UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

Date: August 2017

Memo: Public Release of Validated Data Results for Sampling of the LaSalle Park Area Remedial Investigation of the Beck's Lake NPL Site

Subject: The City of South Bend and Honeywell took samples of the LaSalle Park Area as part of a Focused Remedial Investigation (RI) of the Beck's Lake NPL Site. Sampling was done under U.S. Environmental Protection Agency oversight and completed at the end of 2016. EPA and Indiana Department of Environmental Management (IDEM) are providing copies of the validated data tables prior to reaching final conclusions, as part of our community involvement efforts and to be open with the public and to communicate results to the affected communities and residents.[1] We strive to share information quickly and be open to discussing sampling data. Additional community outreach efforts, including public meetings, are being planned and will be announced when those plans are finalized.

Preliminary review of the data shows that the Park is safe for recreational use. Some potential risks have been identified for construction workers who may work on the planned expansion of the Charles Black Recreation Center. However, measures, including a Soil Management Plan and a Health and Safety Plan are being put in place to allow this project to safely proceed. EPA, IDEM, the City of South Bend and Honeywell continue to review the thousands of sampling data points and the final RI Report for the LaSalle Park area is expected to be released before the end of 2017.

As you review the data please keep the following in mind:

1. **Sample ID interpretation:** The Sample ID designations were used to label the samples and record the laboratory analytical results. The sample IDs lab results are included in Tables 1-14 and the locations of the samples are provided in the attached Figures. In general:

- the first five (5) digits of the sample designation indicates LPA for "LaSalle Park Area" and
- "XX" indicates grid cell number of sampling location,
- the next two (2) digits indicate sampling procedure and matrix (e.g., PS indicates Geoprobe® soil sample),
- the following three (3) digits indicate location number for that type of sample, and
- the last four (4) digits indicate sample depth interval, where applicable.

[1] Validated data was provided to EPA and IDEM in the August 11, 2017 Draft LaSalle Park Area Remedial Investigation Report

2. **Data flags in lab results tables:** Data flags are included in the tables in some instances. The standards are (u= not detected, reporting limit provided; R = result rejected; J = estimated value). In an investigation with this many samples, it is not unusual to have these data flags added to some samples in the data validation process.

3. **Results interpretation**: Values which exceed the screening level are not necessarily a problem, but indicate a location which needs to be looked at more thoroughly. The final interpretations of the results will be released in the forthcoming Remedial Investigation Report for the LaSalle Park Area and the human health risk assessment. Preliminary review of the data shows that the Park is safe for recreational use.

4. There are some formatting errors which will be corrected in the final report.

The table below the identifies where certain information can be found on the attached tables and corresponding figures which are being released.

Media	**Tables**	**Figures**
Summary	1, 2, 3	2-1
Surface Soil	9	2-3, 3-11, 3-12
Subsurface Soils	10A, 10B	2-4, 3-13 through 3-19
Monitoring well groundwater	11C	2-5
Groundwater Grab	11A, 11B	2-5
Soil Vapor	8, 12	2-6
Ambient Air	13	2-6
Sediment	14	2-7
Surface Water	15	2-7

If you have any questions about the data included in these Tables and Figures please contact:

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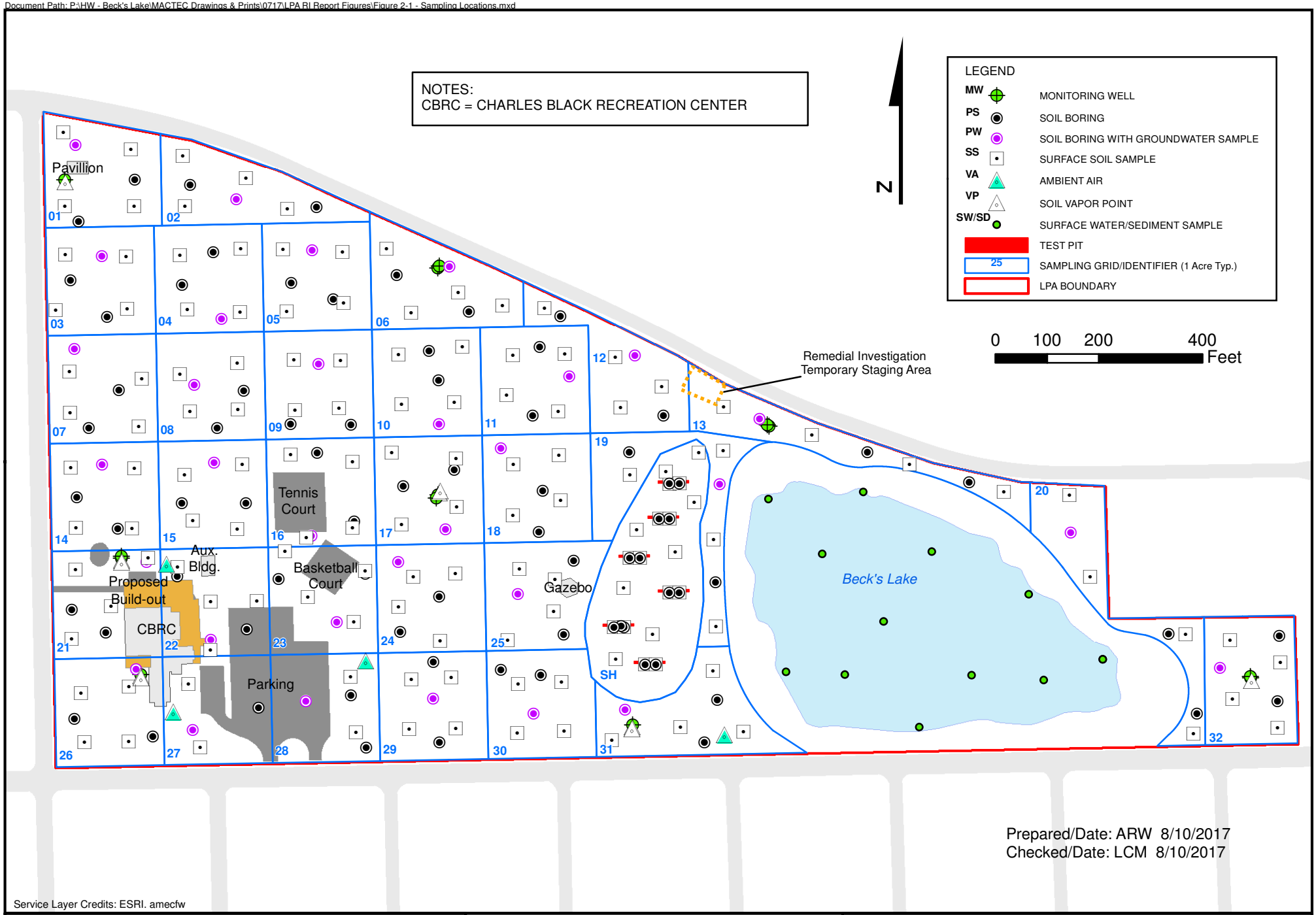
jfliss@idem.in.gov

Document Path: P:\HW - Beck's Lake\MACTEC Drawings & Prints\0717\LPA RI Report Figures\Figure 2-1 - Sampling Locations.mxd



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BECK'S LAKE SITE
LASALLE PARK AREA
SOUTH BEND, INDIANA

amec foster wheeler

INVESTIGATION SAMPLE LOCATIONS

FIGURE 2-1

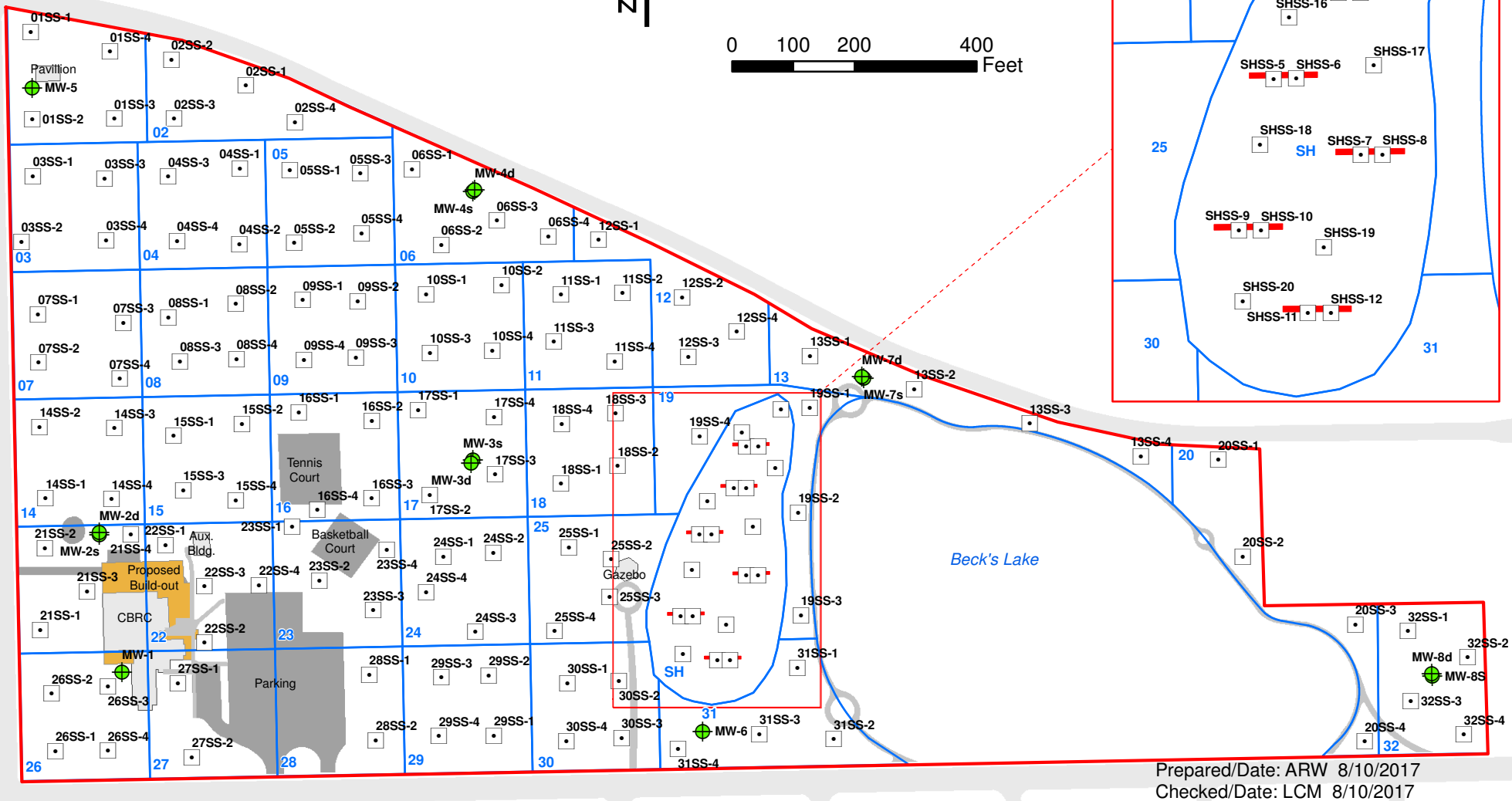
Document Path: P:\HW - Beck's Lake\MACTEC Drawings & Prints\0717\LPA RI Report Figures\Figure 2-3 - Surface Soil Sample Locations.mxd

NOTES:
CBRC - CHARLES BLACK RECREATION CENTER

LEGEND
MW — MONITORING WELL
SS — SURAFCE SOIL SAMPLE
TEST PIT
LASALLE PARK AREA BOUNDARY
25 — SAMPLING GRID/IDENTIFIER (1 Acre Typ.)

N

0 100 200 400 Feet



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BECK'S LAKE SITE
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SOUTH BEND, INDIANA

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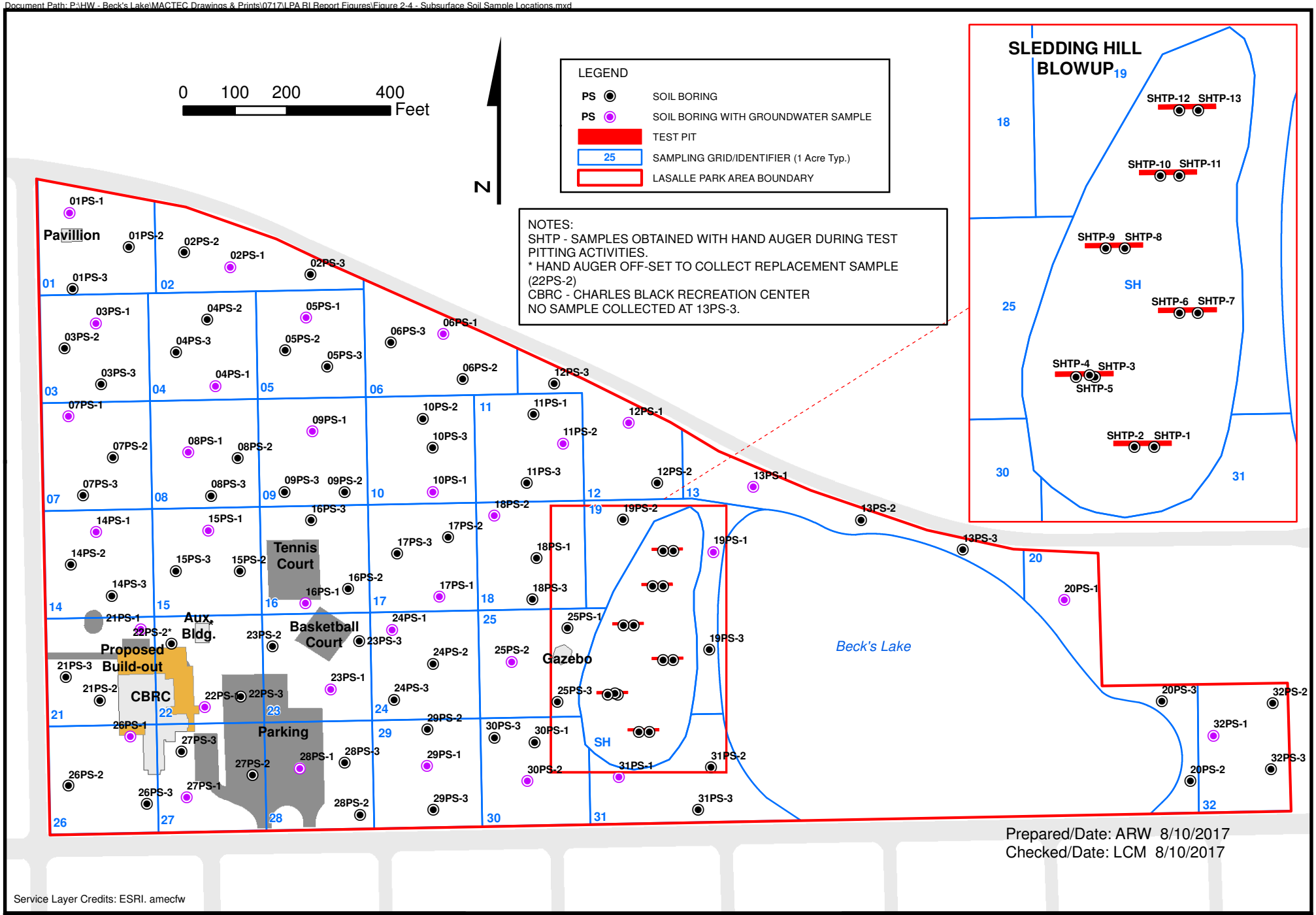
SURFACE SOIL SAMPLE LOCATIONS

FIGURE 2-3

Document Path: P:\HW - Beck's Lake\MACTEC Drawings & Prints\0717\LPA RI Report Figures\Figure 2-4 - Subsurface Soil Sample Locations.mxd



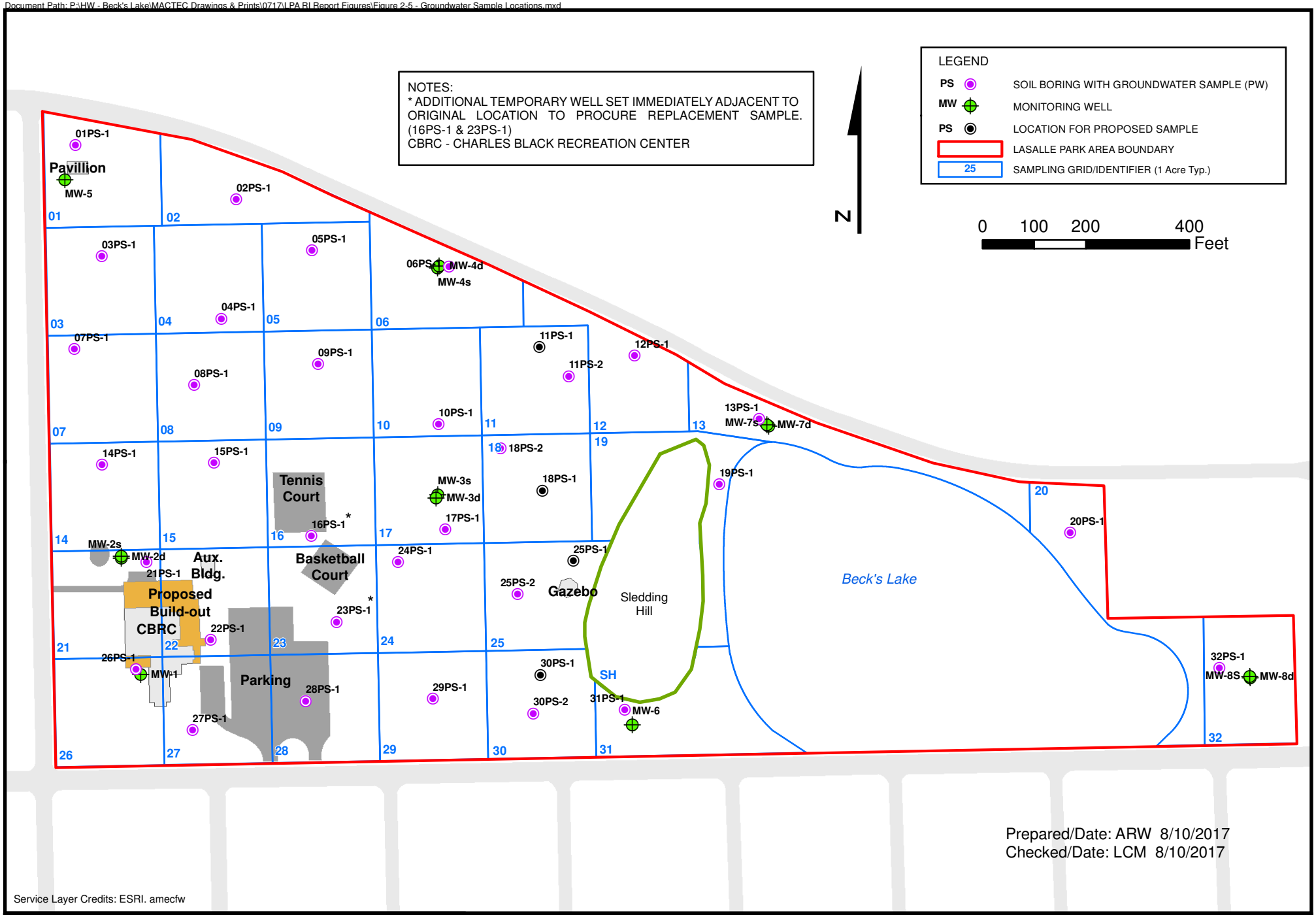
BECK'S LAKE SITE
LASALLE PARK AREA
SOUTH BEND, INDIANA

amec foster wheeler

SUBSURFACE SOIL SAMPLE LOCATIONS

FIGURE 2-4

Document Path: P:\HW - Beck's Lake\MACTEC Drawings & Prints\0717\LPA RI Report Figures\Figure 2-5 - Groundwater Sample Locations.mxd



BECK'S LAKE SITE
LASALLE PARK AREA
SOUTH BEND, INDIANA

amec foster wheeler

GROUNDWATER SAMPLING LOCATIONS

FIGURE 2-5

Document Path: P:\HW - Beck's Lake\MACTEC Drawings & Prints\0717\LPA RI Report Figures\Figure 2-6 - Soil Vapor Sampling Locations.mxd

NOTES:
CBRC = CHARLES BLACK RECREATION CENTER
SOIL VAPOR POINT 17VP-3d COULD NOT BE SAMPLED DURING THE OCTOBER 2016 VAPOR SAMPLING EVENT.

LEGEND
VA — AMBIENT AIR SAMPLE
VP — SOIL VAPOR POINT
LASALLE PARK AREA BOUNDARY
25 — SAMPLING GRID/IDENTIFIER (1 Acre Typ.)

N

0 100 200 400 Feet

Pavillion
01VP-5s
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
17VP-3s/d
21VP-2s/d
22VA-2
Aux. Bldg.
Proposed Build-out
CBRC
26VP-1s/d
27VA-1
28VA-3
Gazebo
Sledding Hill
SH
31VP-6s/d
31VA-4
Beck's Lake
32VP-8s

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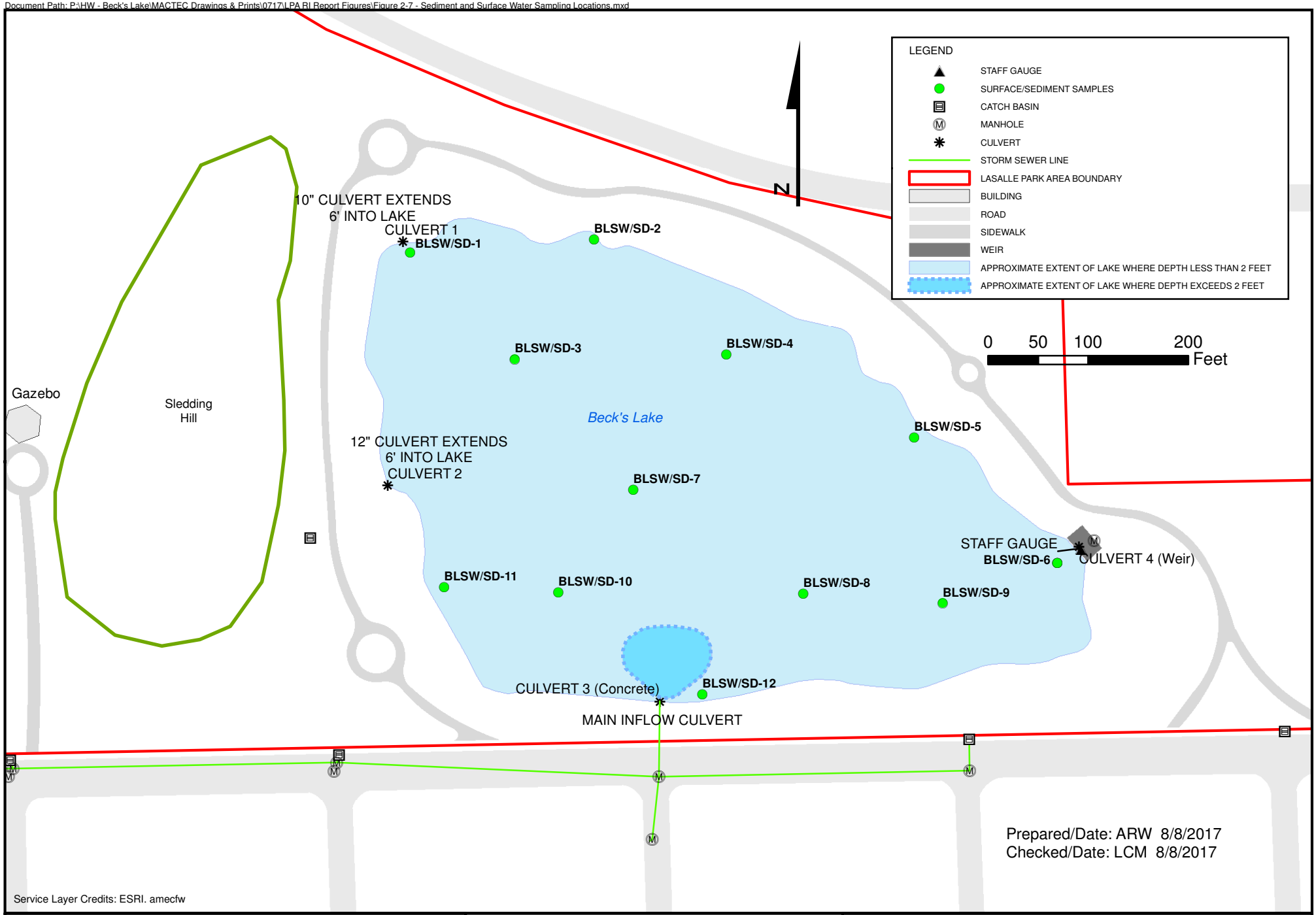
BECK'S LAKE SITE
LASALLE PARK AREA
SOUTH BEND, INDIANA

amec foster wheeler

VAPOR SAMPLING LOCATIONS

FIGURE 2-6

Document Path: P:\HW - Beck's Lake\MACTEC Drawings & Prints\0717\LPA RI Report Figures\Figure 2-7 - Sediment and Surface Water Sampling Locations.mxd



BECK'S LAKE SITE
LASALLE PARK AREA
SOUTH BEND, INDIANA

amec foster wheeler

SURFACE WATER AND SEDIMENT SAMPLING LOCATIONS

FIGURE 2-7

Document Path: P:\HW - Beck's Lake\MACTEC Drawings & Prints\0717\LPA RI Report Figures\Figure 3-11 - Surface Soil Arsenic.mxd

NOTES:
All results in milligrams per kilogram (mg/kg).
BOLD = Exceeds 2017 Default Residential Soil Direct Contact (IDEM-9.5mg/kg).
PURPLE = Exceed 2017 Community Park Recreational Soil Direct Contact Screening Level (IDEM-45mg/kg).
( ) = Duplicate result
Samples SHSS-1 through SHSS-12 collected as discrete grab samples. All others collected from Five-point composite.

LEGEND
- SURFACE SOIL SAMPLES (mg/kg)
- LASALLE PARK AREA BOUNDARY
- 20 SAMPLING GRID/IDENTIFIER (1 Acre Typ.)
- ASPHALT
- BUILDING
- PROPOSED BUILDING
- ROAD

0 100 200 400 Feet

N

SLEDDING HILL BLOWUP

Beck's Lake

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BECK'S LAKE SITE
LASALLE PARK AREA
SOUTH BEND, INDIANA

amec foster wheeler

SURFACE SOIL ARSENIC
CONCENTRATION RESULTS

FIGURE 3-11

Document Path: P:\HW - Beck's Lake\MACTEC Drawings & Prints\0717\LPA RI Report Figures\Figure 3-12 - Surface Soil Lead Concentration Results.mxd

NOTES:
All results in milligrams per kilogram (mg/kg).
BOLD = Exceeds 2017 Default Residential Soil Direct Contact (IDEM-9.5mg/kg).
PURPLE = Exceed 2017 Community Park Recreational Soil Direct Contact Screening Level (IDEM-45mg/kg).
( ) = Duplicate result
Samples SHSS-1 through SHSS-12 collected as discrete grab samples. All others collected from Five-point composite.

LEGEND
- SURFACE SOIL SAMPLES (mg/kg)
- LPA BOUNDARY
- 20 SAMPLING GRID/IDENTIFIER (1 Acre Typ.)
- ASPHALT
- BUILDING
- PROPOSED BUILDING
- ROAD

0 100 200 400 Feet

N

SLEDDING HILL BLOWUP

Beck's Lake

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BECK'S LAKE SITE
LASALLE PARK AREA
SOUTH BEND, INDIANA

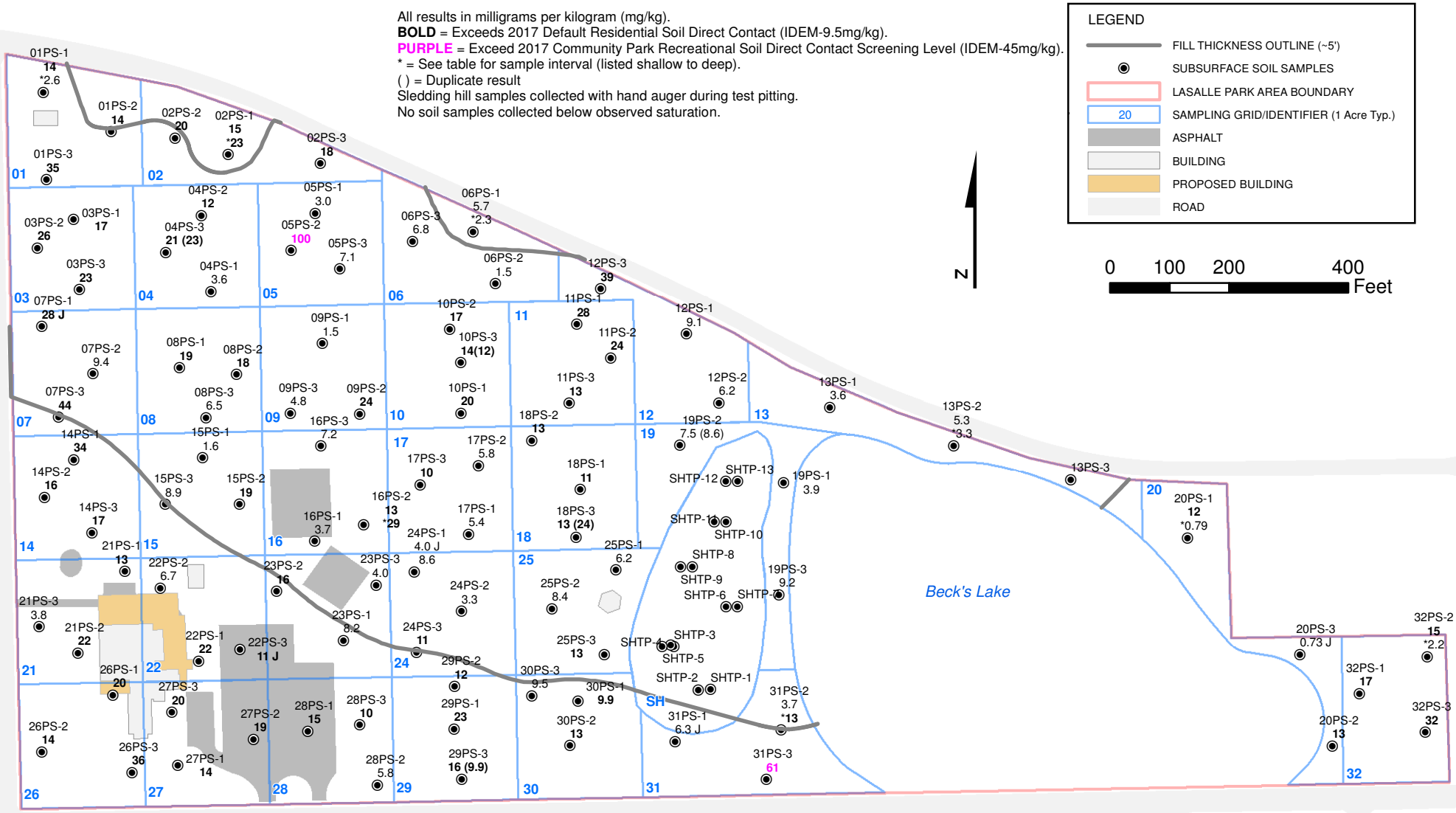
amec foster wheeler

SURFACE SOIL LEAD CONCENTRATION RESULTS

FIGURE 3-12

Document Path: P:\HW - Beck's Lake\MACTEC Drawings & Prints\0717\LPA RI Report Figures\Figure 3-13 - Shallow SubSurface Arsenic Concentration Results.mxd

All results in milligrams per kilogram (mg/kg).
BOLD = Exceeds 2017 Default Residential Soil Direct Contact (IDEM-9.5mg/kg).
PURPLE = Exceed 2017 Community Park Recreational Soil Direct Contact Screening Level (IDEM-45mg/kg).
* = See table for sample interval (listed shallow to deep).
( ) = Duplicate result
Sledding hill samples collected with hand auger during test pitting.
No soil samples collected below observed saturation.



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BECK'S LAKE SITE
LASALLE PARK AREA
SOUTH BEND, INDIANA

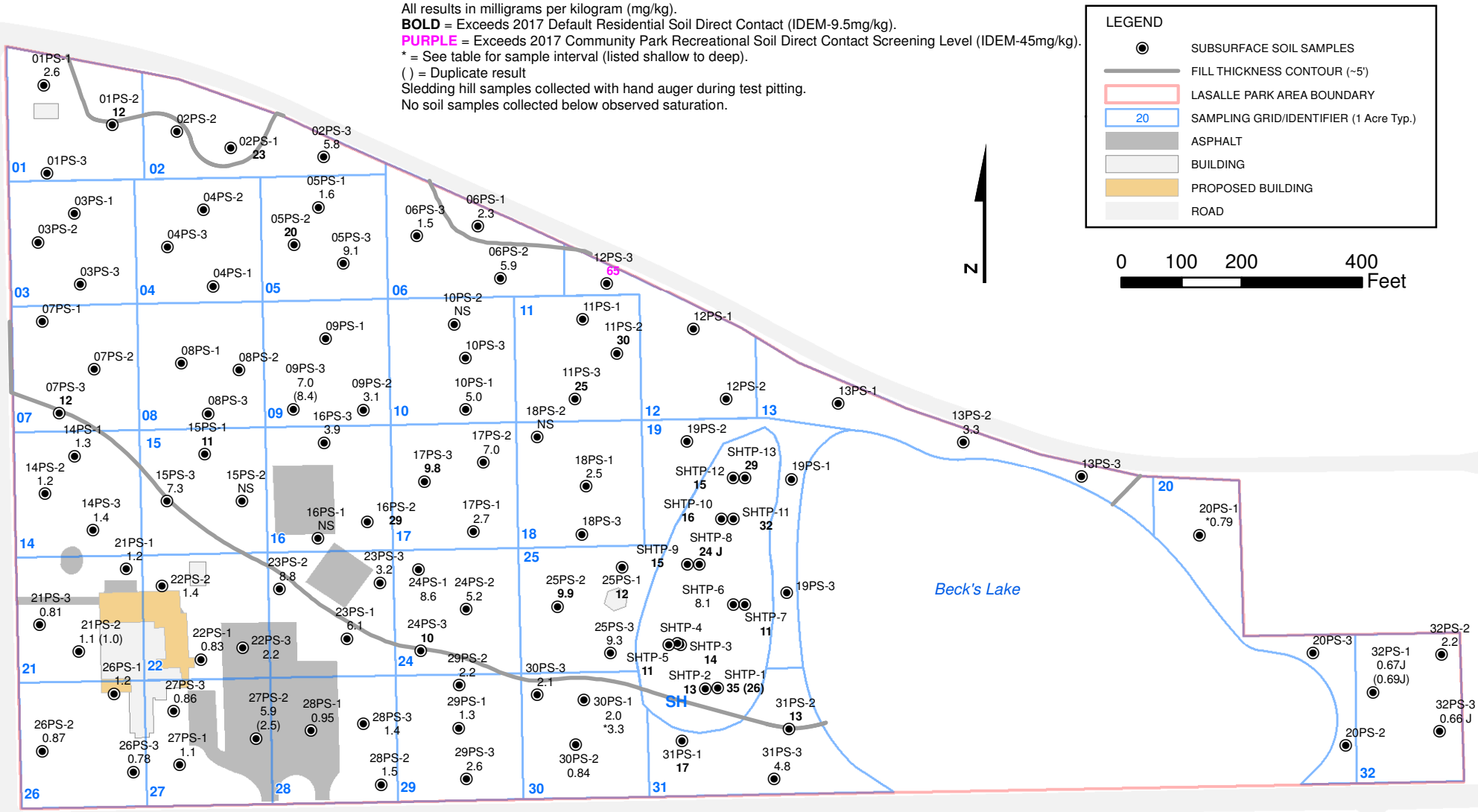
amec foster wheeler

SHALLOW (~1-5 FT) SUBSURFACE SOIL
ARSENIC CONCENTRATION RESULTS

FIGURE 3-13

Document Path: P:\HW - Beck's Lake\MACTEC Drawings & Prints\0717\LPA RI Report Figures\Figure 3-14 - Intermediate SubSurface Arsenic Concentration Results.mxd

All results in milligrams per kilogram (mg/kg).
BOLD = Exceeds 2017 Default Residential Soil Direct Contact (IDEM-9.5mg/kg).
PURPLE = Exceeds 2017 Community Park Recreational Soil Direct Contact Screening Level (IDEM-45mg/kg).
* = See table for sample interval (listed shallow to deep).
( ) = Duplicate result
Sledding hill samples collected with hand auger during test pitting.
No soil samples collected below observed saturation.



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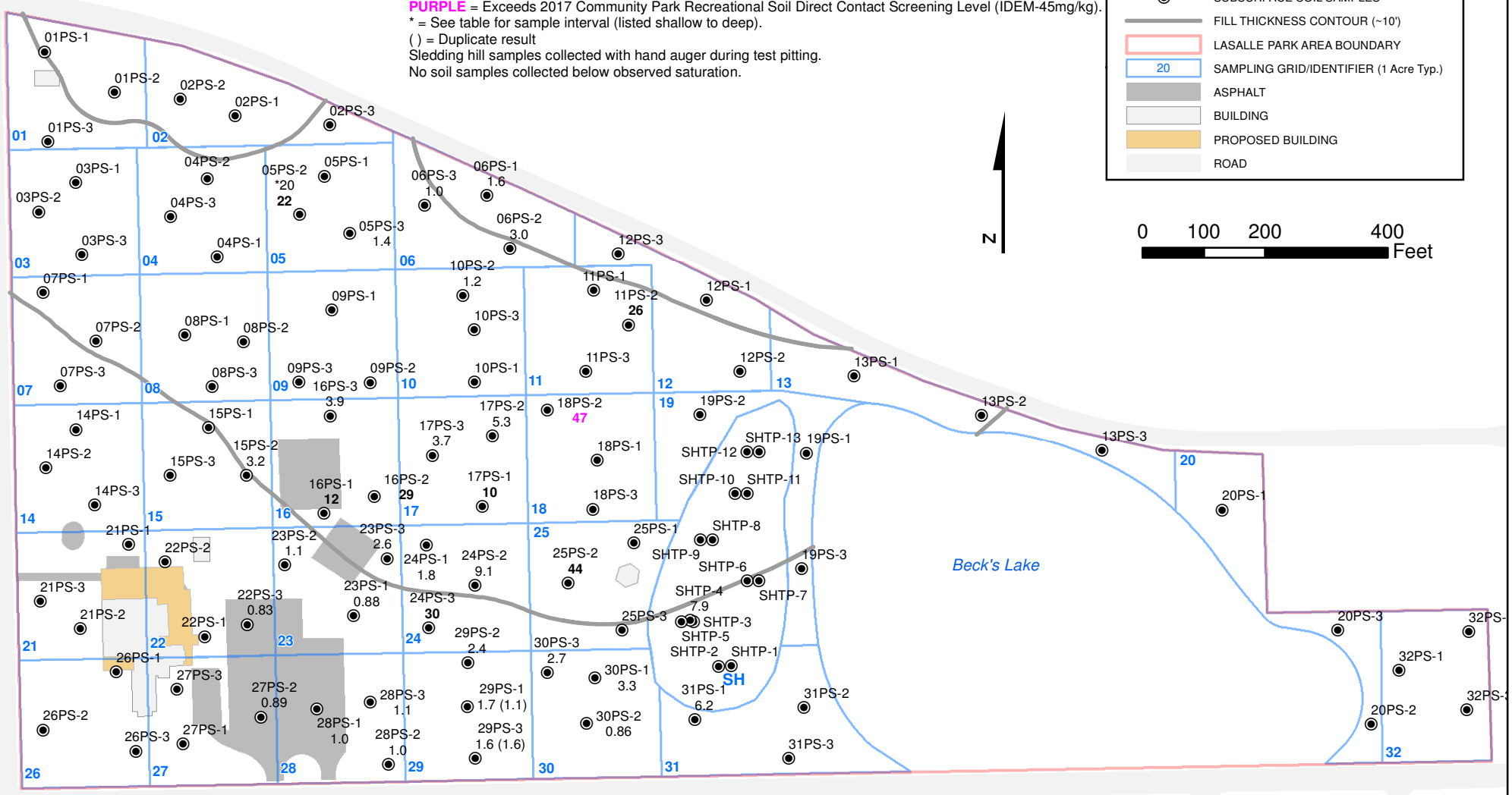
BECK'S LAKE SITE LASALLE PARK AREA SOUTH BEND, INDIANA	amec foster wheeler	INTERMEDIATE (~5-10 FT) SUBSURFACE SOIL ARSENIC CONCENTRATION RESULTS FIGURE 3-14

Document Path: P:\HW - Beck's Lake\MACTEC Drawings & Prints\0717\LPA RI Report Figures\Figure 3-15 - Deep SubSurface Arsenic Concentration Results.mxd

All results in milligrams per kilogram (mg/kg).
BOLD = Exceeds 2017 Default Residential Soil Direct Contact (IDEM-9.5mg/kg).
PURPLE = Exceeds 2017 Community Park Recreational Soil Direct Contact Screening Level (IDEM-45mg/kg).
* = See table for sample interval (listed shallow to deep).
( ) = Duplicate result
Sledding hill samples collected with hand auger during test pitting.
No soil samples collected below observed saturation.



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BECK'S LAKE SITE LASALLE PARK AREA SOUTH BEND, INDIANA	amec foster wheeler	DEEP (≥10FT) SUBSURFACE SOIL ARSENIC CONCENTRATION RESULTS EXHIBIT 3-15

Document Path: P:\HW - Beck's Lake\MACTEC Drawings & Prints\0717\LPA RI Report Figures\Figure 3-16 - Shallow SubSurface Lead Concentration Results.mxd

All results in milligrams per kilogram (mg/kg).
BOLD = Exceeds 2017 Default Residential Soil Direct Contact (IDEM-400mg/kg).
PURPLE = Exceeds 2017 Community Park Recreational Soil Direct Contact Screening Level (IDEM-800mg/kg).
* = See table for sample interval (listed shallow to deep).
( ) = Duplicate result
Sledding hill samples collected with hand auger during test pitting.
No soil samples collected below observed saturation.
ND = Not detected (see table for reporting limit)

LEGEND
- SUBSURFACE SOIL SAMPLES
- FILL THICKNESS CONTOUR (~5')
- LASALLE PARK AREA BOUNDARY
- 20 SAMPLING GRID/IDENTIFIER (1 Acre Typ.)
- ASPHALT
- BUILDING
- PROPOSED BUILDING
- ROAD

N

0 100 200 400 Feet

01PS-1 250 *20
01PS-2 67
01PS-3 1300
02PS-2 1200
02PS-1 1000 J *330
02PS-3 22000
03PS-1 840
03PS-2 420
03PS-3 1200
04PS-1 670
04PS-2 1600
04PS-3 2100 (2100)
05PS-1 210 J
05PS-2 280
05PS-3 1900
06PS-1 3.7 *1.1
06PS-2 81
06PS-3 1200
07PS-1 1300
07PS-2 190
07PS-3 720
08PS-1 2300
08PS-2 2400
08PS-3 160
09PS-1 6.1
09PS-2 860 J
09PS-3 170
10PS-1 1500
10PS-2 380
10PS-3 290 (220)
11PS-1 750
11PS-2 1300
11PS-3 400
12PS-1 210
12PS-2 24
12PS-3 390
13PS-1 8.1
13PS-2 390 *140
13PS-3 74
14PS-1 1.6
14PS-2 1.6
14PS-3 24
15PS-1 9.6
15PS-2 630
15PS-3 330
16PS-1 65
16PS-2 100 *3300
16PS-3 230
17PS-1 26
17PS-2 570
17PS-3 1400
18PS-1 1200
18PS-2 520
18PS-3 3400 (4600)
19PS-1 71
19PS-2 *410 (97)
19PS-3 74
20PS-1 1.7 *7.7
20PS-2 120
20PS-3 1.4
21PS-1 150
21PS-2 3.6
21PS-3 1.7
22PS-1 6.4
22PS-2 75
22PS-3 160 J
23PS-1 320
23PS-2 1600
23PS-3 150
24PS-1 1500 *200
24PS-2 21
24PS-3 380
25PS-1 18
25PS-2 510
25PS-3 240
26PS-1 3.3
26PS-2 1.8
26PS-3 1.9
27PS-1 ND
27PS-2 ND
27PS-3 12
28PS-1 130
28PS-2 2.6
28PS-3 1300
29PS-1 9.3
29PS-2 6.3
29PS-3 34
30PS-1 480
30PS-2 33
30PS-3 290
31PS-1 19
31PS-2 42
31PS-3 4.6
32PS-1 1.4
32PS-2 3.3 *1.7
32PS-3 6.2
SHTP-1
SHTP-2
SHTP-3
SHTP-4
SHTP-5
SHTP-6
SHTP-7
SHTP-8
SHTP-9
SHTP-10
SHTP-11
SHTP-12
SHTP-13
SH

Beck's Lake (LPABL)

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BECK'S LAKE SITE
LASALLE PARK AREA
SOUTH BEND, INDIANA

amec foster wheeler

SHALLOW (~1-5 FT) SUBSURFACE SOIL
LEAD CONCENTRATION RESULTS

FIGURE 3-16

Document Path: P:\HW - Beck's Lake\MACTEC Drawings & Prints\0717\LPA RI Report Figures\Figure 3-17 - Intermedate SubSurface Lead Concentration Results.mxd

All results in milligrams per kilogram (mg/kg).
BOLD = Exceeds 2017 Default Residential Soil Direct Contact (IDEM-400mg/kg).
PURPLE = Exceeds 2017 Community Park Recreational Soil Direct Contact Screening Level (IDEM-800mg/k
* = See table for sample interval (listed shallow to deep).
( ) = Duplicate result
Sledding hill samples collected with hand auger during test pitting.
No soil samples collected below observed saturation.
ND = Not detected (see table for reporting limit)

LEGEND
- SUBSURFACE SOIL SAMPLES
- FILL THICKNESS CONTOUR (~5')
- LASALLE PARK AREA BOUNDARY
- 20 SAMPLING GRID/IDENTIFIER (1 Acre Typ.)
- ASPHALT
- BUILDING
- PROPOSED BUILDING
- ROAD

N

0 100 200 400 Feet

01PS-1 20
01PS-2 55
01PS-3
02PS-2
02PS-1 330
02PS-3 73
03PS-1
03PS-2
03PS-3
04PS-2
04PS-3
04PS-1
05PS-1 36
05PS-2 **470**
05PS-3 43
06PS-3 19
06PS-1 1.1
06PS-2 290
12PS-3 2.2
07PS-1
07PS-2
07PS-3 5.4
08PS-1
08PS-2
08PS-3
09PS-1
09PS-3 910(2100)
09PS-2 38
16PS-3 71
10PS-2
10PS-3
10PS-1 110
11PS-1
11PS-2 230
11PS-3 850
12PS-1
12PS-2
13PS-1
13PS-2 140
13PS-3
14PS-1 2.2
14PS-2 1.5
14PS-3 1.5
15PS-1 1500
15PS-3 ND
15PS-2
16PS-2 3300
16PS-1
17PS-2 680
17PS-3 270
17PS-1 76
18PS-2
18PS-1 31
18PS-3
19PS-2
19PS-1
19PS-3
20PS-1 7.7
20PS-3
20PS-2
21PS-1 1.5
21PS-3 1.5
21PS-2 1.4 (1.2)
22PS-2 1.3
22PS-1 1.3
22PS-3 1.2
23PS-2 ND
23PS-3 21
23PS-1 2.2
24PS-1 200
24PS-2 140
24PS-3 48
25PS-1 **490**
25PS-2 **770**
25PS-3 **930**
26PS-1 1.4
26PS-2 1.4
26PS-3 2.3
27PS-3 1.4
27PS-1 1.5
27PS-2 1.5 (1.1)
28PS-1 1.8
28PS-3 1.5
28PS-2 1.9
29PS-2 1.8
29PS-1 1.7
29PS-3 2.2
30PS-3 ND
30PS-1 ND
*ND
30PS-2 2.3
31PS-1 3.7
31PS-2 260
31PS-3 1.5
32PS-2 1.7
32PS-1 1.2 (1.3)
32PS-3 1.3
SHTP-12 16
SHTP-13 64
SHTP-10 25
SHTP-11 45
SHTP-8 30
SHTP-9 38
SHTP-6 27
SHTP-7 25
SHTP-4
SHTP-5 57
SHTP-2 25
SHTP-1 27 (33)
SH
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 24 25 26 27 28 29 30 31 32

Beck's Lake

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BECK'S LAKE SITE
LASALLE PARK AREA
SOUTH BEND, INDIANA

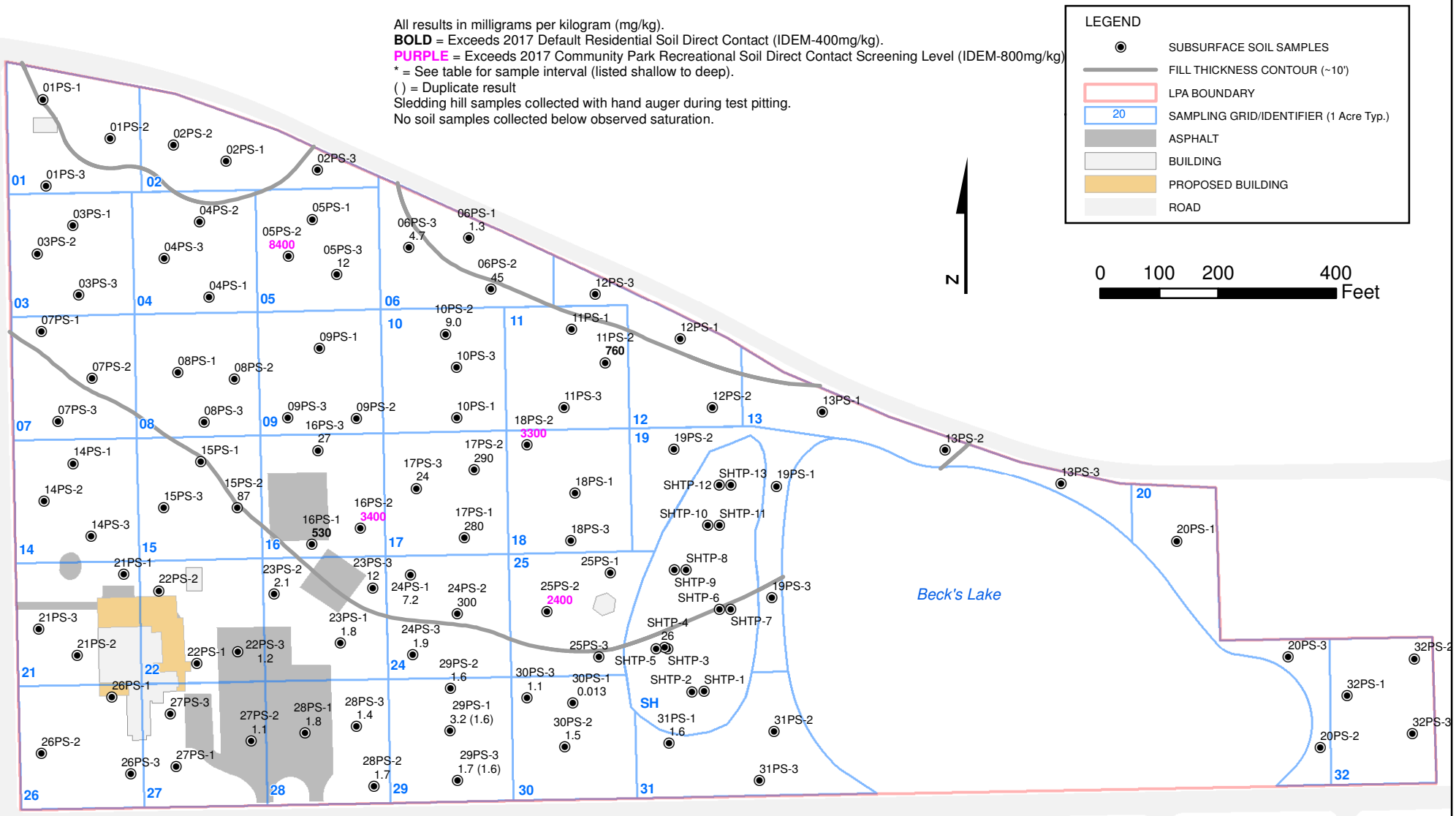
amec foster wheeler

INTERMEDIATE (~5-10 FT) SUBSURFACE SOIL
LEAD RESULTS CONCENTRATION RESULTS

FIGURE 3-17

Document Path: P:\HW - Beck's Lake\MACTEC Drawings & Prints\0717\LPA RI Report Figures\Figure 3-18 - Deep SubSurface Lead Concentration Results.mxd

All results in milligrams per kilogram (mg/kg).
BOLD = Exceeds 2017 Default Residential Soil Direct Contact (IDEM-400mg/kg).
PURPLE = Exceeds 2017 Community Park Recreational Soil Direct Contact Screening Level (IDEM-800mg/kg)
* = See table for sample interval (listed shallow to deep).
( ) = Duplicate result
Sledding hill samples collected with hand auger during test pitting.
No soil samples collected below observed saturation.



