo(g,h,i)perylene       | 230   |           | 110  | 190        | ug/Kg             |
| 95-94-3    | 1,2,4,5-Tetrachlorobenzene | 100   | U         | 100  | 190        | ug/Kg             |
| 123-91-1   | 1,4-Dioxane                | 100   | U         | 100  | 190        | ug/Kg             |
| 58-90-2    | 2,3,4,6-Tetrachlorophenol  | 92.1  | U         | 92.1 | 190        | ug/Kg             |

### SURROGATES

|            |                      |      |  |          |     |          |
|------------|----------------------|------|--|----------|-----|----------|
| 367-12-4   | 2-Fluorophenol       | 120  |  | 18 - 112 | 80% | SPK: 150 |
| 13127-88-3 | Phenol-d6            | 110  |  | 21 - 104 | 73% | SPK: 150 |
| 4165-60-0  | Nitrobenzene-d5      | 63.3 |  | 27 - 109 | 63% | SPK: 100 |
| 321-60-8   | 2-Fluorobiphenyl     | 67.7 |  | 30 - 103 | 68% | SPK: 100 |
| 118-79-6   | 2,4,6-Tribromophenol | 110  |  | 10 - 121 | 74% | SPK: 150 |
| 1718-51-0  | Terphenyl-d14        | 65.3 |  | 21 - 107 | 65% | SPK: 100 |

### INTERNAL STANDARDS

|            |                        |        |        |
|------------|------------------------|--------|--------|
| 3855-82-1  | 1,4-Dichlorobenzene-d4 | 40800  | 8.288  |
| 1146-65-2  | Naphthalene-d8         | 165000 | 11.126 |
| 15067-26-2 | Acenaphthene-d10       | 127000 | 14.904 |
| 1517-22-2  | Phenanthrene-d10       | 292000 | 17.642 |
| 1719-03-5  | Chrysene-d12           | 275000 | 21.931 |
| 1520-96-3  | Perylene-d12           | 300000 | 25.363 |

### TENTATIVE IDENTIFIED COMPOUNDS

|              |                                  |     |    |      |       |
|--------------|----------------------------------|-----|----|------|-------|
| 000123-42-2  | 2-Pentanone, 4-hydroxy-4-methyl- | 660 | AB | 5.33 | ug/Kg |
| 000119-61-9  | Benzophenone                     | 180 | J  | 16.2 | ug/Kg |
| 002531-84-2  | Phenanthrene, 2-methyl-          | 370 | J  | 18.5 | ug/Kg |
| 000613-12-7  | Anthracene, 2-methyl-            | 310 | J  | 18.6 | ug/Kg |
| 000610-48-0  | Anthracene, 1-methyl-            | 100 | J  | 18.6 | ug/Kg |
|              | unknown18.706                    | 380 | J  | 18.7 | ug/Kg |
| 000832-64-4  | Phenanthrene, 4-methyl-          | 150 | J  | 18.7 | ug/Kg |
| 000612-94-2  | Naphthalene, 2-phenyl-           | 160 | J  | 19.0 | ug/Kg |
| 000084-65-1  | 9,10-Anthracenedione             | 110 | J  | 19.0 | ug/Kg |
| 1000452-24-5 | 3,4-Dimethylphenanthrene         | 100 | J  | 19.2 | ug/Kg |
| 000781-43-1  | 9,10-Dimethylantracene           | 280 | J  | 19.4 | ug/Kg |
| 005737-13-3  | Cyclopenta(def)phenanthrenone    | 180 | J  | 19.6 | ug/Kg |
| 002381-21-7  | Pyrene, 1-methyl-                | 130 | J  | 20.4 | ug/Kg |

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| Extraction Type :  | Decanted : N                              | Level :         | LOW              |
| Injection Volume : | GPC Factor : 1.0                          | GPC Cleanup :   | N PH :           |
| Prep Method :      | SW3541                                    |                 |                  |

|                   |           |                |                |               |
|-------------------|-----------|----------------|----------------|---------------|
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| BG056414.D        | 1         | 01/20/23 12:30 | 01/24/23 22:35 | PB150378      |

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|-------------|----------------------------|-------|-----------|-----|------------|-------------------|
| 003442-78-2 | Pyrene, 2-methyl-          | 87.4  | J         |     | 20.7       | ug/Kg             |
| 000479-79-8 | 11H-Benzo[a]fluoren-11-one | 96.1  | J         |     | 21.3       | ug/Kg             |
| 007206-19-1 | 3-Octadecene, (E)-         | 160   | J         |     | 21.5       | ug/Kg             |
| 000082-05-3 | 7H-Benz[de]anthracen-7-one | 93.0  | J         |     | 21.6       | ug/Kg             |
| 000192-97-2 | Benzo[e]pyrene             | 310   | J         |     | 25.0       | ug/Kg             |

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products