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BECK'S LAKE SITE LASALLE PARK AREA SOUTH BEND, INDIANA	amec foster wheeler	DEEP (≥10 FT) SUBSURFACE SOIL LEAD CONCENTRATION RESULTS FIGURE 3-18

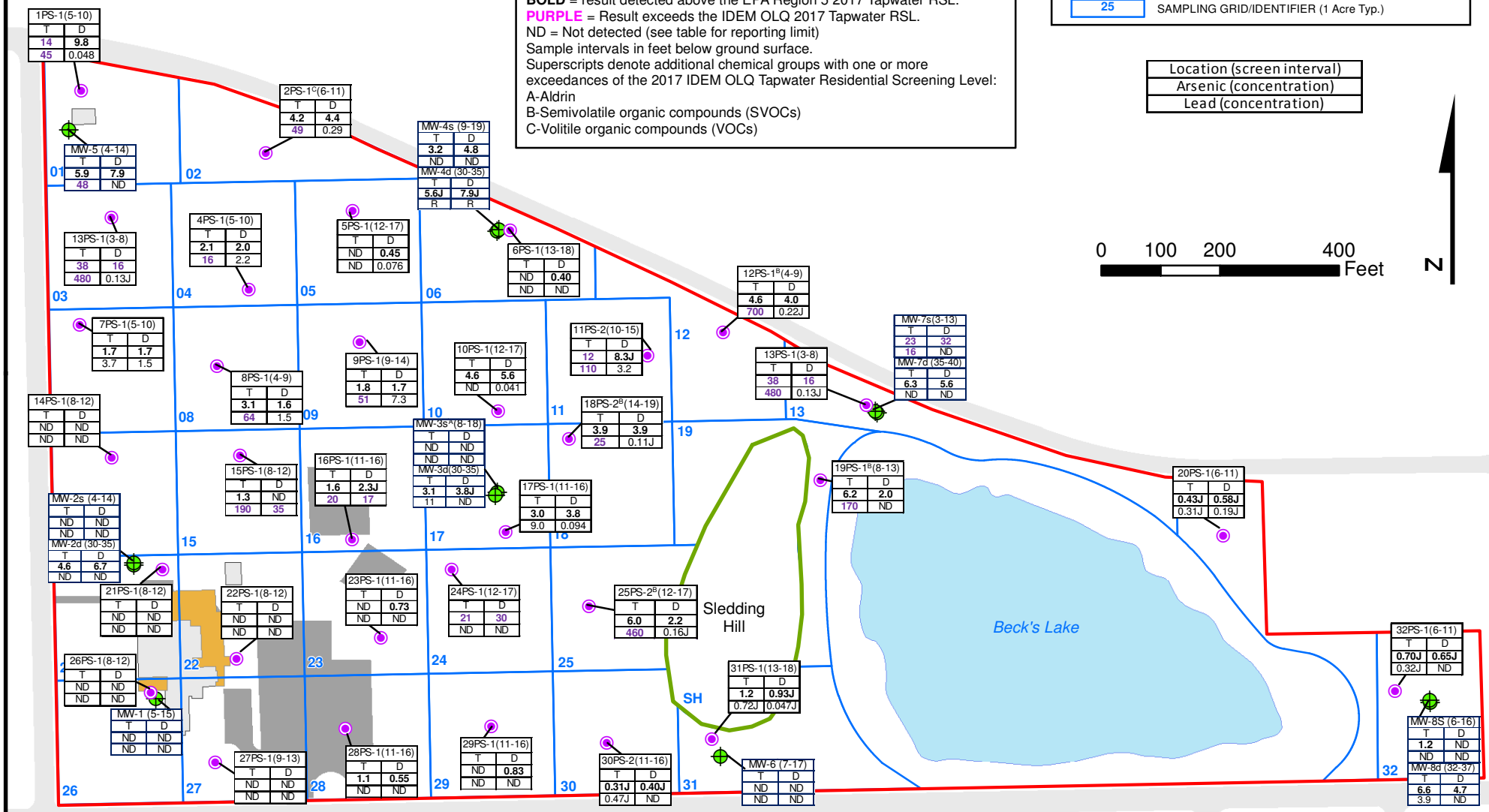
Document Path: P:\HW - Beck's Lake\MACTEC Drawings & Prints\0717\LPA RI Report Figures\Figure 3-19 - Groundwater Concentration Results .mxd

NOTES:
All results in milligrams per liter (mg/L).
J = Concentration is an estimated value
T = Total (unfiltered) result
D = Dissolved (filtered) result
BOLD = result detected above the EPA Region 5 2017 Tapwater RSL.
PURPLE = Result exceeds the IDEM OLQ 2017 Tapwater RSL.
ND = Not detected (see table for reporting limit)
Sample intervals in feet below ground surface.
Superscripts denote additional chemical groups with one or more exceedances of the 2017 IDEM OLQ Tapwater Residential Screening Level:
A-Aldrin
B-Semivolatile organic compounds (SVOCs)
C-Volitile organic compounds (VOCs)

LEGEND
MW — MONITORING WELL
PS — SOIL BORING WITH GROUNDWATER SAMPLE (PW)
LASALLE PARK AREA BOUNDARY
25 — SAMPLING GRID/IDENTIFIER (1 Acre Typ.)

Location (screen interval)
Arsenic (concentration)
Lead (concentration)

0 100 200 400 Feet
N



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BECK'S LAKE SITE
LASALLE PARK AREA
SOUTH BEND, INDIANA

amec foster wheeler

GROUNDWATER CONCENTRATION RESULTS
(SELECT METALS)

FIGURE 3-19

Table 1. Summary of Field Sampling Activities Compared to Proposed Activities
Beck's Lake LaSalle Park Area
South Bend, IN

Sample Media by Activity	Proposed Locations	Number of Locations	Changes from Original Project Planning Documents (PPDs)
Surface Soil (Discrete sampling; pre-test pitting)	0	12	Two (2) surface soil samples were collected as discrete samples at each of the six (6) test pit locations to evaluate conditions prior to excavator mobilization. Samples were used for test pit decontamination procedure assessment and investigative derived waste management.
Surface Soil (five (5)-point composites)	132	132	The proposed locations of 18SS-1 and 24SS-2 were shifted at the request of the EPA based on geophysical findings. No other changes from the PPDs.
Geoprobe® Subsurface Soil	96	97	A replacement volatile organic carbon (VOC) sample was obtained by advancing a handauger to 8 feet below ground surface (ft bgs) adjacent to geoprobe® sampling location 22PS-2. The VOC hold time on the primary sample had expired. No separate boring log was prepared. No soil sample was collected at boring 13PS-3 due to shallow water encountered. The proposed locations of 01PS-1, 01PS-3, 03PS-1 and 08-PS-2 were shifted at the request of the EPA based on geophysical findings.
Test Pit Subsurface Samples	12	13	Subsurface soils were collected with a hand auger during test pitting activities. An additional subsurface soil sample was collected from location SHTP-4 at 10 ft bgs due to evaluate odors encountered during test pitting. All six (6) test pits were opened to nominal dimensions specified in PPDs. No demarcation layer was set below the topsoil during restoration and excess soil was staged, characterized and disposed of off-Site.
Groundwater (Grab) Samples	32	34	Replacement samples were collected from temporary wells set immediately adjacent to boring locations 16PS-1 and 23PS-1. A portion of the samples had been damaged at or during shipment to the laboratory. No separate boring logs were prepared. In grid cells 11, 18, 25 and 30 low groundwater yield prevented grab groundwater sampling in the 001 borehole; samples were collected form the 002 borehole. The proposed location of 01PS-1 was shifted at the request of the EPA based on geophysical findings.
Groundwater Monitoring Wells	8 Water Table 5 Deep	8 Water Table 5 Deep	No change from PPDs related to installtion, development or sampling of the proposed monitoring wells. Deep monitoring wells were installed to coincide approximately with the depth of a low permeability unit/deepest vertical extent of fill (MW-3d). Two (2) existing monitoring wells were located along the western shores of Beck's Lake. These wells were labeled as MW-B2 and MW-B4. Their locations and top of casing elevation was surveyed and the depth to water gauged in each well. Groundwater from the discovered wells was not sampled.
Soil Vapor	6 Shallow 6 Deep	6 Shallow 4 Deep	Shallow water table conditions prevented installation of deep sample points at 01VP-5 and 32VP-8 locations. Though installed, 17VP-3d could not be sampled (possibly due to shallow groundwater).
Ambient Air	4	4	Two per soil vapor sampling event in accordance with the PPDs
Sediment	12	12	No change from PPDs
Surface Water	12	12	No change from PPDs

Created by: LM 08/01/17
Checked by: SM 08/04/17

Notes:
LPA = LaSalle Park Area
PCBs = poly-chlorinated biphenyls
SVOCs = semi-volatile organic compounds
VOCs = Volatile organic compounds
TAL = Target analyte list
TCL = Target compound list
PPDs = Project planning documents
ft bgs = feet below ground surface

Table 2. Summary of Field Sample Collection for Laboratory Analyses
Beck's Lake LaSalle Park Area
South Bend, IN

Sample Media	Number of Samples	Objectives and Rationale
Surface Soil (Pre-test pitting discrete samples)	12 Primary 1 Duplicate	Surface soil samples were collected from each test pit location (two [2] per pit) to evaluate conditions prior to excavator mobilization. Samples were collected from a single, discrete core for TAL metals and asbestos. SVOCs (including 1,4-dioxane), PCBs and cyanide were analyzed at six (6) sample locations (one [1] per test pit).
Surface Soil (five (5)-point composites)	132 Primary 6 Duplicate	Surface soil samples were collected across the LPA (approximately four [4] per acre) to evaluate risks associated with direct contact to TAL metals and asbestos. SVOCs (including 1,4-dioxane), PCBs and cyanide were analyzed at a frequency of approximately one [1] per grid-cell.
Subsurface Soil	209 Primary 11 Duplicates	To characterize subsurface soils and assess fill depth and extent, 96 Geoprobe ® borings (three [3] per grid-cell) and six (6) test pits were advanced at the LPA. One (1) to three (3) soil samples from each boring (excluding 13PS-3 where no sample was collected). Typically one (1) sample collected from each 4-foot Macro Core); and a total of two (2) to three (3) soil samples from each test pit (hand auger). Samples were collected from above the water table for laboratory analysis of TCL VOCs, TAL Metals, Pesticides, PCBs, SVOCs, cyanide and asbestos. One replacement VOC sample was collected from an adjacent hand auger boring. Additional analyses beyond the PPDs included total organic carbon and soil pH.
Groundwater (Grab) Samples	34 Primary 2 Duplicate	Grab groundwater samples were collected from the water table at 32 locations (one [1] per grid-cell) via 1-inch diameter temporary wells (four (4) to five (5) foot long screens used) to characterize groundwater quality. Groundwater samples were submitted to the laboratory for analysis of TCL VOCs, TAL metals (filtered and unfiltered), pesticides, PCBs, SVOCs and cyanide. Samples for VOC analysis were collected with a disposable bailer (minimize volatilization). At two (2) locations replacement samples (damaged original) were obtained from temporary wells.
Groundwater Monitoring Wells	13 Primary 2 Duplicate	To further characterize groundwater quality and flow direction, eight (8) monitoring wells were constructed at the water table and five (5) deep monitoring wells were constructed at a depth coinciding with the maximum depth of fill encountered in the LPA (~35 ft bgs). Groundwater samples collected from each monitoring well constructed in the LPA were submitted to the laboratory for analysis of TCL VOCs, TAL metals (filtered and unfiltered), pesticides, PCBs, SVOCs and cyanide. All wells were surveyed by a licensed surveyor. Two (2) historic monitoring wells encountered during the investigation were surveyed and used for groundwater elevation determination, but were not sampled as no well construction details were available.
Soil Vapor	9 Primary 1 Duplicate	Soil vapor points were installed at six (6) locations, to determine if soil vapor off-gassing from groundwater or vadose zone soils occurs above applicable screening levels. Six (6) shallow points were installed and sampled. Only three (3) of the proposed six (6) deep points could be sampled due to shallow groundwater conditions. Soil vapor was analyzed by Method TO-15 for VOCs, 1,4-dioxane and naphthalene. Soil vapor sampling was during two (2) separate mobilizations.
Ambient Air	4 Primary	Two (2) ambient air samples were collected at the level of the breathing zone upwind and downwind of nested soil vapor sample locations during both soil vapor sampling events. Ambient air samples were also Assessed by the TO-15 method and are used to evaluate the potential contribution of background ambient air to soil vapor results.
Sediment	12 Primary 1 Duplicate	To characterize sediment and determine the depth of Beck's Lake (constructed for storm water retention in the 1960s), 12 sediment cores were advanced one (1)-ft into the sediment column. Cores were obtained using Lexan® tubes for laboratory analysis of TCL VOCs, TAL metals, Pesticides, PCBs, SVOCs and cyanide. Additional analyses beyond the PPDs included total organic carbon and pH.
Surface Water	12 Primary 1 Duplicate	Surface water samples were collected Beck's Lake via fetch bottles and/or direct sampling at each (and prior to) sediment sampling location. Samples were submitted to the laboratory for laboratory analysis of TCL VOCs, TAL metals (unfiltered only), pesticides, PCBs, SVOCs and cyanide. Additional analyses beyond the PPDs included hardness (12). Field measurements included dissolved oxygen and pH.

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Notes:
LPA = LaSalle Park Area
PCBs = poly-chlorinated biphenyls
SVOCs = semi-volatile organic compounds
VOCs = Volatile organic compounds
TAL = Target analyte list
TCL = Target compound list
PPDs = Project planning documents
ft bgs = feet below ground surface

Table 3. Summary of Laboratory Analyses Performed
(Primary and Duplicate Samples)
Beck's Lake LaSalle Park Area
South Bend, IN

Analysis	SW-846 Method	Analyte	CAS No.	Groundwater			Soil			Sediment			Surface Water			Vapor		
				n	D	R	n	D	R	n	D	R	n	D	R	n	D	R
Target compound list (TCL) Volatile organic compounds (VOCs)	8260B (Vapor by TO-15)	1,1,1-TRICHLOROETHANE	71-55-6	49	0	0	219	1	4	13	0	0	13	0	0	14	0	0
		1,1,2,2-TETRACHLOROETHANE	79-34-5	49	0	0	219	0	4	13	0	0	13	0	0	14	0	0
		1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	49	0	0	219	0	4	13	0	0	13	0	0	14	0	0
		1,1,2-TRICHLOROETHANE	79-00-5	49	0	0	219	4	4	13	0	0	13	0	0	14	0	0
		1,1-DICHLOROETHANE	75-34-3	49	0	0	219	0	4	13	0	0	13	0	0	14	0	0
		1,1-DICHLOROETHENE	75-35-4	49	0	0	219	2	4	13	0	0	13	0	0	14	0	0
		1,2,4-TRICHLOROBENZENE	120-82-1	49	0	0	219	1	7	13	0	0	13	0	0	14	0	0
		1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	49	0	0	219	0	5	13	0	0	13	0	0	14	0	0
		1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE)	106-93-4	49	0	0	219	0	4	13	0	0	13	0	0	14	0	0
		1,2-DICHLOROBENZENE	95-50-1	49	0	0	219	3	4	13	0	0	13	0	0	14	0	0
		1,2-DICHLOROETHANE	107-06-2	49	1	0	219	1	4	13	0	0	13	0	0	14	4	0
		1,2-DICHLOROPROPANE	78-87-5	49	0	0	219	0	4	13	0	0	13	0	0	14	0	0
		1,2-DICHLOROTETRAFLUOROETHANE	76-14-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14	0	0
		1,3-DICHLOROBENZENE	541-73-1	49	0	0	219	0	4	13	0	0	13	0	0	14	0	0
		1,4-DICHLOROBENZENE	106-46-7	49	0	0	219	1	4	13	0	0	13	0	0	14	0	0
		2-HEXANONE	591-78-6	49	0	0	219	9	4	13	0	0	13	0	0	14	11	0
		ACETONE	67-64-1	49	15	0	219	112	5	13	13		13	13	0	14	14	0
		BENZENE	71-43-2	49	5	0	219	21	4	13	5		13	0	0	14	7	0
		BROMODICHLOROMETHANE	75-27-4	49	0	0	219	0	4	13	0	0	13	0	0	14	0	0
		BROMOFORM	75-25-2	49	0	0	219	0	5	13	0	0	13	0	0	14	0	0
		BROMOMETHANE	74-83-9	49	0	0	219	0	4	13	0	0	13	0	0	14	1	0
		CARBON DISULFIDE	75-15-0	49	0	0	219	40	4	13	0	0	13	0	0	14	9	0
		CARBON TETRACHLORIDE	56-23-5	49	0	0	219	0	4	13	0	0	13	0	0	14	2	0
		CHLOROBENZENE	108-90-7	49	0	0	219	2	4	13	0	0	13	0	0	14	0	0
		CHLOROETHANE	75-00-3	49	0	0	219	0	4	13	0	0	13	0	0	14	2	0
		CHLOROFORM	67-66-3	49	0	0	219	0	4	13	0	0	13	0	0	14	9	0
		CHLOROMETHANE	74-87-3	49	0	0	219	0	4	13	0	0	13	0	0	14	8	0
		CIS-1,2-DICHLOROETHYLENE	156-59-2	49	3	0	219	3	4	13	0	0	13	0	0	14	0	0
		CIS-1,3-DICHLOROPROPENE	10061-01-5	49	0	0	219	0	5	13	0	0	13	0	0	14	0	0
		CYCLOHEXANE	110-82-7	49	0	0	219	3	4	13	0	0	13	0	0	14	7	0
		DIBROMOCHLOROMETHANE	124-48-1	49	0	0	219	0	5	13	0	0	13	0	0	14	0	0
		DICHLORODIFLUOROMETHANE	75-71-8	49	0	0	219	0	4	13	0	0	13	0	0	14	11	0
		ETHANOL	64-17-5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6	4	0
		ETHYL ACETATE	141-78-6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6	6	0
		ETHYLBENZENE	100-41-4	49	2	0	219	14	4	13	0	0	13	0	0	14	12	0
		ISOPROPYLBENZENE (CUMENE)	98-82-8	49	2	0	219	15	4	13	0	0	13	0	0	14	0	0
		M,P-XYLENE (SUM OF ISOMERS)	179601-23-1	49	3	0	219	11	4	13	0	0	13	0	0	14	13	0
		METHYL ACETATE	79-20-9	49	0	0	219	0	4	13	0	0	13	0	0	14	0	0
		METHYL ETHYL KETONE (2-BUTANONE)	78-93-3	49	8	0	219	85	1	13	13	0	13	13	0	14	8	0
		METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	108-10-1	49	0	0	219	4	4	13	0	0	13	0	0	14	4	0
		METHYLCYCLOHEXANE	108-87-2	49	1	0	219	12	4	13	0	0	13	0	0	14	5	5
		METHYLENE CHLORIDE	75-09-2	49	0	0	219	84	4	13	11	0	13	0	0	14	9	0
		O-XYLENE (1,2-DIMETHYLBENZENE)	95-47-6	49	2	0	219	18	4	13	0	0	13	0	0	14	13	0
		STYRENE	100-42-5	49	0	0	219	1	4	13	0	0	13	0	0	14	11	0
		TERT-BUTYL METHYL ETHER	1634-04-4	49	0	0	219	2	4	13	0	0	13	0	0	14	2	0
		TETRACHLOROETHYLENE (PCE)	127-18-4	49	1	0	219	11	4	13	0	0	13	0	0	14	10	0
		TOLUENE	108-88-3	49	0	0	219	22	4	13	1	0	13	0	0	14	14	0
		TRANS-1,2-DICHLOROETHENE	156-60-5	49	2	0	219	1	4	13	0	0	13	0	0	14	0	0
		TRANS-1,3-DICHLOROPROPENE	10061-02-6	49	0	0	219	0	5	13	0	0	13	0	0	14	0	0
		TRICHLOROETHYLENE (TCE)	79-01-6	49	1	0	219	9	4	13	0	0	13	0	0	14	0	0
		TRICHLOROFLUOROMETHANE	75-69-4	49	0	0	219	1	3	13	0	0	13	0	0	14	2	0
		VINYL CHLORIDE	75-01-4	49	1	0	219	1	4	13	0	0	13	0	0	14	0	0
Semivolatile Organics (Selective Ion Microspcopy [SIM])																		
Semi-volatile organic compounds (SVOCs)	SW8270C-SIM	1,4-DIOXANE (P-DIOXANE)	123-91-1	49	23	10	259	2	13	13	0	13	13	1	13	0	NA	NA
		2-METHYLNAPHTHALENE	91-57-6	49	7	10	254	20	12	13	0	13	13	0	13	0	NA	NA
		ACENAPHTHENE	83-32-9	49	7	10	257	15	12	13	0	13	13	0	13	0	NA	NA
		ACENAPHTHYLENE	208-96-8	49	0	10	258	11	13	13	0	13	13	0	13	0	NA	NA
		ANTHRACENE	120-12-7	49	6	10	252	43	13	13	1	13	13	1	13	0	NA	NA
		BENZO(A)ANTHRACENE	56-55-3	49	9	10	226	85	13	13	11	13	13	2	13	0	NA	NA
		BENZO(A)PYRENE	50-32-8	49	7	10	232	73	13	13	11	13	13	2	13	0	NA	NA
		BENZO(B)FLUORANTHENE	205-99-2	49	11	10	213	93	10	13	13	13	13	7	13	0	NA	NA
		BENZO(G,H,I)PERYLENE	191-24-2	49	7	10	241	71	13	13	8	13	13	3	13	0	NA	NA
		BENZO(K)FLUORANTHENE	207-08-9	49	1	10	248	65	13	13	7	13	13	1	13	0	NA	NA
		CHRYSENE	218-01-9	49	9	10	226	92	12	13	11	13	13	5	13	0	NA	NA
		DIBENZ(A,H)ANTHRACENE	53-70-3	49	0	10	257	32	13	13	0	13	13	0	13	0	NA	NA
		FLUORENE	86-73-7	49	6	10	257	22	12	13	1	13	13	0	13	0	NA	NA
		INDENO(1,2,3-C,D)PYRENE	193-39-5	49	9	10	230	70	13	13	10	13	13	5	13	0	NA	NA
		NAPHTHALENE	91-20-3	48	5	10	256	21	13	13	1	13	13	0	13	0	NA	NA
		PHENANTHRENE	85-01-8	48	13	10	217	83	9	13	12	13	13	5	13	0	NA	NA

NOTES:

n= Total primary and field duplicates (only)
D= total number of samples detected
R=total number of samples rejected
CAS - Chemical Abstract Service
ASTM - American Society for Testing and Materials

WBLACK - Walkley Black Method
[1] Count includes total and dissolved (filtered) analyses performed for all groundwater samples
[2] Method applies to soil/sediment samples. Groundwater method applied is 335.4 Rv1.0
[3] Subsurface soil only; analyzed at a frequency of one interval per grid cell
All asbestos detections "<1%"

Created by: KS 8/1/17
Checked by: LM 8/7/17

Table 3. Summary of Laboratory Analyses Performed
(Primary and Duplicate Samples)
Beck's Lake LaSalle Park Area
South Bend, IN

Analysis	SW-846 Method	Analyte	CAS No.	Groundwater			Soil			Sediment			Surface Water			Vapor		
				n	D	R	n	D	R	n	D	R	n	D	R	n	D	R
Semi-volatile organic compounds (SVOCs)	8270C (Vapor by TO-15)	1,4-DIOXANE (P-DIOXANE)	123-91-1	49	1	1	260	0	10	13	0	1	NA	NA	NA	14	0	0
		2,4,5-TRICHLOROPHENOL	95-95-4	49	0	16	260	0	0	13	0	1	13	0	1	0	NA	NA
		2,4,6-TRICHLOROPHENOL	88-06-2	49	0	15	260	0	0	13	0	1	13	0	1	0	NA	NA
		2,4-DIMETHYLPHENOL	105-67-9	49	0	15	260	2	0	13	0	1	13	0	1	0	NA	NA
		2,4-DINITROPHENOL	51-28-5	49	0	14	260	0	0	13	0	1	13	0	1	0	NA	NA
		2,4-DINITROTOLUENE	121-14-2	49	0	1	260	0	0	13	0	1	13	0	0	0	NA	NA
		2,6-DINITROTOLUENE	606-20-2	49	0	0	260	0	0	13	0	1	13	0	0	0	NA	NA
		2-CHLORONAPHTHALENE	91-58-7	49	0	0	260	0	0	13	0	1	13	0	0	0	NA	NA
		2-CHLOROPHENOL	95-57-8	49	0	16	260	0	0	13	0	1	13	0	1	0	NA	NA
		2-METHYLNAPHTHALENE	91-57-6	49	2	0	260	23	0	13	1	1	NA	NA	NA	0	NA	NA
		2-METHYLPHENOL (O-CRESOL)	95-48-7	49	0	16	260	1	0	13	0	1	13	0	1	0	NA	NA
		2-NITROANILINE	88-74-4	49	0	0	260	0	0	13	0	1	13	0	0	0	NA	NA
		2-NITROPHENOL	88-75-5	49	0	16	260	0	0	13	0	1	13	0	1	0	NA	NA
		3,3'-DICHLOROBENZIDINE	91-94-1	49	0	1	260	0	0	13	0	1	13	0	0	0	NA	NA
		3,4-METHYLPHENOL (M,P CRESOL)	15831-10-4	49	1	16	260	2	0	13	0	1	13	0	1	0	NA	NA
		3-NITROANILINE	99-09-2	49	0	0	260	0	0	13	0	1	13	0	0	0	NA	NA
		4,6-DINITRO-2-METHYLPHENOL	534-52-1	49	0	16	260	0	0	13	0	1	13	0	1	0	NA	NA
		4-BROMOPHENYL PHENYL ETHER	101-55-3	49	0	0	260	0	0	13	0	1	13	0	0	0	NA	NA
		4-CHLORO-3-METHYLPHENOL	59-50-7	49	0	16	260	0	0	13	0	1	13	0	1	0	NA	NA
		4-CHLOROANILINE	106-47-8	49	0	0	260	0	0	13	0	1	13	0	0	0	NA	NA
		4-CHLOROPHENYL PHENYL ETHER	7005-72-3	49	0	0	260	0	0	13	0	1	13	0	0	0	NA	NA
		4-NITROANILINE	100-01-6	49	0	0	260	0	0	13	0	1	13	0	0	0	NA	NA
		4-NITROPHENOL	100-02-7	49	0	16	260	0	0	13	0	1	13	0	1	0	NA	NA
		ACENAPHTHENE	83-32-9	49	2	0	260	28	0	13	2	1	NA	NA	NA	0	NA	NA
		ACENAPHTHYLENE	208-96-8	49	0	1	260	6	0	13	0	1	NA	NA	NA	0	NA	NA
		ACETOPHENONE	98-86-2	49	0	0	260	0	0	13	0	1	13	0	0	0	NA	NA
		ANTHRACENE	120-12-7	49	0	1	260	57	0	13	2	1	NA	NA	NA	0	NA	NA
		ATRAZINE	1912-24-9	49	0	0	260	0	0	13	0	1	13	0	0	0	NA	NA
		BIPHENYL (DIPHENYL)	92-52-4	49	0	0	260	6	0	13	0	1	13	0	0	0	NA	NA
		BENZO(A)ANTHRACENE	56-55-3	49	2	1	260	128	0	13	7	1	NA	NA	NA	0	NA	NA
		BENZO(A)PYRENE	50-32-8	49	2	1	260	115	0	13	6	1	NA	NA	NA	0	NA	NA
		BENZO(B)FLUORANTHENE	205-99-2	49	2	1	260	136	0	13	10	0	NA	NA	NA	0	NA	NA
		BENZO(G,H,I)PERYLENE	191-24-2	49	0	1	260	84	0	13	2	1	NA	NA	NA	0	NA	NA
		BENZO(K)FLUORANTHENE	207-08-9	49	1	1	260	92	0	13	3	1	NA	NA	NA	0	NA	NA
		BENZALDEHYDE	100-52-7	49	0	0	260	1	0	13	0	1	13	0	0	0	NA	NA
		BIS(2-CHLOROETHYL) ETHER (2-CHLOROETHYL ETHER)	111-44-4	49	0	0	260	0	0	13	0	1	13	0	0	0	NA	NA
		BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	49	0	0	260	0	0	13	0	1	13	0	0	0	NA	NA
		BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	49	3	0	260	117	0	13	0	1	13	1	0	0	NA	NA
		CAPROLACTAM	105-60-2	49	6	7	260	0	0	13	0	1	13	0	0	0	NA	NA
		CARBAZOLE	86-74-8	49	1	0	260	32	0	13	1	1	13	0	0	0	NA	NA
		CHRYSENE	218-01-9	49	2	1	260	127	0	13	7	1	NA	NA	NA	0	NA	NA
		DIBENZ(A,H)ANTHRACENE	53-70-3	49	0	1	260	37	0	13	1	1	NA	NA	NA	0	NA	NA
		DIBENZOFURAN	132-64-9	49	0	0	260	21	0	13	1	1	13	0	0	0	NA	NA
		DIETHYL PHTHALATE	84-66-2	49	0	0	260	5	0	13	1	1	13	0	0	0	NA	NA
		DIMETHYL PHTHALATE	131-11-3	49	0	0	260	0	0	13	0	1	13	0	0	0	NA	NA
		DI-N-BUTYL PHTHALATE	84-74-2	49	1	0	260	19	0	13	11	0	13	0	0	0	NA	NA
		DI-N-OCTYLPHTHALATE	117-84-0	49	0	0	260	1	0	13	0	1	13	0	0	0	NA	NA
		FLUORENE	86-73-7	49	2	0	260	30	0	13	2	1	NA	NA	NA	0	NA	NA
		HEXACHLOROBENZENE	118-74-1	49	0	0	260	0	0	13	0	1	13	0	0	0	NA	NA
		HEXACHLOROBUTADIENE	87-68-3	49	0	0	260	0	0	13	0	1	13	0	0	0	NA	NA
		HEXACHLOROCYCLOPENTADIENE	77-47-4	49	0	0	260	0	1	13	0	2	13	0	0	0	NA	NA
		HEXACHLOROETHANE	67-72-1	49	0	0	260	0	0	13	0	1	13	0	0	0	NA	NA
		INDENO(1,2,3-C,D)PYRENE	193-39-5	49	1	1	260	85	0	13	2	1	NA	NA	NA	0	NA	NA
		ISOPHORONE	78-59-1	49	0	0	260	0	0	13	0	1	13	0	0	0	NA	NA
		NAPHTHALENE	91-20-3	49	3	0	260	29	0	13	1	1	NA	NA	NA	14	6	0
		NITROBENZENE	98-95-3	49	0	0	260	0	0	13	0	1	13	0	0	0	NA	NA
		N-NITROSODI-N-PROPYLAMINE	621-64-7	49	0	0	260	0	0	13	0	1	13	0	0	0	NA	NA
		N-NITROSODIPHENYLAMINE	86-30-6	49	0	0	260	0	0	13	0	1	13	0	0	0	NA	NA
		PENTACHLOROPHENOL	87-86-5	49	0	16	260	0	0	13	0	1	13	0	1	0	NA	NA
		PHENANTHRENE	85-01-8	49	4	0	260	126	0	13	3	1	NA	NA	NA	0	NA	NA
		PHENOL	108-95-2	49	0	16	260	1	0	13	0	1	13	0	1	0	NA	NA

NOTES:

n= Total primary and field duplicates (only)
D= total number of samples detected
R=total number of samples rejected
CAS - Chemical Abstract Service
ASTM - American Society for Testing and Materials

WBLACK - Walkley Black Method
[1] Count includes total and dissolved (filtered) analyses performed for all groundwater samples
[2] Method applies to soil/sediment samples. Groundwater method applied is 335.4 Rv1.0
[3] Subsurface soil only; analyzed at a frequency of one interval per grid cell
All asbestos detections "<1%"

Created by: KS 8/1/17
Checked by: LM 8/7/17

Table 3. Summary of Laboratory Analyses Performed
(Primary and Duplicate Samples)
Beck's Lake LaSalle Park Area
South Bend, IN

Analysis	SW-846 Method	Analyte	CAS No.	Groundwater			Soil			Sediment			Surface Water			Vapor		
				n	D	R	n	D	R	n	D	R	n	D	R	n	D	R
Polychlorinated Biphenyls (PCBs)	8082	PCB-1016 (AROCLOR 1016)	12674-11-2	49	0	0	260	1	0	13	0	0	13	0	0	0	NA	NA
		PCB-1221 (AROCLOR 1221)	11104-28	49	0	0	260	0	0	13	0	0	13	0	0	0	NA	NA
		PCB-1232 (AROCLOR 1232)	11141-16-5	49	0	0	260	0	0	13	0	0	13	0	0	0	NA	NA
		PCB-1242 (AROCLOR 1242)	53469-21-9	49	0	0	260	0	0	13	0	0	13	0	0	0	NA	NA
		PCB-1248 (AROCLOR 1248)	12672-29-6	49	0	0	260	0	0	13	0	0	13	0	0	0	NA	NA
		PCB-1254 (AROCLOR 1254)	11097-69-1	49	0	0	260	1	1	13	0	0	13	0	0	0	NA	NA
		PCB-1260 (AROCLOR 1260)	11096-82-5	49	0	0	260	2	0	13	0	0	13	0	0	0	NA	NA
Pesticides and Herbicides	8081A	ALDRIN	309-00-2	49	1	0	219	0	1	13	0	0	13	0	0	0	NA	NA
		ALPHA BHC (ALPHA HEXACHLOROCYCLOHEXANE)	319-84-6	49	0	0	219	0	1	13	0	0	11	0	6	0	NA	NA
		ALPHA ENDOSULFAN	959-98-8	49	0	0	219	0	1	13	0	0	13	0	0	0	NA	NA
		BETA BHC (BETA HEXACHLOROCYCLOHEXANE)	319-85-7	49	0	0	219	0	1	13	0	0	13	0	0	0	NA	NA
		BETA ENDOSULFAN	33213-65-9	49	0	0	219	0	1	13	0	0	13	0	0	0	NA	NA
		CIS-CHLORDANE	5103-71-9	49	1	0	219	0	1	13	0	0	13	0	0	0	NA	NA
		DELTA BHC (DELTA HEXACHLOROCYCLOHEXANE)	319-86-8	49	0	0	219	0	2	13	0	0	13	0	0	0	NA	NA
		DIELDRIN	60-57-1	49	0	0	219	0	1	13	0	0	13	0	0	0	NA	NA
		ENDOSULFAN SULFATE	1031-07-8	49	0	0	219	0	1	13	0	0	13	0	0	0	NA	NA
		ENDRIN	72-20-8	49	0	0	219	0	1	13	0	0	13	0	0	0	NA	NA
		ENDRIN ALDEHYDE	7421-93-4	49	0	0	219	0	1	13	0	0	13	0	0	0	NA	NA
		ENDRIN KETONE	53494-70-5	49	0	0	219	3	1	13	0	0	13	0	0	0	NA	NA
		GAMMA BHC (LINDANE)	58-89-9	49	0	0	219	0	1	13	0	0	13	0	0	0	NA	NA
		HEPTACHLOR	76-44-8	49	0	0	218	0	1	13	0	0	13	0	0	0	NA	NA
		HEPTACHLOR EPOXIDE	1024-57-3	49	0	0	219	0	1	13	0	0	13	0	0	0	NA	NA
		METHOXYCHLOR	72-43-5	49	0	0	219	19	1	13	0	0	13	0	0	0	NA	NA
		P,P'-DDD	72-54-8	49	2	0	219	1	1	13	0	0	13	0	0	0	NA	NA
		P,P'-DDE	72-55-9	49	1	0	219	4	1	13	0	0	13	0	0	0	NA	NA
		P,P'-DDT	50-29-3	49	1	0	219	3	1	13	0	0	13	0	0	0	NA	NA
		TOXAPHENE	8001-35-2	49	0	0	219	0	1	13	0	0	13	0	0	0	NA	NA
		TRANS-CHLORDANE	5103-74-2	49	1	0	219	1	1	13	0	0	13	0	0	0	NA	NA
Target analyte list (TAL) Metals	6010B[1]	ALUMINUM	91728-14-2	98	38	1	370	370	0	13	13	0	26	26	0	0	NA	NA
		BERYLLIUM	7440-41-7	98	1	2	370	47	0	13	5	0	26	0	0	0	NA	NA
		CALCIUM	7789-78-8	98	98	0	370	370	0	13	13	0	26	26	0	0	NA	NA
		IRON	7439-89-6	98	87	0	370	369	0	13	13	0	26	23	0	0	NA	NA
		POTASSIUM	7440-09-7	98	98	0	370	303	0	13	13	0	26	26	0	0	NA	NA
		SODIUM	7440-23-5	98	98	0	370	369	0	13	13	0	26	26	0	0	NA	NA
	6020[1]	ANTIMONY	7440-36-0	98	29	2	370	286	2	13	13	0	26	23	0	0	NA	NA
		ARSENIC	7440-38-2	98	59	0	370	370	1	13	13	0	26	26	0	0	NA	NA
		BARIUM	7440-39-3	98	51	2	370	370	0	13	13	0	26	0	0	0	NA	NA
		CADMIUM	7440-43-9	98	54	2	370	283	2	13	13	0	26	5	0	0	NA	NA
		CHROMIUM, TOTAL	7440-47-3	98	15	1	370	359	2	13	13	0	26	2	1	0	NA	NA
		COBALT	7440-48-4	98	51	2	370	368	2	13	13	0	26	1	0	0	NA	NA
		COPPER	7440-50-8	98	38	2	370	366	1	13	13	0	26	1	0	0	NA	NA
		LEAD	7439-92-1	98	32	2	370	363	1	13	13	0	26	15	0	0	NA	NA
		MAGNESIUM	7439-95-4	98	37	35	370	370	0	13	13	0	26	14	0	0	NA	NA
		MANGANESE	7439-96-5	98	98	0	370	370	0	13	13	0	16	16	0	0	NA	NA
		NICKEL	7440-02-0	98	94	0	370	366	2	13	13	0	16	16	0	0	NA	NA
		SELENIUM	7782-49-2	98	56	2	370	360	2	13	13	0	26	12	0	0	NA	NA
		SILVER	7440-22-4	98	5	2	370	198	2	13	12	0	16	0	0	0	NA	NA
		THALLIUM	7440-28-0	98	31	2	370	65	1	13	0	0	26	0	0	0	NA	NA
		VANADIUM	7440-62-2	98	29	2	370	365	1	13	13	0	26	26	0	0	NA	NA
		ZINC	7440-66-6	97	33	2	370	369	0	13	13	0	26	0	0	0	NA	NA
	7471A[1]	MERCURY	7439-97-6	98	21	2	370	308	0	13	13	0	26	9	0	0	NA	NA
Asbestos and Percent Solids																		
Other	ASTM D7521-13	ASBESTOS	1332-21-4	0	NA	NA	361	30	NA	0	NA	NA	0	NA	NA	0	NA	NA
	ASTM D2216	SOLIDS, PERCENT	NA	0	NA	NA	365	365	0	13	13	0	0	NA	NA	0	NA	NA
Cyanide, pH, Hardness & Organic Carbon																		
Other	9012B[2]	CYANIDE	74-90-8	49	4	1	260	123	0	13	10	0	13	0	0	0	NA	NA
	WBLACK	TOTAL ORGANIC CARBON	NA	0	NA	NA	11	8	NA	13	13	NA	0	NA	NA	0	NA	NA
	SM 2340 B-11	HARDNESS (AS CACO3)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13	13	0	0	NA	NA
	9045C[3]	pH	NA	Field Measurement			111	111	0	4	4	0	Field Measurement			0	NA	NA

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WBLACK - Walkley Black Method
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All asbestos detections "<1%"

Created by: KS 8/1/17
Checked by: LM 8/7/17

Table 8. Soil Vapor Field Parameter Measurements
Beck's Lake LaSalle Park Area
South Bend, IN

	Field Parameter:	Balance (percent)	CH4 (percent)	CO2 (percent)	O2 (percent)	PID (ppm)	Initial Vacuum (in Hg)	Final Vacuum (in Hg)	Volume Purged (L)
Sample ID	**Sample Date**								
LPA01-VP-005 (3.5')(20161101)	11/01/16	11.4	0.1	7.6	3.7	0.0	29.5	5.0	6.4
LPA17-VP-003S (5')(20161101)	11/01/16	15.1	0.0	12.1	3.0	0.0	28.0	5.0	6.2
LPA21-VP02 (4) (20160802)	08/02/16	19.4	0.0	3.1	16.3	0.0	29.0	5.0	5.2
LPA21-VP02 (7.5) (20160802)	08/02/16	19.4	0.0	3.1	16.3	0.0	25.0	5.0	5.2
LPA22-VA-VA-02 (20160802)	08/02/16	NA	NA	NA	NA	NA	28.0	11.0	NA
LPA-26-VP-VP01 (4) (20160802)	08/02/16	19.4	0.0	3.1	16.3	0.0	29.0	5.0	4.8
LPA-26-VP-VP01 (8) (20160802)	08/02/16	19.5	0.0	2.2	17.3	0.0	30.0	5.0	7.2
LPA27-VA-VA-01 (20160802)	08/02/16	NA	NA	NA	NA	NA	28.0	9.0	NA
LPA28-VA-003 (5')(20161101)	11/01/16	NA	NA	NA	NA	NA	28.0	5.0	NA
LPA31-VA-004 (5')(20161101)	11/01/16	NA	NA	NA	NA	NA	28.0	5.0	NA
LPA31-VP-006 (4')(20161101)	11/01/16	17.8	0.0	12.4	5.4	0.0	30.0	5.0	5.4
LPA31-VP-006 (8')(20161101)	11/01/16	17.7	0.0	13.1	4.6	0.0	30.0	5.0	4.8
LPA32-VP-008S (4')(20161101)	11/01/16	20.6	0.0	3.4	17.2	0.0	28.0	5.0	4.8

Notes:
CH_4 = Methane
CO_2 = Carbon dioxide
O_2 = Oxygen
PID = Photoionization detector

in Hg = inches of Mercury
L = Liter
ppm = parts per million by volume
NA = not analyzed

Created by: AN Date: 3/29/17
Checked by: LM Date: 8/04/17

Table 9. Detected Analytical Results Summary
Surface Soils
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	01SS-1	01SS-2	01SS-3	01SS-4	02SS-1	02SS-2	02SS-3	02SS-4	03SS-1	03SS-2
					Sample ID:	LPA01-SS-001 (00-0.5') (20160817)	LPA01-SS-002 (00-0.5') (20160817)	LPA01-SS-003 (00-0.5') (20160823)	LPA01-SS-004 (00-0.5') (20160817)	LPA02-SS-001 (00-0.5') (20160817)	LPA02-SS-002 (00-0.5') (20160817)	LPA02-SS-003 (00-0.5') (20160817)	LPA02-SS-004 (00-0.5') (20160817)	LPA03-SS-001 (00-0.5') (20160815)	LPA03-SS-002 (00-0.5') (20160815)
					Sample Date:	8/17/16	8/17/16	8/23/16	8/17/16	8/17/16	8/17/16	8/17/16	8/17/16	8/15/16	8/15/16
					Sample Depth (ft bgs):	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	81	82	77	79	78	70	79	77	79	83
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	3200	3300	2000	3700	3600	4100	2400	8400	1700	2600
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	19000	35000	30000	25000	55000	100000	33000	7600	23000	6400
	IRON	mg/kg	77000	55000	7100	**[23000]**	**[17000]**	**[8400]**	**[23000]**	**[10000]**	**[19000]**	**[11000]**	**[20000]**	**[14000]**	**[9500]**
	POTASSIUM	mg/kg	NA	NA	NA	560	620	560 J	670	490	1000 J	470	1000	360	430
	SODIUM	mg/kg	NA	NA	NA	51	63	52	66	52	180	50	23	39	51
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.34	0.77	0.48	0.46	0.22	0.99 J	0.58	0.14 U	1.3	0.33
	ARSENIC	mg/kg	9.5	0.68	5.9	**[13]**	**[13]**	**[6.2]**	**[27]**	**[12]**	**[11]**	**[7.2]**	**[10]**	**[12]**	**[6.7]**
	BARIUM	mg/kg	21000	15000	1700	110	94	49	120	110	140	62	250	85	80
	CADMIUM	mg/kg	99	71	7.5	0.89	1.8	0.82	1.1	0.57	1.4	0.91	1.3	1.3	0.58
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	10	20	18	14	8.2	14	11	17	8.9	7.5
	COBALT	mg/kg	32	23	5.4	3.4	**[5.8]**	3.8	**[6.3]**	3.9	**[6.2]**	3.9	**[8.3]**	2.9	4.1
	COPPER	mg/kg	4300	3100	920	25	57	29	34	20	51 J	44	35	50	19
	LEAD	mg/kg	400	400	270	73	130	46	89	61	120	69	96	120	38
	MAGNESIUM	mg/kg	NA	NA	NA	2800	8800	12000	6200	2600	42000	6900	1700	2900	2100
	MANGANESE	mg/kg	2500	1800	560	250 J	290 J	310 J	290 J	440 J	450 J	240 J	**[1100 J]**	210 J	270 J
	NICKEL	mg/kg	2100	1500	510	9.2	19	12	16	8.3	16	11	18	9.6	8.6
	SELENIUM	mg/kg	550	390	5.3	1.7	1.6	1.4	1.9	1.1	3.3	1.1	2.5	1.0	1.2
	SILVER	mg/kg	550	390	16	0.1 U	0.033 J	0.16	0.1 U	0.1 U	0.19	0.1 U	0.1 U	0.1 U	0.1 U
	THALLIUM	mg/kg	1.1	0.78	2.9	0.12 J	0.091 J	0.5 U	0.15 J	0.088 J	0.17 J	0.11 J	0.29 J	0.052 J	0.063 J
	VANADIUM	mg/kg	550	390	1700	14	14	11 J	16	11	22	8.5	24	6.9	10
	ZINC	mg/kg	32000	NA	7500	100	180	78	160	83	190	90	140	130	64
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.63	0.33	0.53	0.38	0.092	0.23	0.32	0.12	0.31	0.24
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.21 U	NS	NS	NS	0.21 U	NS	NS	NS	0.42 U	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.041 U	NS	NS	NS	0.042 U	NS	NS	NS	0.084 U	NS
	ACENAPHTHENE	mg/kg	5000	3590	110	0.041 U	NS	NS	NS	0.042 U	NS	NS	NS	0.084 U	NS
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.041 U	NS	NS	NS	0.042 U	NS	NS	NS	0.084 U	NS
	ANTHRACENE	mg/kg	25000	17900	1200	0.041 U	NS	NS	NS	0.042 U	NS	NS	NS	0.084 U	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.049	NS	NS	NS	0.048	NS	NS	NS	0.080 J	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.051	NS	NS	NS	0.047	NS	NS	NS	0.076 J	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.071	NS	NS	NS	0.060	NS	NS	NS	0.14	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.027 J	NS	NS	NS	0.022 J	NS	NS	NS	0.084 U	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.031 J	NS	NS	NS	0.023 J	NS	NS	NS	0.053 J	NS
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.079	NS	NS	NS	0.032 J	NS	NS	NS	0.11	NS
	CARBAZOLE	mg/kg	NA	NA	NA	0.041 U	NS	NS	NS	0.042 U	NS	NS	NS	0.084 U	NS
	CHRYSENE	mg/kg	220	110	250	0.051	NS	NS	NS	0.041 J	NS	NS	NS	0.074 J	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.041 UJ	NS	NS	NS	0.042 U	NS	NS	NS	0.084 U	NS
	DIBENZOFURAN	mg/kg	100	73	2.9	0.041 U	NS	NS	NS	0.042 U	NS	NS	NS	0.084 U	NS
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.041 U	NS	NS	NS	0.042 U	NS	NS	NS	0.084 U	NS
	FLUORENE	mg/kg	3400	2390	110	0.041 U	NS	NS	NS	0.042 U	NS	NS	NS	0.084 U	NS
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.032 J	NS	NS	NS	0.025 J	NS	NS	NS	0.084 U	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.041 U	NS	NS	NS	0.042 U	NS	NS	NS	0.084 U	NS
	PHENANTHRENE	mg/kg	NA	NA	NA	0.044	NS	NS	NS	0.038 J	NS	NS	NS	0.053 J	NS
SW8270C-SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.081 U	NS	NS	NS	0.041 U	NS	NS	NS	0.41 U	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.081 U	NS	NS	NS	0.041 U	NS	NS	NS	0.41 U	NS
	ACENAPHTHENE	mg/kg	5000	3590	110	0.081 U	NS	NS	NS	0.041 U	NS	NS	NS	0.41 U	NS
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.081 U	NS	NS	NS	0.041 U	NS	NS	NS	0.41 U	NS
	ANTHRACENE	mg/kg	25000	17900	1200	0.081 U	NS	NS	NS	0.041 U	NS	NS	NS	0.41 U	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.17	NS	NS	NS	0.044	NS	NS	NS	0.41 U	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.10 J	NS	NS	NS	0.041 UJ	NS	NS	NS	0.41 UJ	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.20	NS	NS	NS	0.060	NS	NS	NS	0.41 U	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.081	NS	NS	NS	0.041 U	NS	NS	NS	0.41 U	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.098	NS	NS	NS	0.041 U	NS	NS	NS	0.41 U	NS
	CHRYSENE	mg/kg	220	110	250	0.20	NS	NS	NS	0.048	NS	NS	NS	0.41 U	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.081 U	NS	NS	NS	0.041 U	NS	NS	NS	0.41 U	NS
	FLUORENE	mg/kg	3400	2390	110	0.081 U	NS	NS	NS	0.041 U	NS	NS	NS	0.41 U	NS
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.090	NS	NS	NS	0.041 U	NS	NS	NS	0.41 U	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.081 U	NS	NS	NS	0.041 U	NS	NS	NS	0.41 U	NS
	PHENANTHRENE	mg/kg	NA	NA	NA	0.20	NS	NS	NS	0.049	NS	NS	NS	0.41 U	NS
SW9012	CYANIDE	mg/kg	32	23	40	0.29	NS	NS	NS	0.29	NS	NS	NS	0.32	NS
SW9045C	PH	ph unit	NA	NA	NA	7.65	NS	NS	NS	7.78	NS	NS	NS	7.85	NS

Notes:
mg/kg - milligrams per kilogram
U – Concentration was non-detect; Value presented is laboratory reporting limit
J – Concentration is an estimated value
R - Rejected Result
NS – Analyte was not analyzed
* - Discrete sample (not five-point composite sample)
Table includes only compounds with at least one detect concentration result.
Yellow results are detected above the IDEM OLQ 2017 Recreational Park User soil direct contact (DC) screening level (SL).
Underlined results are detected concentrations above the EPA Region 5 2017 Residential Soil RSL.
[BOLD] results are detected concentrations above the IDEM OLQ 2017 Soil Migration to Groundwater (MTG) SL.
The IDEM OLQ 2017 Recreation Park Use DC SL applies to arsenic (45 mg/kg), lead (800 mg/kg) and benzo(A)pyrene (0.98 mg/kg).

Table 9. Detected Analytical Results Summary
Surface Soils
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	03SS-3	03SS-4	04SS-1	04SS-2	04SS-3	04SS-4	05SS-1	05SS-2	05SS-3	05SS-4
					Sample ID:	LPA03-SS-003 (00-0.5') (20160815)	LPA03-SS-004 (00-0.5') (20160815)	LPA04-SS-001 (00-0.5') (20160817)	LPA04-SS-002 (00-0.5') (20160817)	LPA04-SS-003 (00-0.5') (20160817)	LPA04-SS-004 (00-0.5') (20160817)	LPA05-SS-001 (00-0.5') (20160817)	LPA05-SS-002 (00-0.5') (20160817)	LPA05-SS-003 (00-0.5') (20160817)	LPA05-SS-004 (00-0.5') (20160817)
					Sample Date:	8/15/16	8/15/16	8/17/16	8/17/16	8/17/16	8/17/16	8/17/16	8/17/16	8/17/16	8/17/16
					Sample Depth (ft bgs):	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	87	78	80	79	74	72	85	79	80	78
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	2600	2600	4700	7800	2400	2600	7900	5800	11000	14000
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	32000	5300	10000	35000	21000	53000	73000	28000	7700	11000
	IRON	mg/kg	77000	55000	7100	**[9500]**	6800	**[9300]**	**[17000]**	**[8700]**	**[9800]**	**[21000]**	**[14000]**	**[23000]**	**[23000]**
	POTASSIUM	mg/kg	NA	NA	NA	490	310	470	930	410	470	1700	880 J	1200	1400
	SODIUM	mg/kg	NA	NA	NA	47	16	13	37	25	43	110	33	34	32
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.89	0.25	0.32	0.42	0.24	0.29	0.14 U	0.40 J	0.34	0.33
	ARSENIC	mg/kg	9.5	0.68	5.9	**[6.8]**	4.8	5.3	**[10]**	**[9.0]**	**[12]**	**[11]**	**[9.0 J]**	**[21]**	**[10]**
	BARIUM	mg/kg	21000	15000	1700	67	70	110	180	62	87	47	190	180	280
	CADMIUM	mg/kg	99	71	7.5	0.75	0.43	0.55	0.96	0.94	0.91	0.25	0.59	0.75	0.72
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	9.5	6.1	8.6	17	7.0	11	16	14	23	22
	COBALT	mg/kg	32	23	5.4	3.6	2.7	3.8	**[6.9]**	2.4	2.7	**[8.6]**	**[7.3]**	**[10]**	**[9.6]**
	COPPER	mg/kg	4300	3100	920	34	15	18	44	23	27	19	31 J	34	37
	LEAD	mg/kg	400	400	270	86	70	47	110	59	65	22	59 J	80	76
	MAGNESIUM	mg/kg	NA	NA	NA	5200	980	940	1800	2600	2700	33000 J	3200	4500	2700
	MANGANESE	mg/kg	2500	1800	560	170 J	240 J	460 J	**[720 J]**	150 J	280 J	530 J	**[910 J]**	**[960 J]**	**[1200 J]**
	NICKEL	mg/kg	2100	1500	510	9.7	5.8	8.4	17	7.5	8.5	21	15	23	22
	SELENIUM	mg/kg	550	390	5.3	1.1	0.91	1.2	2.3	1.7	1.7	2.4	2.0	3.5	2.9
	SILVER	mg/kg	550	390	16	0.077 J	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11 J	0.15	0.13
	THALLIUM	mg/kg	1.1	0.78	2.9	0.076 J	0.054 J	0.10 J	0.19 J	0.057 J	0.052 J	0.13 J	0.48 U	0.49 U	0.5 U
	VANADIUM	mg/kg	550	390	1700	9.0	7.4	13	22	8.0	7.8	21	20 J	37	35
	ZINC	mg/kg	32000	NA	7500	110	54	62	140	67	77	63	93 J	100	120
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.13	0.058	0.11	0.13	0.11	0.16	0.091	0.19	0.15	0.17
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	NS	0.21 U	NS	NS	NS	0.2 U	NS	NS	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	NS	0.041 U	NS	NS	NS	0.039 U	NS	NS	NS
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	NS	0.041 U	NS	NS	NS	0.039 U	NS	NS	NS
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	NS	0.041 U	NS	NS	NS	0.039 U	NS	NS	NS
	ANTHRACENE	mg/kg	25000	17900	1200	NS	NS	0.041 U	NS	NS	NS	0.039 U	NS	NS	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	NS	0.028 J	NS	NS	NS	0.039 U	NS	NS	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	NS	0.024 J	NS	NS	NS	0.039 U	NS	NS	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	NS	0.035 J	NS	NS	NS	0.039 U	NS	NS	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	NS	0.041 U	NS	NS	NS	0.039 U	NS	NS	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	NS	0.041 U	NS	NS	NS	0.039 U	NS	NS	NS
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	NS	NS	0.044	NS	NS	NS	0.039 U	NS	NS	NS
	CARBAZOLE	mg/kg	NA	NA	NA	NS	NS	0.041 U	NS	NS	NS	0.039 U	NS	NS	NS
	CHRYSENE	mg/kg	220	110	250	NS	NS	0.029 J	NS	NS	NS	0.039 U	NS	NS	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	NS	0.041 U	NS	NS	NS	0.039 U	NS	NS	NS
	DIBENZOFURAN	mg/kg	100	73	2.9	NS	NS	0.041 U	NS	NS	NS	0.039 U	NS	NS	NS
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	NS	NS	0.041 U	NS	NS	NS	0.039 U	NS	NS	NS
	FLUORENE	mg/kg	3400	2390	110	NS	NS	0.041 U	NS	NS	NS	0.039 U	NS	NS	NS
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	NS	0.041 U	NS	NS	NS	0.039 U	NS	NS	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	NS	0.041 U	NS	NS	NS	0.039 U	NS	NS	NS
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	NS	0.023 J	NS	NS	NS	0.039 U	NS	NS	NS
SW8270C-SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	NS	0.016 U	NS	NS	NS	0.0031 U	NS	NS	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	NS	0.016 U	NS	NS	NS	0.0031 U	NS	NS	NS
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	NS	0.016 U	NS	NS	NS	0.0031 U	NS	NS	NS
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	NS	0.016 U	NS	NS	NS	0.0031 U	NS	NS	NS
	ANTHRACENE	mg/kg	25000	17900	1200	NS	NS	0.016 U	NS	NS	NS	0.0031 U	NS	NS	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	NS	0.035	NS	NS	NS	0.0074	NS	NS	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	NS	0.023 J	NS	NS	NS	0.0046 J	NS	NS	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	NS	0.049	NS	NS	NS	0.011	NS	NS	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	NS	0.019	NS	NS	NS	0.0037	NS	NS	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	NS	0.017	NS	NS	NS	0.0033	NS	NS	NS
	CHRYSENE	mg/kg	220	110	250	NS	NS	0.038	NS	NS	NS	0.0076	NS	NS	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	NS	0.016 U	NS	NS	NS	0.0031 U	NS	NS	NS
	FLUORENE	mg/kg	3400	2390	110	NS	NS	0.016 U	NS	NS	NS	0.0031 U	NS	NS	NS
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	NS	0.021	NS	NS	NS	0.0047	NS	NS	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	NS	0.016 U	NS	NS	NS	0.0031 U	NS	NS	NS
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	NS	0.036	NS	NS	NS	0.0061	NS	NS	NS
SW9012	CYANIDE	mg/kg	32	23	40	NS	NS	0.25	NS	NS	NS	0.2 U	NS	NS	NS
SW9045C	PH	ph unit	NA	NA	NA	NS	NS	7.64	NS	NS	NS	8.07	NS	NS	NS

Notes:
mg/kg - milligrams per kilogram
U – Concentration was non-detect; Value presented is laboratory reporting limit
J – Concentration is an estimated value
R - Rejected Result
NS – Analyte was not analyzed
* - Discrete sample (not five-point composite sample)
Table includes only compounds with at least one detect concentration result.
Yellow results are detected above the IDEM OLQ 2017 Recreational Park User soil direct contact (DC) screening level (SL).
Underlined results are detected concentrations above the EPA Region 5 2017 Residential Soil RSL.
[BOLD] results are detected concentrations above the IDEM OLQ 2017 Soil Migration to Groundwater (MTG) SL.
The IDEM OLQ 2017 Recreation Park Use DC SL applies to arsenic (45 mg/kg), lead (800 mg/kg) and benzo(A)pyrene (0.98 mg/kg).

Table 9. Detected Analytical Results Summary
Surface Soils
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	06SS-1	06SS-2	06SS-3	06SS-4		07SS-1	07SS-2	07SS-3	07SS-4	08SS-1
					Sample ID:	LPA06-SS-001 (00-0.5') (20160819)	LPA06-SS-002 (00-0.5') (20160819)	LPA06-SS-003 (00-0.5') (20160819)	LPA06-QD-001 (00-0.5') (20160819)	LPA06-SS-004 (00-0.5') (20160819)	LPA07-SS-001 (00-0.5') (20160815)	LPA07-SS-002 (00-0.5') (20160815)	LPA07-SS-003 (00-0.5') (20160815)	LPA07-SS-004 (00-0.5') (20160815)	LPA08-SS-001 (00-0.5') (20160818)
					Sample Date:	8/19/16	8/19/16	8/19/16	8/19/16	8/19/16	8/15/16	8/15/16	8/15/16	8/15/16	8/18/16
					Sample Depth (ft bgs):	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	77	80	84	84	83	83	77	83	85	77
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	5500	5300	8000	4600	5000	3400 J	3600	5600	5300	2300
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	17000	2800	3400	2000	2600	2300 J	22000	5100	19000	9600
	IRON	mg/kg	77000	55000	7100	**[14000]**	**[10000]**	**[14000]**	**[9200]**	**[10000]**	**[9900]**	**[29000]**	**[17000]**	**[12000]**	6400
	POTASSIUM	mg/kg	NA	NA	NA	780	600	840 J	560	590	580 J	490	970	760	360
	SODIUM	mg/kg	NA	NA	NA	29	14	26	19	17	18 J	65	22	28	17
SW6020	ANTIMONY	mg/kg	43	31	5.4	4.0	0.23	0.22 J	0.30	0.32	0.40	0.31	0.82	0.35	0.27
	ARSENIC	mg/kg	9.5	0.68	5.9	**[7.3]**	4.6	**[6.1]**	4.2	4.4	5.3 J	**[20]**	**[11]**	**[6.0]**	5.2
	BARIUM	mg/kg	21000	15000	1700	150	130	110	77	88	190	140	160	110	65
	CADMIUM	mg/kg	99	71	7.5	3.3	0.78	0.40	0.40	0.51	1.0	0.74	0.68	1.1	0.46
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	17	12	15	11	13	12	9.6	15	11	7.5
	COBALT	mg/kg	32	23	5.4	**[5.9]**	4.9	**[6.5]**	4.7	4.6	5.3	4.0	**[6.3]**	5.1	2.8
	COPPER	mg/kg	4300	3100	920	42	28	21	31	45	20	14	32	17	17
	LEAD	mg/kg	400	400	270	190	74	82	76	99	140	55	82	58	51
	MAGNESIUM	mg/kg	NA	NA	NA	1300	1000	2000	1400	1800	880	1400	2000	3200	1900
	MANGANESE	mg/kg	2500	1800	560	**[770 J]**	**[670 J]**	470 J	350 J	340 J	410 J	400 J	**[590 J]**	410 J	220 J
	NICKEL	mg/kg	2100	1500	510	20	13	13	11	12	7.6	7.5	12	9.9	6.3
	SELENIUM	mg/kg	550	390	5.3	1.4	1.2	1.8	1.2	1.5	1.4	1.6	2.2	1.7	1.3
	SILVER	mg/kg	550	390	16	0.21	0.10	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.027 J	0.11
	THALLIUM	mg/kg	1.1	0.78	2.9	0.5 U	0.49 U	0.5 U	0.49 U	0.48 U	0.12 J	0.11 J	0.15 J	0.11 J	0.49 U
	VANADIUM	mg/kg	550	390	1700	15	14	23	16	16	13 J	13	21	19	9.7
	ZINC	mg/kg	32000	NA	7500	90	79	75 J	76	70	200	95	140	77	58
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.52	0.11	0.18	0.14	0.059	0.13	0.091	0.096	0.070	0.46
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.22 U	NS	NS	NS	NS	0.4 U	NS	NS	NS	0.22 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.043 U	NS	NS	NS	NS	0.079 U	NS	NS	NS	0.043 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.043 U	NS	NS	NS	NS	0.079 U	NS	NS	NS	0.043 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.043 U	NS	NS	NS	NS	0.079 U	NS	NS	NS	0.043 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.043 U	NS	NS	NS	NS	0.079 U	NS	NS	NS	0.046
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.043 U	NS	NS	NS	NS	0.079 U	NS	NS	NS	0.12
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.043 U	NS	NS	NS	NS	0.079 U	NS	NS	NS	0.12
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.025 J	NS	NS	NS	NS	0.079 U	NS	NS	NS	0.15
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.043 U	NS	NS	NS	NS	0.079 U	NS	NS	NS	0.049
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.043 U	NS	NS	NS	NS	0.079 U	NS	NS	NS	0.065
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.067	NS	NS	NS	NS	0.11	NS	NS	NS	0.049
	CARBAZOLE	mg/kg	NA	NA	NA	0.043 U	NS	NS	NS	NS	0.079 U	NS	NS	NS	0.043 U
	CHRYSENE	mg/kg	220	110	250	0.043 U	NS	NS	NS	NS	0.079 U	NS	NS	NS	0.11
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.043 U	NS	NS	NS	NS	0.079 U	NS	NS	NS	0.043 U
	DIBENZOFURAN	mg/kg	100	73	2.9	0.043 U	NS	NS	NS	NS	0.079 U	NS	NS	NS	0.043 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.043 U	NS	NS	NS	NS	0.079 U	NS	NS	NS	0.043 U
	FLUORENE	mg/kg	3400	2390	110	0.043 U	NS	NS	NS	NS	0.079 U	NS	NS	NS	0.043 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.043 U	NS	NS	NS	NS	0.079 U	NS	NS	NS	0.059
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.043 U	NS	NS	NS	NS	0.079 U	NS	NS	NS	0.022 J
	PHENANTHRENE	mg/kg	NA	NA	NA	0.043 U	NS	NS	NS	NS	0.079 U	NS	NS	NS	0.19
SW8270C-SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.042 U	NS	NS	NS	NS	0.039 U	NS	NS	NS	0.085 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.042 U	NS	NS	NS	NS	0.039 U	NS	NS	NS	0.085 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.042 U	NS	NS	NS	NS	0.039 U	NS	NS	NS	0.085 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.042 U	NS	NS	NS	NS	0.039 U	NS	NS	NS	0.085 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.042 U	NS	NS	NS	NS	0.039 U	NS	NS	NS	0.085 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.042 U	NS	NS	NS	NS	0.039 U	NS	NS	NS	0.085 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.042 UJ	NS	NS	NS	NS	0.039 UJ	NS	NS	NS	0.085 UJ
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.042 U	NS	NS	NS	NS	0.039 U	NS	NS	NS	0.085 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.042 U	NS	NS	NS	NS	0.039 U	NS	NS	NS	0.085 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.042 U	NS	NS	NS	NS	0.039 U	NS	NS	NS	0.085 U
	CHRYSENE	mg/kg	220	110	250	0.042 U	NS	NS	NS	NS	0.039 U	NS	NS	NS	0.085 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.042 U	NS	NS	NS	NS	0.039 U	NS	NS	NS	0.085 U
	FLUORENE	mg/kg	3400	2390	110	0.042 U	NS	NS	NS	NS	0.039 U	NS	NS	NS	0.085 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.042 U	NS	NS	NS	NS	0.039 U	NS	NS	NS	0.085 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.042 U	NS	NS	NS	NS	0.039 U	NS	NS	NS	0.085 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.042 U	NS	NS	NS	NS	0.039 U	NS	NS	NS	0.085 U
SW9012	CYANIDE	mg/kg	32	23	40	0.41	NS	NS	NS	NS	0.27	NS	NS	NS	0.58
SW9045C	PH	ph unit	NA	NA	NA	7.82	NS	NS	NS	NS	7.17	NS	NS	NS	7.76

Notes:
mg/kg - milligrams per kilogram
U – Concentration was non-detect; Value presented is laboratory reporting limit
J – Concentration is an estimated value
R - Rejected Result
NS – Analyte was not analyzed
* - Discrete sample (not five-point composite sample)
Table includes only compounds with at least one detect concentration result.
Yellow results are detected above the IDEM OLQ 2017 Recreational Park User soil direct contact (DC) screening level (SL).
Underlined results are detected concentrations above the EPA Region 5 2017 Residential Soil RSL.
[BOLD] results are detected concentrations above the IDEM OLQ 2017 Soil Migration to Groundwater (MTG) SL.
The IDEM OLQ 2017 Recreation Park Use DC SL applies to arsenic (45 mg/kg), lead (800 mg/kg) and benzo(A)pyrene (0.98 mg/kg).

Table 9. Detected Analytical Results Summary
Surface Soils
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	08SS-2		08SS-3	08SS-4	09SS-1	09SS-2	09SS-3	09SS-4	10SS-1	10SS-2
					Sample ID:	LPA08-QD-001 (00-0.5') (20160818)	LPA08-SS-002 (00-0.5') (20160818)	LPA08-SS-003 (00-0.5') (20160818)	LPA08-SS-004 (00-0.5') (20160818)	LPA09-SS-001 (00-0.5') (20160818)	LPA09-SS-002 (00-0.5') (20160818)	LPA09-SS-003 (00-0.5') (20160818)	LPA09-SS-004 (00-0.5') (20160818)	LPA10-SS-001 (0'-0.5') (20160822)	LPA10-SS-002 (0'-0.5') (20160822)
					Sample Date:	8/18/16	8/18/16	8/18/16	8/18/16	8/18/16	8/18/16	8/18/16	8/18/16	8/22/16	8/22/16
					Sample Depth (ft bgs):	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	69	72	83	64	78	70	71	78	76	83
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	5200	4300	3300	4500	5700	5000	4400	4600	4400	4500
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	17000	16000	11000	19000	7600	9800	38000	3900	2600	1200
	IRON	mg/kg	77000	55000	7100	**[11000]**	**[10000]**	**[8500]**	**[16000]**	**[14000]**	**[11000]**	**[13000]**	**[12000]**	**[10000]**	**[9100]**
	POTASSIUM	mg/kg	NA	NA	NA	670	600	500	510	630	700	500	530	440	470
	SODIUM	mg/kg	NA	NA	NA	22	18	27	25	37	20	40	14	13	13
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.23	0.25	0.63	0.41	0.35	0.28	R	0.30	0.38	0.20
	ARSENIC	mg/kg	9.5	0.68	5.9	**[9.4]**	**[8.0]**	**[6.2]**	**[19]**	**[7.1]**	**[7.4]**	R	**[9.1]**	5.0	4.1
	BARIUM	mg/kg	21000	15000	1700	92	83	69	79	150	110	190	98	110	86
	CADMIUM	mg/kg	99	71	7.5	1.4	1.1	1.1	0.95	0.63	0.55	R	0.42	0.52	0.36
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	14	10	9.5	14	16	14	R	10	11	12
	COBALT	mg/kg	32	23	5.4	3.5	3.5	3.9	3.7	**[6.6]**	4.4	R	5.3	4.3	4.9
	COPPER	mg/kg	4300	3100	920	28	27	24	33	33	25	73	23	29	20
	LEAD	mg/kg	400	400	270	36	33	140	52	82	96	120	60	82	50
	MAGNESIUM	mg/kg	NA	NA	NA	1500	1600	3700	2800	1800	1500	2000	1200	1100	1200
	MANGANESE	mg/kg	2500	1800	560	330 J	330 J	270 J	150 J	**[810 J]**	470 J	**[610 J]**	540 J	510 J	400 J
	NICKEL	mg/kg	2100	1500	510	9.8	10	8.3	13	15	13	R	10	12	11
	SELENIUM	mg/kg	550	390	5.3	1.9	1.7	1.5	3.3	1.8	1.7	R	1.8	1.1	1.4
	SILVER	mg/kg	550	390	16	0.1 U	0.1 U	0.16	0.13	0.14	0.16	R	0.11	0.1 U	0.12
	THALLIUM	mg/kg	1.1	0.78	2.9	0.5 U	0.5 U	0.49 U	0.48 U	0.5 U	0.48 U	R	0.48 U	0.48 U	0.5 U
	VANADIUM	mg/kg	550	390	1700	13	13	13	17	20	15	R	18	13	15
	ZINC	mg/kg	32000	NA	7500	58	50	88	57	86	55	150	60	65	59
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.12	0.39	0.19	0.33	0.19	0.22	0.53	0.14	0.30	0.082
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	NS	NS	NS	0.21 U	NS	NS	NS	0.22 UJ	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	NS	NS	NS	0.042 U	NS	NS	NS	0.044 UJ	NS
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	NS	NS	NS	0.042 U	NS	NS	NS	0.044 UJ	NS
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	NS	NS	NS	0.042 U	NS	NS	NS	0.044 UJ	NS
	ANTHRACENE	mg/kg	25000	17900	1200	NS	NS	NS	NS	0.042 U	NS	NS	NS	0.044 UJ	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	NS	NS	NS	0.059	NS	NS	NS	0.044 UJ	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	NS	NS	NS	0.055	NS	NS	NS	0.044 UJ	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	NS	NS	NS	0.077	NS	NS	NS	0.044 UJ	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	NS	NS	NS	0.023 J	NS	NS	NS	0.044 UJ	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	NS	NS	NS	0.032 J	NS	NS	NS	0.044 UJ	NS
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	NS	NS	NS	NS	0.22	NS	NS	NS	0.029 J	NS
	CARBAZOLE	mg/kg	NA	NA	NA	NS	NS	NS	NS	0.042 U	NS	NS	NS	0.044 UJ	NS
	CHRYSENE	mg/kg	220	110	250	NS	NS	NS	NS	0.053	NS	NS	NS	0.044 UJ	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	NS	NS	NS	0.042 U	NS	NS	NS	0.044 UJ	NS
	DIBENZOFURAN	mg/kg	100	73	2.9	NS	NS	NS	NS	0.042 U	NS	NS	NS	0.044 UJ	NS
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	NS	NS	NS	NS	0.042 U	NS	NS	NS	0.044 UJ	NS
	FLUORENE	mg/kg	3400	2390	110	NS	NS	NS	NS	0.042 U	NS	NS	NS	0.044 UJ	NS
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	NS	NS	NS	0.027 J	NS	NS	NS	0.044 UJ	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	NS	NS	NS	0.042 U	NS	NS	NS	0.044 UJ	NS
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	NS	NS	NS	0.060	NS	NS	NS	0.044 UJ	NS
SW8270C-SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	NS	NS	NS	0.041 U	NS	NS	NS	0.043 U	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	NS	NS	NS	0.041 U	NS	NS	NS	0.043 U	NS
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	NS	NS	NS	0.041 U	NS	NS	NS	0.043 U	NS
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	NS	NS	NS	0.041 U	NS	NS	NS	0.043 U	NS
	ANTHRACENE	mg/kg	25000	17900	1200	NS	NS	NS	NS	0.041 U	NS	NS	NS	0.043 U	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	NS	NS	NS	0.041 U	NS	NS	NS	0.043 U	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	NS	NS	NS	0.041 UJ	NS	NS	NS	0.043 UJ	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	NS	NS	NS	0.044	NS	NS	NS	0.043 U	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	NS	NS	NS	0.041 U	NS	NS	NS	0.043 U	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	NS	NS	NS	0.041 U	NS	NS	NS	0.043 U	NS
	CHRYSENE	mg/kg	220	110	250	NS	NS	NS	NS	0.041 U	NS	NS	NS	0.043 U	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	NS	NS	NS	0.041 U	NS	NS	NS	0.043 U	NS
	FLUORENE	mg/kg	3400	2390	110	NS	NS	NS	NS	0.041 U	NS	NS	NS	0.043 U	NS
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	NS	NS	NS	0.041 U	NS	NS	NS	0.043 U	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	NS	NS	NS	0.041 U	NS	NS	NS	0.043 U	NS
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	NS	NS	NS	0.041 U	NS	NS	NS	0.043 U	NS
SW9012	CYANIDE	mg/kg	32	23	40	NS	NS	NS	NS	0.32	NS	NS	NS	0.41	NS
SW9045C	PH	ph unit	NA	NA	NA	NS	NS	NS	NS	7.7	NS	NS	NS	5.72	NS

Notes:
mg/kg - milligrams per kilogram
U – Concentration was non-detect; Value presented is laboratory reporting limit
J – Concentration is an estimated value
R - Rejected Result
NS – Analyte was not analyzed
* - Discrete sample (not five-point composite sample)
Table includes only compounds with at least one detect concentration result.
Yellow results are detected above the IDEM OLQ 2017 Recreational Park User soil direct contact (DC) screening level (SL).
Underlined results are detected concentrations above the EPA Region 5 2017 Residential Soil RSL.
[BOLD] results are detected concentrations above the IDEM OLQ 2017 Soil Migration to Groundwater (MTG) SL.
The IDEM OLQ 2017 Recreation Park Use DC SL applies to arsenic (45 mg/kg), lead (800 mg/kg) and benzo(A)pyrene (0.98 mg/kg).

Prepared by: AN 7/12/17
Checked by: KS 8/04/17

Table 9. Detected Analytical Results Summary
Surface Soils
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	10SS-3	10SS-4	11SS-1	11SS-2		11SS-3	11SS-4	12SS-1	12SS-2	12SS-3
					Sample ID:	LPA10-SS-003 (0'-0.5') (20160822)	LPA10-SS-004 (0'-0.5') (20160822)	LPA11-SS-001 (0'-0.5') (20160823)	LPA11-QD-001 (0'-0.5') (20160823)	LPA11-SS-002 (0'-0.5') (20160823)	LPA11-SS-003 (0'-0.5') (20160823)	LPA11-SS-004 (0'-0.5') (20160823)	LPA12-SS-001 (00-0.5') (20160824)	LPA12-SS-002 (00-0.5') (20160824)	LPA12-SS-003 (00-0.5') (20160824)
					Sample Date:	8/22/16	8/22/16	8/23/16	8/23/16	8/23/16	8/23/16	8/23/16	8/24/16	8/24/16	8/24/16
					Sample Depth (ft bgs):	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	75	82	85	81	80	87	85	82	81	79
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	3000	6900	5100	4400	3300	3400	4400	8100	5100	2700
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	21000	2300	2100	4900	4700	4200	4800	3700	12000	5000
	IRON	mg/kg	77000	55000	7100	**[8000]**	**[15000]**	**[11000]**	**[15000]**	**[9000]**	**[8900]**	**[15000]**	**[20000]**	**[28000]**	**[13000]**
	POTASSIUM	mg/kg	NA	NA	NA	450	650	640	520	360	360	560	940	700	400
	SODIUM	mg/kg	NA	NA	NA	22	22	17	29	28	45	30	41	58	29
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.55	1.4	0.38 J	2.5	1.3	0.24	1.5	0.87	2.6	0.75
	ARSENIC	mg/kg	9.5	0.68	5.9	4.2	**[6.7]**	5.0	**[8.2]**	4.8	4.0	**[7.4]**	**[9.7]**	**[11]**	**[6.5]**
	BARIUM	mg/kg	21000	15000	1700	110	100	94	110	73	81	87	200	140	47
	CADMIUM	mg/kg	99	71	7.5	0.61	0.71	0.63	1.6	0.99	0.4	1.1	1.8	2.8	0.48
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	9.5	26	18	47	31	39	28	33	63	12
	COBALT	mg/kg	32	23	5.4	3.5	**[5.7]**	**[5.8]**	4.1	2.7	**[26]**	4.7	**[9.5]**	**[5.8]**	2.8
	COPPER	mg/kg	4300	3100	920	40	100	35	56	46	34	40	63	64	21
	LEAD	mg/kg	400	400	270	76	56	90	260	140	47	150	**[400]**	240	74
	MAGNESIUM	mg/kg	NA	NA	NA	1000	1500	1500	1900	1800	3400	2300	3400	2700	1600
	MANGANESE	mg/kg	2500	1800	560	410 J	400 J	410	390	460	300	430	**[650 J]**	510 J	200 J
	NICKEL	mg/kg	2100	1500	510	9.3	41	13	15	12	11	12	30	24	7.8
	SELENIUM	mg/kg	550	390	5.3	1.0	1.7	1.8	2.0	1.2	1.3	1.8	2.5	2.2	1.3
	SILVER	mg/kg	550	390	16	0.28	0.17	0.14	0.59	0.34	0.12	0.32	0.28	0.86	0.10
	THALLIUM	mg/kg	1.1	0.78	2.9	0.48 U	0.49 U	0.48 U	0.5 U	0.48 U	0.5 U	0.49 U	0.49 U	0.48 U	0.48 U
	VANADIUM	mg/kg	550	390	1700	9.7	21	19	20	13	17	20	33	20	13
	ZINC	mg/kg	32000	NA	7500	77	70	98	190	110	64	140	210	270	61
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.21	0.22	0.14	0.42	0.26	0.18	0.15	0.39	0.53	0.44
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	NS	0.2 U	NS	NS	NS	NS	0.4 U	NS	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	NS	0.039 U	NS	NS	NS	NS	0.08 U	NS	NS
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	NS	0.039 U	NS	NS	NS	NS	0.076 J	NS	NS
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	NS	0.039 U	NS	NS	NS	NS	0.08 U	NS	NS
	ANTHRACENE	mg/kg	25000	17900	1200	NS	NS	0.039 U	NS	NS	NS	NS	0.29	NS	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	NS	0.067	NS	NS	NS	NS	**[1.0]**	NS	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	NS	0.061 J	NS	NS	NS	NS	0.96	NS	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	NS	0.089	NS	NS	NS	NS	1.3	NS	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	NS	0.026 J	NS	NS	NS	NS	0.37	NS	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	NS	0.036 J	NS	NS	NS	NS	0.50	NS	NS
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	NS	NS	0.061	NS	NS	NS	NS	0.08 U	NS	NS
	CARBAZOLE	mg/kg	NA	NA	NA	NS	NS	0.039 U	NS	NS	NS	NS	0.12	NS	NS
	CHRYSENE	mg/kg	220	110	250	NS	NS	0.067	NS	NS	NS	NS	0.94	NS	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	NS	0.039 UJ	NS	NS	NS	NS	0.13 J	NS	NS
	DIBENZOFURAN	mg/kg	100	73	2.9	NS	NS	0.039 U	NS	NS	NS	NS	0.048 J	NS	NS
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	NS	NS	0.039 U	NS	NS	NS	NS	0.08 U	NS	NS
	FLUORENE	mg/kg	3400	2390	110	NS	NS	0.039 U	NS	NS	NS	NS	0.089	NS	NS
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	NS	0.032 J	NS	NS	NS	NS	0.43	NS	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	NS	0.039 U	NS	NS	NS	NS	0.08 U	NS	NS
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	NS	0.067	NS	NS	NS	NS	1.4	NS	NS
SW8270C-SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	NS	0.038 U	NS	NS	NS	NS	0.39 U	NS	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	NS	0.038 U	NS	NS	NS	NS	0.39 U	NS	NS
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	NS	0.038 U	NS	NS	NS	NS	0.39 U	NS	NS
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	NS	0.038 U	NS	NS	NS	NS	0.39 U	NS	NS
	ANTHRACENE	mg/kg	25000	17900	1200	NS	NS	0.038 U	NS	NS	NS	NS	0.39 U	NS	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	NS	0.074	NS	NS	NS	NS	**[1.1]**	NS	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	NS	0.048 J	NS	NS	NS	NS	0.58	NS	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	NS	0.11	NS	NS	NS	NS	1.2	NS	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	NS	0.038	NS	NS	NS	NS	0.39 U	NS	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	NS	0.038 U	NS	NS	NS	NS	0.42	NS	NS
	CHRYSENE	mg/kg	220	110	250	NS	NS	0.083	NS	NS	NS	NS	1.1	NS	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	NS	0.038 U	NS	NS	NS	NS	0.39 U	NS	NS
	FLUORENE	mg/kg	3400	2390	110	NS	NS	0.038 U	NS	NS	NS	NS	0.39 U	NS	NS
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	NS	0.044	NS	NS	NS	NS	0.46	NS	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	NS	0.038 U	NS	NS	NS	NS	0.39 U	NS	NS
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	NS	0.070	NS	NS	NS	NS	1.3	NS	NS
SW9012	CYANIDE	mg/kg	32	23	40	NS	NS	0.34	NS	NS	NS	NS	0.25	NS	NS
SW9045C	PH	ph unit	NA	NA	NA	NS	NS	6.06	NS	NS	NS	NS	6.83	NS	NS

Notes:
mg/kg - milligrams per kilogram
U – Concentration was non-detect; Value presented is laboratory reporting limit
J – Concentration is an estimated value
R - Rejected Result
NS – Analyte was not analyzed
* - Discrete sample (not five-point composite sample)
Table includes only compounds with at least one detect concentration result.
Yellow results are detected above the IDEM OLQ 2017 Recreational Park User soil direct contact (DC) screening level (SL).
Underlined results are detected concentrations above the EPA Region 5 2017 Residential Soil RSL.
[BOLD] results are detected concentrations above the IDEM OLQ 2017 Soil Migration to Groundwater (MTG) SL.
The IDEM OLQ 2017 Recreation Park Use DC SL applies to arsenic (45 mg/kg), lead (800 mg/kg) and benzo(A)pyrene (0.98 mg/kg).

Table 9. Detected Analytical Results Summary
Surface Soils
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	12SS-4	13SS-1	13SS-2		13SS-3	13SS-4	14SS-1	14SS-2	14SS-3	14SS-4
					Sample ID:	LPA12-SS-004 (00-0.5') (20160824)	LPA13-SS-001 (0.0-0.5') (20160825)	LPA13-QD-001 (0.0-0.5') (20160825)	LPA13-SS-002 (0.0-0.5') (20160825)	LPA13-SS-003 (0.0-0.5') (20160825)	LPA13-SS-004 (0.0-0.5') (20160825)	LPA14-SS-001 (00-0.5') (20160809)	LPA14-SS-002 (00-0.5') (20160809)	LPA14-SS-003 (00-0.5') (20160809)	LPA14-SS-004 (00-0.5') (20160809)
					Sample Date:	8/24/16	8/25/16	8/25/16	8/25/16	8/25/16	8/25/16	8/9/16	8/9/16	8/9/16	8/9/16
					Sample Depth (ft bgs):	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	80	82	75	77	83	83	98	91	93	95
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	4700	3300	2400	2600	2900	4000	8700	6500	3100	5100
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.7	1.0	0.39 J	0.81
	CALCIUM	mg/kg	NA	NA	NA	6600	20000	19000	16000	18000	20000	90000	13000	13000	32000
	IRON	mg/kg	77000	55000	7100	**[16000]**	**[8500]**	**[10000]**	**[10000]**	6600	**[8400]**	**[70000]**	**[28000]**	**[11000]**	**[17000]**
	POTASSIUM	mg/kg	NA	NA	NA	730	620 J	600	350	580	810	2100	1300	620	1100
	SODIUM	mg/kg	NA	NA	NA	29	53	30	65	71	48	160	31	33	100
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.64	0.40 J	0.19	0.59	0.31	0.34	0.52	0.45	0.33	1.4
	ARSENIC	mg/kg	9.5	0.68	5.9	**[9.5]**	**[9.6]**	**[7.3]**	**[6.5]**	4.1	5.0	**[56]**	**[13]**	**[7.2]**	**[10]**
	BARIUM	mg/kg	21000	15000	1700	92	100	82	53	120	190	310	200	99	310
	CADMIUM	mg/kg	99	71	7.5	0.75	0.45	0.29	0.62	2.8	4.1	1.6	1.2	0.90	2.9
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	17	12	8.1	13	91	130	43	27	28	42
	COBALT	mg/kg	32	23	5.4	**[6.1]**	**[5.8]**	4.8	3.1	4.7	**[7.3]**	**[23]**	**[13]**	**[7.5]**	**[15]**
	COPPER	mg/kg	4300	3100	920	30	23 J	12	46	40	48	59	42	32	130
	LEAD	mg/kg	400	400	270	75	98 J	28	130	170	170	96	92	89	**[320]**
	MAGNESIUM	mg/kg	NA	NA	NA	2100	3300	3600	7900	6900	11000	36000	4900	6700	16000
	MANGANESE	mg/kg	2500	1800	560	450 J	**[580 J]**	**[570 J]**	360 J	530 J	**[950 J]**	**[2000 J]**	**[940 J]**	530 J	**[880 J]**
	NICKEL	mg/kg	2100	1500	510	14	12	8.1	9.2	14	15	41	25	15	41
	SELENIUM	mg/kg	550	390	5.3	2.1	3.1 J	2.0	2.8	2.2	3.2	**[6.2]**	4.7	2.8	4.6
	SILVER	mg/kg	550	390	16	0.16	0.12	0.1 U	0.1 U	2.2	3.0	0.48	0.22	0.23	0.63
	THALLIUM	mg/kg	1.1	0.78	2.9	0.5 U	0.5 U	0.49 U	0.48 U	0.49 U	0.49 U	0.5 U	0.49 U	0.49 U	0.48 U
	VANADIUM	mg/kg	550	390	1700	21	16	12	17	12	16	60	43	24	37
	ZINC	mg/kg	32000	NA	7500	93	81 J	50	76	490	660	270	160	190	410
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.36	0.37 J	0.30	0.17	1.7	**[2.3]**	0.11	0.089	0.058	0.056
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	0.2 U	NS	NS	NS	NS	0.34 U	NS	NS	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	0.04 U	NS	NS	NS	NS	0.067 U	NS	NS	NS
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	0.04 U	NS	NS	NS	NS	0.067 U	NS	NS	NS
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	0.04 U	NS	NS	NS	NS	0.067 U	NS	NS	NS
	ANTHRACENE	mg/kg	25000	17900	1200	NS	0.04 U	NS	NS	NS	NS	0.067 U	NS	NS	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	0.062	NS	NS	NS	NS	0.067 U	NS	NS	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	0.061 J	NS	NS	NS	NS	0.067 U	NS	NS	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	0.097	NS	NS	NS	NS	0.067 U	NS	NS	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	0.04 UJ	NS	NS	NS	NS	0.067 U	NS	NS	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	0.041	NS	NS	NS	NS	0.067 U	NS	NS	NS
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	NS	0.04 U	NS	NS	NS	NS	0.042 J	NS	NS	NS
	CARBAZOLE	mg/kg	NA	NA	NA	NS	0.04 U	NS	NS	NS	NS	0.067 U	NS	NS	NS
	CHRYSENE	mg/kg	220	110	250	NS	0.061	NS	NS	NS	NS	0.067 U	NS	NS	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	0.040 UJ	NS	NS	NS	NS	0.067 U	NS	NS	NS
	DIBENZOFURAN	mg/kg	100	73	2.9	NS	0.04 U	NS	NS	NS	NS	0.067 U	NS	NS	NS
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	NS	0.04 U	NS	NS	NS	NS	0.067 U	NS	NS	NS
	FLUORENE	mg/kg	3400	2390	110	NS	0.04 U	NS	NS	NS	NS	0.067 U	NS	NS	NS
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	0.04 UJ	NS	NS	NS	NS	0.067 U	NS	NS	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	0.04 U	NS	NS	NS	NS	0.067 U	NS	NS	NS
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	0.063	NS	NS	NS	NS	0.067 U	NS	NS	NS
SW8270C-SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	0.4 U	NS	NS	NS	NS	0.066 U	NS	NS	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	0.4 U	NS	NS	NS	NS	0.066 U	NS	NS	NS
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	0.4 U	NS	NS	NS	NS	0.066 U	NS	NS	NS
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	0.4 U	NS	NS	NS	NS	0.066 U	NS	NS	NS
	ANTHRACENE	mg/kg	25000	17900	1200	NS	0.4 U	NS	NS	NS	NS	0.066 U	NS	NS	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	0.4 U	NS	NS	NS	NS	0.066 U	NS	NS	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	0.4 U	NS	NS	NS	NS	0.066 UJ	NS	NS	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	0.4 U	NS	NS	NS	NS	0.066 U	NS	NS	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	0.4 U	NS	NS	NS	NS	0.066 U	NS	NS	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	0.4 U	NS	NS	NS	NS	0.066 U	NS	NS	NS
	CHRYSENE	mg/kg	220	110	250	NS	0.4 U	NS	NS	NS	NS	0.066 U	NS	NS	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	0.4 U	NS	NS	NS	NS	0.066 U	NS	NS	NS
	FLUORENE	mg/kg	3400	2390	110	NS	0.4 U	NS	NS	NS	NS	0.066 U	NS	NS	NS
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	0.4 U	NS	NS	NS	NS	0.066 U	NS	NS	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	0.4 U	NS	NS	NS	NS	0.066 U	NS	NS	NS
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	0.4 U	NS	NS	NS	NS	0.066 U	NS	NS	NS
SW9012	CYANIDE	mg/kg	32	23	40	NS	0.40	NS	NS	NS	NS	0.2 U	NS	NS	NS
SW9045C	PH	ph unit	NA	NA	NA	NS	7.83	NS	NS	NS	NS	NS	NS	NS	NS

Notes:
mg/kg - milligrams per kilogram
U – Concentration was non-detect; Value presented is laboratory reporting limit
J – Concentration is an estimated value
R - Rejected Result
NS – Analyte was not analyzed
* - Discrete sample (not five-point composite sample)
Table includes only compounds with at least one detect concentration result.
Yellow results are detected above the IDEM OLQ 2017 Recreational Park User soil direct contact (DC) screening level (SL).
Underlined results are detected concentrations above the EPA Region 5 2017 Residential Soil RSL.
[BOLD] results are detected concentrations above the IDEM OLQ 2017 Soil Migration to Groundwater (MTG) SL.
The IDEM OLQ 2017 Recreation Park Use DC SL applies to arsenic (45 mg/kg), lead (800 mg/kg) and benzo(A)pyrene (0.98 mg/kg).

Table 9. Detected Analytical Results Summary
Surface Soils
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	15SS-1	15SS-2	15SS-3	15SS-3	15SS-4	16SS-1	16SS-2	16SS-3	16SS-4	17SS-1
					Sample ID:	LPA15-SS-001 (00-0.5') (20160809)	LPA15-SS-002 (00-0.5') (20160809)	LPA15-QD-001 (00-0.5') (20160810)	LPA15-SS-003 (00-0.5') (20160810)	LPA15-SS-004 (00-0.5') (20160810)	LPA16-SS-001 (00-0.5') (20160818)	LPA16-SS-002 (00-0.5') (20160818)	LPA16-SS-003 (00-0.5') (20160818)	LPA16-SS-004 (00-0.5') (20160818)	LPA17-SS-001 (0'-0.5') (20160822)
					Sample Date:	8/9/16	8/9/16	8/10/16	8/10/16	8/10/16	8/18/16	8/18/16	8/18/16	8/18/16	8/22/16
					Sample Depth (ft bgs):	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	94	93	93	93	92	76	74	73	75	84
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	3800	5700 J	4600	3500	2600	5900	6300	2800	3300	6200
	BERYLLIUM	mg/kg	220	160	63	1.1	0.76	0.53	0.52	0.36 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	6000	11000 J	6700	5100	21000	13000	13000	17000	7200	2500
	IRON	mg/kg	77000	55000	7100	**[39000]**	**[14000 J]**	**[13000]**	**[11000]**	**[9000]**	**[13000]**	**[15000]**	**[10000]**	**[8200]**	**[17000]**
	POTASSIUM	mg/kg	NA	NA	NA	670 J	410 J	850	730	450	730	870	320	300	630
	SODIUM	mg/kg	NA	NA	NA	28 J	38	34	32	29	20	20	33	28	27
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.28	0.57 J	1.1	1.7	0.30	0.29	0.28	0.91	0.34	1.2
	ARSENIC	mg/kg	9.5	0.68	5.9	**[42]**	**[12 J]**	5.9	5.5	**[12]**	**[8.4]**	**[10]**	**[16]**	**[7.9]**	**[6.2]**
	BARIUM	mg/kg	21000	15000	1700	160	190	290	320	82	250	150	88	70	240
	CADMIUM	mg/kg	99	71	7.5	0.74	2.2	2.3	3.0	0.49	0.61	0.59	0.70	0.74	1.4
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	16	53 J	35	35	11	13	14	7.7	19	18
	COBALT	mg/kg	32	23	5.4	**[6.8]**	**[7.6]**	**[10]**	**[9.0]**	4.6	**[6.0]**	**[6.7]**	2.8	3.0	**[6.2]**
	COPPER	mg/kg	4300	3100	920	20 J	84 J	130	240	20	27	28	21	23	100
	LEAD	mg/kg	400	400	270	44 J	150 J	**[300]**	**[600]**	81	62	45	110	98	210
	MAGNESIUM	mg/kg	NA	NA	NA	2500	2300	5100	3500	3700	1400	1900	2700	2600	1400
	MANGANESE	mg/kg	2500	1800	560	**[670 J]**	510 J	**[690 J]**	**[590 J]**	370 J	**[640 J]**	**[730 J]**	150 J	170 J	400 J
	NICKEL	mg/kg	2100	1500	510	14	23 J	30	31	9.7	13	15	7.6	8.1	18
	SELENIUM	mg/kg	550	390	5.3	2.4	2.6 J	2.8	2.3	1.4	2.3	2.4	1.8	1.3	2.3
	SILVER	mg/kg	550	390	16	0.12	0.48	0.82	1.3	0.1 U	0.12	0.1 U	0.11	0.14	1.8
	THALLIUM	mg/kg	1.1	0.78	2.9	0.5 U	0.5 U	0.094 J	0.071 J	0.48 U	0.49 U	0.49 U	0.48 U	0.49 U	0.48 U
	VANADIUM	mg/kg	550	390	1700	29	25	30	27	15	19	23	12	10	19
	ZINC	mg/kg	32000	NA	7500	96 J	220 J	350	410	72	74	78	110	140	230
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.20	0.68	0.26	0.19	0.091	0.28	0.45	0.94	**[16]**	1.8
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.35 U	NS	NS	NS	NS	0.22 U	NS	NS	NS	0.2 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.083	NS	NS	NS	NS	0.044 U	NS	NS	NS	0.039 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.076	NS	NS	NS	NS	0.044 U	NS	NS	NS	0.039 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.07 U	NS	NS	NS	NS	0.044 U	NS	NS	NS	0.039 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.20	NS	NS	NS	NS	0.044 U	NS	NS	NS	0.039 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.38	NS	NS	NS	NS	0.023 J	NS	NS	NS	0.031 J
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.37	NS	NS	NS	NS	0.044 U	NS	NS	NS	0.026 J
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.58	NS	NS	NS	NS	0.030 J	NS	NS	NS	0.039
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.086 J	NS	NS	NS	NS	0.044 U	NS	NS	NS	0.039 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.21	NS	NS	NS	NS	0.044 U	NS	NS	NS	0.039 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.043 J	NS	NS	NS	NS	0.037 J	NS	NS	NS	0.079
	CARBAZOLE	mg/kg	NA	NA	NA	0.064 J	NS	NS	NS	NS	0.044 U	NS	NS	NS	0.039 U
	CHRYSENE	mg/kg	220	110	250	0.39	NS	NS	NS	NS	0.044 U	NS	NS	NS	0.028 J
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.070 UJ	NS	NS	NS	NS	0.044 U	NS	NS	NS	0.039 U
	DIBENZOFURAN	mg/kg	100	73	2.9	0.056 J	NS	NS	NS	NS	0.044 U	NS	NS	NS	0.039 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.07 U	NS	NS	NS	NS	0.044 U	NS	NS	NS	0.039 U
	FLUORENE	mg/kg	3400	2390	110	0.087	NS	NS	NS	NS	0.044 U	NS	NS	NS	0.039 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.12 J	NS	NS	NS	NS	0.044 U	NS	NS	NS	0.039 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	**[0.17]**	NS	NS	NS	NS	0.044 U	NS	NS	NS	0.039 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.86 J	NS	NS	NS	NS	0.044 U	NS	NS	NS	0.026 J
SW8270C-SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.35 U	NS	NS	NS	NS	0.017 U	NS	NS	NS	0.038 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.35 U	NS	NS	NS	NS	0.017 U	NS	NS	NS	0.038 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.35 U	NS	NS	NS	NS	0.017 U	NS	NS	NS	0.038 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.35 U	NS	NS	NS	NS	0.017 U	NS	NS	NS	0.038 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.38	NS	NS	NS	NS	0.017 U	NS	NS	NS	0.038 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	**[1.0]**	NS	NS	NS	NS	0.025	NS	NS	NS	0.056
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.63 J	NS	NS	NS	NS	0.017 UJ	NS	NS	NS	0.038 UJ
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	1.2	NS	NS	NS	NS	0.031	NS	NS	NS	0.067
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.43	NS	NS	NS	NS	0.017 U	NS	NS	NS	0.038 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.42	NS	NS	NS	NS	0.017 U	NS	NS	NS	0.038 U
	CHRYSENE	mg/kg	220	110	250	0.94	NS	NS	NS	NS	0.025	NS	NS	NS	0.060
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.35 U	NS	NS	NS	NS	0.017 U	NS	NS	NS	0.038 U
	FLUORENE	mg/kg	3400	2390	110	0.35 U	NS	NS	NS	NS	0.017 U	NS	NS	NS	0.038 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.56	NS	NS	NS	NS	0.017 U	NS	NS	NS	0.038 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.35 U	NS	NS	NS	NS	0.017 U	NS	NS	NS	0.038 U
	PHENANTHRENE	mg/kg	NA	NA	NA	1.6	NS	NS	NS	NS	0.030	NS	NS	NS	0.066
SW9012	CYANIDE	mg/kg	32	23	40	0.61	NS	NS	NS	NS	0.59	NS	NS	NS	1.8
SW9045C	PH	ph unit	NA	NA	NA	NS	NS	NS	NS	NS	7.7	NS	NS	NS	6.35

Notes:
mg/kg - milligrams per kilogram
U – Concentration was non-detect; Value presented is laboratory reporting limit
J – Concentration is an estimated value
R - Rejected Result
NS – Analyte was not analyzed
* - Discrete sample (not five-point composite sample)
Table includes only compounds with at least one detect concentration result.
Yellow results are detected above the IDEM OLQ 2017 Recreational Park User soil direct contact (DC) screening level (SL).
Underlined results are detected concentrations above the EPA Region 5 2017 Residential Soil RSL.
[BOLD] results are detected concentrations above the IDEM OLQ 2017 Soil Migration to Groundwater (MTG) SL.
The IDEM OLQ 2017 Recreation Park Use DC SL applies to arsenic (45 mg/kg), lead (800 mg/kg) and benzo(A)pyrene (0.98 mg/kg).

Table 9. Detected Analytical Results Summary
Surface Soils
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	17SS-2	17SS-3	17SS-4	18SS-1	18SS-2	18SS-3	18SS-4	19SS-1	19SS-2	19SS-3
					Sample ID:	LPA17-SS-002 (0'-0.5') (20160822)	LPA17-SS-003 (0'-0.5') (20160822)	LPA17-SS-004 (0'-0.5') (20160822)	LPA18-SS-001 (0'-0.5') (20160823)	LPA18-SS-002 (0'-0.5') (20160823)	LPA18-SS-003 (0'-0.5') (20160823)	LPA18-SS-004 (0'-0.5') (20160823)	LPA19-SS-001 (00-0.5') (20160824)	LPA19-SS-002 (00-0.5') (20160824)	LPA19-SS-003 (00-0.5') (20160824)
					Sample Date:	8/22/16	8/22/16	8/22/16	8/23/16	8/23/16	8/23/16	8/23/16	8/24/16	8/24/16	8/24/16
					Sample Depth (ft bgs):	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	83	85	83	87	79	83	83	78	67	76
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	11000	4100	6700	4500	3300	5700	6600	3200	1200	3700
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	4000	3700	3000	4700	13000	5000	3500	91000	15000	70000
	IRON	mg/kg	77000	55000	7100	**[28000]**	**[8700]**	**[14000]**	**[13000]**	**[12000]**	**[19000]**	**[20000]**	**[17000]**	4100	**[14000]**
	POTASSIUM	mg/kg	NA	NA	NA	1000	450	660	560	540	700	700	590	200 U	620
	SODIUM	mg/kg	NA	NA	NA	37	30	19	24	32	30	35	94	18	100
SW6020	ANTIMONY	mg/kg	43	31	5.4	1.3	0.58	0.26	0.43	0.50	1.4	0.93	0.44	0.14	0.4
	ARSENIC	mg/kg	9.5	0.68	5.9	**[11]**	4.0	5.8	**[6.8]**	**[11]**	**[13]**	**[8.0]**	**[12]**	2.9	**[13]**
	BARIUM	mg/kg	21000	15000	1700	180	78	150	100	66	120	190	120	34	93
	CADMIUM	mg/kg	99	71	7.5	1.5	0.81	0.42	0.53	0.51	1.4	1.5	0.6	0.2 U	0.65
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	28	11	15	16	22	37	36	9.5	3.1	11
	COBALT	mg/kg	32	23	5.4	**[9.9]**	3.8	**[7.0]**	**[6.6]**	3.2	**[5.6]**	**[8.3]**	5.0	1.4	5.0
	COPPER	mg/kg	4300	3100	920	52	20	27	33	18	35	150	18	5.8	20
	LEAD	mg/kg	400	400	270	250	67	49	69	50	180	210	77	26	55
	MAGNESIUM	mg/kg	NA	NA	NA	2800	2000	2300	3100	3600	2100	2000	27000	2600	19000
	MANGANESE	mg/kg	2500	1800	560	**[570 J]**	150 J	490 J	340	240	420	**[600]**	**[680 J]**	170 J	550 J
	NICKEL	mg/kg	2100	1500	510	25	10	14	15	88	14	36	10	3.8	11
	SELENIUM	mg/kg	550	390	5.3	2.4	1.3	2.0	2.3	1.6	2.3	2.4	1.7	0.54	1.5
	SILVER	mg/kg	550	390	16	0.39	0.11	0.11	1.0	0.1 U	0.43	0.44	0.1 U	0.1 U	0.1 U
	THALLIUM	mg/kg	1.1	0.78	2.9	0.48 UJ	0.48 U	0.49 U	0.49 U	0.49 U	0.48 U	0.5 U	0.5 U	0.49 U	0.49 U
	VANADIUM	mg/kg	550	390	1700	29	16	25	24	14	25	26	13	5.7	15
	ZINC	mg/kg	32000	NA	7500	290	130	82	110	64	170	230	82	38	85
SW7470A	MERCURY	mg/kg	3.1	11	2.1	**[3.4]**	0.074	0.12	0.15	0.13	0.26	0.78	0.44	0.59	0.80
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	NS	NS	0.19 U	NS	NS	NS	0.43 U	NS	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	NS	NS	0.038 U	NS	NS	NS	0.085 U	NS	NS
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	NS	NS	0.038 U	NS	NS	NS	0.085 U	NS	NS
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	NS	NS	0.038 U	NS	NS	NS	0.085 U	NS	NS
	ANTHRACENE	mg/kg	25000	17900	1200	NS	NS	NS	0.038 U	NS	NS	NS	0.048 J	NS	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	NS	NS	0.063	NS	NS	NS	0.15	NS	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	NS	NS	0.063	NS	NS	NS	0.16	NS	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	NS	NS	0.089	NS	NS	NS	0.22	NS	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	NS	NS	0.022 J	NS	NS	NS	0.085 U	NS	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	NS	NS	0.038	NS	NS	NS	0.11	NS	NS
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	NS	NS	NS	0.021 J	NS	NS	NS	0.086	NS	NS
	CARBAZOLE	mg/kg	NA	NA	NA	NS	NS	NS	0.038 U	NS	NS	NS	0.085 U	NS	NS
	CHRYSENE	mg/kg	220	110	250	NS	NS	NS	0.063	NS	NS	NS	0.15	NS	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	NS	NS	0.038 U	NS	NS	NS	0.085 UJ	NS	NS
	DIBENZOFURAN	mg/kg	100	73	2.9	NS	NS	NS	0.038 U	NS	NS	NS	0.085 U	NS	NS
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	NS	NS	NS	0.038 U	NS	NS	NS	0.085 U	NS	NS
	FLUORENE	mg/kg	3400	2390	110	NS	NS	NS	0.038 U	NS	NS	NS	0.085 U	NS	NS
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	NS	NS	0.025 J	NS	NS	NS	0.050 J	NS	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	NS	NS	0.038 U	NS	NS	NS	0.085 U	NS	NS
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	NS	NS	0.093	NS	NS	NS	0.20	NS	NS
SW8270C-SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	NS	NS	0.037 U	NS	NS	NS	0.42 U	NS	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	NS	NS	0.037 U	NS	NS	NS	0.42 U	NS	NS
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	NS	NS	0.037 U	NS	NS	NS	0.42 U	NS	NS
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	NS	NS	0.037 U	NS	NS	NS	0.42 U	NS	NS
	ANTHRACENE	mg/kg	25000	17900	1200	NS	NS	NS	0.037 U	NS	NS	NS	0.42 U	NS	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	NS	NS	0.062	NS	NS	NS	0.57	NS	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	NS	NS	0.045 J	NS	NS	NS	0.42 U	NS	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	NS	NS	0.086	NS	NS	NS	0.55	NS	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	NS	NS	0.037 U	NS	NS	NS	0.42 U	NS	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	NS	NS	0.037 U	NS	NS	NS	0.42 U	NS	NS
	CHRYSENE	mg/kg	220	110	250	NS	NS	NS	0.067	NS	NS	NS	0.61	NS	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	NS	NS	0.037 U	NS	NS	NS	0.42 U	NS	NS
	FLUORENE	mg/kg	3400	2390	110	NS	NS	NS	0.037 U	NS	NS	NS	0.42 U	NS	NS
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	NS	NS	0.037 U	NS	NS	NS	0.42 U	NS	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	NS	NS	0.037 U	NS	NS	NS	0.42 U	NS	NS
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	NS	NS	0.059	NS	NS	NS	1.1	NS	NS
SW9012	CYANIDE	mg/kg	32	23	40	NS	NS	NS	0.22	NS	NS	NS	0.23	NS	NS
SW9045C	PH	ph unit	NA	NA	NA	NS	NS	NS	7.27	NS	NS	NS	7.89	NS	NS

Notes:
mg/kg - milligrams per kilogram
U – Concentration was non-detect; Value presented is laboratory reporting limit
J – Concentration is an estimated value
R - Rejected Result
NS – Analyte was not analyzed
* - Discrete sample (not five-point composite sample)
Table includes only compounds with at least one detect concentration result.
Yellow results are detected above the IDEM OLQ 2017 Recreational Park User soil direct contact (DC) screening level (SL).
Underlined results are detected concentrations above the EPA Region 5 2017 Residential Soil RSL.
[BOLD] results are detected concentrations above the IDEM OLQ 2017 Soil Migration to Groundwater (MTG) SL.
The IDEM OLQ 2017 Recreation Park Use DC SL applies to arsenic (45 mg/kg), lead (800 mg/kg) and benzo(A)pyrene (0.98 mg/kg).

Table 9. Detected Analytical Results Summary
Surface Soils
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	19SS-4	20SS-1	20SS-2	20SS-3	20SS-4	21SS-1	21SS-2	21SS-3	21SS-4	22SS-1
					Sample ID:	LPA19-SS-004 (00-0.5') (20160824)	LPA20-SS-001 (0.0-0.5') (20160825)	LPA20-SS-002 (0.0-0.5') (20160825)	LPA20-SS-003 (0.0-0.5') (20160825)	LPA20-SS-004 (0.0-0.5') (20160825)	LPA21-SS-001 (00-0.5') (20160808)	LPA21-SS-002 (00-0.5') (20160808)	LPA21-SS-003 (00-0.5') (20160809)	LPA21-SS-004 (00-0.5') (20160809)	LPA22-SS-001 (00-0.5') (20160810)
					Sample Date:	8/24/16	8/25/16	8/25/16	8/25/16	8/25/16	8/8/16	8/8/16	8/9/16	8/9/16	8/10/16
					Sample Depth (ft bgs):	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	81	81	80	83	70	94	96	91	82	94
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	5900	2600	3500	2300	1200	3600	5300	2800	2200	2400
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.96	0.69	0.63	0.31 J	0.24 J
	CALCIUM	mg/kg	NA	NA	NA	5400	6900	6900	120000	150000	41000	97000	26000	4500	12000
	IRON	mg/kg	77000	55000	7100	**[18000]**	5400	**[7800]**	**[11000]**	**[8300]**	**[32000]**	**[22000]**	**[27000]**	**[8000]**	5900
	POTASSIUM	mg/kg	NA	NA	NA	880	500	780	420	320	600	1500	480	350	460
	SODIUM	mg/kg	NA	NA	NA	23	21	23	84	100	70	120	44	55	26
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.26	0.52	0.31	0.24	0.24	1.0	0.36	0.26	0.25	0.14 U
	ARSENIC	mg/kg	9.5	0.68	5.9	**[21]**	3.1	4.8	**[22]**	**[7.0]**	**[23]**	**[15]**	**[22]**	5.6	5.4
	BARIUM	mg/kg	21000	15000	1700	120	120	170	120	130	150	120	92	74	86
	CADMIUM	mg/kg	99	71	7.5	0.39	1.9	3.7	0.35	0.31	1.4	0.92	0.67	0.67	0.60
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	14	80	130	9.2	3.6	21	47	12	15	24
	COBALT	mg/kg	32	23	5.4	**[7.3]**	4.2	5.4	3.8	1.9	**[6.8]**	**[17]**	4.9	4.3	**[6.2]**
	COPPER	mg/kg	4300	3100	920	16	36	42	14	12	42	34	17	36	19
	LEAD	mg/kg	400	400	270	25	83	91	30	38	100	55	42	54	31
	MAGNESIUM	mg/kg	NA	NA	NA	2300	3300	2100	8500	5000	7200	41000	13000	2300	7300
	MANGANESE	mg/kg	2500	1800	560	**[620 J]**	460 J	**[600 J]**	**[590 J]**	**[690 J]**	380 J	**[1800 J]**	390 J	230 J	440 J
	NICKEL	mg/kg	2100	1500	510	13	9.9	13	10	4.4	15	31	10	11	11
	SELENIUM	mg/kg	550	390	5.3	2.3	1.9	2.7	2.5	1.7	2.9	4.7	2.0	2.1	1.7
	SILVER	mg/kg	550	390	16	0.1 U	2.0	2.9	0.1 U	0.1 U	0.18	0.37	0.1 U	0.21	0.36
	THALLIUM	mg/kg	1.1	0.78	2.9	0.49 U	0.5 U	0.49 U	0.48 U	0.49 U	0.48 U	0.48 U	0.5 U	0.48 U	0.5 U
	VANADIUM	mg/kg	550	390	1700	25	10	17	14	5.8	31	40	17	18	19
	ZINC	mg/kg	32000	NA	7500	64	300	610	49	49	180	180	71	83	92
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.21	1.3	1.7	0.036 J	0.14	0.030 J	0.11	1.2	0.069	0.055
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	0.41 U	NS	NS	NS	0.35 U	NS	NS	NS	0.18 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	0.081 U	NS	NS	NS	0.07 U	NS	NS	NS	0.035 U
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	0.081 U	NS	NS	NS	0.07 U	NS	NS	NS	0.035 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	0.081 U	NS	NS	NS	0.07 U	NS	NS	NS	0.035 U
	ANTHRACENE	mg/kg	25000	17900	1200	NS	0.081 U	NS	NS	NS	0.07 U	NS	NS	NS	0.035 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	0.050 J	NS	NS	NS	0.12	NS	NS	NS	0.035 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	0.081 UJ	NS	NS	NS	0.11	NS	NS	NS	0.035 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	0.094 J	NS	NS	NS	0.18	NS	NS	NS	0.035 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	0.081 UJ	NS	NS	NS	0.07 U	NS	NS	NS	0.035 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	0.081 UJ	NS	NS	NS	0.058 J	NS	NS	NS	0.035 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	NS	0.081 U	NS	NS	NS	0.046 J	NS	NS	NS	0.032 J
	CARBAZOLE	mg/kg	NA	NA	NA	NS	0.081 U	NS	NS	NS	0.07 U	NS	NS	NS	0.035 U
	CHRYSENE	mg/kg	220	110	250	NS	0.041 J	NS	NS	NS	0.10	NS	NS	NS	0.035 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	0.081 UJ	NS	NS	NS	0.07 U	NS	NS	NS	0.035 U
	DIBENZOFURAN	mg/kg	100	73	2.9	NS	0.081 U	NS	NS	NS	0.07 U	NS	NS	NS	0.035 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	NS	0.081 U	NS	NS	NS	0.07 U	NS	NS	NS	0.035 U
	FLUORENE	mg/kg	3400	2390	110	NS	0.081 U	NS	NS	NS	0.07 U	NS	NS	NS	0.035 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	0.081 UJ	NS	NS	NS	0.036 J	NS	NS	NS	0.035 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	0.081 U	NS	NS	NS	0.07 U	NS	NS	NS	0.035 U
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	0.081 U	NS	NS	NS	0.20	NS	NS	NS	0.035 U
SW8270C-SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	0.4 U	NS	NS	NS	0.069 U	NS	NS	NS	0.034 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	0.4 U	NS	NS	NS	0.069 U	NS	NS	NS	0.034 U
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	0.4 U	NS	NS	NS	0.069 U	NS	NS	NS	0.034 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	0.4 U	NS	NS	NS	0.069 U	NS	NS	NS	0.034 U
	ANTHRACENE	mg/kg	25000	17900	1200	NS	0.4 U	NS	NS	NS	0.069 U	NS	NS	NS	0.034 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	0.4 U	NS	NS	NS	0.069 U	NS	NS	NS	0.034 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	0.4 U	NS	NS	NS	0.069 UJ	NS	NS	NS	0.034 UJ
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	0.4 U	NS	NS	NS	0.085	NS	NS	NS	0.035
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	0.4 U	NS	NS	NS	0.069 U	NS	NS	NS	0.034 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	0.4 U	NS	NS	NS	0.069 U	NS	NS	NS	0.034 U
	CHRYSENE	mg/kg	220	110	250	NS	0.4 U	NS	NS	NS	0.069 U	NS	NS	NS	0.034 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	0.4 U	NS	NS	NS	0.069 U	NS	NS	NS	0.034 U
	FLUORENE	mg/kg	3400	2390	110	NS	0.4 U	NS	NS	NS	0.069 U	NS	NS	NS	0.034 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	0.4 U	NS	NS	NS	0.069 U	NS	NS	NS	0.034 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	0.4 U	NS	NS	NS	0.069 U	NS	NS	NS	0.034 U
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	0.4 U	NS	NS	NS	0.069 U	NS	NS	NS	0.034 U
SW9012	CYANIDE	mg/kg	32	23	40	NS	8.3	NS	NS	NS	0.23	NS	NS	NS	0.42
SW9045C	PH	ph unit	NA	NA	NA	NS	7.48	NS	NS	NS	NS	NS	NS	NS	NS

Notes:
mg/kg - milligrams per kilogram
U – Concentration was non-detect; Value presented is laboratory reporting limit
J – Concentration is an estimated value
R - Rejected Result
NS – Analyte was not analyzed
* - Discrete sample (not five-point composite sample)
Table includes only compounds with at least one detect concentration result.
Yellow results are detected above the IDEM OLQ 2017 Recreational Park User soil direct contact (DC) screening level (SL).
Underlined results are detected concentrations above the EPA Region 5 2017 Residential Soil RSL.
[BOLD] results are detected concentrations above the IDEM OLQ 2017 Soil Migration to Groundwater (MTG) SL.
The IDEM OLQ 2017 Recreation Park Use DC SL applies to arsenic (45 mg/kg), lead (800 mg/kg) and benzo(A)pyrene (0.98 mg/kg).

Table 9. Detected Analytical Results Summary
Surface Soils
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	22SS-2	22SS-3	22SS-4	23SS-1	23SS-2	23SS-3	23SS-4	24SS-1	24SS-2	24SS-3
					Sample ID:	LPA22-SS-002 (00-0.5') (20160810)	LPA22-SS-003 (00-0.5') (20160810)	LPA22-SS-004 (00-0.5') (20160810)	LPA23-SS-001 (00-0.5') (20160818)	LPA23-SS-002 (00-0.5') (20160818)	LPA23-SS-003 (00-0.5') (20160818)	LPA23-SS-004 (00-0.5') (20160818)	LPA24-SS-001 (0'-0.5') (20160822)	LPA24-SS-002 (0'-0.5') (20160822)	LPA24-SS-003 (0'-0.5') (20160822)
					Sample Date:	8/10/16	8/10/16	8/10/16	8/18/16	8/18/16	8/18/16	8/18/16	8/22/16	8/22/16	8/22/16
					Sample Depth (ft bgs):	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	92	93	93	71	70	72	69	83	79	83
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	2500	1800	4200	4000	4000	4200	4600	5400	8200	5600
	BERYLLIUM	mg/kg	220	160	63	0.26 J	0.30 J	0.57	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	77000	8400	42000	37000	21000	11000	13000	38000	19000	4600
	IRON	mg/kg	77000	55000	7100	**[7600]**	**[8000]**	**[13000]**	**[14000]**	**[21000]**	**[16000]**	**[13000]**	**[14000]**	**[34000]**	**[14000]**
	POTASSIUM	mg/kg	NA	NA	NA	510	490	920	620	450	540	570	1000	1200	1100
	SODIUM	mg/kg	NA	NA	NA	53	37	190	34	32	28	36	74	71	43
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.16	0.28	0.62	0.67	4.5	1.9	0.60	0.23	0.89	0.66
	ARSENIC	mg/kg	9.5	0.68	5.9	**[9.7]**	5.6	**[12]**	**[15]**	**[18]**	**[13]**	**[13]**	**[6.3]**	**[28]**	**[8.2]**
	BARIUM	mg/kg	21000	15000	1700	140	81	190	120	900	180	90	52	120	100
	CADMIUM	mg/kg	99	71	7.5	0.40	0.80	**[8.8]**	1.0	**[22]**	**[89]**	1.1	0.45	2.1	5.8
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	13	15	35	14	38	21	13	13	22	13
	COBALT	mg/kg	32	23	5.4	5.2	4.8	**[8.9]**	3.9	**[5.8]**	4.6	3.7	**[6.4]**	**[9.1]**	4.6
	COPPER	mg/kg	4300	3100	920	18	26	55	41	**[960]**	170	42	21	53	83
	LEAD	mg/kg	400	400	270	29	68	120	88	**[2300]**	270	79	63	190	96
	MAGNESIUM	mg/kg	NA	NA	NA	4700	3000	6900	3300	5200	1700	2300	16000	9800	1700
	MANGANESE	mg/kg	2500	1800	560	**[780 J]**	390 J	**[920 J]**	300 J	340 J	230 J	150 J	360 J	**[670 J]**	370 J
	NICKEL	mg/kg	2100	1500	510	11	10	17	13	37	16	12	15	23	12
	SELENIUM	mg/kg	550	390	5.3	1.7	1.3	2.1	2.7	5.1	2.8	2.8	1.7	2.5	1.6
	SILVER	mg/kg	550	390	16	0.1 U	0.11	0.35	0.16	0.40	0.23	0.29	0.1 U	0.13	0.15
	THALLIUM	mg/kg	1.1	0.78	2.9	0.5 U	0.5 U	0.11 J	0.5 U	0.48 U	0.48 U	0.49 U	0.49 U	0.48 U	0.49 U
	VANADIUM	mg/kg	550	390	1700	16	18	25	16	17	18	17	16	28	17
	ZINC	mg/kg	32000	NA	7500	70	96	220	110	2500	410	110	86	170	180
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.056	0.22	0.20	0.42	**[5.8]**	1.8	0.36	0.16	0.35	0.26
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	NS	NS	0.23 U	NS	NS	NS	0.2 U	NS	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	NS	NS	0.047 U	NS	NS	NS	0.04 U	NS	NS
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	NS	NS	0.047 U	NS	NS	NS	0.04 U	NS	NS
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	NS	NS	0.047 U	NS	NS	NS	0.04 U	NS	NS
	ANTHRACENE	mg/kg	25000	17900	1200	NS	NS	NS	0.047 U	NS	NS	NS	0.04 U	NS	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	NS	NS	0.087	NS	NS	NS	0.038 J	NS	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	NS	NS	0.083	NS	NS	NS	0.034 J	NS	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	NS	NS	0.11	NS	NS	NS	0.048	NS	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	NS	NS	0.027 J	NS	NS	NS	0.04 U	NS	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	NS	NS	0.049	NS	NS	NS	0.021 J	NS	NS
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	NS	NS	NS	0.091	NS	NS	NS	0.035 J	NS	NS
	CARBAZOLE	mg/kg	NA	NA	NA	NS	NS	NS	0.047 U	NS	NS	NS	0.04 U	NS	NS
	CHRYSENE	mg/kg	220	110	250	NS	NS	NS	0.088	NS	NS	NS	0.040	NS	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	NS	NS	0.047 U	NS	NS	NS	0.04 U	NS	NS
	DIBENZOFURAN	mg/kg	100	73	2.9	NS	NS	NS	0.047 U	NS	NS	NS	0.04 U	NS	NS
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	NS	NS	NS	0.047 U	NS	NS	NS	0.04 U	NS	NS
	FLUORENE	mg/kg	3400	2390	110	NS	NS	NS	0.047 U	NS	NS	NS	0.04 U	NS	NS
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	NS	NS	0.028 J	NS	NS	NS	0.04 U	NS	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	NS	NS	0.047 U	NS	NS	NS	0.04 U	NS	NS
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	NS	NS	0.095	NS	NS	NS	0.046	NS	NS
SW8270C-SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	NS	NS	0.092 U	NS	NS	NS	0.039 U	NS	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	NS	NS	0.092 U	NS	NS	NS	0.039 U	NS	NS
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	NS	NS	0.092 U	NS	NS	NS	0.039 U	NS	NS
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	NS	NS	0.092 U	NS	NS	NS	0.039 U	NS	NS
	ANTHRACENE	mg/kg	25000	17900	1200	NS	NS	NS	0.092 U	NS	NS	NS	0.039 U	NS	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	NS	NS	0.092 U	NS	NS	NS	0.15	NS	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	NS	NS	0.092 UJ	NS	NS	NS	0.11 J	NS	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	NS	NS	0.092 U	NS	NS	NS	0.20	NS	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	NS	NS	0.092 U	NS	NS	NS	0.071	NS	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	NS	NS	0.092 U	NS	NS	NS	0.075	NS	NS
	CHRYSENE	mg/kg	220	110	250	NS	NS	NS	0.092 U	NS	NS	NS	0.18	NS	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	NS	NS	0.092 U	NS	NS	NS	0.039 U	NS	NS
	FLUORENE	mg/kg	3400	2390	110	NS	NS	NS	0.092 U	NS	NS	NS	0.039 U	NS	NS
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	NS	NS	0.092 U	NS	NS	NS	0.089	NS	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	NS	NS	0.092 U	NS	NS	NS	0.052	NS	NS
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	NS	NS	0.092 U	NS	NS	NS	0.38 J	NS	NS
SW9012	CYANIDE	mg/kg	32	23	40	NS	NS	NS	0.86	NS	NS	NS	0.2 U	NS	NS
SW9045C	PH	ph unit	NA	NA	NA	NS	NS	NS	7.84	NS	NS	NS	7.89	NS	NS

Notes:
mg/kg - milligrams per kilogram
U – Concentration was non-detect; Value presented is laboratory reporting limit
J – Concentration is an estimated value
R - Rejected Result
NS – Analyte was not analyzed
* - Discrete sample (not five-point composite sample)
Table includes only compounds with at least one detect concentration result.
Yellow results are detected above the IDEM OLQ 2017 Recreational Park User soil direct contact (DC) screening level (SL).
Underlined results are detected concentrations above the EPA Region 5 2017 Residential Soil RSL.
[BOLD] results are detected concentrations above the IDEM OLQ 2017 Soil Migration to Groundwater (MTG) SL.
The IDEM OLQ 2017 Recreation Park Use DC SL applies to arsenic (45 mg/kg), lead (800 mg/kg) and benzo(A)pyrene (0.98 mg/kg).

Table 9. Detected Analytical Results Summary
Surface Soils
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	24SS-4	25SS-1	25SS-2	25SS-3	25SS-4	26SS-1	26SS-2	26SS-3	26SS-4	27SS-1
					Sample ID:	LPA24-SS-004 (0'-0.5') (20160822)	LPA25-SS-001 (00-0.5') (20160823)	LPA25-SS-002 (00-0.5') (20160823)	LPA25-SS-003 (00-0.5') (20160823)	LPA25-SS-004 (00-0.5') (20160823)	LPA26-SS-001 (00-0.5') (20160808)	LPA26-SS-002 (00-0.5') (20160808)	LPA26-SS-003 (00-0.5') (20160808)	LPA26-SS-004 (00-0.5') (20160808)	LPA27-SS-001 (00-0.5') (20160811)
					Sample Date:	8/22/16	8/23/16	8/23/16	8/23/16	8/23/16	8/8/16	8/8/16	8/8/16	8/8/16	8/11/16
					Sample Depth (ft bgs):	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	86	81	79	82	82	80	88	92	83	93
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	5900	5900	5000	3400	5200	3400	2400	3900	4100	2000
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.62	0.67	0.99	0.65	0.29 J
	CALCIUM	mg/kg	NA	NA	NA	3600	4900	57000	15000	6500	20000	26000	40000	70000	210000
	IRON	mg/kg	77000	55000	7100	**[15000]**	**[15000]**	**[20000]**	**[9800]**	**[28000]**	**[15000 J]**	**[24000]**	**[37000]**	**[21000]**	**[9800]**
	POTASSIUM	mg/kg	NA	NA	NA	650	760	1000	580	640	380 J	320	640	590	930
	SODIUM	mg/kg	NA	NA	NA	44	110	61	26	56	63	37	61	94	180
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.94	0.32	0.33	0.36	**[12]**	0.62	0.56	0.90	0.88	0.14 U
	ARSENIC	mg/kg	9.5	0.68	5.9	5.6	**[6.5]**	**[18]**	**[7.9]**	**[15]**	**[18]**	**[42]**	**[120]**	**[28]**	**[11]**
	BARIUM	mg/kg	21000	15000	1700	140	88	140	86	410	180	130	150	230	110
	CADMIUM	mg/kg	99	71	7.5	**[8.7]**	0.73	0.52	0.55	**[9.2]**	1.5	1.0	1.3	1.7	0.25
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	19	11	13	11	30	12 J	11	17	16	36
	COBALT	mg/kg	32	23	5.4	4.2	**[5.6]**	**[5.7]**	4.0	**[7.3]**	3.0 J	4.0	**[9.6]**	**[7.3]**	**[6.9]**
	COPPER	mg/kg	4300	3100	920	90	20	23	21	130	53	24	33	39	35
	LEAD	mg/kg	400	400	270	200	45	40	35	**[2200]**	230	91	96	170	14
	MAGNESIUM	mg/kg	NA	NA	NA	1300	1800	5200	2700	4000	2800	4300	6100	6700	46000
	MANGANESE	mg/kg	2500	1800	560	190 J	480	**[670]**	390	520	280 J	350 J	520 J	**[970 J]**	**[880 J]**
	NICKEL	mg/kg	2100	1500	510	14	10	12	8.5	35	10	10	17	14	21
	SELENIUM	mg/kg	550	390	5.3	1.6	1.8	1.8	1.1	2.3	1.8	1.8	2.8	2.6	2.2
	SILVER	mg/kg	550	390	16	0.21	0.1 U	0.1 U	0.1 U	0.34	0.21 J	0.14	0.24	0.29	0.1 U
	THALLIUM	mg/kg	1.1	0.78	2.9	0.5 U	0.5 U	0.49 U	0.5 U	0.040 J	0.48 U	0.48 U	0.5 U	0.5 U	0.49 U
	VANADIUM	mg/kg	550	390	1700	20	20	20	14	22	15 J	16	25	19	22
	ZINC	mg/kg	32000	NA	7500	390	65	72	62	1400	180 J	130	170	210	46
SW7470A	MERCURY	mg/kg	3.1	11	2.1	**[7.7]**	0.10	0.15	0.91	**[2.7]**	0.24	0.11	0.075	0.11	0.036 J
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	0.2 U	NS	NS	NS	0.42 U	NS	NS	NS	0.36 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	0.04 U	NS	NS	NS	0.23	NS	NS	NS	0.071 U
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	0.04 U	NS	NS	NS	0.19	NS	NS	NS	0.071 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	0.04 U	NS	NS	NS	0.083 U	NS	NS	NS	0.071 U
	ANTHRACENE	mg/kg	25000	17900	1200	NS	0.04 U	NS	NS	NS	0.43	NS	NS	NS	0.071 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	0.034 J	NS	NS	NS	**[0.86]**	NS	NS	NS	0.071 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	0.029 J	NS	NS	NS	1.3	NS	NS	NS	0.071 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	0.037 J	NS	NS	NS	1.6	NS	NS	NS	0.044 J
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	0.04 U	NS	NS	NS	0.54	NS	NS	NS	0.071 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	0.04 U	NS	NS	NS	0.64	NS	NS	NS	0.071 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	NS	0.024 J	NS	NS	NS	0.090	NS	NS	NS	0.065 J
	CARBAZOLE	mg/kg	NA	NA	NA	NS	0.04 U	NS	NS	NS	0.29	NS	NS	NS	0.071 U
	CHRYSENE	mg/kg	220	110	250	NS	0.028 J	NS	NS	NS	0.78	NS	NS	NS	0.071 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	0.04 UJ	NS	NS	NS	0.17	NS	NS	NS	0.071 U
	DIBENZOFURAN	mg/kg	100	73	2.9	NS	0.04 U	NS	NS	NS	0.23	NS	NS	NS	0.071 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	NS	0.04 U	NS	NS	NS	0.054 J	NS	NS	NS	0.071 U
	FLUORENE	mg/kg	3400	2390	110	NS	0.04 U	NS	NS	NS	0.27	NS	NS	NS	0.071 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	0.04 U	NS	NS	NS	0.53	NS	NS	NS	0.071 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	0.04 U	NS	NS	NS	**[0.43]**	NS	NS	NS	0.071 U
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	0.032 J	NS	NS	NS	2.1	NS	NS	NS	0.071 U
SW8270C-SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	0.04 U	NS	NS	NS	0.081 U	NS	NS	NS	0.07 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	0.04 U	NS	NS	NS	0.081 U	NS	NS	NS	0.07 U
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	0.04 U	NS	NS	NS	0.081 U	NS	NS	NS	0.07 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	0.04 U	NS	NS	NS	0.081 U	NS	NS	NS	0.07 U
	ANTHRACENE	mg/kg	25000	17900	1200	NS	0.04 U	NS	NS	NS	0.081 U	NS	NS	NS	0.07 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	0.057	NS	NS	NS	0.081 U	NS	NS	NS	0.12
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	0.04 U	NS	NS	NS	0.081 UJ	NS	NS	NS	0.075 J
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	0.071	NS	NS	NS	0.082	NS	NS	NS	0.15
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	0.04 U	NS	NS	NS	0.081 U	NS	NS	NS	0.07 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	0.04 U	NS	NS	NS	0.081 U	NS	NS	NS	0.07 U
	CHRYSENE	mg/kg	220	110	250	NS	0.064	NS	NS	NS	0.081 U	NS	NS	NS	0.12
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	0.04 U	NS	NS	NS	0.081 U	NS	NS	NS	0.07 U
	FLUORENE	mg/kg	3400	2390	110	NS	0.04 U	NS	NS	NS	0.081 U	NS	NS	NS	0.07 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	0.04 U	NS	NS	NS	0.081 U	NS	NS	NS	0.072
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	0.04 U	NS	NS	NS	0.081 U	NS	NS	NS	0.07 U
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	0.086	NS	NS	NS	0.081 U	NS	NS	NS	0.21
SW9012	CYANIDE	mg/kg	32	23	40	NS	0.31	NS	NS	NS	0.79	NS	NS	NS	0.25
SW9045C	PH	ph unit	NA	NA	NA	NS	7.39	NS	NS	NS	NS	NS	NS	NS	NS

Notes:
mg/kg - milligrams per kilogram
U – Concentration was non-detect; Value presented is laboratory reporting limit
J – Concentration is an estimated value
R - Rejected Result
NS – Analyte was not analyzed
* - Discrete sample (not five-point composite sample)
Table includes only compounds with at least one detect concentration result.
Yellow results are detected above the IDEM OLQ 2017 Recreational Park User soil direct contact (DC) screening level (SL).
Underlined results are detected concentrations above the EPA Region 5 2017 Residential Soil RSL.
[BOLD] results are detected concentrations above the IDEM OLQ 2017 Soil Migration to Groundwater (MTG) SL.
The IDEM OLQ 2017 Recreation Park Use DC SL applies to arsenic (45 mg/kg), lead (800 mg/kg) and benzo(A)pyrene (0.98 mg/kg).

Table 9. Detected Analytical Results Summary
Surface Soils
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	27SS-2	28SS-1	28SS-2	29SS-1	29SS-2	29SS-3	29SS-4	30SS-1	30SS-2	30SS-3
					Sample ID:	LPA27-SS-002 (00-0.5') (20160811)	LPA28-SS-001 (00-0.5') (20160819)	LPA28-SS-002 (00-0.5') (20160819)	LPA29-SS-001 (0'-0.5') (20160822)	LPA29-SS-002 (0'-0.5') (20160822)	LPA29-SS-003 (0'-0.5') (20160822)	LPA29-SS-004 (0'-0.5') (20160822)	LPA30-SS-001 (00-0.5') (20160823)	LPA30-SS-002 (00-0.5') (20160823)	LPA30-SS-003 (00-0.5') (20160823)
					Sample Date:	8/11/16	8/19/16	8/19/16	8/22/16	8/22/16	8/22/16	8/22/16	8/23/16	8/23/16	8/23/16
					Sample Depth (ft bgs):	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	93	80	85	83	81	85	82	84	82	85
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	3200	3900	3600	4400	2400	4100	2800	3700	5300	8000
	BERYLLIUM	mg/kg	220	160	63	0.39 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	71000	25000	9500	18000	24000	5600	15000	21000	20000	27000
	IRON	mg/kg	77000	55000	7100	**[11000]**	**[15000]**	**[7700]**	**[11000]**	**[8400 J]**	**[13000]**	**[10000]**	**[15000]**	**[16000]**	**[18000]**
	POTASSIUM	mg/kg	NA	NA	NA	720	530	350	580	470 J	520	310	580	870	1400
	SODIUM	mg/kg	NA	NA	NA	58	72	26	40	36	45	43	49	52	48
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.20	1.4	0.21	0.31	0.32	0.75	0.26	4.2	**[13]**	0.26
	ARSENIC	mg/kg	9.5	0.68	5.9	**[11]**	**[16]**	**[6.9]**	**[9.4]**	**[7.0]**	**[9.3]**	**[8.5]**	**[13]**	**[16]**	**[11]**
	BARIUM	mg/kg	21000	15000	1700	150	150	65	85	82	120	81	150	150	140
	CADMIUM	mg/kg	99	71	7.5	0.56	3.2	0.68	0.67	1.2	1.9	0.74	2.0	0.96	0.56
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	14	14	8.0	8.5	7.7	14	7.7	15	15	23
	COBALT	mg/kg	32	23	5.4	**[6.7]**	5.2	2.4	3.6	2.9	4.9	3.0	4.9	**[6.9]**	**[12]**
	COPPER	mg/kg	4300	3100	920	20	47	15	18	27	60	19	49	34	22
	LEAD	mg/kg	400	400	270	43	260	37	63	83	140	58	160	92	46
	MAGNESIUM	mg/kg	NA	NA	NA	7100	3900	1500	3100	4000 J	2300	1700	5500	3700	6400
	MANGANESE	mg/kg	2500	1800	560	**[840 J]**	370 J	180 J	280 J	220	330	230	300	**[650]**	**[820]**
	NICKEL	mg/kg	2100	1500	510	13	13	6.2	8.6	7.8	12	7.9	13	13	35
	SELENIUM	mg/kg	550	390	5.3	1.8	1.8	1.1	1.4	1.3	1.8	0.97	1.8	1.8	2.3
	SILVER	mg/kg	550	390	16	0.11	0.18	0.1 U	0.1 U	0.1 U	0.15	0.1 U	0.14	0.13	0.12
	THALLIUM	mg/kg	1.1	0.78	2.9	0.045 J	0.48 U	0.49 U	0.48 U	0.5 U	0.49 U	0.48 U	0.5 U	0.064 J	0.068 J
	VANADIUM	mg/kg	550	390	1700	20	18	10 J	13	10	17	11	18	20	28
	ZINC	mg/kg	32000	NA	7500	78	200	62	84	87	180	93	210	130	81
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.058	0.5	0.094	0.14	0.47	0.40	0.23	0.79	0.59	0.091
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	0.21 U	NS	0.2 U	NS	NS	NS	0.2 U	NS	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	0.041 U	NS	0.04 U	NS	NS	NS	0.039 U	NS	NS
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	0.029 J	NS	0.04 U	NS	NS	NS	0.039 U	NS	NS
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	0.041 U	NS	0.04 U	NS	NS	NS	0.039 U	NS	NS
	ANTHRACENE	mg/kg	25000	17900	1200	NS	0.088	NS	0.04 U	NS	NS	NS	0.039 U	NS	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	0.24	NS	0.034 J	NS	NS	NS	0.025 J	NS	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	0.25	NS	0.034 J	NS	NS	NS	0.039 U	NS	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	0.35	NS	0.052	NS	NS	NS	0.026 J	NS	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	0.068	NS	0.04 U	NS	NS	NS	0.039 U	NS	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	0.17	NS	0.04 U	NS	NS	NS	0.039 U	NS	NS
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	NS	0.089	NS	0.026 J	NS	NS	NS	0.31	NS	NS
	CARBAZOLE	mg/kg	NA	NA	NA	NS	0.040 J	NS	0.04 U	NS	NS	NS	0.039 U	NS	NS
	CHRYSENE	mg/kg	220	110	250	NS	0.25	NS	0.033 J	NS	NS	NS	0.039 U	NS	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	0.041 U	NS	0.04 U	NS	NS	NS	0.039 UJ	NS	NS
	DIBENZOFURAN	mg/kg	100	73	2.9	NS	0.041 U	NS	0.04 U	NS	NS	NS	0.039 U	NS	NS
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	NS	0.035 J	NS	0.04 U	NS	NS	NS	0.039 U	NS	NS
	FLUORENE	mg/kg	3400	2390	110	NS	0.024 J	NS	0.04 U	NS	NS	NS	0.039 U	NS	NS
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	0.094	NS	0.04 U	NS	NS	NS	0.039 U	NS	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	0.041 U	NS	0.04 U	NS	NS	NS	0.039 U	NS	NS
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	0.34	NS	0.026 J	NS	NS	NS	0.039 U	NS	NS
SW8270C-SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	0.16 U	NS	0.078 U	NS	NS	NS	0.039 U	NS	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	0.16 U	NS	0.078 U	NS	NS	NS	0.039 U	NS	NS
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	0.16 U	NS	0.078 U	NS	NS	NS	0.039 U	NS	NS
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	0.16 U	NS	0.078 U	NS	NS	NS	0.039 U	NS	NS
	ANTHRACENE	mg/kg	25000	17900	1200	NS	0.16 U	NS	0.078 U	NS	NS	NS	0.039 U	NS	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	0.23	NS	0.078 U	NS	NS	NS	0.039 U	NS	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	0.16 UJ	NS	0.078 UJ	NS	NS	NS	0.039 U	NS	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	0.25	NS	0.078 U	NS	NS	NS	0.039	NS	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	0.16 U	NS	0.078 U	NS	NS	NS	0.039 U	NS	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	0.16 U	NS	0.078 U	NS	NS	NS	0.039 U	NS	NS
	CHRYSENE	mg/kg	220	110	250	NS	0.24	NS	0.078 U	NS	NS	NS	0.039 U	NS	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	0.16 U	NS	0.078 U	NS	NS	NS	0.039 U	NS	NS
	FLUORENE	mg/kg	3400	2390	110	NS	0.16 U	NS	0.078 U	NS	NS	NS	0.039 U	NS	NS
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	0.16 U	NS	0.078 U	NS	NS	NS	0.039 U	NS	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	0.16 U	NS	0.078 U	NS	NS	NS	0.039 U	NS	NS
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	0.38	NS	0.078 U	NS	NS	NS	0.039 U	NS	NS
SW9012	CYANIDE	mg/kg	32	23	40	NS	0.77	NS	0.30	NS	NS	NS	0.51	NS	NS
SW9045C	PH	ph unit	NA	NA	NA	NS	7.88	NS	7.9	NS	NS	NS	7.88	NS	NS

Notes:
mg/kg - milligrams per kilogram
U – Concentration was non-detect; Value presented is laboratory reporting limit
J – Concentration is an estimated value
R - Rejected Result
NS – Analyte was not analyzed
* - Discrete sample (not five-point composite sample)
Table includes only compounds with at least one detect concentration result.
Yellow results are detected above the IDEM OLQ 2017 Recreational Park User soil direct contact (DC) screening level (SL).
Underlined results are detected concentrations above the EPA Region 5 2017 Residential Soil RSL.
[BOLD] results are detected concentrations above the IDEM OLQ 2017 Soil Migration to Groundwater (MTG) SL.
The IDEM OLQ 2017 Recreation Park Use DC SL applies to arsenic (45 mg/kg), lead (800 mg/kg) and benzo(A)pyrene (0.98 mg/kg).

Table 9. Detected Analytical Results Summary
Surface Soils
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	30SS-4	31SS-1	31SS-2	31SS-3		31SS-4	32SS-1	32SS-2	32SS-3	32SS-4
					Sample ID:	LPA30-SS-004 (00-0.5') (20160823)	LPA31-SS-001 (00-0.5') (20160824)	LPA31-SS-002 (00-0.5') (20160824)	LPA31-QD-001 (00-0.5') (20160824)	LPA31-SS-003 (00-0.5') (20160824)	LPA31-SS-004 (00-0.5') (20160824)	LPA32-SS-001 (0.0-0.5') (20160825)	LPA32-SS-002 (0.0-0.5') (20160825)	LPA32-SS-003 (0.0-0.5') (20160825)	LPA32-SS-004 (0.0-0.5') (20160825)
					Sample Date:	8/23/16	8/24/16	8/24/16	8/24/16	8/24/16	8/24/16	8/25/16	8/25/16	8/25/16	8/25/16
					Sample Depth (ft bgs):	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	87	76	86	80	80	83	75	67	67	72
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	4500	7200	2400	8900	7200	4900	620	940	1200	1900
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	42000	14000	60000	4400	7800	18000	110000	130000	130000	240000
	IRON	mg/kg	77000	55000	7100	**[12000]**	**[17000]**	**[11000]**	**[17000]**	**[16000]**	**[13000]**	2900	4600	6100	**[12000]**
	POTASSIUM	mg/kg	NA	NA	NA	650	960 J	540	1100	960	600	200 U	270	260	810
	SODIUM	mg/kg	NA	NA	NA	72	28	67	27	31	32	66	81	92	140
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.60	0.32 J	0.42	0.23	0.36	0.25	0.14 U	0.28	0.34	0.36
	ARSENIC	mg/kg	9.5	0.68	5.9	**[15]**	**[11]**	**[12]**	**[8.3]**	**[9.4]**	**[9.1]**	**[7.3]**	**[9.2]**	5.6	**[9.7]**
	BARIUM	mg/kg	21000	15000	1700	97	170	79	180	170	100	88	120	120	210
	CADMIUM	mg/kg	99	71	7.5	0.96	0.52	0.68	0.54	0.73	0.42	0.2 U	0.39	0.52	0.56
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	13	18	8.1	21	20	12	2.8	3.3	4.4	5.9
	COBALT	mg/kg	32	23	5.4	4.3	**[8.8]**	3.3	**[11]**	**[10]**	**[5.7]**	1.0	1.3	1.5	2.3
	COPPER	mg/kg	4300	3100	920	30	18	20	18	21	14	4.6	23	15	14
	LEAD	mg/kg	400	400	270	140	37 J	86	37	49	31	12	51	74	80
	MAGNESIUM	mg/kg	NA	NA	NA	9700	3200	7600	2300	3400	2900	3100	3400	3900	6700
	MANGANESE	mg/kg	2500	1800	560	320	**[1000 J]**	360 J	**[1200 J]**	**[1000 J]**	**[610 J]**	420 J	540 J	**[610 J]**	**[1000 J]**
	NICKEL	mg/kg	2100	1500	510	11	15	8.5	17	17	10	3.2	7.6	4.3	5.8
	SELENIUM	mg/kg	550	390	5.3	1.9	1.9	1.5	2.4	2.3	1.5	0.95	1.1	1.7	1.1
	SILVER	mg/kg	550	390	16	0.11	0.12	0.12	0.15	0.18	0.13	0.1 U	0.1 U	0.1 U	0.1 U
	THALLIUM	mg/kg	1.1	0.78	2.9	0.5 U	0.5 U	0.5 U	0.49 U	0.49 U	0.49 U	0.5 U	0.48 U	0.48 U	0.49 U
	VANADIUM	mg/kg	550	390	1700	18	26	11	32	31	17	3.5	3.8	5.2	7.6
	ZINC	mg/kg	32000	NA	7500	150	78 J	77	81	87	55	20	55	80	100
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.17	0.31	0.17	0.11	0.19	0.067	0.074	0.15	1.9	0.21
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	0.43 U	NS	NS	NS	NS	0.22 U	NS	NS	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	0.086 U	NS	NS	NS	NS	0.044 U	NS	NS	NS
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	0.086 U	NS	NS	NS	NS	0.044 U	NS	NS	NS
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	0.086 U	NS	NS	NS	NS	0.044 U	NS	NS	NS
	ANTHRACENE	mg/kg	25000	17900	1200	NS	0.086 U	NS	NS	NS	NS	0.044 U	NS	NS	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	0.086 U	NS	NS	NS	NS	0.044 U	NS	NS	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	0.086 U	NS	NS	NS	NS	0.044 U	NS	NS	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	0.086 U	NS	NS	NS	NS	0.044 U	NS	NS	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	0.086 UJ	NS	NS	NS	NS	0.044 U	NS	NS	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	0.086 U	NS	NS	NS	NS	0.044 U	NS	NS	NS
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	NS	0.086 U	NS	NS	NS	NS	0.027 J	NS	NS	NS
	CARBAZOLE	mg/kg	NA	NA	NA	NS	0.086 U	NS	NS	NS	NS	0.044 U	NS	NS	NS
	CHRYSENE	mg/kg	220	110	250	NS	0.086 U	NS	NS	NS	NS	0.044 U	NS	NS	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	0.086 UJ	NS	NS	NS	NS	0.044 UJ	NS	NS	NS
	DIBENZOFURAN	mg/kg	100	73	2.9	NS	0.086 U	NS	NS	NS	NS	0.044 U	NS	NS	NS
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	NS	0.086 U	NS	NS	NS	NS	0.044 U	NS	NS	NS
	FLUORENE	mg/kg	3400	2390	110	NS	0.086 U	NS	NS	NS	NS	0.044 U	NS	NS	NS
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	0.086 UJ	NS	NS	NS	NS	0.044 U	NS	NS	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	0.086 U	NS	NS	NS	NS	0.044 U	NS	NS	NS
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	0.086 U	NS	NS	NS	NS	0.044 U	NS	NS	NS
SW8270C-SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	0.42 U	NS	NS	NS	NS	0.043 U	NS	NS	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	0.42 U	NS	NS	NS	NS	0.043 U	NS	NS	NS
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	0.42 U	NS	NS	NS	NS	0.043 U	NS	NS	NS
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	0.42 U	NS	NS	NS	NS	0.043 U	NS	NS	NS
	ANTHRACENE	mg/kg	25000	17900	1200	NS	0.42 U	NS	NS	NS	NS	0.043 U	NS	NS	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	0.42 U	NS	NS	NS	NS	0.043 U	NS	NS	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	0.42 U	NS	NS	NS	NS	0.043 U	NS	NS	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	0.42 U	NS	NS	NS	NS	0.043 U	NS	NS	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	0.42 U	NS	NS	NS	NS	0.043 U	NS	NS	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	0.42 U	NS	NS	NS	NS	0.043 U	NS	NS	NS
	CHRYSENE	mg/kg	220	110	250	NS	0.42 U	NS	NS	NS	NS	0.043 U	NS	NS	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	0.42 U	NS	NS	NS	NS	0.043 U	NS	NS	NS
	FLUORENE	mg/kg	3400	2390	110	NS	0.42 U	NS	NS	NS	NS	0.043 U	NS	NS	NS
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	0.42 U	NS	NS	NS	NS	0.043 U	NS	NS	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	0.42 U	NS	NS	NS	NS	0.043 U	NS	NS	NS
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	0.42 U	NS	NS	NS	NS	0.043 U	NS	NS	NS
SW9012	CYANIDE	mg/kg	32	23	40	NS	0.25	NS	NS	NS	NS	2 U	NS	NS	NS
SW9045C	PH	ph unit	NA	NA	NA	NS	7.87	NS	NS	NS	NS	7.89	NS	NS	NS

Notes:
mg/kg - milligrams per kilogram
U – Concentration was non-detect; Value presented is laboratory reporting limit
J – Concentration is an estimated value
R - Rejected Result
NS – Analyte was not analyzed
* - Discrete sample (not five-point composite sample)
Table includes only compounds with at least one detect concentration result.
Yellow results are detected above the IDEM OLQ 2017 Recreational Park User soil direct contact (DC) screening level (SL).
Underlined results are detected concentrations above the EPA Region 5 2017 Residential Soil RSL.
[BOLD] results are detected concentrations above the IDEM OLQ 2017 Soil Migration to Groundwater (MTG) SL.
The IDEM OLQ 2017 Recreation Park Use DC SL applies to arsenic (45 mg/kg), lead (800 mg/kg) and benzo(A)pyrene (0.98 mg/kg).

Table 9. Detected Analytical Results Summary
Surface Soils
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	SHSS-1*	SHSS-2*	SHSS-3*	SHSS-4*	SHSS-5*	SHSS-6*	SHSS-7*	SHSS-8*	SHSS-9*	SHSS-9*
					Sample ID:	LPASH-SS-001 (00'-0.5') (20160630)	LPASH-SS-002 (00'-0.5') (20160630)	LPASH-SS-003 (00'-0.5') (20160630)	LPASH-SS-004 (00'-0.5') (20160630)	LPASH-SS-005 (00'-0.5') (20160630)	LPASH-SS-006 (00'-0.5') (20160630)	LPASH-SS-007 (00'-0.5') (20160630)	LPASH-SS-008 (00'-0.5') (20160630)	LPASH-SS-009 (00'-0.5') (20160630)	LPASH-SS-009(00'-0.5')(20160630) DUPLICA
					Sample Date:	6/30/16	6/30/16	6/30/16	6/30/16	6/30/16	6/30/16	6/30/16	6/30/16	6/30/16	6/30/16
					Sample Depth (ft bgs):	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	79	NS	84	NS	82	NS	83	NS	90	85
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	5700	5500	7100	4000	5600	5200	10000	9400	6700	10000
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.54	0.5 U	0.59
	CALCIUM	mg/kg	NA	NA	NA	24000	32000	11000	13000	22000	14000	15000	15000	11000	15000
	IRON	mg/kg	77000	55000	7100	**[19000]**	**[11000]**	**[18000]**	**[11000]**	**[14000]**	**[13000]**	**[19000]**	**[18000]**	**[13000]**	**[21000]**
	POTASSIUM	mg/kg	NA	NA	NA	960 J	980	1100	690	1100	1000	1600	1600	1000	1500
	SODIUM	mg/kg	NA	NA	NA	50	50	34	24	34	29	51	37	33	51
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.36	0.23	0.42	0.25	0.27	0.27	0.44	0.47	0.29	0.42
	ARSENIC	mg/kg	9.5	0.68	5.9	**[16]**	**[21]**	**[14]**	**[9.2]**	**[17]**	**[7.2]**	**[11]**	**[10]**	**[6.3]**	**[9.7]**
	BARIUM	mg/kg	21000	15000	1700	110	89	120	77	120	100	160	160	120	190
	CADMIUM	mg/kg	99	71	7.5	0.39	0.25	0.33	0.30	0.39	0.32	0.53	0.47	0.32	0.46
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	11	9.2	13	7.6	12	11	18	17	14	21
	COBALT	mg/kg	32	23	5.4	5.4	4.4	**[6.1]**	3.8	5.2	4.9	**[8.7]**	**[9.9]**	**[7.4]**	**[9.6]**
	COPPER	mg/kg	4300	3100	920	16	10	14	11	13	16	21	20	14	21
	LEAD	mg/kg	400	400	270	34	23	27	21	22	26	41	36	23	34
	MAGNESIUM	mg/kg	NA	NA	NA	3300	3700	2500	2000	2500	2400	3100	3000	2900	3900
	MANGANESE	mg/kg	2500	1800	560	**[610]**	**[570]**	**[710]**	460	**[690]**	**[610]**	**[960]**	**[1200]**	**[760]**	**[1100]**
	NICKEL	mg/kg	2100	1500	510	9.9	8.2	11	6.6	9.3	8.8	16	15	15	18
	SELENIUM	mg/kg	550	390	5.3	3.2	2.3	3.1	2.2	2.7	2.4	4.3	4.5	3.0	4.4
	SILVER	mg/kg	550	390	16	0.088 J	0.061 J	0.093 J	0.077 J	0.10	0.076 J	0.11	0.11	0.10	0.15
	THALLIUM	mg/kg	1.1	0.78	2.9	0.18 J	0.13 J	0.19 J	0.11 J	0.14 J	0.14 J	0.23 J	0.23 J	0.18 J	0.26 J
	VANADIUM	mg/kg	550	390	1700	18	14 J	21	12 J	16 J	16 J	30	27	19	30
	ZINC	mg/kg	32000	NA	7500	48	35	48	28	45	43	75	110	47	84
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.066 J	0.043 J	0.050 J	0.066 J	0.046 J	0.053 J	0.055 J	0.043 J	0.037 J	0.039 J
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.042 U	NS	0.039 U	NS	0.04 U	NS	0.04 U	NS	0.037 U	0.039 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.042 U	NS	0.039 U	NS	0.04 U	NS	0.04 U	NS	0.037 U	0.039 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.042 U	NS	0.039 U	NS	0.04 U	NS	0.04 U	NS	0.037 U	0.039 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.042 U	NS	0.039 U	NS	0.04 U	NS	0.04 U	NS	0.037 U	0.039 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.042 U	NS	0.039 U	NS	0.04 U	NS	0.026 J	NS	0.037 U	0.039 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.042 U	NS	0.039 U	NS	0.04 U	NS	0.023 J	NS	0.037 U	0.039 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.042 U	NS	0.025 J	NS	0.04 U	NS	0.039 J	NS	0.024 J	0.039 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.042 U	NS	0.039 U	NS	0.04 U	NS	0.04 U	NS	0.037 U	0.039 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.042 U	NS	0.039 U	NS	0.04 U	NS	0.04 U	NS	0.037 U	0.039 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.042 U	NS	0.039 U	NS	0.04 U	NS	0.04 U	NS	0.037 U	0.039 U
	CARBAZOLE	mg/kg	NA	NA	NA	0.042 U	NS	0.039 U	NS	0.04 U	NS	0.04 U	NS	0.037 U	0.039 U
	CHRYSENE	mg/kg	220	110	250	0.042 U	NS	0.039 U	NS	0.04 U	NS	0.026 J	NS	0.037 U	0.039 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.042 U	NS	0.039 U	NS	0.04 U	NS	0.04 U	NS	0.037 U	0.039 U
	DIBENZOFURAN	mg/kg	100	73	2.9	0.042 U	NS	0.039 U	NS	0.04 U	NS	0.04 U	NS	0.037 U	0.039 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.042 U	NS	0.039 U	NS	0.04 U	NS	0.04 U	NS	0.037 U	0.039 U
	FLUORENE	mg/kg	3400	2390	110	0.042 U	NS	0.039 U	NS	0.04 U	NS	0.04 U	NS	0.037 U	0.039 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.042 U	NS	0.039 U	NS	0.04 U	NS	0.04 U	NS	0.037 U	0.039 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.042 U	NS	0.039 U	NS	0.04 U	NS	0.04 U	NS	0.037 U	0.039 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.042 U	NS	0.039 U	NS	0.04 U	NS	0.036	NS	0.037 U	0.039 U
SW8270C-SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.0051 J	NS	0.0031 UJ	NS	0.0032 UJ	NS	0.0031 UJ	NS	0.0029 UJ	0.0031 UJ
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.0033 UJ	NS	0.0048 J	NS	0.0032 UJ	NS	0.0031 UJ	NS	0.013 J	0.0047 J
	ACENAPHTHENE	mg/kg	5000	3590	110	0.0042 J	NS	0.0031 UJ	NS	0.0032 UJ	NS	0.0040 J	NS	0.0030 J	0.0031 UJ
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.0034 J	NS	0.0048 J	NS	0.0032 UJ	NS	0.0031 UJ	NS	0.0052 J	0.0039 J
	ANTHRACENE	mg/kg	25000	17900	1200	0.0034 J	NS	0.0048 J	NS	0.0032 UJ	NS	0.0088 J	NS	0.0037 J	0.0031 UJ
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.018 J	NS	0.021 J	NS	0.0057 J	NS	0.036 J	NS	0.020 J	0.012 J
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.017 J	NS	0.019 J	NS	0.0057 J	NS	0.032 J	NS	0.018 J	0.012 J
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.029 J	NS	0.032 J	NS	0.0098 J	NS	0.046 J	NS	0.027 J	0.017 J
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.012 J	NS	0.014 J	NS	0.0041 J	NS	0.018 J	NS	0.012 J	0.0071 J
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.0093 J	NS	0.0096 J	NS	0.0033 J	NS	0.015 J	NS	0.0089 J	0.0055 J
	CHRYSENE	mg/kg	220	110	250	0.016 J	NS	0.020 J	NS	0.0065 J	NS	0.030 J	NS	0.018 J	0.012 J
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.0034 J	NS	0.0040 J	NS	0.0032 UJ	NS	0.0048 J	NS	0.0037 J	0.0031 UJ
	FLUORENE	mg/kg	3400	2390	110	0.0033 UJ	NS	0.0031 UJ	NS	0.0032 UJ	NS	0.0032 J	NS	0.0029 U	0.0031 UJ
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.018 J	NS	0.019 J	NS	0.0065 J	NS	0.028 J	NS	0.018 J	0.010 J
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.0033 UJ	NS	0.0032 J	NS	0.0032 UJ	NS	0.0031 UJ	NS	0.0096 J	0.0031 UJ
	PHENANTHRENE	mg/kg	NA	NA	NA	0.013 J	NS	0.018 J	NS	0.0049 J	NS	0.039 J	NS	0.018 J	0.013 J
SW9012	CYANIDE	mg/kg	32	23	40	0.41	NS	0.38	NS	0.41	NS	0.37	NS	0.29	0.26
SW9045C	PH	ph unit	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:
mg/kg - milligrams per kilogram
U – Concentration was non-detect; Value presented is laboratory reporting limit
J – Concentration is an estimated value
R - Rejected Result
NS – Analyte was not analyzed
* - Discrete sample (not five-point composite sample)
Table includes only compounds with at least one detect concentration result.
Yellow results are detected above the IDEM OLQ 2017 Recreational Park User soil direct contact (DC) screening level (SL).
Underlined results are detected concentrations above the EPA Region 5 2017 Residential Soil RSL.
[BOLD] results are detected concentrations above the IDEM OLQ 2017 Soil Migration to Groundwater (MTG) SL.
The IDEM OLQ 2017 Recreation Park Use DC SL applies to arsenic (45 mg/kg), lead (800 mg/kg) and benzo(A)pyrene (0.98 mg/kg).

Table 9. Detected Analytical Results Summary
Surface Soils
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	SHSS-10*	SHSS-11*	SHSS-12*	SHSS-13	SHSS-14	SHSS-15	SHSS-16	SHSS-17	SHSS-18	SHSS-19
					Sample ID:	LPASH-SS-010 (00'-0.5') (20160630)	LPASH-SS-011 (00'-0.5') (20160630)	LPASH-SS-012 (00'-0.5') (20160630)	LPASH-SS-013 (0.0-0.5') (20160825)	LPASH-SS-014 (0.0-0.5') (20160825)	LPASH-SS-015 (0.0-0.5') (20160825)	LPASH-SS-016 (0.0-0.5') (20160825)	LPASH-SS-017 (0.0-0.5') (20160825)	LPASH-SS-018 (0.0-0.5') (20160825)	LPASH-SS-019 (0.0-0.5') (20160825)
					Sample Date:	6/30/16	6/30/16	6/30/16	8/25/16	8/25/16	8/25/16	8/25/16	8/25/16	8/25/16	8/25/16
					Sample Depth (ft bgs):	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.	0-0.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	NS	85	NS	80	78	79	77	78	77	82
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	15000	5700	8300	7100	3500	6300	5600	7600	4200	1900
	BERYLLIUM	mg/kg	220	160	63	0.82	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	8400	45000	84000	72000	35000	16000	4800	14000	21000	8300
	IRON	mg/kg	77000	55000	7100	**[20000]**	**[16000]**	**[19000]**	**[18000]**	**[18000]**	**[16000]**	**[14000]**	**[19000]**	**[14000]**	5300
	POTASSIUM	mg/kg	NA	NA	NA	1900	1300	1800	1500	710	1100	870	1200	800	470
	SODIUM	mg/kg	NA	NA	NA	56	68	100	65	38	23	21	31	23	26
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.40	0.39	0.38	R	0.42	0.33	0.20	0.31	0.28	0.29
	ARSENIC	mg/kg	9.5	0.68	5.9	**[10]**	**[21]**	**[22]**	**[13]**	**[17]**	**[9.5]**	**[12]**	**[12]**	**[8.4]**	5.0
	BARIUM	mg/kg	21000	15000	1700	210	110	160	150	87	170	130	190	100	82
	CADMIUM	mg/kg	99	71	7.5	0.49	0.37	0.50	R	0.55	0.52	0.34	0.65	0.37	0.26
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	24	11	15	R	8.6	17	14	19	9.4	7.1
	COBALT	mg/kg	32	23	5.4	**[11]**	5.2	**[6.4]**	R	4.3	**[8.6]**	**[7.0]**	**[10]**	5.0	3.4
	COPPER	mg/kg	4300	3100	920	20	15	18	R	17	18	14	19	15	15
	LEAD	mg/kg	400	400	270	31	33	39	R	35	43	23	42	33	28
	MAGNESIUM	mg/kg	NA	NA	NA	3700	4400	8000	21000	3900	2500	2100	3500	1800	2600
	MANGANESE	mg/kg	2500	1800	560	**[1200]**	**[800]**	**[940]**	**[890 J]**	470 J	**[1000 J]**	**[710 J]**	**[1200 J]**	**[640 J]**	340 J
	NICKEL	mg/kg	2100	1500	510	19	9.8	13	R	8.8	14	12	17	8.3	7.1
	SELENIUM	mg/kg	550	390	5.3	**[5.4]**	2.8	3.9	R	1.7	2.0	2.1	2.4	1.4	1.5
	SILVER	mg/kg	550	390	16	0.16	0.075 J	0.093 J	R	0.1 U	0.12	0.1 U	0.12	0.1 U	0.1 U
	THALLIUM	mg/kg	1.1	0.78	2.9	0.32 J	0.15 J	0.19 J	0.48 U	0.5 U	0.48 U	0.5 U	0.49 U	0.5 U	0.49 U
	VANADIUM	mg/kg	550	390	1700	39	15 J	23	25	14	25	22	29	14	9.2 J
	ZINC	mg/kg	32000	NA	7500	85	51	64	89	59	82	56	86	57	53
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.038 UJ	0.042 J	0.051 J	0.11	0.11	0.19	0.092	0.053	0.14	0.17
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	NS	NS	0.21 UJ	NS	NS	NS	0.21 U	NS	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	0.039 U	NS	0.041 UJ	NS	NS	NS	0.042 U	NS	NS
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	0.039 U	NS	0.041 UJ	NS	NS	NS	0.042 U	NS	NS
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	0.039 U	NS	0.041 UJ	NS	NS	NS	0.042 U	NS	NS
	ANTHRACENE	mg/kg	25000	17900	1200	NS	0.039 U	NS	0.041 UJ	NS	NS	NS	0.042 U	NS	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	0.033 J	NS	0.041 UJ	NS	NS	NS	0.032 J	NS	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	0.034 J	NS	0.041 UJ	NS	NS	NS	0.026 J	NS	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	0.058	NS	0.029 J	NS	NS	NS	0.044	NS	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	0.039 U	NS	0.041 UJ	NS	NS	NS	0.042 U	NS	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	0.039 U	NS	0.041 UJ	NS	NS	NS	0.042 U	NS	NS
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	NS	0.039 U	NS	0.083 J	NS	NS	NS	0.060	NS	NS
	CARBAZOLE	mg/kg	NA	NA	NA	NS	0.039 U	NS	0.041 UJ	NS	NS	NS	0.042 U	NS	NS
	CHRYSENE	mg/kg	220	110	250	NS	0.036 J	NS	0.041 UJ	NS	NS	NS	0.029 J	NS	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	0.039 U	NS	0.041 UJ	NS	NS	NS	0.042 UJ	NS	NS
	DIBENZOFURAN	mg/kg	100	73	2.9	NS	0.039 U	NS	0.041 UJ	NS	NS	NS	0.042 U	NS	NS
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	NS	0.039 U	NS	0.041 UJ	NS	NS	NS	0.042 U	NS	NS
	FLUORENE	mg/kg	3400	2390	110	NS	0.039 U	NS	0.041 UJ	NS	NS	NS	0.042 U	NS	NS
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	0.039 U	NS	0.041 UJ	NS	NS	NS	0.042 U	NS	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	0.039 U	NS	0.041 UJ	NS	NS	NS	0.042 U	NS	NS
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	0.029 J	NS	0.041 UJ	NS	NS	NS	0.032 J	NS	NS
SW8270C-SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	0.0076 UJ	NS	0.4 U	NS	NS	NS	0.042 U	NS	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	0.0076 UJ	NS	0.4 U	NS	NS	NS	0.042 U	NS	NS
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	0.0076 UJ	NS	0.4 U	NS	NS	NS	0.042 U	NS	NS
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	0.0076 UJ	NS	0.4 U	NS	NS	NS	0.042 U	NS	NS
	ANTHRACENE	mg/kg	25000	17900	1200	NS	0.0078 J	NS	0.4 U	NS	NS	NS	0.042 U	NS	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	0.043 J	NS	0.4 U	NS	NS	NS	0.042 U	NS	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	0.039 J	NS	0.4 U	NS	NS	NS	0.042 U	NS	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	0.067 J	NS	0.4 U	NS	NS	NS	0.042 U	NS	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	0.023 J	NS	0.4 U	NS	NS	NS	0.042 U	NS	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	0.020 J	NS	0.4 U	NS	NS	NS	0.042 U	NS	NS
	CHRYSENE	mg/kg	220	110	250	NS	0.037 J	NS	0.4 U	NS	NS	NS	0.042 U	NS	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	0.0076 UJ	NS	0.4 U	NS	NS	NS	0.042 U	NS	NS
	FLUORENE	mg/kg	3400	2390	110	NS	0.0076 UJ	NS	0.4 U	NS	NS	NS	0.042 U	NS	NS
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	0.037 J	NS	0.4 U	NS	NS	NS	0.042 U	NS	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	0.0076 UJ	NS	0.4 U	NS	NS	NS	0.042 U	NS	NS
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	0.029 J	NS	0.4 U	NS	NS	NS	0.042 U	NS	NS
SW9012	CYANIDE	mg/kg	32	23	40	NS	0.40	NS	0.26	NS	NS	NS	0.30	NS	NS
SW9045C	PH	ph unit	NA	NA	NA	NS	NS	NS	7.87	NS	NS	NS	7.78	NS	NS

Notes:
mg/kg - milligrams per kilogram
U – Concentration was non-detect; Value presented is laboratory reporting limit
J – Concentration is an estimated value
R - Rejected Result
NS – Analyte was not analyzed
* - Discrete sample (not five-point composite sample)
Table includes only compounds with at least one detect concentration result.
Yellow results are detected above the IDEM OLQ 2017 Recreational Park User soil direct contact (DC) screening level (SL).
Underlined results are detected concentrations above the EPA Region 5 2017 Residential Soil RSL.
[BOLD] results are detected concentrations above the IDEM OLQ 2017 Soil Migration to Groundwater (MTG) SL.
The IDEM OLQ 2017 Recreation Park Use DC SL applies to arsenic (45 mg/kg), lead (800 mg/kg) and benzo(A)pyrene (0.98 mg/kg).

Table 9. Detected Analytical Results Summary
Surface Soils
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	SHSS-20
					Sample ID:	LPASH-SS-020 (0.0-0.5') (20160825)
					Sample Date:	8/25/16
					Sample Depth (ft bgs):	0-0.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	79
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	2200
	BERYLLIUM	mg/kg	220	160	63	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	6300
	IRON	mg/kg	77000	55000	7100	**[8200]**
	POTASSIUM	mg/kg	NA	NA	NA	270
	SODIUM	mg/kg	NA	NA	NA	76
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.54
	ARSENIC	mg/kg	9.5	0.68	5.9	5.9
	BARIUM	mg/kg	21000	15000	1700	44
	CADMIUM	mg/kg	99	71	7.5	0.52
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	8.9
	COBALT	mg/kg	32	23	5.4	2.5
	COPPER	mg/kg	4300	3100	920	27
	LEAD	mg/kg	400	400	270	130
	MAGNESIUM	mg/kg	NA	NA	NA	2000
	MANGANESE	mg/kg	2500	1800	560	180 J
	NICKEL	mg/kg	2100	1500	510	7.5
	SELENIUM	mg/kg	550	390	5.3	2.5
	SILVER	mg/kg	550	390	16	0.1 U
	THALLIUM	mg/kg	1.1	0.78	2.9	0.48 U
	VANADIUM	mg/kg	550	390	1700	10
	ZINC	mg/kg	32000	NA	7500	67
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.093
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS
	ACENAPHTHENE	mg/kg	5000	3590	110	NS
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS
	ANTHRACENE	mg/kg	25000	17900	1200	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	NS
	CARBAZOLE	mg/kg	NA	NA	NA	NS
	CHRYSENE	mg/kg	220	110	250	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS
	DIBENZOFURAN	mg/kg	100	73	2.9	NS
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	NS
	FLUORENE	mg/kg	3400	2390	110	NS
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS
	PHENANTHRENE	mg/kg	NA	NA	NA	NS
SW8270C-SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS
	ACENAPHTHENE	mg/kg	5000	3590	110	NS
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS
	ANTHRACENE	mg/kg	25000	17900	1200	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS
	CHRYSENE	mg/kg	220	110	250	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS
	FLUORENE	mg/kg	3400	2390	110	NS
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS
	PHENANTHRENE	mg/kg	NA	NA	NA	NS
SW9012	CYANIDE	mg/kg	32	23	40	NS
SW9045C	PH	ph unit	NA	NA	NA	NS

Notes:
mg/kg - milligrams per kilogram
U – Concentration was non-detect; Value presented is laboratory reporting limit
J – Concentration is an estimated value
R - Rejected Result
NS – Analyte was not analyzed
* - Discrete sample (not five-point composite sample)
Table includes only compounds with at least one detect concentration result.
Yellow results are detected above the IDEM OLQ 2017 Recreational Park User soil direct contact (DC) screening level (SL).
Underlined results are detected concentrations above the EPA Region 5 2017 Residential Soil RSL.
[BOLD] results are detected concentrations above the IDEM OLQ 2017 Soil Migration to Groundwater (MTG) SL.
The IDEM OLQ 2017 Recreation Park Use DC SL applies to arsenic (45 mg/kg), lead (800 mg/kg) and benzo(A)pyrene (0.98 mg/kg).

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	01PS-1		01PS-2		01PS-3	02PS-1	
					Sample ID:	LPA01-PS-001 (3-4') (20160907)	LPA01-PS-001 (4-6') (20160907)	LPA01-PS-002 (2-3') (20160907)	LPA01-PS-002 (7-8') (20160907)	LPA01-PS-003 (3-4') (20160907)	LPA02-PS-001 (3-4') (20160907)	LPA02-PS-001 (4-6') (20160907)
					Sample Date:	9/7/16	9/7/16	9/7/16	9/7/16	9/7/16	9/7/16	9/7/16
					Sample Depth (ft bgs):	3-4 ft.	4-6 ft.	2-3 ft.	7-8 ft.	3-4 ft.	3-4 ft.	4-6 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	79	89	84	81	80	78	84
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	3900	3400	3400	3400	3800	9900 J	3800
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.5 U	24 U	24 U	24 U
	CALCIUM	mg/kg	NA	NA	NA	16000	1900	38000	13000	20000	6200 J	10000
	IRON	mg/kg	77000	55000	7100	**[30000]**	**[8300]**	**[8000]**	**[11000]**	**[29000]**	**[51000]**	**[49000]**
	POTASSIUM	mg/kg	NA	NA	NA	480	200	370	380	430	610	310
	SODIUM	mg/kg	NA	NA	NA	180	28	62	48	79	110	130
SW6020	ANTIMONY	mg/kg	43	31	5.4	1.8	0.13 U	1.2	0.36	**[10]**	3.5	3.3
	ARSENIC	mg/kg	9.5	0.68	5.9	**[14]**	2.6	**[14]**	**[12]**	**[35]**	**[15]**	**[23]**
	BARIUM	mg/kg	21000	15000	1700	300	34	70	98	380	350	180
	CADMIUM	mg/kg	99	71	7.5	4.6	0.21	0.39	0.94	**[9.9]**	**[64]**	**[38]**
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	35	7.6	9.4	16	130	1600	92
	COBALT	mg/kg	32	23	5.4	**[6.6]**	2.1	3.4	3.8	**[9.8]**	**[37]**	**[7.4]**
	COPPER	mg/kg	4300	3100	920	560	9.9	27	26	400	**[5700 J]**	**[1500]**
	LEAD	mg/kg	400	400	270	250	20	67	55	**[1300]**	**[1000 J]**	**[330]**
	MAGNESIUM	mg/kg	NA	NA	NA	4000	950	3400	3900	6400	12000	2500
	MANGANESE	mg/kg	2500	1800	560	360	50	240	150	**[580]**	**[1000 J]**	510
	NICKEL	mg/kg	2100	1500	510	34	4.7	9.4	11	66	**[520]**	79
	SELENIUM	mg/kg	550	390	5.3	1.8	1.0	1.5	1.7	1.9	1.9	2.7
	SILVER	mg/kg	550	390	16	1.2	0.1 U	0.12	0.1 U	1.5	**[22]**	1.6
	THALLIUM	mg/kg	1.1	0.78	2.9	0.48 U	0.48 U	0.49 U	0.5 U	0.49 U	0.49 U	0.49 U
	VANADIUM	mg/kg	550	390	1700	16	12	12	15	22	44	18
	ZINC	mg/kg	32000	NA	7500	480	27	58	82	1400	2600 J	510
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.83	0.044	0.036 J	0.14	0.83	**[4.8]**	0.63
SW9012	CYANIDE	mg/kg	32	23	40	0.2 U	0.2 U	0.2 U	0.2 U	1.4	0.33	0.89
SW9045C	PH	ph unit	NA	NA	NA	7.46	NS	7.92	NS	7.91	7.69	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.0015 UJ	0.0011 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.0015 UJ	0.0011 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.0015 UJ	0.0011 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.0015 UJ	0.0011 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.0015 UJ	0.0079 J
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.0015 UJ	0.0017 J
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.0015 UJ	0.0011 J
	2-HEXANONE	mg/kg	280	200	0.18	0.0059 U	0.0043 U	0.0049 U	0.0056 U	0.0064 U	0.0075 UJ	0.0055 U
	ACETONE	mg/kg	85000	61000	57	0.049	0.017	0.022	0.021	0.0039 J	0.0062 J	0.0055 U
	BENZENE	mg/kg	17	1.2	0.051	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.0015 UJ	0.0011 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.0015 UJ	0.0016 J
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.0015 UJ	0.0011 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.0015 UJ	0.0024 J
	CYCLOHEXANE	mg/kg	120	NA	270	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.0015 UJ	0.0011 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.0015 UJ	0.0011 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.0015 UJ	0.0011 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0024 U	0.0017 U	0.002 U	0.0022 U	0.0026 U	0.003 UJ	0.0022 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.013	0.0033 J	0.0054	0.0053 J	0.0064 U	0.0026 J	0.00093
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0059 U	0.0043 U	0.0049 U	0.0056 U	0.0064 U	0.0075 UJ	0.0055 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.0015 UJ	0.0011 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0018 J	0.0043 UJ	0.0049 UJ	0.0056 UJ	0.0064 UJ	0.0075 UJ	0.0055 UJ
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.0015 UJ	0.0011 U
	STYRENE	mg/kg	870	6000	2.2	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.0015 UJ	0.0011 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.0015 UJ	0.0011 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.013 J	0.012 J
	TOLUENE	mg/kg	820	4900	14	0.00067 J	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.00087 J	0.00061 J
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.0015 UJ	0.00077 J
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.0047 J	0.0069 J
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.0015 UJ	0.0011 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0012 U	0.00086 U	0.00098 U	0.0011 U	0.0013 U	0.0015 UJ	0.0011 U
	Xylenes	mg/kg	260	580	200	0.0036 U	0.0026 U	0.0029 U	0.0033 U	0.0038 U	0.0045 UJ	0.0033 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	02PS-2	02PS-3		03PS-1	03PS-2	03PS-3	04PS-1
					Sample ID:	LPA02-PS-002 (3-4') (20160907)	LPA02-PS-003 (3-4') (20160907)	LPA02-PS-003 (7-8') (20160907)	LPA03-PS-001 (2-3') (20160907)	LPA03-PS-002 (3-4') (20160906)	LPA03-PS-003 (3-4') (20160906)	LPA04-PS-001 (2-4') (20160908)
					Sample Date:	9/7/16	9/7/16	9/7/16	9/7/16	9/6/16	9/6/16	9/8/16
					Sample Depth (ft bgs):	3-4 ft.	3-4 ft.	7-8 ft.	2-3 ft.	3-4 ft.	3-4 ft.	2-4 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	83	78	81	78	69	82	88
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	5900	12000	3400	5600	6900	4600	3000
	BERYLLIUM	mg/kg	220	160	63	24 U	24 U	0.5 U	24 U	0.83	24 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	12000	31000	7700	26000	24000	16000	5000
	IRON	mg/kg	77000	55000	7100	**[39000]**	**[86000]**	**[23000]**	**[67000]**	**[32000]**	**[58000]**	**[14000]**
	POTASSIUM	mg/kg	NA	NA	NA	510	1500	760	550	960	290	220
	SODIUM	mg/kg	NA	NA	NA	140	390	470	230	700	190	40
SW6020	ANTIMONY	mg/kg	43	31	5.4	4.3	**[14]**	3.2	**[7.4]**	**[59]**	**[9.9]**	1.5
	ARSENIC	mg/kg	9.5	0.68	5.9	**[20]**	**[18]**	5.8	**[17]**	**[26]**	**[23]**	3.6
	BARIUM	mg/kg	21000	15000	1700	**[1900]**	270	120	740	1100	980	220
	CADMIUM	mg/kg	99	71	7.5	**[16]**	**[16]**	4.1	6.6	3.2	3.5	**[11]**
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	200	140	25	140	29	120	83
	COBALT	mg/kg	32	23	5.4	**[13]**	**[16]**	**[5.5]**	**[16]**	**[14]**	**[28]**	5.2
	COPPER	mg/kg	4300	3100	920	880	660	**[2600]**	460	250	310	430
	LEAD	mg/kg	400	400	270	**[1200]**	**[22000]**	73	**[840]**	**[420]**	**[1200]**	**[670]**
	MAGNESIUM	mg/kg	NA	NA	NA	7700	11000	1200	4300	2400	2900	3600
	MANGANESE	mg/kg	2500	1800	560	**[570 J]**	**[1300 J]**	160 J	**[730]**	300	**[780]**	340 J
	NICKEL	mg/kg	2100	1500	510	150	250	31	110	44	75	55
	SELENIUM	mg/kg	550	390	5.3	2.1	1.2	2.1	1.6	4.3	2.2	0.78
	SILVER	mg/kg	550	390	16	7.8	1.9	0.79	1.6	1.4	0.64	1.4
	THALLIUM	mg/kg	1.1	0.78	2.9	0.48 U	0.49 U	0.5 U	0.48 U	0.48 U	0.48 U	0.49 U
	VANADIUM	mg/kg	550	390	1700	24	41	46	24	53	21	9.3
	ZINC	mg/kg	32000	NA	7500	1500	2900	740	1100	640	910	620
SW7470A	MERCURY	mg/kg	3.1	11	2.1	1.1	0.90	0.15	**[2.6]**	0.041	0.28	0.54
SW9012	CYANIDE	mg/kg	32	23	40	2.0	0.52	0.36	4.3	0.2 U	0.58	1.4
SW9045C	PH	ph unit	NA	NA	NA	7.58	8.38	NS	8.05	7.76	8.05	7.83
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0013 U	0.0014 UJ	0.0015 UJ	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0013 U	0.0014 UJ	0.0015 UJ	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0013 U	0.0014 UJ	0.0015 UJ	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.0013 U	0.0014 UJ	0.0015 UJ	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0013 U	0.0014 UJ	0.0015 UJ	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0013 U	0.0014 UJ	0.0015 UJ	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0013 U	0.0014 UJ	0.0015 UJ	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0065 U	0.0072 UJ	0.0077 UJ	0.0073 U	0.0076 U	0.0063 U	0.0055 U
	ACETONE	mg/kg	85000	61000	57	0.0065 U	0.024 J	0.0064 J	0.0073 U	0.0035 J	0.020	0.0048 J
	BENZENE	mg/kg	17	1.2	0.051	0.0013 U	0.00093 J	0.0015 UJ	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0013 U	0.0014 UJ	0.049 J	0.0015 U	0.0015 U	0.0038	0.0011 U
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0013 U	0.0014 UJ	0.0015 UJ	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0013 U	0.0014 UJ	0.0015 UJ	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	CYCLOHEXANE	mg/kg	120	NA	270	0.0013 U	0.0014 UJ	0.0015 UJ	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0013 U	0.0014 UJ	0.0015 UJ	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0013 U	0.0014 UJ	0.0015 UJ	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0026 U	0.0029 UJ	0.0031 UJ	0.0029 U	0.0031 U	0.0025 U	0.0022 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.0065 U	0.0056 J	0.0012 J	0.0073 U	0.0016 J	0.0027 J	0.0055 U
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0065 U	0.0072 UJ	0.0077 UJ	0.0073 U	0.0076 U	0.0063 U	0.0055 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0013 U	0.0014 UJ	0.0015 UJ	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.00084 J	0.0072 UJ	0.0077 UJ	0.0073 UJ	0.0082 J	0.0055 J	0.0055 UJ
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0013 U	0.0014 UJ	0.0015 UJ	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	STYRENE	mg/kg	870	6000	2.2	0.0013 U	0.0014 UJ	0.0015 UJ	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0013 U	0.0014 UJ	0.0015 UJ	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0090	0.0014 UJ	0.0015 UJ	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	TOLUENE	mg/kg	820	4900	14	0.0013 U	0.00088 J	0.0015 UJ	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0013 U	0.0014 UJ	0.0015 UJ	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0013 U	0.0014 UJ	0.0091 J	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0013 U	0.0014 UJ	0.0015 UJ	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0013 U	0.0014 UJ	0.0015 UJ	0.0015 U	0.0015 U	0.0013 U	0.0011 U
	Xylenes	mg/kg	260	580	200	0.0039 U	0.0043 UJ	0.0046 UJ	0.0044 U	0.0046 U	0.0038 U	0.0033 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	04PS-2	04PS-3		05PS-1		05PS-2	
					Sample ID:	LPA04-PS-002 (2-4') (20160908)	LPA04-PS-003 (2-4') (20160908)	LPA04-QD-001 (2-4') (20160908)	LPA05-PS-001 (2-3') (20160909)	LPA05-PS-001 (9-10') (20160909)	LPA05-PS-002 (3-4.5') (20160909)	LPA05-PS-002 (9-10') (20160909)
					Sample Date:	9/8/16	9/8/16	9/8/16	9/9/16	9/9/16	9/9/16	9/9/16
					Sample Depth (ft bgs):	2-4 ft.	2-4 ft.	2-4 ft.	2-3 ft.	9-10 ft.	3-4.5 ft.	9-10 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	83	75	75	90	89	61	78
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	5200	5100	6100	1300	980	15000	3200
	BERYLLIUM	mg/kg	220	160	63	24 UJ	25 U	24 U	0.5 U	0.5 U	25 U	22 U
	CALCIUM	mg/kg	NA	NA	NA	19000	16000	27000	4000	1600	5100	4200
	IRON	mg/kg	77000	55000	7100	**[36000]**	**[31000]**	**[39000]**	**[7600]**	4000	**[82000]**	**[92000]**
	POTASSIUM	mg/kg	NA	NA	NA	370	390	480	190 U	200 U	680	930
	SODIUM	mg/kg	NA	NA	NA	160	110	150	33	13	230	300
SW6020	ANTIMONY	mg/kg	43	31	5.4	4.2	**[9.6]**	**[12]**	0.92	1.9	**[35]**	4.2
	ARSENIC	mg/kg	9.5	0.68	5.9	**[12]**	**[21]**	**[23]**	3.0	1.6	**[100]**	**[20]**
	BARIUM	mg/kg	21000	15000	1700	480	920	1100	91	18	190	130
	CADMIUM	mg/kg	99	71	7.5	**[12]**	**[14]**	**[12]**	4.9	6.6	6.0	**[21]**
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	280	220	150	15	5.3	360	180
	COBALT	mg/kg	32	23	5.4	**[13]**	**[13]**	**[13]**	2.9	1.1	**[15]**	**[9.5]**
	COPPER	mg/kg	4300	3100	920	**[1400]**	**[1500]**	**[1200]**	29	**[1500]**	290	630
	LEAD	mg/kg	400	400	270	**[1600]**	**[2100]**	**[2100]**	210 J	36	**[280]**	**[470]**
	MAGNESIUM	mg/kg	NA	NA	NA	9000	8400	7600	1600 J	640	4700	2500
	MANGANESE	mg/kg	2500	1800	560	**[800 J]**	**[570 J]**	**[820 J]**	89 J	53	**[2500]**	**[760]**
	NICKEL	mg/kg	2100	1500	510	290	130	110	16	4.2	190	160
	SELENIUM	mg/kg	550	390	5.3	1.1	1.9	1.9	0.86	0.40	1.2	0.57
	SILVER	mg/kg	550	390	16	2.3	2.1	2.4	0.23	0.058 J	1.6	1.0
	THALLIUM	mg/kg	1.1	0.78	2.9	0.48 U	0.49 U	0.48 U	0.46 U	0.49 U	0.5 U	0.45 U
	VANADIUM	mg/kg	550	390	1700	19	22	29	9.1	3.6	79	20
	ZINC	mg/kg	32000	NA	7500	1400	1500	1300	140 J	64	570	980
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.58	1.1	0.82	0.20	0.28	**[3.1]**	1.7
SW9012	CYANIDE	mg/kg	32	23	40	1.2	1.1	1.0	0.2 U	0.2 U	0.74	0.30
SW9045C	PH	ph unit	NA	NA	NA	7.84	7.73	7.69	8.21	NS	7.7	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0011 U	0.0012 U	0.0012 U	0.0011 U	0.0013 U	0.0024 U	0.0014 UJ
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0011 U	0.0012 U	0.0012 U	0.0011 U	0.0013 U	0.0024 U	0.0014 UJ
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0011 U	0.0012 U	0.0012 U	0.0011 U	0.0013 U	0.0024 U	0.0010 J
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	R	0.0012 U	0.0012 U	0.0011 U	0.0013 U	0.0024 U	0.00079 J
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0011 UJ	0.0012 U	0.0012 U	0.0011 U	0.0013 U	0.0024 U	0.072 J
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0011 U	0.0012 U	0.0012 U	0.0011 U	0.0013 U	0.0024 U	0.0014 UJ
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0011 UJ	0.0012 U	0.0012 U	0.0011 U	0.0013 U	0.0024 U	0.0014 UJ
	2-HEXANONE	mg/kg	280	200	0.18	0.0054 U	0.0062 U	0.0062 U	0.0053 U	0.0066 U	0.012 U	0.0022 J
	ACETONE	mg/kg	85000	61000	57	0.0037 J	0.0043 J	0.021	0.0053 U	R	0.012 U	0.044 J
	BENZENE	mg/kg	17	1.2	0.051	0.0011 U	0.0012 U	0.0012 U	0.0011 U	0.0013 U	0.0024 U	0.015 J
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0011 U	0.0012 U	0.0012 U	0.0011 U	0.017	0.0024 U	0.0064 J
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0011 U	0.0012 U	0.0012 U	0.0011 U	0.0013 U	0.0024 U	0.12 J
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0011 U	0.0012 U	0.0012 U	0.0011 U	0.0013 U	0.0024 U	0.016 J
	CYCLOHEXANE	mg/kg	120	NA	270	0.0011 U	0.0012 U	0.0012 U	0.0011 U	0.0013 U	0.0024 U	0.0014 UJ
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0011 U	0.0012 U	0.0012 U	0.0011 U	0.0013 U	0.0024 U	0.0031 J
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0011 U	0.0012 U	0.0012 U	0.0011 U	0.0013 U	0.0024 U	0.0060 J
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0022 U	0.0025 U	0.0025 U	0.0021 U	0.0026 U	0.0048 U	0.0027 UJ
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.0054 U	0.0062 U	0.0041 J	0.0053 U	0.11	0.0013 J	0.012 J
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0054 U	0.0062 U	0.0062 U	0.0053 U	0.0066 U	0.012 U	0.0068 UJ
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0011 UJ	0.0012 U	0.0012 U	0.0011 U	0.0013 U	0.0024 U	0.0019 J
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0054 UJ	0.0062 UJ	0.0059 J	0.0053 UJ	**[0.059 J]**	0.012 UJ	0.0068 UJ
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0011 UJ	0.0012 U	0.0012 U	0.0011 U	0.0013 U	0.0024 U	0.0030 J
	STYRENE	mg/kg	870	6000	2.2	0.0011 UJ	0.0012 U	0.0012 U	0.0011 U	0.0013 U	0.0024 U	0.0014 UJ
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0011 U	0.0012 U	0.0012 U	0.0011 U	0.0013 U	0.0024 U	0.0014 UJ
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0011 U	0.00072 J	0.0012 U	0.0011 U	0.0013 U	0.0024 U	0.0014 UJ
	TOLUENE	mg/kg	820	4900	14	0.0011 U	0.0012 U	0.0012 U	0.0011 U	0.00067 J	0.0024 U	0.0059 J
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0011 U	0.0012 U	0.0012 U	0.0011 U	0.0013 U	0.0024 U	0.0014 UJ
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0011 UJ	0.0012 U	0.0012 U	0.0011 U	0.0013 U	**[0.048 J]**	0.0014 UJ
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0011 U	0.0012 U	0.0012 U	0.0011 U	0.0013 U	0.0024 U	0.0014 UJ
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0011 U	0.0012 U	0.0012 U	0.0011 U	0.0013 U	0.0024 U	0.0013 J
	Xylenes	mg/kg	260	580	200	0.0032 U	0.0037 U	0.0037 U	0.0032 U	0.0039 U	0.0072 U	0.0041 UJ

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	05PS-2	05PS-3			06PS-1		
					Sample ID:	LPA05-PS-002 (11-12') (20160909)	LPA05-PS-003 (2-4') (20160912)	LPA05-PS-003 (7-8') (20160912)	LPA05-PS-003 (11-12') (20160912)	LPA06-PS-001 (2-4') (20160920)	LPA06-PS-001 (4-6') (20160920)	LPA06-PS-001 (10-12') (20160920)
					Sample Date:	9/9/16	9/12/16	9/12/16	9/12/16	9/20/16	9/20/16	9/20/16
					Sample Depth (ft bgs):	11-12 ft.	2-4 ft.	7-8 ft.	11-12 ft.	2-4 ft.	4-6 ft.	10-12 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	81	89	89	88	71	77	91
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	9700	1800	1300	1200	360	1000	920
	BERYLLIUM	mg/kg	220	160	63	25 U	0.5 U	24 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	15000	2200	6600	820	330000	180000	43000
	IRON	mg/kg	77000	55000	7100	**[82000]**	**[18000]**	**[25000]**	4100	7000	4700	2800
	POTASSIUM	mg/kg	NA	NA	NA	750	200 U	190 U	200 U	190 U	310	190 U
	SODIUM	mg/kg	NA	NA	NA	270	35	31	14	130	77	42
SW6020	ANTIMONY	mg/kg	43	31	5.4	**[68]**	**[11]**	0.96	0.57	0.13 U	0.13 U	0.14 U
	ARSENIC	mg/kg	9.5	0.68	5.9	**[22]**	**[7.1]**	**[9.1]**	1.4	5.7	2.3	1.6
	BARIUM	mg/kg	21000	15000	1700	920	490	54	12	230	67	4.3
	CADMIUM	mg/kg	99	71	7.5	**[39]**	**[14]**	**[66]**	4.0	0.19 U	0.19 U	0.19 U
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	2100	140	22	3.0	2 U	2.0	2.7
	COBALT	mg/kg	32	23	5.4	**[46]**	**[6.2]**	2.9	1.0	0.59	1.6	1.7
	COPPER	mg/kg	4300	3100	920	**[1200]**	**[980]**	87	180	2.0	1.6	1.9
	LEAD	mg/kg	400	400	270	**[8400]**	**[1900]**	43	12	3.7	1.1	1.3
	MAGNESIUM	mg/kg	NA	NA	NA	9400	4500	1900	310	11000 J	4600 J	5600 J
	MANGANESE	mg/kg	2500	1800	560	**[900]**	200	170	22	**[950]**	**[700]**	97
	NICKEL	mg/kg	2100	1500	510	**[1200]**	62	17	5.4	1.5	2.6	3.5
	SELENIUM	mg/kg	550	390	5.3	**[8.0]**	0.93	0.70	0.49	0.66	0.67	0.61
	SILVER	mg/kg	550	390	16	3.1	4.9	0.36	0.034 J	0.1 U	0.1 U	0.1 U
	THALLIUM	mg/kg	1.1	0.78	2.9	0.5 U	0.49 U	0.49 U	0.49 U	0.48 U	0.48 U	0.49 U
	VANADIUM	mg/kg	550	390	1700	33	9.0	9.8	4.1	1.4	2.7	3.2
	ZINC	mg/kg	32000	NA	7500	2600	1400	200	35	17	7.0	8.1
SW7470A	MERCURY	mg/kg	3.1	11	2.1	2.1	1.1	0.041	0.013 J	0.038 U	0.04 U	0.037 U
SW9012	CYANIDE	mg/kg	32	23	40	0.24	9.1	0.2 U	0.2 U	7.7 U	8.1 U	0.2 U
SW9045C	PH	ph unit	NA	NA	NA	NS	8.0	NS	NS	8.32	NS	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0014 U	0.0012 U	0.00098 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0014 U	0.0012 U	0.00098 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0014 U	0.0012 U	0.00098 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0014 U	0.0012 U	0.00098 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0036	0.0011 U	0.0011 U	0.0011 U	0.0014 U	0.0012 U	0.00098 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0014 U	0.0012 U	0.00098 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0014 U	0.0012 U	0.00098 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0066 U	0.0057 U	0.0056 U	0.0053 U	0.0018 J	0.006 U	0.0049 U
	ACETONE	mg/kg	85000	61000	57	0.026	0.0037 J	0.012	0.011	0.007 U	0.006 UJ	0.0049 UJ
	BENZENE	mg/kg	17	1.2	0.051	0.0013	0.0011 U	0.0011 U	0.0011	0.0014 U	0.0012 U	0.00098 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.00076 J	0.0011 U	0.0011 U	0.0032	0.0014 U	0.0012 U	0.00098 U
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0041	0.0011 U	0.0011 U	0.0011 U	0.0014 U	0.0012 U	0.00098 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0046	0.0011 U	0.0011 U	0.0011 U	0.0014 U	0.0012 U	0.00098 U
	CYCLOHEXANE	mg/kg	120	NA	270	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0014 U	0.0012 U	0.00098 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0014 U	0.0012 U	0.00098 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0014 U	0.0012 U	0.00098 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0027 U	0.0023 U	0.0022 U	0.0021 U	0.0028 U	0.0024 U	0.002 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.0060 J	0.0057 U	0.0012 J	0.00083 J	0.007 U	0.006 U	0.0049 U
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0066 U	0.0057 U	0.0056 U	0.0053 U	0.007 U	0.006 U	0.0049 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0014 U	0.0012 U	0.00098 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0066 UJ	0.0057 UJ	0.022 J	0.0053 UJ	0.0030 J	0.006 UJ	0.0049 UJ
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0014 U	0.0012 U	0.00098 U
	STYRENE	mg/kg	870	6000	2.2	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0014 U	0.0012 U	0.00098 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0014 U	0.0012 U	0.00098 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0014 U	0.0012 U	0.00098 U
	TOLUENE	mg/kg	820	4900	14	0.0013	0.0011 U	0.0011 U	0.0011 U	0.0014 U	0.0012 U	0.00098 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0014 U	0.0012 U	0.00098 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	**[0.070]**	0.00062 J	0.0011 U	0.0011 U	0.0014 U	0.0012 U	0.00098 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0014 U	0.0012 U	0.00098 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0013 U	0.0011 U	0.0011 U	0.0011 U	0.0014 U	0.0012 U	0.00098 U
	Xylenes	mg/kg	260	580	200	0.004 U	0.0034 U	0.0034 U	0.0032 U	0.0042 U	0.0036 U	0.0029 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	06PS-2			06PS-3			07PS-1
					Sample ID:	LPA06-PS-002 (2-4') (20160920)	LPA06-PS-002 (7-8') (20160920)	LPA06-PS-002 (10-12') (20160920)	LPA06-PS-003 (1-3') (20160920)	LPA06-PS-003 (6-8') (20160920)	LPA06-PS-003 (10-12') (20160920)	LPA07-PS-001 (3-4') (20160906)
					Sample Date:	9/20/16	9/20/16	9/20/16	9/20/16	9/20/16	9/20/16	9/6/16
					Sample Depth (ft bgs):	2-4 ft.	7-8 ft.	10-12 ft.	1-3 ft.	6-8 ft.	10-12 ft.	3-4 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	94	91	93	82	95	92	83
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	1900 J	3600	1500	6000	2000	5800	8100
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	23 U	0.5 U	0.5 U	25 U
	CALCIUM	mg/kg	NA	NA	NA	2300 J	5800	1200	4600	780	700	11000 J
	IRON	mg/kg	77000	55000	7100	6000	**[16000]**	**[12000]**	**[45000]**	7100	6400	**[100000 J]**
	POTASSIUM	mg/kg	NA	NA	NA	180	240	190 U	550	170 U	190 U	1100
	SODIUM	mg/kg	NA	NA	NA	52	32	11	180	11	13	400
SW6020	ANTIMONY	mg/kg	43	31	5.4	2.8	1.8	**[11]**	3.6	1.2	0.89	**[11]**
	ARSENIC	mg/kg	9.5	0.68	5.9	1.5	5.9	3.0	**[6.8]**	1.5	1.0	**[28 J]**
	BARIUM	mg/kg	21000	15000	1700	44	53	30	280	34	4.7	580
	CADMIUM	mg/kg	99	71	7.5	4.6	3.6	**[37]**	**[16]**	2.7	0.57	**[27]**
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	23	66	49	120	52	4.1	390
	COBALT	mg/kg	32	23	5.4	1.7	4.4	**[7.6]**	**[7.9]**	1.5	1.0	**[22]**
	COPPER	mg/kg	4300	3100	920	260 J	150	470	490	42	41	**[3200]**
	LEAD	mg/kg	400	400	270	81	**[290]**	45	**[1200]**	19	4.7	**[1300]**
	MAGNESIUM	mg/kg	NA	NA	NA	970 J	2000 J	370 J	4100 J	420 J	370 J	4600
	MANGANESE	mg/kg	2500	1800	560	79 J	140 J	88 J	240 J	52 J	35 J	**[1200]**
	NICKEL	mg/kg	2100	1500	510	14	78	30	79	25	12	330
	SELENIUM	mg/kg	550	390	5.3	0.37	1.0	0.27	1.1	0.17	0.19 U	2.7
	SILVER	mg/kg	550	390	16	0.20	1.7	1.1	2.1	0.1 U	0.1 U	1.8
	THALLIUM	mg/kg	1.1	0.78	2.9	0.45 U	0.48 U	0.48 U	0.45 U	0.42 U	0.48 U	0.49 U
	VANADIUM	mg/kg	550	390	1700	6.1	6.8	6.1	17	2.3	2.3	41
	ZINC	mg/kg	32000	NA	7500	190 J	240	580	830	140	65	**[14000]**
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.71	0.32	0.15	0.80	0.050	0.032 U	0.60
SW9012	CYANIDE	mg/kg	32	23	40	0.56	0.2 U	0.2 U	0.58	0.2 U	0.2 U	0.37
SW9045C	PH	ph unit	NA	NA	NA	7.91	NS	NS	7.13	NS	NS	7.73
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0011 U	0.001 U	0.0011 U	0.0013 U	0.0017 U	0.0011 U	0.0011 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0011 U	0.001 U	0.0011 U	0.0013 U	0.0017 U	0.0011 U	0.0011 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0011 U	0.001 U	0.0011 UJ	0.0013 UJ	0.0017 U	0.0011 UJ	0.0011 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.0011 U	0.001 U	0.0011 UJ	0.0013 UJ	0.0017 U	0.0011 UJ	0.0011 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0011 U	0.001 U	0.0011 UJ	0.0013 UJ	0.0017 U	0.0011 UJ	0.0011 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0011 U	0.001 U	0.0011 U	0.0013 U	0.0017 U	0.0011 U	0.0011 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0011 U	0.001 U	0.0011 UJ	0.0013 UJ	0.0017 U	0.0011 UJ	0.0011 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0054 U	0.0052 U	0.0053 U	0.0065 U	0.0084 U	0.0056 U	0.0057 U
	ACETONE	mg/kg	85000	61000	57	0.0054 UJ	0.0052 UJ	0.0053 U	0.0065 U	0.0084 UJ	0.0020 J	0.0027 J
	BENZENE	mg/kg	17	1.2	0.051	0.0011 U	0.001 U	0.0011 U	0.0013 U	0.0017 U	0.0011 U	0.0011 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0011 U	0.001 U	0.0011 U	0.0034	0.0017 U	0.0011 U	0.0020
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0011 U	0.001 U	0.0011 U	0.0013 U	0.0017 U	0.0011 U	0.0011 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0011 U	0.001 U	0.0011 U	0.0013 U	0.0017 U	0.0011 U	0.0011 U
	CYCLOHEXANE	mg/kg	120	NA	270	0.0011 U	0.001 U	0.0011 U	0.0013 U	0.0017 U	0.0011 U	0.0011 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0011 U	0.001 U	0.0011 U	0.0013 U	0.0017 U	0.0011 U	0.0011 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0011 U	0.001 U	0.0011 U	0.0013 U	0.0017 U	0.0011 U	0.0011 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0022 U	0.0021 U	0.0021 U	0.0026 U	0.0034 U	0.0022 U	0.0023 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.0054 U	0.0052 U	0.00053 J	0.0065 U	0.0084 U	0.00060 J	0.0057 U
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0054 U	0.0052 U	0.0053 U	0.0065 U	0.0084 U	0.0056 U	0.0057 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0011 U	0.001 U	0.0011 UJ	0.0013 UJ	0.0017 U	0.0011 UJ	0.0011 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0054 UJ	0.0052 UJ	0.0053 UJ	0.0065 J	0.0096 J	0.0056 UJ	0.0028 J
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0011 U	0.001 U	0.0011 U	0.0013 U	0.0017 U	0.0011 U	0.0011 U
	STYRENE	mg/kg	870	6000	2.2	0.0011 U	0.001 U	0.0011 U	0.0013 U	0.0017 U	0.0011 U	0.0011 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0011 U	0.001 U	0.0011 U	0.0013 U	0.0017 U	0.0011 U	0.0011 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0011 U	0.001 U	0.0011 U	0.0014	0.0017 U	0.0011 U	0.0011 U
	TOLUENE	mg/kg	820	4900	14	0.0011 U	0.001 U	0.0011 U	0.0013 U	0.0017 U	0.0011 U	0.0011 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0011 U	0.001 U	0.0011 U	0.0013 U	0.0017 U	0.0011 U	0.0011 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0011 U	0.001 U	0.0011 U	0.0039	0.0017 U	0.0011 U	0.0011 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0011 U	0.001 U	0.0011 UJ	0.0013 UJ	0.0017 U	0.0011 UJ	0.0011 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0011 U	0.001 U	0.0011 U	0.0013 U	0.0017 U	0.0011 U	0.0011 U
	Xylenes	mg/kg	260	580	200	0.0033 U	0.0031 U	0.0032 U	0.0039 U	0.0051 U	0.0034 U	0.0034 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	07PS-2	07PS-3		08PS-1	08PS-2	08PS-3	09PS-1
					Sample ID:	LPA07-PS-002 (3-4') (20160906)	LPA07-PS-003 (3-4') (20160906)	LPA07-PS-003 (7.5-9') (20160906)	LPA08-PS-001 (3-4') (20160908)	LPA08-PS-002 (2-3') (20160908)	LPA08-PS-003 (2-3') (20160908)	LPA09-PS-001 (4-5') (20160909)
					Sample Date:	9/6/16	9/6/16	9/6/16	9/8/16	9/8/16	9/8/16	9/9/16
					Sample Depth (ft bgs):	3-4 ft.	3-4 ft.	7.5-9 ft.	3-4 ft.	2-3 ft.	2-3 ft.	4-5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	87	70	52	85	77	93	96
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	3500	7700	860	5500	8600	1200	570
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.5 U	25 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	13000	31000	250000	14000	6400	12000	600
	IRON	mg/kg	77000	55000	7100	**[13000]**	**[52000]**	**[11000]**	**[41000]**	**[99000]**	4800	3700
	POTASSIUM	mg/kg	NA	NA	NA	350	890	200 U	550	530	200 U	190 U
	SODIUM	mg/kg	NA	NA	NA	66	430	170	290	110	31	25
SW6020	ANTIMONY	mg/kg	43	31	5.4	1.5	**[7.5]**	0.22	3.4	4.6	0.34	0.23
	ARSENIC	mg/kg	9.5	0.68	5.9	**[9.4]**	**[44]**	**[12]**	**[19]**	**[18]**	**[6.5]**	1.5
	BARIUM	mg/kg	21000	15000	1700	370	910	230	630	740	53	12
	CADMIUM	mg/kg	99	71	7.5	2.3	4.3	0.2 U	1.8	**[14]**	0.44	0.76
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	28	52	2 U	41	580	15	4.4
	COBALT	mg/kg	32	23	5.4	5.3	**[15]**	0.95	**[12]**	**[21]**	2.1	1.5
	COPPER	mg/kg	4300	3100	920	50	220	1.9	450	**[1600]**	37	42
	LEAD	mg/kg	400	400	270	190	**[720]**	5.4	**[2300]**	**[2400]**	160	6.1
	MAGNESIUM	mg/kg	NA	NA	NA	3400	3800	6900	3100	16000	2800	510
	MANGANESE	mg/kg	2500	1800	560	320	**[760]**	**[1100]**	360 J	**[1200 J]**	85 J	50
	NICKEL	mg/kg	2100	1500	510	18	76	1.9	43	330	9.9	6.9
	SELENIUM	mg/kg	550	390	5.3	1.6	3.6	0.63	2.5	1.1	0.54	0.45
	SILVER	mg/kg	550	390	16	0.45	6.3	0.1 U	0.58	3.5	0.092 J	0.063 J
	THALLIUM	mg/kg	1.1	0.78	2.9	0.5 U	0.48 U	0.49 U	0.49 U	0.5 U	0.047 J	0.48 U
	VANADIUM	mg/kg	550	390	1700	17	39	2.2	27	40	5.6	3.2
	ZINC	mg/kg	32000	NA	7500	250	1400	8.9	810	2100	61	110
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.16	**[13]**	0.0078 J	0.27	**[2.4]**	0.23	0.030 J
SW9012	CYANIDE	mg/kg	32	23	40	0.24	1.2	1.9 U	0.52	1.4	0.2 U	0.2 U
SW9045C	PH	ph unit	NA	NA	NA	8.01	7.74	7.85	7.87	7.74	8.13	7.66
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0011 U	0.0015 U	0.0023 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0011 U	0.0015 U	0.0023 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0011 U	0.0015 U	0.0023 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.0011 U	0.0015 U	0.0023 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0011 U	0.0015 U	0.0023 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0011 U	0.0015 U	0.0023 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0011 U	0.0015 U	0.0023 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0056 U	0.0077 U	0.012 U	0.0059 U	0.0063 U	0.0054 U	0.0053 U
	ACETONE	mg/kg	85000	61000	57	0.0056 U	0.0077 U	0.012 U	0.0023 J	0.013	0.0022 J	0.0053 U
	BENZENE	mg/kg	17	1.2	0.051	0.0011 U	0.0015 U	0.0023 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0011	0.0015	0.0029	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0011 U	0.0015 U	0.0023 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0011 U	0.0015 U	0.0023 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	CYCLOHEXANE	mg/kg	120	NA	270	0.0011 U	0.0015 U	0.0023 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0011 U	0.0015 U	0.0023 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0011 U	0.0015 U	0.0023 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0022 U	0.0031 U	0.0046 U	0.0024 U	0.0025 U	0.0022 U	0.0021 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.0056 U	0.0023 J	0.012 U	0.0059 U	0.0025 J	0.0054 U	0.0053 U
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0056 U	0.0077 U	0.012 U	0.0059 U	0.0063 U	0.0054 U	0.0053 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0011 U	0.0015 U	0.0023 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0014 J	0.0077 UJ	0.012 J	0.0059 UJ	0.0063 UJ	0.0014 J	0.0053 UJ
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0011 U	0.0015 U	0.0023 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	STYRENE	mg/kg	870	6000	2.2	0.0011 U	0.0015 U	0.0023 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0011 U	0.0015 U	0.0023 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0011 U	0.0015 U	0.0023 U	0.0021	0.0013 U	0.0011 U	0.0011 U
	TOLUENE	mg/kg	820	4900	14	0.0011 U	0.0015 U	0.0023 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0011 U	0.0015 U	0.0023 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0011 U	0.0015 U	0.0023 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0011 U	0.0015 U	0.0023 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0011 U	0.0015 U	0.0023 U	0.0012 U	0.0013 U	0.0011 U	0.0011 U
	Xylenes	mg/kg	260	580	200	0.0033 U	0.0046 U	0.0069 U	0.0036 U	0.0038 U	0.0032 U	0.0032 U

Notes:
mg/kg - milligrams per kilogram
U – Concentration was non-detect; Value represents laboratory reporting limit
J – Concentration is an estimated value
R - Rejected Result
NS – Analyte was not analyzed
Only compounds with at least one detected result for this matrix are shown
Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).
Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL
[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL
The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	09PS-2		09PS-3			10PS-1	
					Sample ID:	LPA09-PS-002 (3-4') (20160912)	LPA09-PS-002 (8-9') (20160912)	LPA09-PS-003 (3-4') (20160913)	LPA09-PS-003 (6-8') (20160913)	LPA09-QD-001 (6-8') (20160913)	LPA10-PS-001 (2-3') (20160919)	LPA10-PS-001 (6-7') (20160919)
					Sample Date:	9/12/16	9/12/16	9/13/16	9/13/16	9/13/16	9/19/16	9/19/16
					Sample Depth (ft bgs):	3-4 ft.	8-9 ft.	3-4 ft.	6-8 ft.	6-8 ft.	2-3 ft.	6-7 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	73	92	88	84	85	78	89
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	6400 J	2200	4700	51000	40000	9900	3200
	BERYLLIUM	mg/kg	220	160	63	24 U	0.5 U	0.5 U	0.5 U	0.5 U	24 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	8200 J	2300	9600	12000	7600	27000 J	8100
	IRON	mg/kg	77000	55000	7100	**[80000]**	4500	6300	**[15000]**	**[14000]**	**[84000 J]**	**[11000]**
	POTASSIUM	mg/kg	NA	NA	NA	630	190	240	470	510	640 J	310
	SODIUM	mg/kg	NA	NA	NA	280	29	62	140	150	190	59
SW6020	ANTIMONY	mg/kg	43	31	5.4	3.1	0.27	0.75	**[12]**	**[47]**	**[24]**	0.78
	ARSENIC	mg/kg	9.5	0.68	5.9	**[24]**	3.1	4.8	**[7.0]**	**[8.4]**	**[20]**	5.0
	BARIUM	mg/kg	21000	15000	1700	560	47	150	280	230	620	58
	CADMIUM	mg/kg	99	71	7.5	**[7.7 J]**	0.26	0.78	**[13]**	**[14]**	5.6 J	1.0
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	55	7.7	15	67	62	130	18
	COBALT	mg/kg	32	23	5.4	**[16]**	1.7	3.3	5.2	5.1	**[17]**	4.3
	COPPER	mg/kg	4300	3100	920	480 J	24	36	**[4200]**	**[11000]**	470	59
	LEAD	mg/kg	400	400	270	**[860 J]**	38	170	**[910]**	**[2100]**	**[1500]**	110
	MAGNESIUM	mg/kg	NA	NA	NA	950 J	1100	1300	3600	2400	3000 J	2500 J
	MANGANESE	mg/kg	2500	1800	560	390 J	65	140	460	430	560	110
	NICKEL	mg/kg	2100	1500	510	65	4.9	12	97	150	50	26
	SELENIUM	mg/kg	550	390	5.3	3.2	0.50	1.0	1.3	1.3	1.8	1.5
	SILVER	mg/kg	550	390	16	1.4 J	0.050 J	0.20	1.1	2.4	0.77 J	0.30
	THALLIUM	mg/kg	1.1	0.78	2.9	0.49 U	0.46 U	0.5 U	0.49 U	0.48 U	0.48 U	0.5 U
	VANADIUM	mg/kg	550	390	1700	38	20	15	17	16	47	12
	ZINC	mg/kg	32000	NA	7500	2900	100	200	2300	2000	1100	240
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.33	0.038	0.43	0.15	0.15	0.24	0.10
SW9012	CYANIDE	mg/kg	32	23	40	0.30	0.2 U	0.46	0.2 U	0.32	0.36	0.2 U
SW9045C	PH	ph unit	NA	NA	NA	7.86	NS	8.24	NS	NS	7.59	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0015 UJ	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0015 UJ	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0015 UJ	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.0015 UJ	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0015 UJ	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0015 UJ	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0015 UJ	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0075 UJ	0.0047 U	0.0058 UJ	0.0053 U	0.0049 U	0.0058 UJ	0.0048 U
	ACETONE	mg/kg	85000	61000	57	0.0052 J	0.0081	0.0029 J	0.0019 J	0.0049 U	0.0058 UJ	0.0048 U
	BENZENE	mg/kg	17	1.2	0.051	0.0015 UJ	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0015 UJ	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0015 UJ	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0015 UJ	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	CYCLOHEXANE	mg/kg	120	NA	270	0.0015 UJ	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0016 J	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0015 UJ	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.003 UJ	0.0019 U	0.0023 UJ	0.0021 U	0.002 U	0.0023 UJ	0.0019 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.00083 J	0.0050	0.0058 UJ	0.0053 U	0.0049 U	0.0058 UJ	0.0048 U
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0075 UJ	0.0047 U	0.0058 UJ	0.0053 U	0.0049 U	0.0058 UJ	0.0048 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0015 UJ	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0075 UJ	0.0047 UJ	0.0058 UJ	0.0053 UJ	0.0049 UJ	0.0058 UJ	0.0048 UJ
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.00075 J	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	STYRENE	mg/kg	870	6000	2.2	0.0015 UJ	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0015 UJ	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0015 UJ	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	TOLUENE	mg/kg	820	4900	14	0.0011 J	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0015 UJ	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0015 UJ	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0015 UJ	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0015 UJ	0.00094 U	0.0012 UJ	0.0011 U	0.00099 U	0.0012 UJ	0.00096 U
	Xylenes	mg/kg	260	580	200	0.0045 UJ	0.0028 U	0.0035 UJ	0.0032 U	0.003 U	0.0035 UJ	0.0029 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	10PS-2		10PS-3		11PS-1	11PS-2	
					Sample ID:	LPA10-PS-002 (2-4') (20160919)	LPA10-PS-002 (10-12') (20160919)	LPA10-PS-003 (1-4') (20160919)	LPA10-QD-001 (1-4') (20160919)	LPA11-PS-001 (2-3') (20160920)	LPA11-PS-002 (2-4') (20160920)	LPA11-PS-002 (7-8') (20160920)
					Sample Date:	9/19/16	9/19/16	9/19/16	9/19/16	9/20/16	9/20/16	9/20/16
					Sample Depth (ft bgs):	2-4 ft.	10-12 ft.	1-4 ft.	1-4 ft.	2-3 ft.	2-4 ft.	7-8 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	81	95	78	80	82	86	87
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	4500	900	7100	7100	4900	6400	9200
	BERYLLIUM	mg/kg	220	160	63	25 U	0.5 U	0.5 U	0.11 J	24 U	23 U	0.46 J
	CALCIUM	mg/kg	NA	NA	NA	15000	1800	18000	6800	7400	13000	29000
	IRON	mg/kg	77000	55000	7100	**[120000]**	6800	**[34000]**	**[26000]**	**[47000]**	**[55000]**	**[44000]**
	POTASSIUM	mg/kg	NA	NA	NA	550	200 U	720	700	460	770	940
	SODIUM	mg/kg	NA	NA	NA	290	18	290	250	220	310	1000
SW6020	ANTIMONY	mg/kg	43	31	5.4	3.5	0.16	3.9	3.5	5.4	5.2	2.8
	ARSENIC	mg/kg	9.5	0.68	5.9	**[17]**	1.2	**[14]**	**[12]**	**[28]**	**[24]**	**[30]**
	BARIUM	mg/kg	21000	15000	1700	300	13	230	230	270	350	500
	CADMIUM	mg/kg	99	71	7.5	2.8	2.8	2.8	2.8	3.1	3.5	2.5
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	380	14	31	30	19	31	19
	COBALT	mg/kg	32	23	5.4	**[16]**	1.4	**[9.0]**	**[8.1]**	**[8.7]**	**[8.6]**	**[12]**
	COPPER	mg/kg	4300	3100	920	910	12	170	180	98	**[1100]**	170
	LEAD	mg/kg	400	400	270	**[380]**	9.0	**[290]**	220	**[750]**	**[1300]**	230
	MAGNESIUM	mg/kg	NA	NA	NA	2700 J	810 J	7700 J	2800 J	890 J	1600 J	2100 J
	MANGANESE	mg/kg	2500	1800	560	**[610]**	56	390	200	310	380	340
	NICKEL	mg/kg	2100	1500	510	280	11	44	41	26	24	23
	SELENIUM	mg/kg	550	390	5.3	2.0	0.48	2.8	2.4	1.6	5.2	3.8
	SILVER	mg/kg	550	390	16	0.86	0.30	0.30	0.55	0.26	0.67	0.79
	THALLIUM	mg/kg	1.1	0.78	2.9	0.49 U	0.5 U	0.47 U	0.48 U	0.47 U	0.47 U	0.48 U
	VANADIUM	mg/kg	550	390	1700	18	2.4	30	29	16	17	27
	ZINC	mg/kg	32000	NA	7500	640	18	440	450	550	1500	730
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.24	0.03 U	0.080	0.092	0.74	0.37	**[5.8]**
SW9012	CYANIDE	mg/kg	32	23	40	0.64	0.2 U	0.29	0.26	0.43	1.8	0.2 U
SW9045C	PH	ph unit	NA	NA	NA	7.65	NS	7.9	7.81	7.81	7.89	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0012 U	0.0011 U	0.0013 U	0.0014 UJ	0.0014 UJ	0.0011 U	0.0015 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0012 U	0.0011 U	0.0013 U	0.0014 UJ	0.0014 UJ	0.0011 U	0.0015 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0012 U	0.0011 U	0.0013 U	0.0014 UJ	0.0014 UJ	0.0011 U	0.0015 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.0012 U	R	0.0013 U	0.0014 UJ	0.0014 UJ	0.0011 U	0.0015 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0012 U	0.0011 UJ	0.0013 U	0.0014 UJ	0.0014 UJ	0.0011 U	0.0015 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0012 U	0.0011 U	0.0013 U	0.0014 UJ	0.0014 UJ	0.0011 U	0.0015 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0012 U	0.0011 UJ	0.0013 U	0.0014 UJ	0.0014 UJ	0.0011 U	0.0015 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0059 U	0.0055 U	0.0066 U	0.007 UJ	0.0072 UJ	0.0056 U	0.0073 U
	ACETONE	mg/kg	85000	61000	57	0.021	0.0055 U	0.0066 U	0.007 UJ	0.0073 J	0.0017 J	0.0073 UJ
	BENZENE	mg/kg	17	1.2	0.051	0.0012 U	0.0011 U	0.0013 U	0.00079 J	0.0014 UJ	0.0011 U	0.0015 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0012 U	0.0011 U	0.0013 U	0.0014 UJ	0.0014 UJ	0.0011 U	0.0015 U
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0012 U	0.0011 UJ	0.0013 U	0.0014 UJ	0.0014 UJ	0.0011 U	0.0015 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0012 U	0.0011 U	0.0013 U	0.0014 UJ	0.0014 UJ	0.0011 U	0.0015 U
	CYCLOHEXANE	mg/kg	120	NA	270	0.0012 U	0.0011 UJ	0.0013 U	0.0014 UJ	0.0014 UJ	0.0011 U	0.0015 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0012 U	0.0011 UJ	0.0013 U	0.0014 UJ	0.0014 UJ	0.0011 U	0.0015 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0012 U	0.0011 UJ	0.0013 U	0.0014 UJ	0.0014 UJ	0.0011 U	0.0015 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0023 U	0.0022 UJ	0.0026 U	0.0028 UJ	0.0029 UJ	0.0022 U	0.0029 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.0050 J	0.0055 U	0.0066 U	0.007 UJ	0.00086 J	0.0056 U	0.0073 U
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0059 U	0.0055 U	0.0066 U	0.007 UJ	0.0072 UJ	0.0056 U	0.0073 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0012 U	R	0.0013 U	0.0014 UJ	0.0014 UJ	0.0011 U	0.0015 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0059 UJ	0.0055 UJ	0.0066 UJ	0.0053 J	**[0.034 J]**	0.0056 UJ	0.0073 UJ
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0015	0.0011 UJ	0.0013 U	0.0014 UJ	0.0014 UJ	0.0011 U	0.0015 U
	STYRENE	mg/kg	870	6000	2.2	0.0012 U	0.0011 UJ	0.0013 U	0.0014 UJ	0.0014 UJ	0.0011 U	0.0015 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0012 U	0.0011 U	0.0013 U	0.0014 UJ	0.0014 UJ	0.0011 U	0.0015 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0012 U	0.0011 UJ	0.0013 U	0.0014 UJ	0.00075 J	0.0011 U	0.0015 U
	TOLUENE	mg/kg	820	4900	14	0.00070 J	0.0011 U	0.0013 U	0.0014 UJ	0.0014 UJ	0.0011 U	0.0015 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0012 U	0.0011 UJ	0.0013 U	0.0014 UJ	0.0014 UJ	0.0011 U	0.0015 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0012 U	0.0011 UJ	0.0013 U	0.0014 UJ	**[0.050 J]**	0.0011 U	0.0015 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0012 U	0.0011 U	0.0013 U	0.0014 UJ	0.0014 UJ	0.0011 U	0.0015 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0012 U	0.0011 U	0.0013 U	0.0014 UJ	0.0014 UJ	0.0011 U	0.0015 U
	Xylenes	mg/kg	260	580	200	0.0015 J	0.0033 UJ	0.0039 U	0.0042 UJ	0.0043 UJ	0.0033 U	0.0044 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	11PS-2	11PS-3		12PS-1	12PS-2	12PS-3	
					Sample ID:	LPA11-PS-002 (11-12') (20160920)	LPA11-PS-003 (2-3') (20160921)	LPA11-PS-003 (8-9') (20160921)	LPA12-PS-001 (2-3') (20160922)	LPA12-PS-002 (2-4') (20160922)	LPA12-PS-003 (3-4') (20160922)	LPA12-PS-003 (7-9') (20160922)
					Sample Date:	9/20/16	9/21/16	9/21/16	9/22/16	9/22/16	9/22/16	9/22/16
					Sample Depth (ft bgs):	11-12 ft.	2-3 ft.	8-9 ft.	2-3 ft.	2-4 ft.	3-4 ft.	7-9 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	78	86	77	84	89	82	88
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	9100	6500	7900	4200	2100	11000	1100
	BERYLLIUM	mg/kg	220	160	63	0.5 U	25 U	0.14 J	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	22000	15000	20000	28000	22000	43000	86000
	IRON	mg/kg	77000	55000	7100	**[62000]**	**[63000]**	**[51000]**	**[19000]**	**[15000]**	**[74000]**	**[17000]**
	POTASSIUM	mg/kg	NA	NA	NA	890	290	1300	630	260	970	240 J
	SODIUM	mg/kg	NA	NA	NA	890	130	600	130	40	1500	49 J
SW6020	ANTIMONY	mg/kg	43	31	5.4	**[14]**	3.5	5.4	1.5	0.25	**[25]**	0.14 U
	ARSENIC	mg/kg	9.5	0.68	5.9	**[26]**	**[13]**	**[25]**	**[9.1]**	**[6.2]**	**[39]**	**[65]**
	BARIUM	mg/kg	21000	15000	1700	730	250	550	150	36	1200	38
	CADMIUM	mg/kg	99	71	7.5	4.9	3.4	6.5	2.0	0.34	**[13]**	0.2 U
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	98	32	27	20	4.3	49	2.3
	COBALT	mg/kg	32	23	5.4	**[14]**	**[7.5]**	**[11]**	**[5.9]**	2.0	**[15]**	2.2
	COPPER	mg/kg	4300	3100	920	260	440	160	140	10	140	2.1
	LEAD	mg/kg	400	400	270	**[760]**	**[400]**	**[850]**	210	24	**[390]**	2.2
	MAGNESIUM	mg/kg	NA	NA	NA	2600 J	3600 J	1600 J	3600 J	4500 J	8100 J	4400 J
	MANGANESE	mg/kg	2500	1800	560	370	360 J	340 J	180 J	95 J	550 J	250 J
	NICKEL	mg/kg	2100	1500	510	66	33	30	18	5.6	70	4.0
	SELENIUM	mg/kg	550	390	5.3	4.7	1.2	4.0	1.3	0.93	4.5	0.51
	SILVER	mg/kg	550	390	16	0.49	0.47	0.90	0.23	0.1 U	1.2	0.1 U
	THALLIUM	mg/kg	1.1	0.78	2.9	0.49 U	0.5 U	0.49 U	0.14 J	0.48 U	0.43 J	0.5 U
	VANADIUM	mg/kg	550	390	1700	57	18	29	12	6.6	36	4.1
	ZINC	mg/kg	32000	NA	7500	3000	770	610	190	33	810	16
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.36	0.17	0.90	0.22	0.052	0.25	0.011 J
SW9012	CYANIDE	mg/kg	32	23	40	0.55	0.40	0.40	0.32	0.2 U	2.2	0.2 U
SW9045C	PH	ph unit	NA	NA	NA	NS	7.9	NS	8.09	7.91	8.01	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0015 U	0.001 U	0.0014 U	0.0017 UJ	0.00092 U	0.0014 UJ	0.0011 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0015 U	0.001 U	0.0014 U	0.0017 UJ	0.00092 U	0.0014 UJ	0.0011 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0015 UJ	0.001 U	0.0014 U	0.0017 UJ	0.00092 U	0.0014 UJ	0.0011 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.0015 UJ	0.001 U	0.0014 U	0.0017 UJ	0.00092 U	0.0014 UJ	0.0011 UJ
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0015 U	0.001 U	0.0014 U	0.0017 UJ	0.00092 U	0.0014 UJ	0.0011 UJ
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0015 U	0.001 U	0.0014 U	0.0017 UJ	0.00092 U	0.0014 UJ	0.0011 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0015 U	0.001 U	0.0014 U	0.0017 UJ	0.00092 U	0.0014 UJ	0.0011 UJ
	2-HEXANONE	mg/kg	280	200	0.18	0.0077 U	0.0052 U	0.0068 U	0.0086 UJ	0.0046 U	0.0071 UJ	0.0053 U
	ACETONE	mg/kg	85000	61000	57	0.017 J	0.0052 UJ	0.0037 J	0.0086 UJ	0.0075	0.0071 UJ	0.0053 U
	BENZENE	mg/kg	17	1.2	0.051	0.0015 U	0.001 U	0.0013 J	0.0017 UJ	0.00092 U	0.0014 UJ	0.0011 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0015 U	0.001 U	0.0014 U	0.0066 J	0.00092 U	0.0014 UJ	0.0011 UJ
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0015 U	0.001 U	0.0014 U	0.0017 UJ	0.00092 U	0.0014 UJ	0.0011 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0015 U	0.001 U	0.0014 U	0.0017 UJ	0.00092 U	0.0014 UJ	0.0011 U
	CYCLOHEXANE	mg/kg	120	NA	270	0.0015 U	0.001 U	0.0014 U	0.0017 UJ	0.00092 U	0.0014 UJ	0.0011 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0015 U	0.001 U	0.0014 U	0.0017 UJ	0.00092 U	0.0014 UJ	0.0011 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0015 U	0.001 U	0.0014 U	0.0017 UJ	0.00092 U	0.0014 UJ	0.0011 UJ
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0031 U	0.0021 U	0.0027 U	0.0034 UJ	0.0018 U	0.0028 UJ	0.0021 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.0011 J	0.0052 U	0.0068 U	0.0086 UJ	0.0023 J	0.0071 UJ	0.0053 U
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0077 U	0.0052 U	0.0068 U	0.0086 UJ	0.0046 U	0.0071 UJ	0.0053 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0015 UJ	0.001 U	0.0014 U	0.0017 UJ	0.00092 U	0.0014 UJ	0.0011 UJ
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.010 J	0.0052 UJ	0.010 J	0.0022 J	0.0046 UJ	0.0036 J	0.0053 UJ
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0015 U	0.001 U	0.0014 U	0.0017 UJ	0.00092 U	0.0014 UJ	0.0011 U
	STYRENE	mg/kg	870	6000	2.2	0.0015 U	0.001 U	0.0014 U	0.0017 UJ	0.00092 U	0.0014 UJ	0.0011 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0015 U	0.001 U	0.0014 U	0.0017 UJ	0.00092 U	0.0014 UJ	0.0011 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0015 U	0.001 U	0.0014 U	0.0017 UJ	0.00092 U	0.013 J	0.0011 UJ
	TOLUENE	mg/kg	820	4900	14	0.0015 U	0.001 U	0.0014 U	0.0017 UJ	0.00092 U	0.0014 UJ	0.0011 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0015 U	0.001 U	0.0014 U	0.0017 UJ	0.00092 U	0.0014 UJ	0.0011 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0015 U	0.001 U	0.0014 U	0.0020 J	0.00092 U	0.0014 UJ	0.0011 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0015 UJ	0.001 U	0.0014 U	0.0017 UJ	0.00092 U	0.0014 UJ	0.0011 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0015 U	0.001 U	0.0014 U	0.0017 UJ	0.00092 U	0.0014 UJ	0.0011 U
	Xylenes	mg/kg	260	580	200	0.0046 U	0.0031 U	0.0041 U	0.0051 UJ	0.0028 U	0.0042 UJ	0.0032 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	13PS-1	13PS-2		14PS-1		14PS-2	
					Sample ID:	LPA13-PS-001 (1-2') (20160927)	LPA13-PS-002 (1-2') (20160927)	LPA13-PS-002 (4-6') (20160927)	LPA14-PS-001 (3-4) (20160803)	LPA14-PS-001 (7-8) (20160803)	LPA14-PS-002 (3-4) (20160803)	LPA14-PS-002 (6-7.5) (20160803)
					Sample Date:	9/27/16	9/27/16	9/27/16	8/3/16	8/3/16	8/3/16	8/3/16
					Sample Depth (ft bgs):	1-2 ft.	1-2 ft.	4-6 ft.	3-4 ft.	7-8 ft.	3-4 ft.	6-7.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	92	89	87	95	97	98	98
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	2600	3300	3800	1100	1100	1200	1100
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.60	0.5 U	0.50 J	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	54000	33000	19000	32000	30000	24000	29000
	IRON	mg/kg	77000	55000	7100	**[8300]**	**[16000]**	**[11000]**	**[7800]**	3300	6200	3100
	POTASSIUM	mg/kg	NA	NA	NA	300	560	420	200	230	200 J	220
	SODIUM	mg/kg	NA	NA	NA	27 U	100	200	45	47	34	41
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.13	0.93	0.88	0.13 U	0.14 U	0.13 U	0.14 U
	ARSENIC	mg/kg	9.5	0.68	5.9	3.6	5.3	3.3	**[34]**	1.3	**[16]**	1.2
	BARIUM	mg/kg	21000	15000	1700	18	92	47	5.0	5.7	3.4	6.1
	CADMIUM	mg/kg	99	71	7.5	0.19 U	2.0	0.49	0.18 U	0.2 U	0.19 U	0.19 U
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	5.0	86	9.0	3.2	2.6	2.4	2.1
	COBALT	mg/kg	32	23	5.4	2.6	3.3	2.2	3.5	1.3	2.5	1.1
	COPPER	mg/kg	4300	3100	920	6.4	35	18	1.8	2.0	2.0	2.0
	LEAD	mg/kg	400	400	270	8.1	**[390]**	140	1.6	2.2	1.6	1.5
	MAGNESIUM	mg/kg	NA	NA	NA	4900 J	11000 J	9100 J	5800	5600	4400	4400
	MANGANESE	mg/kg	2500	1800	560	200	360	110	87 J	99 J	81 J	82 J
	NICKEL	mg/kg	2100	1500	510	5.5	12	9.8	6.9	2.8	4.1	2.6
	SELENIUM	mg/kg	550	390	5.3	0.84	0.79	0.70	0.21	0.2 U	0.19	0.19 U
	SILVER	mg/kg	550	390	16	0.1 U	1.8	0.1 U	0.1 UJ	0.018	0.013	0.014
	THALLIUM	mg/kg	1.1	0.78	2.9	0.47 U	0.5 U	0.49 U	0.46 U	0.49 U	0.48 U	0.49 U
	VANADIUM	mg/kg	550	390	1700	9.1	12	14	5.2	4.5	3.8	3.3
	ZINC	mg/kg	32000	NA	7500	21	280	83	12	6.7	7.5	6.4
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.05 U	0.13	0.050	0.032 U	0.033 U	0.03 U	0.0059 J
SW9012	CYANIDE	mg/kg	32	23	40	0.2 U	2.5	0.30	0.2 U	0.2 U	0.2 U	0.2 U
SW9045C	PH	ph unit	NA	NA	NA	8.11	7.99	NS	NS	NS	NS	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.00097 U	R	R	0.0013 U	0.0011 U	0.0011 U	0.001 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.00097 U	R	R	0.0013 U	0.0011 U	0.0011 U	0.001 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.00097 U	R	R	0.0013 U	0.0011 U	0.0011 U	0.001 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.00097 U	R	R	0.0013 U	0.0011 U	0.0011 U	0.001 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.00097 U	R	R	0.0013 U	0.0011 U	0.0011 U	0.001 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.00097 U	R	R	0.0013 U	0.0011 U	0.0011 U	0.001 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.00097 U	R	R	0.0013 U	0.0011 U	0.0011 U	0.001 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0048 U	R	R	0.0063 U	0.0053 U	0.0054 U	0.0051 U
	ACETONE	mg/kg	85000	61000	57	0.0048 U	0.0047 J	0.012 J	0.0027 J	0.0042 J	0.0066 J	0.0029 J
	BENZENE	mg/kg	17	1.2	0.051	0.00097 U	R	R	0.0013 U	0.0011 U	0.0011 U	0.001 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.00097 U	R	R	0.0013 U	0.0011 U	0.0011 U	0.001 U
	CHLOROBENZENE	mg/kg	390	280	1.4	0.00097 U	R	R	0.0013 U	0.0011 U	0.0011 U	0.001 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.00097 U	R	R	0.0013 UJ	0.0011 UJ	0.0011 UJ	0.001 UJ
	CYCLOHEXANE	mg/kg	120	NA	270	0.00097 U	R	R	0.0013 U	0.0011 U	0.0011 U	0.001 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.00097 U	R	R	0.0013 U	0.0011 U	0.0011 U	0.001 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.00097 U	R	R	0.0013 U	0.0011 U	0.0011 U	0.001 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0019 U	R	R	0.0025 U	0.0021 U	0.0021 U	0.002 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.0048 U	0.0014 J	0.0030 J	0.0011 J	0.0053 U	0.00081 J	0.00071 J
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0048 U	R	R	0.0063 U	0.0053 U	0.0054 U	0.0051 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.00097 U	R	0.0032 J	0.0013 U	0.0011 U	0.0011 U	0.001 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0048 UJ	R	R	0.014 J	0.0051 J	0.0061 J	0.015 J
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.00097 U	R	R	0.0013 U	0.0011 U	0.0011 U	0.001 U
	STYRENE	mg/kg	870	6000	2.2	0.00097 U	R	R	0.0013 U	0.0011 U	0.0011 U	0.001 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.00097 U	R	R	0.0013 U	0.0011 U	0.0011 U	0.001 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.00097 U	R	R	0.0013 U	0.0011 U	0.0011 U	0.001 U
	TOLUENE	mg/kg	820	4900	14	0.00097 U	R	R	0.0013 U	0.0011 U	0.0011 U	0.001 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.00097 U	R	R	0.0013 U	0.0011 U	0.0011 U	0.001 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.00097 U	R	R	0.0013 U	0.0011 U	0.0011 U	0.001 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.00097 U	0.036 J	R	0.0013 U	0.0011 U	0.0011 U	0.001 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.00097 U	R	R	0.0013 U	0.0011 U	0.0011 U	0.001 U
	Xylenes	mg/kg	260	580	200	0.0029 U	R	R	0.0038 U	0.0032 U	0.0032 U	0.003 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	14PS-3		15PS-1		15PS-2		15PS-3
					Sample ID:	LPA14-PS-003 (2.5-4) (20160803)	LPA14-PS-003 (7-8) (20160803)	LPA15-PS-001 (3-4') (20160803)	LPA15-PS-001 (7-8') (20160803)	LPA15-PS-002 (3-4') (20160803)	LPA15-PS-002 (10-11') (20160803)	LPA15-PS-003 (3-4') (20160803)
					Sample Date:	8/3/16	8/3/16	8/3/16	8/3/16	8/3/16	8/3/16	8/3/16
					Sample Depth (ft bgs):	2.5-4 ft.	7-8 ft.	3-4 ft.	7-8 ft.	3-4 ft.	10-11 ft.	3-4 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	82	97	97	86	76	94	92
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	1800	1200	1700	4700	5700	1600	2800
	BERYLLIUM	mg/kg	220	160	63	1.3	0.5 U	0.5 U	24 U	24 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	28000	25000	13000 J	22000	5100	1900	16000
	IRON	mg/kg	77000	55000	7100	**[15000]**	3600	4200	**[46000]**	**[120000]**	7100	**[18000]**
	POTASSIUM	mg/kg	NA	NA	NA	200	270	210	660	560	260	310
	SODIUM	mg/kg	NA	NA	NA	38	45	37	190	210	31	100
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.38	0.12 U	0.14 U	**[13]**	**[6.0]**	0.24	**[7.3]**
	ARSENIC	mg/kg	9.5	0.68	5.9	**[17]**	1.4	1.6	**[11]**	**[19]**	3.2	**[8.9]**
	BARIUM	mg/kg	21000	15000	1700	48	4.7	20	450	350	58	320
	CADMIUM	mg/kg	99	71	7.5	0.49	0.18 U	0.2 U	3.9	2.4	0.19	3.9
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	5.5	2.5	13	44	390	5.7	29
	COBALT	mg/kg	32	23	5.4	3.0	1.1	1.2	**[8.8]**	**[13]**	2.2	5.4
	COPPER	mg/kg	4300	3100	920	10	2.3	22	**[1600]**	330	6.8	230
	LEAD	mg/kg	400	400	270	24	1.5	9.6	**[1500]**	**[630]**	87	**[330]**
	MAGNESIUM	mg/kg	NA	NA	NA	4100	5400	2200 J	4200	830	1000	3700
	MANGANESE	mg/kg	2500	1800	560	160 J	86 J	60 J	390	490 J	170	240
	NICKEL	mg/kg	2100	1500	510	5.8	3.1	11	110	220	5.1	30
	SELENIUM	mg/kg	550	390	5.3	0.67	0.18 U	0.64	1.3	2.7	1.2	1.6
	SILVER	mg/kg	550	390	16	0.072	0.016	0.1 U	0.51	0.64	0.1 U	0.53
	THALLIUM	mg/kg	1.1	0.78	2.9	0.5 U	0.45 U	0.49 U	0.49 U	0.48 U	0.48 U	0.5 U
	VANADIUM	mg/kg	550	390	1700	7.7	4.0	4.8	13	31	8.7	11
	ZINC	mg/kg	32000	NA	7500	51	7.5	28	2000	1000	97	470
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.10	0.018 J	0.025 J	0.17	1.6	0.044	1.3
SW9012	CYANIDE	mg/kg	32	23	40	0.30	0.2 U	0.2 U	0.48	2.7	0.2 U	0.58
SW9045C	PH	ph unit	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0019 U	0.00096 U	0.0011 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0019 U	0.00096 U	0.0011 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0019 U	0.00096 U	0.0011 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.0012 U	0.0011 U	0.0011 U	0.0011 UJ	0.0019 UJ	0.00096 U	0.0011 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0012 U	0.0011 U	0.0011 U	0.0011 UJ	0.0019 UJ	0.00096 U	0.0011 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0019 U	0.00096 U	0.0011 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0012 U	0.0011 U	0.0011 U	0.0011 UJ	0.0019 UJ	0.00096 U	0.0011 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0061 U	0.0054 U	0.0056 U	0.0053 U	0.0093 U	0.0048 U	0.0056 U
	ACETONE	mg/kg	85000	61000	57	0.0027 J	0.0050 J	0.012 J	0.0087 J	0.0093 U	0.0048 U	0.0061 J
	BENZENE	mg/kg	17	1.2	0.051	0.0012 U	0.0011 U	0.0011 U	0.00095	0.0019 U	0.00096 U	0.0011 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0019 U	0.00096 U	0.0018
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0019 U	0.00096 U	0.0011 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0012 UJ	0.0011 UJ	0.0011 U	0.0011 U	0.0019 U	0.00096 U	0.0011 U
	CYCLOHEXANE	mg/kg	120	NA	270	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0019 U	0.00096 U	0.0011 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0019 U	0.00096 U	0.0011 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0019 U	0.00096 U	0.0011 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0024 U	0.0022 U	0.0022 U	0.0021 U	0.0037 U	0.0019 U	0.0022 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.00089 J	0.00080 J	0.0056 U	0.0053 U	0.0093 U	0.0048 U	0.0056 U
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0061 U	0.0054 U	0.0056 U	0.0053 U	0.0093 U	0.0048 U	0.0056 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0019 U	0.00096 U	0.0011 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.012 J	0.014 J	0.0062 J	0.0059 J	0.011 J	0.0048 UJ	0.0060 J
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0019 U	0.00096 U	0.0011 U
	STYRENE	mg/kg	870	6000	2.2	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0019 U	0.00096 U	0.0011 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0019 U	0.00096 U	0.0011 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0012 U	0.0011 U	0.0011 U	0.0026	0.0019 U	0.00096 U	0.0011 U
	TOLUENE	mg/kg	820	4900	14	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0019 U	0.00096 U	0.0011 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0019 U	0.00096 U	0.0011 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0019 U	0.00096 U	0.0011 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0019 U	0.00096 U	0.0011 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0019 U	0.00096 U	0.0011 U
	Xylenes	mg/kg	260	580	200	0.0037 U	0.0033 U	0.0033 U	0.0032 U	0.0056 U	0.0029 U	0.0034 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	15PS-3	16PS-1		16PS-2			16PS-3
					Sample ID:	LPA15-PS-003 (7-8') (20160803)	LPA16-PS-001 (2-3') (20160912)	LPA16-PS-001 (10-11') (20160912)	LPA16-PS-002 (2-3') (20160913)	LPA16-PS-002 (4-6') (20160913)	LPA16-PS-002 (11-12') (20160913)	LPA16-PS-003 (3-4') (20160913)
					Sample Date:	8/3/16	9/12/16	9/12/16	9/13/16	9/13/16	9/13/16	9/13/16
					Sample Depth (ft bgs):	7-8 ft.	2-3 ft.	10-11 ft.	2-3 ft.	4-6 ft.	11-12 ft.	3-4 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	68	91	71	90	74	85	88
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	300	1900	2700	1600	1800	2200	3700
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	24 U	0.5 U	24 U	24 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	360000	1400	19000	27000	6000	24000	4500
	IRON	mg/kg	77000	55000	7100	5000	**[7200]**	**[29000]**	**[12000]**	**[210000]**	**[170000]**	**[14000 J]**
	POTASSIUM	mg/kg	NA	NA	NA	190 U	190 U	310	190 U	190 U	500	270
	SODIUM	mg/kg	NA	NA	NA	200	23	46	56	140	220	82
SW6020	ANTIMONY	mg/kg	43	31	5.4	1.3 U	0.23	**[6.6]**	0.66	**[43]**	**[22]**	1.2
	ARSENIC	mg/kg	9.5	0.68	5.9	**[7.3]**	3.7	**[12]**	**[13]**	**[29]**	**[29]**	**[7.2]**
	BARIUM	mg/kg	21000	15000	1700	260	41	170	85	850	95	280
	CADMIUM	mg/kg	99	71	7.5	1.9 U	0.20	1.3	0.59	**[9.6]**	**[7.9]**	0.78
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	6.9 U	7.1	230	9.6	1700	1700	54
	COBALT	mg/kg	32	23	5.4	4.8 U	2.4	**[6.9]**	2.7	**[27]**	**[17]**	**[5.5]**
	COPPER	mg/kg	4300	3100	920	10 U	11	**[4200]**	30	**[30000]**	**[48000]**	77
	LEAD	mg/kg	400	400	270	10 U	65	**[530]**	100	**[3300]**	**[3400]**	230
	MAGNESIUM	mg/kg	NA	NA	NA	7600	1500	4700	9800	4600	6100	1500 J
	MANGANESE	mg/kg	2500	1800	560	**[930 J]**	77	**[740]**	180	**[1300]**	**[1400]**	210 J
	NICKEL	mg/kg	2100	1500	510	1.9 U	6.4	54	11	**[1000]**	260	32
	SELENIUM	mg/kg	550	390	5.3	1.9 U	0.82	2.1	0.87	0.89	0.86 J	1.3
	SILVER	mg/kg	550	390	16	0.96 U	0.025 J	0.88	0.11	5.4	3.7	0.17
	THALLIUM	mg/kg	1.1	0.78	2.9	4.8 U	0.48 U	0.49 U	0.48 U	0.48 U	0.48 U	0.47 U
	VANADIUM	mg/kg	550	390	1700	9.6 U	9.1	14	8.2	14	15 J	18
	ZINC	mg/kg	32000	NA	7500	9.6 U	73	620	88	3800	5900	220 J
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.0099 J	0.054	0.22	0.052	1.2	1.1	0.082
SW9012	CYANIDE	mg/kg	32	23	40	3.3 U	0.2 U	0.47	0.27	7.7	0.2 U	0.41
SW9045C	PH	ph unit	NA	NA	NA	NS	8.31	NS	8.36	NS	NS	7.98
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0017 U	0.001 U	0.0012 U	0.001 U	0.0012 U	0.00087 U	0.0011 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0017 U	0.001 U	0.0012 U	0.001 U	0.0012 U	0.00087 U	0.0011 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0017 U	0.001 U	0.0012 U	0.001 U	0.0012 U	0.00087 U	0.0011 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.0017 U	0.001 U	0.0012 U	0.001 U	0.0012 U	0.00087 U	0.0011 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0017 U	0.001 U	0.0012 U	0.001 U	0.0012 U	0.00087 U	0.0011 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0017 U	0.001 U	0.0012 U	0.001 U	0.0012 U	0.00087 U	0.0011 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0017 U	0.001 U	0.0012 U	0.001 U	0.0012 U	0.00087 U	0.0011 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0087 U	0.0052 U	0.0062 U	0.0051 U	0.0062 U	0.0044 U	0.0054 U
	ACETONE	mg/kg	85000	61000	57	0.0087 U	0.0040 J	0.039	0.0034 J	1 U	0.034	0.034 J
	BENZENE	mg/kg	17	1.2	0.051	0.0017 U	0.001 U	0.0021	0.001 U	0.017	0.00072 J	0.00054 J
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0017 U	0.001 U	0.0012 U	0.001 U	0.0012 U	0.00087 U	0.00096 J
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0017 U	0.001 U	0.0012 U	0.001 U	0.0012 U	0.00087 U	0.0011 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0017 U	0.001 U	0.0012 U	0.001 U	0.0012 U	0.00087 U	0.0011 UJ
	CYCLOHEXANE	mg/kg	120	NA	270	0.0017 U	0.001 U	0.0012 U	0.001 U	0.0012 U	0.00087 U	0.0011 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0017 U	0.001 U	0.0012 U	0.001 U	0.0051	0.00087 U	0.0011 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0017 U	0.001 U	0.0012 U	0.001 U	0.0095	0.00087 U	0.0011 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0035 U	0.0021 U	0.0025 U	0.0021 U	0.031	0.0017 U	0.0021 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.0087 U	0.0010 J	0.014	0.00058 J	0.12	0.0082	0.0075
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0087 U	0.0052 U	0.0062 U	0.0051 U	0.0055 J	0.0044 U	0.0054 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0017 U	0.001 U	0.0012 U	0.001 U	0.047	0.00087 U	0.0011 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0098 J	0.012 J	0.0062 UJ	0.0051 UJ	0.0062 UJ	0.0044 UJ	0.0054 UJ
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0017 U	0.001 U	0.0012 U	0.001 U	0.011	0.00087 U	0.0011 U
	STYRENE	mg/kg	870	6000	2.2	0.0017 U	0.001 U	0.0012 U	0.001 U	0.0012 U	0.00087 U	0.0011 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0017 U	0.001 U	0.0012 U	0.001 U	0.0012 U	0.00087 U	0.0011 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0017 U	0.001 U	0.0012 U	0.001 U	0.0012 U	0.00087 U	0.0011 U
	TOLUENE	mg/kg	820	4900	14	0.0017 U	0.001 U	0.0012 U	0.001 U	0.021	0.00049 J	0.0011 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0017 U	0.001 U	0.0012 U	0.001 U	0.0012 U	0.00087 U	0.0011 UJ
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0017 U	0.001 U	0.0012 U	0.001 U	0.0012 U	0.00087 U	0.0011 UJ
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0017 U	0.001 U	0.0012 U	0.001 U	0.0012 U	0.00087 U	0.0011 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0017 U	0.001 U	0.0012 U	0.001 U	0.0012 U	0.00087 U	0.0011 U
	Xylenes	mg/kg	260	580	200	0.0052 U	0.0031 U	0.0037 U	0.0031 U	0.042	0.0026 U	0.0032 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	16PS-3		17PS-1			17PS-2	
					Sample ID:	LPA16-PS-003 (7-8') (20160913)	LPA16-PS-003 (11-12') (20160913)	LPA17-PS-001 (1-2') (20160916)	LPA17-PS-001 (7-8') (20160916)	LPA17-PS-001 (11-12') (20160916)	LPA17-PS-002 (1-2') (20160916)	LPA17-PS-002 (6-7') (20160916)
					Sample Date:	9/13/16	9/13/16	9/16/16	9/16/16	9/16/16	9/16/16	9/16/16
					Sample Depth (ft bgs):	7-8 ft.	11-12 ft.	1-2 ft.	7-8 ft.	11-12 ft.	1-2 ft.	6-7 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	89	89	90	88	85	89	85
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	2500	3200	7100	1500	2600	4800	4600
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.5 U	23 U	0.5 U	24 U
	CALCIUM	mg/kg	NA	NA	NA	18000	6500	35000	14000	3900	14000	11000
	IRON	mg/kg	77000	55000	7100	**[9400]**	**[7800]**	**[17000]**	6400	**[49000]**	**[17000]**	**[28000]**
	POTASSIUM	mg/kg	NA	NA	NA	360	460	1200	210	240	340	650
	SODIUM	mg/kg	NA	NA	NA	53	59	67	36	60	70	310
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.32	0.14 U	0.20	1.2	**[6.0]**	**[11]**	**[7.6]**
	ARSENIC	mg/kg	9.5	0.68	5.9	3.9	3.9	5.4	2.7	**[10]**	5.8	**[7.0]**
	BARIUM	mg/kg	21000	15000	1700	110	46	37	44	150	170	690
	CADMIUM	mg/kg	99	71	7.5	0.30	0.2 U	0.19 U	0.86	5.7	2.6	5.4
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	18	8.7	15	9.7	760	19	48
	COBALT	mg/kg	32	23	5.4	3.4	3.7	**[6.8]**	2.8	**[6.7]**	3.6	**[22]**
	COPPER	mg/kg	4300	3100	920	19	9.2	12	44	**[2000]**	320	100
	LEAD	mg/kg	400	400	270	71	27	26	76	**[280]**	**[570]**	**[680]**
	MAGNESIUM	mg/kg	NA	NA	NA	5100 J	3100 J	16000 J	3500 J	1400 J	5500 J	1800 J
	MANGANESE	mg/kg	2500	1800	560	170	120	350 J	130 J	350 J	160 J	280 J
	NICKEL	mg/kg	2100	1500	510	9.2	8.5	14	6.7	70	31	69
	SELENIUM	mg/kg	550	390	5.3	1.2	1.2	4.3	1.8	1.9	3.2	2.2
	SILVER	mg/kg	550	390	16	0.1 U	0.1 U	0.1 U	0.1 U	0.84	0.29	0.99
	THALLIUM	mg/kg	1.1	0.78	2.9	0.5 U	0.49 U	0.46 U	0.43 U	0.46 U	0.42 U	0.48 U
	VANADIUM	mg/kg	550	390	1700	11	11	17	8.4	13	12	14
	ZINC	mg/kg	32000	NA	7500	47	32	45	100	3500	380	1100
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.091	0.66	0.037 U	**[8.1]**	0.75	0.16	0.18
SW9012	CYANIDE	mg/kg	32	23	40	0.70	0.2 U	0.2 U	0.63	2.3	0.2 U	4.8
SW9045C	PH	ph unit	NA	NA	NA	NS	NS	8.11	NS	NS	8.01	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.001 U	0.00093 U	0.00089 U	0.001 U	0.00098 U	0.001 U	0.001 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.001 U	0.00093 U	0.00089 U	0.00064 J	0.00075 J	0.001 U	0.001 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.001 U	0.00093 U	0.00089 U	0.001 U	0.00098 U	0.001 U	0.001 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.001 U	0.00093 U	0.00089 U	0.001 U	0.00098 U	0.001 U	0.001 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.001 U	0.00093 U	0.00089 U	0.001 U	0.00098 U	0.001 U	0.001 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.001 U	0.00093 U	0.00089 U	0.001 U	0.00098 U	0.001 U	0.001 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.001 U	0.00093 U	0.00089 U	0.001 U	0.00098 U	0.001 U	0.001 U
	2-HEXANONE	mg/kg	280	200	0.18	0.005 U	0.0046 U	0.0045 U	0.005 U	0.00076 J	0.0051 U	0.005 U
	ACETONE	mg/kg	85000	61000	57	0.033 J	0.055 J	0.0045 UJ	0.048 J	0.013 J	0.0051 UJ	0.005 U
	BENZENE	mg/kg	17	1.2	0.051	0.00059 J	0.00093 U	0.00089 U	0.001 U	0.0041 J	0.001 U	0.001 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0027 J	0.00093 UJ	0.00089 U	0.00067 J	0.0010 J	0.001 U	0.001 U
	CHLOROBENZENE	mg/kg	390	280	1.4	0.001 U	0.00093 U	0.00089 U	0.001 U	0.00098 U	0.001 U	0.001 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.001 UJ	0.00093 UJ	0.00089 U	0.001 U	0.00098 U	0.001 U	0.001 U
	CYCLOHEXANE	mg/kg	120	NA	270	0.001 U	0.00093 U	0.00089 U	0.001 U	0.00098 U	0.001 U	0.001 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.001 U	0.00057 J	0.00089 U	0.092	0.15 J	0.001 U	0.001 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.00084 J	0.0014	0.00089 U	0.18	0.069 J	0.001 U	0.001 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.002 U	0.0019 U	0.0018 U	0.079	0.29 J	0.002 U	0.0036
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.0061	0.015	0.0045 U	0.011	0.0040 J	0.0051 U	0.005 U
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.005 U	0.0046 U	0.0045 U	0.005 U	0.0049 U	0.0051 U	0.005 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.001 U	0.00093 U	0.00089 U	0.001 U	0.00065 J	0.001 U	0.001 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.023 J	0.0046 UJ	0.0045 UJ	0.005 UJ	0.0049 UJ	0.0051 UJ	0.005 UJ
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0012	0.0023	0.00089 U	0.0014	0.0058 J	0.001 U	0.0026
	STYRENE	mg/kg	870	6000	2.2	0.001 U	0.00093 U	0.00089 U	0.001 U	0.00098 U	0.001 U	0.001 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.001 U	0.00093 U	0.00089 U	0.001 U	0.00098 U	0.001 U	0.001 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.001 U	0.00093 U	0.00089 U	0.001 U	0.00098 U	0.001 U	0.001 U
	TOLUENE	mg/kg	820	4900	14	0.00055 J	0.00093 U	0.00089 U	0.001 U	0.0019 J	0.001 U	0.00096 J
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.001 UJ	0.00093 UJ	0.00089 U	0.001 U	0.00098 U	0.001 U	0.001 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.001 UJ	0.00093 UJ	0.00089 U	0.001 U	0.00098 U	0.001 U	0.001 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.001 U	0.00093 U	0.00089 U	0.001 U	0.00098 U	0.001 U	0.001 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.001 U	0.00093 U	0.00089 U	0.001 U	0.00098 U	0.001 U	0.001 U
	Xylenes	mg/kg	260	580	200	0.0012 J	0.0023 J	0.0027 U	0.081	0.30 J	0.0031 U	0.0062

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	17PS-2	17PS-3			18PS-1		18PS-2
					Sample ID:	LPA17-PS-002 (11-12') (20160916)	LPA17-PS-003 (1-2') (20160916)	LPA17-PS-003 (7-8') (20160916)	LPA17-PS-003 (11-12') (20160916)	LPA18-PS-001 (1-2') (20160921)	LPA18-PS-001 (9-10') (20160921)	LPA18-PS-002 (1-2') (20160921)
					Sample Date:	9/16/16	9/16/16	9/16/16	9/16/16	9/21/16	9/21/16	9/21/16
					Sample Depth (ft bgs):	11-12 ft.	1-2 ft.	7-8 ft.	11-12 ft.	1-2 ft.	9-10 ft.	1-2 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	86	86	86	89	87	91	85
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	3300	4700	3800	3100	8400	4100	7600
	BERYLLIUM	mg/kg	220	160	63	0.5 U	24 U	0.5 U	0.5 U	0.5 U	0.5 U	24 U
	CALCIUM	mg/kg	NA	NA	NA	11000	4500	5900	6200	21000	2500	5200
	IRON	mg/kg	77000	55000	7100	**[16000]**	**[32000]**	**[10000]**	**[10000]**	**[27000]**	**[14000]**	**[49000]**
	POTASSIUM	mg/kg	NA	NA	NA	330	350	480	330	1100	610	690
	SODIUM	mg/kg	NA	NA	NA	93	52	170	64	860	190	99
SW6020	ANTIMONY	mg/kg	43	31	5.4	**[6.3]**	**[20]**	4.1	0.51	**[66]**	2.6	4.3
	ARSENIC	mg/kg	9.5	0.68	5.9	5.3	**[10]**	**[9.8]**	3.7	**[11]**	2.5	**[13]**
	BARIUM	mg/kg	21000	15000	1700	120	470	120	57	420	60	330
	CADMIUM	mg/kg	99	71	7.5	1.2	5.4	1.8	0.65	3.1	0.31	3.0
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	16	47	32	7.2	41	11	63
	COBALT	mg/kg	32	23	5.4	3.2	**[21]**	**[6.1]**	2.9	**[7.0]**	2.0	**[8.5]**
	COPPER	mg/kg	4300	3100	920	190	140	**[3000]**	32	370	18	360
	LEAD	mg/kg	400	400	270	**[290]**	**[1400]**	270	24	**[1200]**	31	**[520]**
	MAGNESIUM	mg/kg	NA	NA	NA	2200 J	1700 J	1200 J	1100 J	5000 J	980 J	1800 J
	MANGANESE	mg/kg	2500	1800	560	110 J	**[570 J]**	120 J	89 J	500 J	100 J	**[600 J]**
	NICKEL	mg/kg	2100	1500	510	21	80	**[710]**	6.2	40	9.0	100
	SELENIUM	mg/kg	550	390	5.3	2.4	3.0	3.5	2.2	1.0	0.88	1.9
	SILVER	mg/kg	550	390	16	0.15	0.91	2.0	0.1 U	1.3	0.1 U	0.96
	THALLIUM	mg/kg	1.1	0.78	2.9	0.5 U	0.47 U	0.49 U	0.48 U	0.48 U	0.43 U	0.49 U
	VANADIUM	mg/kg	550	390	1700	9.4	14	14	11	17	7.4	19
	ZINC	mg/kg	32000	NA	7500	230	1200	1300	55	660	510	590
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.39	0.26	0.28	0.084	0.14	0.03 U	0.73
SW9012	CYANIDE	mg/kg	32	23	40	0.24	1.4	0.30	0.2 U	2.1	0.2 U	2.0
SW9045C	PH	ph unit	NA	NA	NA	NS	7.72	NS	NS	9.99	NS	7.61
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.00054 J	0.0012 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.001 U	0.0012 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.001 U	0.0010 J
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.001 U	0.0012 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.001 U	0.0012 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.001 U	0.0012 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.001 U	0.0012 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0052 U	0.0055 U	R	0.0049 U	0.005 U	0.0052 U	0.0059 U
	ACETONE	mg/kg	85000	61000	57	0.072	0.0055 U	0.059 J	0.043	0.005 UJ	0.0052 UJ	0.0059 UJ
	BENZENE	mg/kg	17	1.2	0.051	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.001 U	0.0012 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.00060 J	0.0011 U	R	0.0033	0.001 U	0.001 U	0.0012 U
	CHLOROBENZENE	mg/kg	390	280	1.4	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.001 U	0.0012 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.001 U	0.0012 U
	CYCLOHEXANE	mg/kg	120	NA	270	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.001 U	0.0012 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.001 U	0.0012 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.001 U	0.0012 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0021 U	0.0022 U	R	0.002 U	0.002 U	0.0021 U	0.0024 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.021	0.0055 U	0.010 J	0.0093	0.005 U	0.0052 U	0.0059 U
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0052 U	0.0055 U	R	0.0049 U	0.005 U	0.0052 U	0.0059 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.001 U	0.0012 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0052 UJ	0.0055 UJ	R	0.011 J	0.0070 J	0.0088 J	0.0059 UJ
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.001 U	0.0012 U
	STYRENE	mg/kg	870	6000	2.2	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.001 U	0.0012 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.001 U	0.0012 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.001 U	0.0012 U
	TOLUENE	mg/kg	820	4900	14	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.001 U	0.0012 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.001 U	0.0012 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.001 U	0.0012 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.001 U	0.0012 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.001 U	0.0011 U	R	0.00098 U	0.001 U	0.001 U	0.0012 U
	Xylenes	mg/kg	260	580	200	0.0031 U	0.0033 U	R	0.0029 U	0.003 U	0.0031 U	0.0036 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	18PS-2	18PS-3		19PS-1	19PS-2		19PS-3
					Sample ID:	LPA18-PS-002 (12-14') (20160921)	LPA18-PS-003 (1-4') (20160921)	LPA18-QD-001 (1-4') (20160921)	LPA19-PS-001 (4-5') (20160923)	LPA19-PS-002 (1-3') (20160923)	LPA19-QD-001 (1-3') (20160923)	LPA19-PS-003 (1-2') (20160923)
					Sample Date:	9/21/16	9/21/16	9/21/16	9/23/16	9/23/16	9/23/16	9/23/16
					Sample Depth (ft bgs):	12-14 ft.	1-4 ft.	1-4 ft.	4-5 ft.	1-3 ft.	1-3 ft.	1-2 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	66	66	79	86	87	86	76
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	5100	6500	8700	2500	4700	5500	7000
	BERYLLIUM	mg/kg	220	160	63	0.43 J	0.54	0.71	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	28000	13000	14000	100000	14000	15000	91000
	IRON	mg/kg	77000	55000	7100	**[90000]**	**[43000]**	**[58000]**	**[12000]**	**[29000]**	**[26000]**	**[20000]**
	POTASSIUM	mg/kg	NA	NA	NA	720 J	450	620	650	610	680	1200
	SODIUM	mg/kg	NA	NA	NA	300 J	290	500	140	120	120	100
SW6020	ANTIMONY	mg/kg	43	31	5.4	**[75]**	**[25]**	**[38]**	0.31	**[5.6]**	1.5	0.52
	ARSENIC	mg/kg	9.5	0.68	5.9	**[47]**	**[13]**	**[24]**	3.9	**[7.5]**	**[8.6]**	**[9.2]**
	BARIUM	mg/kg	21000	15000	1700	270 J	**[2400]**	**[2400]**	33	120	65	120
	CADMIUM	mg/kg	99	71	7.5	3.4	**[9.3]**	**[17]**	0.20	0.41	0.40	0.51
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	1400 J	190	450	5.5	11	9.9	11
	COBALT	mg/kg	32	23	5.4	**[21]**	**[29]**	**[51]**	2.1	3.2	3.0	4.3
	COPPER	mg/kg	4300	3100	920	**[44000]**	500	760	15	27	22	19
	LEAD	mg/kg	400	400	270	**[3300]**	**[3400]**	**[4600]**	71	**[410]**	97	74
	MAGNESIUM	mg/kg	NA	NA	NA	2900 J	4300 J	3300 J	28000 J	2400 J	3300 J	4300 J
	MANGANESE	mg/kg	2500	1800	560	**[1500 J]**	410 J	560 J	330 J	260 J	360 J	**[940 J]**
	NICKEL	mg/kg	2100	1500	510	400 J	46	63	7.5	9.5	8.6	8.4
	SELENIUM	mg/kg	550	390	5.3	3.0	3.3	3.7	0.94	1.3	1.3	1.3
	SILVER	mg/kg	550	390	16	11 J	0.78	1.5	0.1 U	0.1 U	0.1 U	0.1 U
	THALLIUM	mg/kg	1.1	0.78	2.9	0.48 U	0.46 U	0.47 U	0.44 U	0.15 J	0.14 J	0.083 J
	VANADIUM	mg/kg	550	390	1700	20	17	21	21	17	16	15
	ZINC	mg/kg	32000	NA	7500	5200 J	2300	2800	39	73	57	83
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.14	0.52	0.49	0.036	0.11	0.092	0.10
SW9012	CYANIDE	mg/kg	32	23	40	0.2 UJ	2.4	2.3	0.2 U	0.2 U	0.2 U	0.26
SW9045C	PH	ph unit	NA	NA	NA	NS	7.76	7.9	8.03	7.94	7.94	7.71
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0017 UJ	0.0015 U	0.0013 U	0.00097 UJ	0.0011 U	0.0013 UJ	0.0012 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0017 UJ	0.0015 U	0.0013 U	0.00097 UJ	0.0011 U	0.0013 UJ	0.0012 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0017 UJ	0.0015 UJ	0.0013 UJ	0.00097 UJ	0.0011 U	0.0013 UJ	0.0012 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	R	0.0015 UJ	0.0013 UJ	0.00097 UJ	0.0011 U	0.0013 UJ	0.0012 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0017 UJ	0.0015 UJ	0.0013 UJ	0.00097 UJ	0.0011 U	0.0013 UJ	0.0012 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0017 UJ	0.0015 U	0.0013 U	0.00097 UJ	0.0011 U	0.0013 UJ	0.0012 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0017 UJ	0.0015 UJ	0.0013 UJ	0.00097 UJ	0.0011 U	0.0013 UJ	0.0012 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0084 UJ	0.00080 J	0.0064 U	0.0011 J	0.0055 U	0.0063 UJ	0.006 U
	ACETONE	mg/kg	85000	61000	57	R	0.0073 U	0.0064 U	0.026 J	0.0055 U	0.0063 UJ	0.006 U
	BENZENE	mg/kg	17	1.2	0.051	0.0085 J	0.0025	0.0013 U	0.00097 UJ	0.0011 U	0.0013 UJ	0.0012 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.020 J	0.0015 U	0.0013 U	0.00097 UJ	0.0011 U	0.0013 UJ	0.0012 U
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0017 UJ	0.0015 U	0.0013 U	0.00097 UJ	0.0011 U	0.0013 UJ	0.0012 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0017 UJ	0.0015 U	0.0013 U	0.00097 UJ	0.0011 U	0.0013 UJ	0.0012 U
	CYCLOHEXANE	mg/kg	120	NA	270	0.0017 UJ	0.0015 U	0.0013 U	0.0056 J	0.0011 U	0.0013 UJ	0.0012 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0045 J	0.0059	0.0013 U	0.00068 J	0.0011 U	0.0013 UJ	0.0012 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0061 J	0.0024	0.0013 U	0.0012 J	0.0011 U	0.0013 UJ	0.0012 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0077 J	0.057	0.0025 U	0.0029 J	0.0022 U	0.0025 UJ	0.0024 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.27 J	0.0073 U	0.0064 U	0.0087 J	0.0055 U	0.0063 UJ	0.006 U
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0030 J	0.0073 U	0.0064 U	0.0049 UJ	0.0055 U	0.0063 UJ	0.006 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.036 J	0.0033 J	0.0013 UJ	0.010 J	0.0011 U	0.0013 UJ	0.0012 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0084 UJ	0.0073 UJ	0.0064 UJ	0.0049 UJ	0.0055 U	0.0063 UJ	0.006 U
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.012 J	0.029	0.0013 U	0.0029 J	0.0011 U	0.0013 UJ	0.0012 U
	STYRENE	mg/kg	870	6000	2.2	0.0017 UJ	0.0015 U	0.0013 U	0.00097 UJ	0.0011 U	0.0013 UJ	0.0012 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0017 UJ	0.0015 U	0.0013 U	0.00097 UJ	0.0011 U	0.0013 UJ	0.0012 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0017 UJ	0.0020	0.0014	0.00097 UJ	0.0011 U	0.0013 UJ	0.0012 U
	TOLUENE	mg/kg	820	4900	14	0.0065 J	0.0085	0.0013 U	0.00055 J	0.0011 U	0.0013 UJ	0.0012 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0017 UJ	0.0015 U	0.0013 U	0.00097 UJ	0.0011 U	0.0013 UJ	0.0012 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0017 UJ	0.0015 U	0.0013 U	0.00097 UJ	0.0011 U	0.0013 UJ	0.0012 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0017 UJ	0.0015 UJ	0.0013 UJ	0.00097 UJ	0.0011 U	0.0013 UJ	0.0012 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0017 UJ	0.0015 U	0.0013 U	0.00097 UJ	0.0011 U	0.0013 UJ	0.0012 U
	Xylenes	mg/kg	260	580	200	0.019 J	0.086	0.0038 U	0.0029 UJ	0.0033 U	0.0038 UJ	0.0036 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	20PS-1		20PS-2	20PS-3	21PS-1		21PS-2
					Sample ID:	LPA20-PS-001 (1-2') (20160927)	LPA20-PS-001 (4-7') (20160927)	LPA20-PS-002 (1-2') (20160927)	LPA20-PS-003 (1-4') (20160927)	LPA21-PS-001 (3-4) (20160802)	LPA21-PS-001 (7-8) (20160802)	LPA21-PS-002 (3-4) (20160802)
					Sample Date:	9/27/16	9/27/16	9/27/16	9/27/16	8/2/16	8/2/16	8/2/16
					Sample Depth (ft bgs):	1-2 ft.	4-7 ft.	1-2 ft.	1-4 ft.	3-4 ft.	7-8 ft.	3-4 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	95	95	67	97	85	96	97
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	1100	1400 J	2000	1000 J	3000	980	2500
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.5 U	1.4	0.5 U	0.90
	CALCIUM	mg/kg	NA	NA	NA	18000	31000	140000	31000	37000	29000	26000
	IRON	mg/kg	77000	55000	7100	4900	3400 J	**[15000]**	3200	**[15000]**	3500	**[11000]**
	POTASSIUM	mg/kg	NA	NA	NA	190	200 U	230	170 J	410	200	450
	SODIUM	mg/kg	NA	NA	NA	32	37	69	31	83	40	53
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.13 U	0.14 U	0.66	0.12 U	0.85	0.13 U	0.13 U
	ARSENIC	mg/kg	9.5	0.68	5.9	**[12]**	0.79 J	**[13]**	0.73 J	**[13]**	1.2	**[22]**
	BARIUM	mg/kg	21000	15000	1700	11	4.7	150	4.0	86	4.7	16
	CADMIUM	mg/kg	99	71	7.5	0.19 U	0.2 U	0.83	0.17 U	1.2	0.18 U	0.19 U
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	3.6	4.2	9.7	2.9	8.7	2.7	5.1
	COBALT	mg/kg	32	23	5.4	1.3	1.4	2.9	1.5	2.4	1.1	2.8
	COPPER	mg/kg	4300	3100	920	1.8	6.7	26	2.2	42	2.0	4.2
	LEAD	mg/kg	400	400	270	1.7	7.7	120	1.4	150	1.5	3.6
	MAGNESIUM	mg/kg	NA	NA	NA	5000 J	7300 J	3600 J	4800 J	3400	5400	7900
	MANGANESE	mg/kg	2500	1800	560	150	79	**[590]**	73	160 J	82 J	120 J
	NICKEL	mg/kg	2100	1500	510	2.6	4.6	12	3.5	7.4	2.7	6.2
	SELENIUM	mg/kg	550	390	5.3	0.44	0.49	2.0	0.39	0.52	0.18	0.48
	SILVER	mg/kg	550	390	16	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
	THALLIUM	mg/kg	1.1	0.78	2.9	0.48 U	0.5 U	0.5 U	0.5 U	0.49 U	0.45 U	0.47 U
	VANADIUM	mg/kg	550	390	1700	5.9	4.7 J	14	5.0	8.3	3.4	9.8
	ZINC	mg/kg	32000	NA	7500	8.8	17	150	8.0	140	7.1	14
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.05 U	0.035 U	0.11	0.035 U	0.34	0.027 U	0.0056 J
SW9012	CYANIDE	mg/kg	32	23	40	0.2 U	0.2 U	0.40	0.2 U	0.2 U	0.2 U	0.2 U
SW9045C	PH	ph unit	NA	NA	NA	8.36	NS	7.75	8.82	NS	NS	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	R	0.00096 U	0.0019 U	0.0011 U	0.0012 U	0.001 U	0.0011 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	R	0.00096 U	0.0019 U	0.0011 U	0.0012 U	0.001 U	0.0011 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	R	0.00096 U	0.0019 U	0.0011 U	0.0012 U	0.001 U	0.0011 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	R	0.00096 U	0.0019 U	0.0011 UJ	0.0012 U	0.001 U	0.0011 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	R	0.00096 U	0.0019 U	0.0011 U	0.0012 U	0.001 U	0.0011 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	R	0.00096 U	0.0019 U	0.0011 U	0.0012 U	0.001 U	0.0011 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	R	0.00096 U	0.0019 U	0.0011 U	0.0012 U	0.001 U	0.0011 U
	2-HEXANONE	mg/kg	280	200	0.18	R	0.0048 U	0.0093 U	0.0053 U	0.0058 U	0.0052 U	0.0053 U
	ACETONE	mg/kg	85000	61000	57	R	0.0048 U	0.0093 U	0.0053 U	0.0058 U	0.0081	0.0037 J
	BENZENE	mg/kg	17	1.2	0.051	R	0.00096 U	0.0019 U	0.0011 U	0.0012 U	0.001 U	0.0011 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	R	0.00096 U	0.0019 U	0.0011 U	0.0012 UJ	0.001 UJ	0.0011 U
	CHLOROBENZENE	mg/kg	390	280	1.4	R	0.00096 U	0.0019 U	0.0011 U	0.0012 U	0.001 U	0.0011 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	R	0.00096 U	0.0019 U	0.0011 U	0.0012 U	0.001 U	0.0011 UJ
	CYCLOHEXANE	mg/kg	120	NA	270	R	0.00096 U	0.0019 U	0.0011 U	0.0012 U	0.001 U	0.0011 U
	ETHYLBENZENE	mg/kg	81	5.8	16	R	0.00096 U	0.0019 U	0.0011 U	0.0012 U	0.001 U	0.0011 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	R	0.00096 U	0.0019 U	0.0011 U	0.0012 U	0.001 U	0.0011 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	R	0.0019 U	0.0037 U	0.0021 U	0.0023 U	0.0021 U	0.0021 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	R	0.0048 U	0.0012 J	0.0053 U	0.0058 U	0.0013 J	0.00088 J
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	R	0.0048 U	0.0093 U	0.0053 U	0.0058 U	0.0052 U	0.0053 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	R	0.00096 U	0.0019 U	0.0011 U	0.0012 U	0.001 U	0.0011 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	R	0.0048 UJ	0.0093 UJ	0.0053 UJ	0.0030 J	0.015 J	0.0055 J
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	R	0.00096 U	0.0019 U	0.0011 U	0.0012 U	0.001 U	0.0011 U
	STYRENE	mg/kg	870	6000	2.2	R	0.00096 U	0.0019 U	0.0011 U	0.0012 U	0.001 U	0.0011 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	R	0.00096 U	0.0019 U	0.0011 U	0.0012 U	0.001 U	0.0011 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	R	0.00096 U	0.0019 U	0.0011 U	0.0012 U	0.001 U	0.0011 U
	TOLUENE	mg/kg	820	4900	14	R	0.00096 U	0.0019 U	0.0011 U	0.0012 U	0.001 U	0.0011 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	R	0.00096 U	0.0019 U	0.0011 U	0.0012 U	0.001 U	0.0011 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	R	0.00096 U	0.0019 U	0.0011 U	0.0012 U	0.001 U	0.0011 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	R	0.00096 U	0.0019 U	0.0011 U	0.0012 U	0.001 U	0.0011 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	R	0.00096 U	0.0019 U	0.0011 U	0.0012 U	0.001 U	0.0011 U
	Xylenes	mg/kg	260	580	200	R	0.0029 U	0.0056 U	0.0032 U	0.0035 U	0.0031 U	0.0032 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	21PS-2		21PS-3		22PS-1		22PS-2
					Sample ID:	LPA21-PS-002 (7-8) (20160802)	LPA21-QD-001 (7-8) (20160802)	LPA21-PS-003 (3-4) (20160802)	LPA21-PS-003 (6-7) (20160802)	LPA22-PS-001 (3-4') (20160804)	LPA22-PS-001 (7-8') (20160804)	LPA22-PS-002 (2-3') (20160804)
					Sample Date:	8/2/16	8/2/16	8/2/16	8/2/16	8/4/16	8/4/16	8/4/16
					Sample Depth (ft bgs):	7-8 ft.	7-8 ft.	3-4 ft.	6-7 ft.	3-4 ft.	7-8 ft.	2-3 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	97	97	98	96	89	97	95
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	1100	890	1300	820	1600	730	3200
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.5 U	25 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	26000	27000	24000	28000	220000	33000	45000
	IRON	mg/kg	77000	55000	7100	3400	2200	5200	2200	**[20000]**	3000	**[16000]**
	POTASSIUM	mg/kg	NA	NA	NA	220	190 U	270	200 U	350	200 U	320
	SODIUM	mg/kg	NA	NA	NA	38	42	48	39	140	42	36
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.13 U	0.14 U	0.13 U	0.14 U	0.14 U	0.14 U	0.57
	ARSENIC	mg/kg	9.5	0.68	5.9	1.1	1.0	3.8	0.81	**[22]**	0.83	**[6.7]**
	BARIUM	mg/kg	21000	15000	1700	4.4	4.4	3.9	4.9	130	6.2	90
	CADMIUM	mg/kg	99	71	7.5	0.18 U	0.2 U	0.19 U	0.19 U	0.2 U	0.2 U	0.56
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	2.4	2.1	2.7	2.5	3.8	2.8	49
	COBALT	mg/kg	32	23	5.4	1.1	1.1	1.5	1.2	2.8	1.1	**[6.0]**
	COPPER	mg/kg	4300	3100	920	2.0	2.0	2.0	2.1	4.8	1.8	110
	LEAD	mg/kg	400	400	270	1.4	1.2	1.7	1.5	6.4	1.3	75
	MAGNESIUM	mg/kg	NA	NA	NA	4800	4500	5200	6000	7800	5500	5500
	MANGANESE	mg/kg	2500	1800	560	79 J	85 J	72 J	94 J	**[1700 J]**	86	190
	NICKEL	mg/kg	2100	1500	510	2.8	2.7	3.1	2.7	4.6	2.6	16
	SELENIUM	mg/kg	550	390	5.3	0.21	0.25	0.19 U	0.19 U	1.2	0.50	1.9
	SILVER	mg/kg	550	390	16	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.19
	THALLIUM	mg/kg	1.1	0.78	2.9	0.46 U	0.5 U	0.46 U	0.49 U	0.49 U	0.49 U	0.5 U
	VANADIUM	mg/kg	550	390	1700	3.6	3.4	4.3	4.9	6.2	3.5	15
	ZINC	mg/kg	32000	NA	7500	6.8	6.5	7.2	7.8	15	5.7	110
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.031 U	0.0058 J	0.0038 J	0.0033 J	0.011 J	0.039 U	0.17
SW9012	CYANIDE	mg/kg	32	23	40	0.2 U	0.2 U	0.2 U	0.2 U	3.3 U	0.2 U	0.31
SW9045C	PH	ph unit	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0012 U	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 U	0.00097 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0012 U	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 U	0.00097 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0012 U	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 U	0.00097 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.0012 UJ	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 UJ	0.00097 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0012 U	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 U	0.00097 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0012 U	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 U	0.00097 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0012 U	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 U	0.00097 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0058 U	0.0067 U	0.005 U	0.0053 U	0.0063 U	0.0052 U	0.0049 U
	ACETONE	mg/kg	85000	61000	57	0.029	0.0028 J	0.0052	0.0027 J	0.016 J	0.020 J	0.0049 U
	BENZENE	mg/kg	17	1.2	0.051	0.0012 U	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 U	0.00097 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0012 UJ	0.0013 UJ	0.001 UJ	0.0011 UJ	0.0013 U	0.001 U	0.00097 U
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0012 U	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 U	0.00097 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0012 U	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 U	0.00097 UJ
	CYCLOHEXANE	mg/kg	120	NA	270	0.0012 U	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 U	0.00097 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0012 U	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 U	0.00097 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0012 U	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 U	0.00097 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0023 U	0.0027 U	0.002 U	0.0021 U	0.0025 U	0.0021 U	0.0019 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.0029 J	0.0013 J	0.0012 J	0.0053 U	0.0063 U	0.0052 U	0.0049 U
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0058 U	0.0067 U	0.005 U	0.0053 U	0.0063 U	0.0052 U	0.0049 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0012 U	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 U	0.00097 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.024 J	0.011 J	0.0043 J	0.0048 J	0.0088 J	0.0059 J	0.010 J
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0012 U	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 U	0.00097 U
	STYRENE	mg/kg	870	6000	2.2	0.0012 U	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 U	0.00097 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0010 J	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 U	0.00097 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0012 U	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 U	0.00097 U
	TOLUENE	mg/kg	820	4900	14	0.0012 U	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 U	0.00097 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0012 U	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 U	0.00097 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0012 U	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 U	0.00097 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0012 U	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 U	0.00097 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0012 U	0.0013 U	0.001 U	0.0011 U	0.0013 U	0.001 U	0.00097 U
	Xylenes	mg/kg	260	580	200	0.0035 U	0.004 U	0.003 U	0.0032 U	0.0038 U	0.0031 U	0.0029 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	22PS-2		22PS-3			23PS-1	
					Sample ID:	LPA22-PS-002 (7-8') (20160804)	LPA22-PS-002 (7-8') (20160809)	LPA22-PS-003 (3-4') (20160804)	LPA22-PS-003 (7-8.5') (20160804)	LPA22-PS-003 (11-12') (20160804)	LPA23-PS-001 (2-3') (20160913)	LPA23-PS-001 (7-8') (20160913)
					Sample Date:	8/4/16	8/9/16	8/4/16	8/4/16	8/4/16	9/13/16	9/13/16
					Sample Depth (ft bgs):	7-8 ft.	7-8 ft.	3-4 ft.	7-8.5 ft.	11-12 ft.	2-3 ft.	7-8 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	81	98	84	97	97	92	96
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	530	NS	3100	660	620	1300	920
	BERYLLIUM	mg/kg	220	160	63	0.5 U	NS	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	29000	NS	27000 J	33000	37000	15000	31000
	IRON	mg/kg	77000	55000	7100	1700	NS	**[14000]**	3400	3100	**[13000]**	3400
	POTASSIUM	mg/kg	NA	NA	NA	200 U	NS	400 J	190 U	190 U	200 U	190 U
	SODIUM	mg/kg	NA	NA	NA	37	NS	2500 J	360	390	45	41
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.14 U	NS	0.83	0.13 U	0.13 U	1.3	0.13 U
	ARSENIC	mg/kg	9.5	0.68	5.9	1.4	NS	**[11 J]**	2.2	0.83	**[8.2]**	**[6.1]**
	BARIUM	mg/kg	21000	15000	1700	5.9	NS	80 J	7.0	4.7	98	7.5
	CADMIUM	mg/kg	99	71	7.5	0.2 U	NS	2.1 J	0.19 U	0.19 U	1.4	0.19 U
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	2.4	NS	12 J	3.4	2.7	16	3.2
	COBALT	mg/kg	32	23	5.4	1.2	NS	4.1 J	1.9	1.2	2.6	3.6
	COPPER	mg/kg	4300	3100	920	2.1	NS	120 J	2.5	1.8	53	4.1
	LEAD	mg/kg	400	400	270	1.3	NS	160 J	1.2	1.2	**[320]**	2.2
	MAGNESIUM	mg/kg	NA	NA	NA	6300	NS	2500 J	80000	10000	1900	4900
	MANGANESE	mg/kg	2500	1800	560	94	NS	340 J	130 J	110 J	180	77
	NICKEL	mg/kg	2100	1500	510	2.7	NS	13 J	3.7	3.0	10	5.9
	SELENIUM	mg/kg	550	390	5.3	0.48	NS	1.2	0.31	0.34	0.84	0.41
	SILVER	mg/kg	550	390	16	0.1 U	NS	0.15	0.1 U	0.1 U	0.10	0.1 U
	THALLIUM	mg/kg	1.1	0.78	2.9	0.5 U	NS	0.13 J	0.48 U	0.48 U	0.49 U	0.47 U
	VANADIUM	mg/kg	550	390	1700	3.7	NS	13 J	5.3	4.3	6.9	5.4
	ZINC	mg/kg	32000	NA	7500	6.8	NS	360 J	9.8	8.1	200	12
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.037 U	NS	1.5	0.0038 J	0.038 U	0.22	0.037 U
SW9012	CYANIDE	mg/kg	32	23	40	0.2 U	NS	0.53	0.2 U	0.2 U	0.72	0.2 U
SW9045C	PH	ph unit	NA	NA	NA	NS	NS	NS	NS	NS	8.13	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	NS	0.0011 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.00099 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	NS	0.0011 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.00099 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	NS	0.0011 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.00099 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	NS	0.0011 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.00099 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	NS	0.0011 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.00099 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	NS	0.0011 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.00099 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	NS	0.0011 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.00099 U
	2-HEXANONE	mg/kg	280	200	0.18	NS	0.0055 U	0.0053 U	0.0052 U	0.0051 U	0.0053 U	0.0049 U
	ACETONE	mg/kg	85000	61000	57	NS	0.0055 U	0.042 J	0.0076 J	0.0051 U	0.013	0.031
	BENZENE	mg/kg	17	1.2	0.051	NS	0.0011 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.00099 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	NS	0.0011 U	0.00070 J	0.001 U	0.001 U	0.0011 U	0.00099 U
	CHLOROBENZENE	mg/kg	390	280	1.4	NS	0.0011 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.00099 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	NS	0.0011 UJ	0.0011 UJ	0.001 UJ	0.001 UJ	0.0011 U	0.00099 U
	CYCLOHEXANE	mg/kg	120	NA	270	NS	0.0011 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.00099 U
	ETHYLBENZENE	mg/kg	81	5.8	16	NS	0.0011 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.00099 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	NS	0.0011 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.00099 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	NS	0.0022 U	0.0021 U	0.0021 U	0.0021 U	0.0021 U	0.002 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	NS	0.0055 U	0.0071	0.0052 U	0.0051 U	0.00065 J	0.0022 J
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	NS	0.0055 U	0.0053 U	0.0052 U	0.0051 U	0.0053 U	0.0049 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	NS	0.0011 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.00099 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	NS	0.010 J	0.0068 J	**[0.027 J]**	0.0077 J	**[0.050 J]**	0.025 J
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	NS	0.0011 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.00099 U
	STYRENE	mg/kg	870	6000	2.2	NS	0.0011 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.00099 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	NS	0.0011 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.00099 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	NS	0.0011 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.00099 U
	TOLUENE	mg/kg	820	4900	14	NS	0.0011 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.00099 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	NS	0.0011 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.00099 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	NS	0.0011 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.00099 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	NS	0.0011 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.00099 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	NS	0.0011 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.00099 U
	Xylenes	mg/kg	260	580	200	NS	0.0033 U	0.0032 U	0.0031 U	0.0031 U	0.0032 U	0.003 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	23PS-1	23PS-2			23PS-3		
					Sample ID:	LPA23-PS-001 (10-12') (20160913)	LPA23-PS-002 (2-3') (20160913)	LPA23-PS-002 (5-7') (20160913)	LPA23-PS-002 (10-12') (20160913)	LPA23-PS-003 (2-3') (20160914)	LPA23-PS-003 (7-8') (20160914)	LPA23-PS-003 (11-12') (20160914)
					Sample Date:	9/13/16	9/13/16	9/13/16	9/13/16	9/14/16	9/14/16	9/14/16
					Sample Depth (ft bgs):	10-12 ft.	2-3 ft.	5-7 ft.	10-12 ft.	2-3 ft.	7-8 ft.	11-12 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	96	81	80	91	92	92	93
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	820 J	5400	850	770	2800	2500	2200
	BERYLLIUM	mg/kg	220	160	63	0.5 U	23 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	27000	31000	160000	29000	3300	7300	6000
	IRON	mg/kg	77000	55000	7100	2900	**[56000]**	5000	4800	**[24000]**	**[7300]**	6000
	POTASSIUM	mg/kg	NA	NA	NA	190 U	480	310	190 U	200	220	200
	SODIUM	mg/kg	NA	NA	NA	37	210	63	32	36	22	20
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.23	**[15]**	0.13 U	0.13 U	0.98	0.33	0.15
	ARSENIC	mg/kg	9.5	0.68	5.9	0.88	**[16]**	**[8.8]**	1.1	4.0	3.2	2.6
	BARIUM	mg/kg	21000	15000	1700	4.9	1100	71	8.2	82	33	22
	CADMIUM	mg/kg	99	71	7.5	0.19 U	**[36]**	0.051 J	0.19 U	5.8	0.2 U	0.2 U
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	3.0	220	2.2	3.9	21	6.3	11
	COBALT	mg/kg	32	23	5.4	1.2	**[10]**	2.0	1.7	3.2	3.2	3.4
	COPPER	mg/kg	4300	3100	920	2.1	**[2100]**	1.3	4.4	250	9.5	7.3
	LEAD	mg/kg	400	400	270	1.8	**[1600]**	1 U	2.1	150	21	12
	MAGNESIUM	mg/kg	NA	NA	NA	4900	7200 J	4200 J	5100 J	1200 J	2500 J	3800 J
	MANGANESE	mg/kg	2500	1800	560	83	440	**[2800]**	130	300	150	120
	NICKEL	mg/kg	2100	1500	510	3.3	74	2.5	4.0	11	5.8	9.9
	SELENIUM	mg/kg	550	390	5.3	0.55	1.8	0.39	0.41	0.94	1.2	0.97
	SILVER	mg/kg	550	390	16	0.1 U	2.2	0.1 U	0.1 U	0.16	0.1 U	0.1 U
	THALLIUM	mg/kg	1.1	0.78	2.9	0.48 U	0.45 U	0.48 U	0.46 U	0.49 U	0.5 U	0.5 U
	VANADIUM	mg/kg	550	390	1700	4.0	26	3.4	4.7	15	11	9.6
	ZINC	mg/kg	32000	NA	7500	9.3	2400	4.9	7.2	440	25	22
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.037 U	**[4.7]**	0.037 U	0.04 U	0.52	0.027 J	0.033 J
SW9012	CYANIDE	mg/kg	32	23	40	0.2 U	9.5	1 U	0.2 U	0.2 U	0.2 U	0.2 U
SW9045C	PH	ph unit	NA	NA	NA	8.81	7.99	NS	NS	6.83	NS	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0011 U	0.0014 U	0.001 U	0.0011 U	0.00094 U	0.001 U	0.00094 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0011 U	0.0014 U	0.001 U	0.0011 U	0.00094 U	0.001 U	0.00094 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0011 U	0.0014 U	0.001 U	0.0011 U	0.00094 U	0.001 U	0.00094 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.0011 UJ	0.0014 U	0.001 U	0.0011 U	0.00094 U	0.001 U	0.00094 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0011 U	0.0014 U	0.001 U	0.0011 U	0.00094 U	0.001 U	0.00094 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0011 U	0.0014 U	0.001 U	0.0011 U	0.00094 U	0.001 U	0.00094 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0011 U	0.0014 U	0.001 U	0.0011 U	0.00094 U	0.001 U	0.00094 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0053 U	0.0068 U	0.005 U	0.0057 U	0.0047 U	0.0052 U	0.0047 U
	ACETONE	mg/kg	85000	61000	57	0.0056 J	0.0068 UJ	0.005 UJ	0.0057 UJ	0.0072 J	0.11 J	0.054 J
	BENZENE	mg/kg	17	1.2	0.051	0.0011 U	0.0014 U	0.001 U	0.0011 U	0.00059 J	0.001 U	0.00094 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0011 U	0.0014 UJ	0.001 UJ	0.0011 UJ	0.00094 UJ	0.001 UJ	0.00094 UJ
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0011 U	0.0014 U	0.001 U	0.0011 U	0.00094 U	0.001 U	0.00094 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0011 U	0.0014 UJ	0.001 UJ	0.0011 UJ	0.00094 UJ	0.001 UJ	0.00094 UJ
	CYCLOHEXANE	mg/kg	120	NA	270	0.0011 U	0.0014 U	0.001 U	0.0011 U	0.00094 U	0.001 U	0.00094 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0011 U	0.0014 U	0.001 U	0.0011 U	0.00094 U	0.001 U	0.00094 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0011 U	0.0014 U	0.001 U	0.0011 U	0.00094 U	0.001 U	0.00094 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0021 U	0.0027 U	0.002 U	0.0023 U	0.0019 U	0.0021 U	0.0019 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.0053 U	0.0068 U	0.005 U	0.0057 U	0.0010 J	0.0089	0.0083
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0053 U	0.0068 U	0.005 U	0.0057 U	0.0047 U	0.0052 U	0.0047 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0011 U	0.0014 U	0.001 U	0.0011 U	0.00094 U	0.001 U	0.00094 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0053 UJ	0.0068 UJ	0.005 UJ	0.0057 UJ	0.019 J	**[0.057 J]**	0.0047 UJ
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0011 U	0.0014 U	0.001 U	0.0011 U	0.00094 U	0.001 U	0.00094 U
	STYRENE	mg/kg	870	6000	2.2	0.0011 U	0.0014 U	0.001 U	0.0011 U	0.00094 U	0.001 U	0.00094 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0011 U	0.0014 U	0.001 U	0.0011 U	0.00094 U	0.001 U	0.00094 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0011 U	0.0014 U	0.001 U	0.0011 U	0.00094 U	0.001 U	0.00094 U
	TOLUENE	mg/kg	820	4900	14	0.0011 U	0.0014 U	0.001 U	0.0011 U	0.00094 U	0.001 U	0.00094 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0011 U	0.0014 UJ	0.001 UJ	0.0011 UJ	0.00094 UJ	0.001 UJ	0.00094 UJ
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0011 U	0.0014 UJ	0.001 UJ	0.0011 UJ	0.00094 UJ	0.001 UJ	0.00094 UJ
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0011 U	0.0014 U	0.001 U	0.0011 U	0.00094 U	0.001 U	0.00094 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0011 U	0.0014 U	0.001 U	0.0011 U	0.00094 U	0.001 U	0.00094 U
	Xylenes	mg/kg	260	580	200	0.0032 U	0.0041 U	0.003 U	0.0034 U	0.0028 U	0.0031 U	0.0028 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	24PS-1			24PS-2			24PS-3
					Sample ID:	LPA24-PS-001 (3-4') (20160915)	LPA24-PS-001 (4-5') (20160915)	LPA24-PS-001 (10-12') (20160915)	LPA24-PS-002 (1-2') (20160915)	LPA24-PS-002 (6-7') (20160915)	LPA24-PS-002 (10-12') (20160915)	LPA24-PS-003 (2-4') (20160916)
					Sample Date:	9/15/16	9/15/16	9/15/16	9/15/16	9/15/16	9/15/16	9/16/16
					Sample Depth (ft bgs):	3-4 ft.	4-5 ft.	10-12 ft.	1-2 ft.	6-7 ft.	10-12 ft.	2-4 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	88	88	94	92	88	87	86
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	3100	2300	1300	3000	2500	2300	5200
	BERYLLIUM	mg/kg	220	160	63	0.5 U	24 U	0.5 U	0.5 U	0.5 U	25 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	2700 J	10000	16000	1500	17000	1500	4200
	IRON	mg/kg	77000	55000	7100	**[12000 J]**	**[37000]**	3900	6900	**[9800]**	**[35000]**	**[16000]**
	POTASSIUM	mg/kg	NA	NA	NA	370 J	200	210	190	420	400	490 J
	SODIUM	mg/kg	NA	NA	NA	69	58	24	11	110	150	180
SW6020	ANTIMONY	mg/kg	43	31	5.4	**[13]**	5.0	0.13 U	0.32	1.0	2.6	2.4
	ARSENIC	mg/kg	9.5	0.68	5.9	4.0 J	**[8.6]**	1.8	3.3	5.2	**[9.1]**	**[11]**
	BARIUM	mg/kg	21000	15000	1700	400 J	260	15	32	88	170	250
	CADMIUM	mg/kg	99	71	7.5	5.9	3.1	0.19 U	0.19 U	0.74	**[120]**	**[21]**
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	15	26	4.0	7.3	10	340	25
	COBALT	mg/kg	32	23	5.4	3.2	4.2	1.9	2.3	3.0	**[10]**	**[5.8]**
	COPPER	mg/kg	4300	3100	920	130	74	4.4	6.8	78	**[1800]**	360
	LEAD	mg/kg	400	400	270	**[1500]**	200	7.2	21	140	**[300]**	**[380]**
	MAGNESIUM	mg/kg	NA	NA	NA	1700 J	2500 J	3500 J	920 J	9600 J	800 J	1400 J
	MANGANESE	mg/kg	2500	1800	560	240	450	97	140	200	310	160 J
	NICKEL	mg/kg	2100	1500	510	11 J	20	2.9	3.1	8.7	**[1200]**	16
	SELENIUM	mg/kg	550	390	5.3	1.5	0.81	0.76	1.2	1.5	0.89	**[5.5]**
	SILVER	mg/kg	550	390	16	0.20	0.1 U	0.1 U	0.1 U	0.1 U	0.49	0.39
	THALLIUM	mg/kg	1.1	0.78	2.9	0.48 U	0.48 U	0.46 U	0.47 U	0.45 U	0.49 U	0.5 U
	VANADIUM	mg/kg	550	390	1700	11 J	14	6.4	14	13	11	21
	ZINC	mg/kg	32000	NA	7500	930	170	12	21	230	2000	280 J
SW7470A	MERCURY	mg/kg	3.1	11	2.1	1.5	1.2	0.014 J	0.063	0.15	**[2.4]**	1.3
SW9012	CYANIDE	mg/kg	32	23	40	1.4	0.60	0.2 U	0.2 U	0.39	1	0.27
SW9045C	PH	ph unit	NA	NA	NA	7.99	NS	NS	8.38	NS	NS	7.75
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.001 UJ	0.001 U	0.001 U	0.00093 U	0.0011 U	0.0011 UJ	0.001 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.001 UJ	0.001 U	0.001 U	0.00093 U	0.0011 U	0.00089 J	0.001 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.001 UJ	0.001 U	0.001 U	0.00093 U	0.0011 U	0.0011 UJ	0.001 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.001 UJ	0.001 U	0.001 U	0.00093 U	0.0011 U	0.0011 UJ	0.001 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.001 UJ	0.001 U	0.001 U	0.00093 U	0.0011 U	0.0011 UJ	0.001 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.001 UJ	0.001 U	0.001 U	0.00093 U	0.0011 U	0.0011 UJ	0.001 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.001 UJ	0.001 U	0.001 U	0.00093 U	0.0011 U	0.0011 UJ	0.001 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0012 J	0.0051 U	0.0051 U	0.0047 U	0.00082 J	0.0015 J	0.005 U
	ACETONE	mg/kg	85000	61000	57	0.061 J	0.0025 J	0.021	0.0051 J	0.18 J	0.055 J	0.005 UJ
	BENZENE	mg/kg	17	1.2	0.051	0.0049 J	0.0079	0.001 U	0.00093 U	0.0047	0.0051 J	0.001 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0013 J	0.00072 J	0.001 U	0.00093 U	0.0010 J	0.0013 J	0.001 U
	CHLOROBENZENE	mg/kg	390	280	1.4	0.001 UJ	0.001 U	0.001 U	0.00093 U	0.0011 U	0.0011 UJ	0.001 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.001 UJ	0.001 U	0.001 U	0.00093 U	0.0011 U	0.0011 UJ	0.001 U
	CYCLOHEXANE	mg/kg	120	NA	270	0.0010 J	0.001 U	0.001 U	0.00093 U	0.0011 U	0.00059 J	0.001 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.00064 J	0.0012	0.001 U	0.00093 U	0.0015	0.0024 J	0.001 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0013 J	0.0011	0.001 U	0.00093 U	0.0015	0.0027 J	0.001 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.002 UJ	0.0020	0.002 U	0.0019 U	0.0048	0.005 J	0.002 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.016 J	0.0012 J	0.0033 J	0.0047 U	0.045	0.0095 J	0.005 U
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.00061 J	0.0051 U	0.0051 U	0.0047 U	0.0053 U	0.0056 UJ	0.005 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0010 J	0.001 U	0.001 U	0.00093 U	0.0010 J	0.0029 J	0.001 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0051 UJ	0.0051 UJ	0.0051 UJ	0.0074 J	0.0053 UJ	0.0056 UJ	0.005 UJ
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.00075 J	0.0031	0.001 U	0.00093 U	0.0072	0.013 J	0.001 U
	STYRENE	mg/kg	870	6000	2.2	0.001 UJ	0.001 U	0.001 U	0.00093 U	0.0011 U	0.0011 UJ	0.001 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.001 UJ	0.001 U	0.001 U	0.00093 U	0.0011 U	0.0011 UJ	0.001 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.001 UJ	0.001 U	0.001 U	0.00093 U	0.0011 U	0.0011 UJ	0.001 U
	TOLUENE	mg/kg	820	4900	14	0.00091 J	0.0032	0.001 U	0.00093 U	0.0016	0.0028 J	0.001 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.001 UJ	0.001 U	0.001 U	0.00093 U	0.0011 U	0.0011 UJ	0.001 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.001 UJ	0.001 U	0.001 U	0.00093 U	0.0011 U	0.0011 UJ	0.001 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.001 UJ	0.001 U	0.001 U	0.00093 U	0.0011 U	0.0011 UJ	0.001 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.001 UJ	0.001 U	0.001 U	0.00093 U	0.0011 U	0.0011 UJ	0.001 U
	Xylenes	mg/kg	260	580	200	0.00075 J	0.0051	0.003 U	0.0028 U	0.012	0.018 J	0.003 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	24PS-3		25PS-1		25PS-2		
					Sample ID:	LPA24-PS-003 (7-8') (20160916)	LPA24-PS-003 (10-12') (20160916)	LPA25-PS-001 (2-4') (20160921)	LPA25-PS-001 (7-8') (20160921)	LPA25-PS-002(3-4') (20160921)	LPA25-PS-002 (7-8') (20160921)	LPA25-PS-002 (10-12') (20160921)
					Sample Date:	9/16/16	9/16/16	9/21/16	9/21/16	9/21/16	9/21/16	9/21/16
					Sample Depth (ft bgs):	7-8 ft.	10-12 ft.	2-4 ft.	7-8 ft.	3-4 ft.	7-8 ft.	10-12 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	79	63	85	89	88	87	80
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	990	1600	1900	6200	3000	2900	3800
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.11 J	0.86	0.42 J	0.31 J	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	34000	180000	20000	24000	13000	21000	15000
	IRON	mg/kg	77000	55000	7100	4700	**[11000]**	**[7300]**	**[27000]**	**[27000]**	**[34000]**	**[160000]**
	POTASSIUM	mg/kg	NA	NA	NA	180 U	360	210	760	340	310	450
	SODIUM	mg/kg	NA	NA	NA	73	110	37	480	85	140	340
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.42	0.13 U	0.26	3.2	**[7.1]**	**[45]**	**[52]**
	ARSENIC	mg/kg	9.5	0.68	5.9	**[10]**	**[30]**	**[6.2]**	**[12]**	**[8.4]**	**[9.9]**	**[44]**
	BARIUM	mg/kg	21000	15000	1700	79	110	34	450	250	650	440
	CADMIUM	mg/kg	99	71	7.5	0.18 U	0.19 U	0.23	1.6	**[64]**	**[38]**	**[11]**
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	3.2	3.6	4.9	34	25	41	990
	COBALT	mg/kg	32	23	5.4	2.3	3.1	2.0	5.4	4.3	4.7	**[24]**
	COPPER	mg/kg	4300	3100	920	5.5	3.8	11	130	270	300	**[970]**
	LEAD	mg/kg	400	400	270	48	1.9	18	**[490]**	**[510]**	**[770]**	**[2400]**
	MAGNESIUM	mg/kg	NA	NA	NA	1300 J	4600 J	4400 J	5100 J	3300 J	6900 J	1800 J
	MANGANESE	mg/kg	2500	1800	560	100 J	**[710 J]**	130 J	250 J	280 J	280 J	**[2700 J]**
	NICKEL	mg/kg	2100	1500	510	3.5	4.0	5.4	25	24	53	260
	SELENIUM	mg/kg	550	390	5.3	1.5	2.4	1.0	1.9	1.3	1.5	0.2 U
	SILVER	mg/kg	550	390	16	0.1 U	0.1 U	0.1 U	0.28	0.30	0.23	0.43
	THALLIUM	mg/kg	1.1	0.78	2.9	0.44 U	0.47 U	0.47 U	0.47 U	0.49 U	0.44 U	0.49 U
	VANADIUM	mg/kg	550	390	1700	4.3	6.7	7.8	18	11	11	32
	ZINC	mg/kg	32000	NA	7500	67	12	31	520	910	2800	1400
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.047	0.029 U	0.042	0.40	1.3	1.9	**[2.3]**
SW9012	CYANIDE	mg/kg	32	23	40	0.23	6.8 U	0.2 U	0.26	9.2	22	1.6
SW9045C	PH	ph unit	NA	NA	NA	NS	NS	7.57	NS	7.91	NS	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0014 U	0.0016 U	0.001 U	0.00093 U	0.0011 U	0.0011 U	0.0012 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0014 U	0.0016 U	0.001 U	0.00093 U	0.0011 U	0.0011 U	0.0010 J
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0014 U	0.0016 U	0.001 UJ	0.00093 UJ	0.0011 UJ	0.0011 UJ	0.0012 UJ
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.0014 U	0.0016 U	0.001 UJ	0.00093 UJ	0.0011 UJ	0.0011 UJ	0.0012 UJ
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0014 U	0.0016 U	0.001 UJ	0.00093 UJ	0.0011 UJ	0.0011 UJ	0.0012 UJ
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0014 U	0.0016 U	0.001 U	0.00093 U	0.0011 U	0.0011 U	0.0012 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0014 U	0.0016 U	0.001 UJ	0.00093 UJ	0.0011 UJ	0.0011 UJ	0.0012 UJ
	2-HEXANONE	mg/kg	280	200	0.18	0.0071 U	0.0082 U	0.005 U	0.0046 U	0.0054 U	0.0057 U	0.0058 U
	ACETONE	mg/kg	85000	61000	57	0.0071 U	0.0082 U	0.092	0.071 J	0.0054 U	0.0057 U	R
	BENZENE	mg/kg	17	1.2	0.051	0.0014 U	0.0016 U	0.001 U	0.00093 U	0.0011 U	0.0011 U	0.0028
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0014 U	0.0016 U	0.001 U	0.00093 U	0.0011 U	0.0011 U	0.0014
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0014 U	0.0016 U	0.001 U	0.00093 U	0.0011 U	0.0011 U	0.0012 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0014 U	0.0016 U	0.001 U	0.00093 U	0.0011 U	0.0011 U	0.0012 U
	CYCLOHEXANE	mg/kg	120	NA	270	0.0014 U	0.0016 U	0.001 U	0.00093 U	0.0011 U	0.0011 U	0.0012 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0014 U	0.0016 U	0.001 U	0.00093 U	0.0011 U	0.0011 U	0.0015
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0014 U	0.0016 U	0.001 U	0.00093 U	0.0011 U	0.0011 U	0.012
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0028 U	0.0033 U	0.002 U	0.0019 U	0.0022 U	0.0023 U	0.0023 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.0071 U	0.0082 U	0.020	0.015	0.0054 U	0.0057 U	0.049
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0071 U	0.0082 U	0.005 U	0.0046 U	0.0054 U	0.0057 U	0.0012 J
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0014 U	0.0016 U	0.001 UJ	0.00093 UJ	0.0011 UJ	0.0011 UJ	0.0036 J
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0071 UJ	0.0082 UJ	0.005 UJ	0.0046 UJ	0.0054 UJ	0.0057 UJ	0.0058 UJ
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0014 U	0.0016 U	0.001 U	0.00093 U	0.0011 U	0.0011 U	0.0020
	STYRENE	mg/kg	870	6000	2.2	0.0014 U	0.0016 U	0.001 U	0.00093 U	0.0011 U	0.0011 U	0.0012 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0014 U	0.0016 U	0.001 U	0.00093 U	0.0011 U	0.0011 U	0.0012 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0014 U	0.0016 U	0.001 U	0.00093 U	0.0011 U	0.0011 U	0.0012 U
	TOLUENE	mg/kg	820	4900	14	0.0014 U	0.0016 U	0.001 U	0.00093 U	0.0011 U	0.0011 U	0.0022
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0014 U	0.0016 U	0.001 U	0.00093 U	0.0011 U	0.0011 U	0.0012 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0014 U	0.0016 U	0.001 U	0.00093 U	0.0011 U	0.0011 U	0.0012 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0014 U	0.0016 U	0.001 UJ	0.00093 UJ	0.0011 UJ	0.0011 UJ	0.0012 UJ
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0014 U	0.0016 U	0.001 U	0.00093 U	0.0011 U	0.0011 U	0.0012 U
	Xylenes	mg/kg	260	580	200	0.0042 U	0.0049 U	0.003 U	0.0028 U	0.0033 U	0.0034 U	0.0020 J

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	25PS-3		26PS-1		26PS-2		26PS-3
					Sample ID:	LPA25-PS-003 (2-4') (20160921)	LPA25-PS-003 (6-8') (20160921)	LPA26-PS-001 (4-5) (20160802)	LPA26-PS-001 (8-9) (20160802)	LPA26-PS-002 (3-4) (20160802)	LPA26-PS-002 (7-8) (20160802)	LPA26-PS-003 (3-4) (20160802)
					Sample Date:	9/21/16	9/21/16	8/2/16	8/2/16	8/2/16	8/2/16	8/2/16
					Sample Depth (ft bgs):	2-4 ft.	6-8 ft.	4-5 ft.	8-9 ft.	3-4 ft.	7-8 ft.	3-4 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	86	73	89	93	99	92	90
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	4400	3200	2500	790	1100	970	1700
	BERYLLIUM	mg/kg	220	160	63	0.46 J	0.46 J	1.3	0.5 U	0.50 J	0.5 U	1.0
	CALCIUM	mg/kg	NA	NA	NA	24000	89000	46000 J	27000	31000	29000	240000
	IRON	mg/kg	77000	55000	7100	**[33000]**	**[40000]**	**[15000]**	4900	6000	4700	**[14000]**
	POTASSIUM	mg/kg	NA	NA	NA	530	470	380 J	190 U	220	200 U	370
	SODIUM	mg/kg	NA	NA	NA	270	330	46	34	52	39	98
SW6020	ANTIMONY	mg/kg	43	31	5.4	3.0	**[15]**	0.14 U	0.14 U	0.13 U	0.13 U	0.14 U
	ARSENIC	mg/kg	9.5	0.68	5.9	**[13]**	**[9.3]**	**[20]**	1.2	**[14]**	0.87	**[36]**
	BARIUM	mg/kg	21000	15000	1700	120	420	12	5.6	5.4	4.7	89
	CADMIUM	mg/kg	99	71	7.5	1.9	5.0	0.19 U	0.2 U	0.18 U	0.19 U	0.2 U
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	150	49	4.5	3.0	2.7	2.2	3.0
	COBALT	mg/kg	32	23	5.4	4.4	**[6.3]**	2.3	1.5	1.4	1.1	3.3
	COPPER	mg/kg	4300	3100	920	75	260	4.2	2.5	2.2	1.9	2.2
	LEAD	mg/kg	400	400	270	240	**[930]**	3.3	1.4	1.8	1.4	1.9
	MAGNESIUM	mg/kg	NA	NA	NA	3400 J	3700 J	4600	5100	5300	4700	5000
	MANGANESE	mg/kg	2500	1800	560	220 J	540 J	110 J	110 J	73 J	83 J	**[1700 J]**
	NICKEL	mg/kg	2100	1500	510	27	30	5.5	3.2	3.3	2.8	4.3
	SELENIUM	mg/kg	550	390	5.3	1.5	1.4	0.62	0.2 U	0.25	0.19 U	0.52
	SILVER	mg/kg	550	390	16	0.11	0.22	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ
	THALLIUM	mg/kg	1.1	0.78	2.9	0.49 U	0.46 U	0.49 U	0.5 U	0.46 U	0.48 U	0.5 U
	VANADIUM	mg/kg	550	390	1700	17	11	7.8	3.8	3.9	3.6	5.2
	ZINC	mg/kg	32000	NA	7500	240	1000	13	7.7	7.6	6.5	8.8
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.25	1.9	0.0070 J	0.03 U	0.03 U	0.028 U	0.0052 J
SW9012	CYANIDE	mg/kg	32	23	40	0.54	0.7	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
SW9045C	PH	ph unit	NA	NA	NA	7.71	NS	NS	NS	NS	NS	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0011 U	0.0019 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0011 U	0.0019 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0011 UJ	0.0019 UJ	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.0011 UJ	0.0019 UJ	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0011 UJ	0.0019 UJ	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0011 U	0.0019 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0011 UJ	0.0019 UJ	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0055 U	0.0094 U	0.0061 U	0.005 U	0.0052 U	0.005 U	0.0057 U
	ACETONE	mg/kg	85000	61000	57	0.0055 U	0.0094 U	0.0054 J	0.0043 J	0.0021 J	0.0020 J	0.0057 U
	BENZENE	mg/kg	17	1.2	0.051	0.0011 U	0.0019 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0011 U	0.0019 U	0.0012 UJ	0.001 UJ	0.001 UJ	0.001 UJ	0.0011 UJ
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0011 U	0.0019 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0011 U	0.0019 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	CYCLOHEXANE	mg/kg	120	NA	270	0.0011 U	0.0019 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0011 U	0.0019 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0011 U	0.0019 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0022 U	0.0038 U	0.0024 U	0.002 U	0.0021 U	0.002 U	0.0023 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.0055 U	0.0094 U	0.0061 U	0.0010 J	0.00076 J	0.00080 J	0.0057 U
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0055 U	0.0094 U	0.0061 U	0.005 U	0.0052 U	0.005 U	0.0057 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0011 UJ	0.0019 UJ	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0055 UJ	0.0094 UJ	0.0014 J	0.0010 J	0.0011 J	0.00078 J	0.0012 J
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0011 U	0.0019 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	STYRENE	mg/kg	870	6000	2.2	0.0011 U	0.0019 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0011 U	0.0019 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0011 U	0.0019 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	TOLUENE	mg/kg	820	4900	14	0.0011 U	0.0019 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0011 U	0.0019 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0011 U	0.0019 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0011 UJ	0.0019 UJ	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0011 U	0.0019 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.0011 U
	Xylenes	mg/kg	260	580	200	0.0033 U	0.0056 U	0.0037 U	0.003 U	0.0031 U	0.003 U	0.0034 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	26PS-3	27PS-1		27PS-2			
					Sample ID:	LPA26-PS-003 (7-8) (20160802)	LPA27-PS-001 (3-4') (20160804)	LPA27-PS-001 (7-8') (20160804)	LPA27-PS-002 (3-4') (20160804)	LPA27-PS-002 (7-8') (20160804)	LPA27-QD-002 (7-8') (20160804)	LPA27-PS-002 (10-12') (20160804)
					Sample Date:	8/2/16	8/4/16	8/4/16	8/4/16	8/4/16	8/4/16	8/4/16
					Sample Depth (ft bgs):	7-8 ft.	3-4 ft.	7-8 ft.	3-4 ft.	7-8 ft.	7-8 ft.	10-12 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	97	76	84	66	97	97	97
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	1100	660	660	370	560	560	520
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	34000	340000	32000	340000	29000	27000	30000
	IRON	mg/kg	77000	55000	7100	4500	**[8100]**	2200	**[9800]**	3200	2200	2900
	POTASSIUM	mg/kg	NA	NA	NA	210	200	200 U	200 U	200 U	200 U	190 U
	SODIUM	mg/kg	NA	NA	NA	51	100	34	1400	120	110	120
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.13 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
	ARSENIC	mg/kg	9.5	0.68	5.9	0.78	**[14]**	1.1	**[19]**	5.9	2.5	0.89
	BARIUM	mg/kg	21000	15000	1700	5.3	200	4.9	260	4.9	5.0	5.2
	CADMIUM	mg/kg	99	71	7.5	0.19 U	0.19 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19 U
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	3.8	2 U	3.1	2 U	2.4	2.9	2.5
	COBALT	mg/kg	32	23	5.4	1.2	1.4	1.4	0.66	**[7.7]**	5.2	1.2
	COPPER	mg/kg	4300	3100	920	2.5	1.2	2.5	1 U	1.7	1.6	3.7
	LEAD	mg/kg	400	400	270	2.3	1 U	1.5	1 U	1.5	1.1	1.1
	MAGNESIUM	mg/kg	NA	NA	NA	5000	770	5700	7600	5200	5100	6100
	MANGANESE	mg/kg	2500	1800	560	99 J	**[2000 J]**	95 J	**[1300 J]**	91 J	91 J	100 J
	NICKEL	mg/kg	2100	1500	510	3.1	2.3	3.7	1.4	6.8	7.2	3.1
	SELENIUM	mg/kg	550	390	5.3	0.24	0.49	0.37	0.49	0.29	0.35	0.31 J
	SILVER	mg/kg	550	390	16	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
	THALLIUM	mg/kg	1.1	0.78	2.9	0.48 U	0.48 U	0.49 U	0.49 U	0.49 U	0.040 J	0.48 UJ
	VANADIUM	mg/kg	550	390	1700	4.0	2.9	4.9	1 U	3.7	3.7	3.3
	ZINC	mg/kg	32000	NA	7500	7.2	5.3	7.5	2.6	8.7	9.2	5.7
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.029 U	0.038 U	0.04 U	0.04 U	0.036 U	0.036 U	0.038 U
SW9012	CYANIDE	mg/kg	32	23	40	0.2 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
SW9045C	PH	ph unit	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0011 U	0.0014 U	0.0011 U	0.0014 U	0.0011 U	0.001 U	0.001 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0011 U	0.0014 U	0.0011 U	0.0014 U	0.0011 U	0.001 U	0.001 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0011 U	0.0014 U	0.0011 U	0.0014 U	0.0011 U	0.001 U	0.001 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.0011 U	0.0014 U	0.0011 U	0.0014 U	0.0011 U	0.001 U	0.001 UJ
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0011 U	0.0014 U	0.0011 U	0.0014 U	0.0011 U	0.001 U	0.001 UJ
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0011 U	0.0014 U	0.0011 U	0.0014 U	0.0011 U	0.001 U	0.001 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0011 U	0.0014 U	0.0011 U	0.0014 U	0.0011 U	0.001 U	0.001 UJ
	2-HEXANONE	mg/kg	280	200	0.18	0.0054 U	0.0068 U	0.0056 U	0.0072 U	0.0053 U	0.005 U	0.0052 U
	ACETONE	mg/kg	85000	61000	57	0.0054 U	0.0068 U	0.0056 U	0.0072 U	0.0053 U	0.005 U	0.0052 U
	BENZENE	mg/kg	17	1.2	0.051	0.0011 U	0.0014 U	0.0011 U	0.0014 U	0.0011 U	0.001 U	0.001 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0011 UJ	0.0014 U	0.00099 J	0.0014 U	0.0011 U	0.001 U	0.001 U
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0011 U	0.0014 U	0.0011 U	0.0014 U	0.0011 U	0.001 U	0.001 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0011 U	0.0014 UJ	0.0011 UJ	0.0014 UJ	0.0011 UJ	0.001 UJ	0.001 UJ
	CYCLOHEXANE	mg/kg	120	NA	270	0.0011 U	0.0014 U	0.0011 U	0.0014 U	0.0011 U	0.001 U	0.001 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0011 U	0.0014 U	0.0011 U	0.0014 U	0.0011 U	0.001 U	0.001 UJ
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0011 U	0.0014 U	0.0011 U	0.0014 U	0.0011 U	0.001 U	0.001 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0021 U	0.0027 U	0.0022 U	0.0029 U	0.0021 U	0.002 U	0.0021 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.0054 U	0.0068 U	0.0056 U	0.0072 U	0.0053 U	0.005 U	0.0052 U
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0054 U	0.0068 U	0.0056 U	0.0072 U	0.0053 U	0.005 U	0.0052 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0011 U	0.0014 U	0.0011 U	0.0014 U	0.0011 U	0.001 U	0.001 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0037 J	0.0089 J	0.0080 J	0.0076 J	0.0053 UJ	0.0059 J	0.0093 J
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0011 U	0.0014 U	0.0011 U	0.0014 U	0.0011 U	0.001 U	0.001 U
	STYRENE	mg/kg	870	6000	2.2	0.0011 U	0.0014 U	0.0011 U	0.0014 U	0.0011 U	0.001 U	0.001 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0011 U	0.0014 U	0.0011 U	0.0014 U	0.0011 U	0.001 U	0.00062 J
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0011 U	0.0014 U	0.0011 U	0.0014 U	0.0011 U	0.001 U	0.001 UJ
	TOLUENE	mg/kg	820	4900	14	0.0011 U	0.0014 U	0.0011 U	0.0014 U	0.0011 U	0.001 U	0.001 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0011 U	0.0014 U	0.0011 U	0.0014 U	0.0011 U	0.001 U	0.001 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0011 U	0.0014 U	0.0011 U	0.0014 U	0.0011 U	0.001 U	0.001 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0011 U	0.0014 U	0.0011 U	0.0014 U	0.0011 U	0.001 U	0.001 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0011 U	0.0014 U	0.0011 U	0.0014 U	0.0011 U	0.001 U	0.001 U
	Xylenes	mg/kg	260	580	200	0.0032 U	0.0041 U	0.0033 U	0.0043 U	0.0032 U	0.003 U	0.0031 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	27PS-3		28PS-1			28PS-2	
					Sample ID:	LPA27-PS-003 (3-4') (20160804)	LPA27-PS-003 (7-8') (20160804)	LPA28-PS-001 (1-2') (20160914)	LPA28-PS-001 (6-8') (20160914)	LPA28-PS-001 (10-12') (20160914)	LPA28-PS-002 (3-4') (20160914)	LPA28-PS-002 (6-8') (20160914)
					Sample Date:	8/4/16	8/4/16	9/14/16	9/14/16	9/14/16	9/14/16	9/14/16
					Sample Depth (ft bgs):	3-4 ft.	7-8 ft.	1-2 ft.	6-8 ft.	10-12 ft.	3-4 ft.	6-8 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	72	98	83	97	97	95	97
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	2000	640	4300	670	830	900	950
	BERYLLIUM	mg/kg	220	160	63	24 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	250000	31000	6800	22000	22000	650	30000
	IRON	mg/kg	77000	55000	7100	**[25000]**	2900	**[19000]**	1800	3400	3600	2100
	POTASSIUM	mg/kg	NA	NA	NA	410	190 U	190 U	180 U	190 U	190 U	200 U
	SODIUM	mg/kg	NA	NA	NA	110	37	570	76	53	13	38
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.14	0.13 U	2.1	0.12 U	0.13 U	0.13 U	0.14 U
	ARSENIC	mg/kg	9.5	0.68	5.9	**[20]**	0.86	**[15]**	0.95	1.0	5.8	1.5
	BARIUM	mg/kg	21000	15000	1700	160	5.8	53	5.3	6.7	16	6.4
	CADMIUM	mg/kg	99	71	7.5	0.35	0.19 U	7.4	0.18 U	0.19 U	0.19 U	0.2 U
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	5.2	2.4	12	2.5	4.9	3.8	3.8
	COBALT	mg/kg	32	23	5.4	3.2	2.1	3.2	0.94	1.5	2.4	2.0
	COPPER	mg/kg	4300	3100	920	5.8	4.5	**[1200]**	2.7	3.2	2.3	2.5
	LEAD	mg/kg	400	400	270	12	1.4	130	1.8	1.8	2.6	1.9
	MAGNESIUM	mg/kg	NA	NA	NA	7500	6300	2900 J	3600 J	4500 J	530 J	6700 J
	MANGANESE	mg/kg	2500	1800	560	**[2300 J]**	100 J	240	69	100	24	86
	NICKEL	mg/kg	2100	1500	510	5.0	3.7	23	2.4	3.4	3.5	4.2
	SELENIUM	mg/kg	550	390	5.3	1.1	0.42	1.2	0.55	0.71	0.84	0.57
	SILVER	mg/kg	550	390	16	0.041 J	0.1 U	0.31	0.1 U	0.1 U	0.1 U	0.1 U
	THALLIUM	mg/kg	1.1	0.78	2.9	0.03 J	0.48 U	0.47 U	0.44 U	0.48 U	0.47 U	0.49 U
	VANADIUM	mg/kg	550	390	1700	6.2	8.1	11	3.6	5.6	5.9	5.5
	ZINC	mg/kg	32000	NA	7500	23	7.9	130	6.0	7.9	9.1	9.0
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.040	0.04 U	0.18	0.036 U	0.038 U	0.039 U	0.04 U
SW9012	CYANIDE	mg/kg	32	23	40	0.2 U	0.98 U	0.32	0.2 U	0.2 U	0.2 U	0.2 U
SW9045C	PH	ph unit	NA	NA	NA	NS	NS	8.99	NS	NS	7.86	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0014 U	0.001 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0014 U	0.001 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0014 U	0.001 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.0014 U	0.001 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0014 U	0.001 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0014 U	0.001 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0014 U	0.001 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0069 U	0.0051 U	0.0059 U	0.0052 U	0.005 U	0.0052 U	0.0051 U
	ACETONE	mg/kg	85000	61000	57	0.018 J	0.011 J	0.018 J	0.0052 UJ	0.005 UJ	0.0052 U	0.0051 U
	BENZENE	mg/kg	17	1.2	0.051	0.0014 U	0.001 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0014 U	0.001 U	0.0016 J	0.001 UJ	0.001 UJ	0.001 U	0.001 U
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0014 U	0.001 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0014 UJ	0.001 UJ	0.0012 UJ	0.001 UJ	0.001 UJ	0.001 U	0.001 U
	CYCLOHEXANE	mg/kg	120	NA	270	0.0014 U	0.001 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0014 U	0.001 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0014 U	0.001 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0028 U	0.002 U	0.0024 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.0069 U	0.0051 U	0.0034 J	0.0052 U	0.005 U	0.0052 U	0.0051 U
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0069 U	0.0051 U	0.0059 U	0.0052 U	0.005 U	0.0052 U	0.0051 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0014 U	0.001 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0069 UJ	0.0051 UJ	0.0059 UJ	0.0052 UJ	0.005 UJ	0.0052 UJ	0.0051 UJ
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0014 U	0.001 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U
	STYRENE	mg/kg	870	6000	2.2	0.0014 U	0.001 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0014 U	0.001 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0014 U	0.001 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U
	TOLUENE	mg/kg	820	4900	14	0.0014 U	0.001 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0014 U	0.001 U	0.0012 UJ	0.001 UJ	0.001 UJ	0.001 U	0.001 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0014 U	0.001 U	0.0012 UJ	0.001 UJ	0.001 UJ	0.001 U	0.001 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0014 U	0.001 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0014 U	0.001 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U
	Xylenes	mg/kg	260	580	200	0.0041 U	0.0031 U	0.0036 U	0.0031 U	0.003 U	0.0031 U	0.0031 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	28PS-2	28PS-3			29PS-1		
					Sample ID:	LPA28-PS-002 (10-12') (20160914)	LPA28-PS-003 (2-3') (20160915)	LPA28-PS-003 (6-8') (20160915)	LPA28-PS-003 (10-12') (20160915)	LPA29-PS-001 (3-4') (20160914)	LPA29-PS-001 (5-8') (20160914)	LPA29-PS-001 (10-12') (20160914)
					Sample Date:	9/14/16	9/15/16	9/15/16	9/15/16	9/14/16	9/14/16	9/14/16
					Sample Depth (ft bgs):	10-12 ft.	2-3 ft.	6-8 ft.	10-12 ft.	3-4 ft.	5-8 ft.	10-12 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	95	90	96	97	92	96	97
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	1100	3100	1000	900	1400	730	860
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	30000	12000	31000	30000	5300	28000	31000
	IRON	mg/kg	77000	55000	7100	3400	**[15000]**	2700	2800	**[7900]**	1800	4300
	POTASSIUM	mg/kg	NA	NA	NA	200 U	300	210	190 U	200 U	190 U	190 U
	SODIUM	mg/kg	NA	NA	NA	39	42	41	33	22	29	34
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.14 U	3.6	0.13 U	0.13 U	0.14 U	0.13 U	0.13 U
	ARSENIC	mg/kg	9.5	0.68	5.9	1.0	**[10]**	1.4	1.1	**[23]**	1.3	1.7
	BARIUM	mg/kg	21000	15000	1700	6.1	110	5.2	6.1	28	6.0	7.7
	CADMIUM	mg/kg	99	71	7.5	0.2 U	5.3	0.19 U	0.19 U	0.2 U	0.19 U	0.19 U
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	5.6	16	3.4	3.2	6.8	2.8	3.7
	COBALT	mg/kg	32	23	5.4	2.0	4.8	2.1	1.4	2.5	2.4	1.5
	COPPER	mg/kg	4300	3100	920	2.9	85	2.6	2.6	6.8	2.6	4.9
	LEAD	mg/kg	400	400	270	1.7	**[1300]**	1.5	1.4	9.3	1.7	3.2
	MAGNESIUM	mg/kg	NA	NA	NA	6900 J	3100 J	6100 J	5000 J	3300 J	5700 J	4600 J
	MANGANESE	mg/kg	2500	1800	560	100	250	78	81	59	71	100
	NICKEL	mg/kg	2100	1500	510	5.6	12	2.9	1.8	6.3	3.8	3.3
	SELENIUM	mg/kg	550	390	5.3	0.68	1.6	0.77	0.74	1.0	0.59	0.77
	SILVER	mg/kg	550	390	16	0.1 U	0.20	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
	THALLIUM	mg/kg	1.1	0.78	2.9	0.5 U	0.5 U	0.48 U	0.48 U	0.5 U	0.47 U	0.47 U
	VANADIUM	mg/kg	550	390	1700	6.6	15	5.7	5.1	11	4.0	4.9
	ZINC	mg/kg	32000	NA	7500	9.7	220	8.0	6.6	15	7.0	8.1
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.037 U	0.98	0.04 U	0.036 U	0.024 J	0.038 U	0.035 U
SW9012	CYANIDE	mg/kg	32	23	40	0.2 U	0.34	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
SW9045C	PH	ph unit	NA	NA	NA	NS	8.35	NS	NS	7.93	NS	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 U	0.001 U	0.0011 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 U	0.001 U	0.0011 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 U	0.001 U	0.0011 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 U	0.001 U	0.0011 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 U	0.001 U	0.0011 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 U	0.001 U	0.0011 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 U	0.001 U	0.0011 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0055 U	0.0048 U	0.0052 U	0.0053 U	0.0046 U	0.0052 U	0.0054 U
	ACETONE	mg/kg	85000	61000	57	0.0055 U	0.0048 U	0.0052 U	0.0053 U	0.0046 UJ	0.0052 U	0.0017 J
	BENZENE	mg/kg	17	1.2	0.051	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 U	0.001 U	0.0011 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 UJ	0.001 U	0.0011 UJ
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 U	0.001 U	0.0011 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 UJ	0.001 U	0.0011 UJ
	CYCLOHEXANE	mg/kg	120	NA	270	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 U	0.001 U	0.0011 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 U	0.001 U	0.0011 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 U	0.001 U	0.0011 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0022 U	0.0019 U	0.0021 U	0.0021 U	0.0018 U	0.0021 U	0.0021 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.0055 U	0.0048 U	0.0052 U	0.0053 U	0.0046 U	0.0052 U	0.0054 U
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0055 U	0.0048 U	0.0052 U	0.0053 U	0.0046 U	0.0052 U	0.0054 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 U	0.001 U	0.0011 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0055 UJ	0.0048 UJ	0.0052 UJ	0.0053 UJ	0.0046 UJ	0.0052 UJ	0.0054 UJ
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 U	0.001 U	0.0011 U
	STYRENE	mg/kg	870	6000	2.2	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 U	0.001 U	0.0011 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 U	0.001 U	0.0011 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 U	0.001 U	0.0011 U
	TOLUENE	mg/kg	820	4900	14	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 U	0.001 U	0.0011 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 UJ	0.001 U	0.0011 UJ
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 UJ	0.001 U	0.0011 UJ
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 U	0.001 U	0.0011 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0011 U	0.00095 U	0.001 U	0.0011 U	0.00092 U	0.001 U	0.0011 U
	Xylenes	mg/kg	260	580	200	0.0033 U	0.0029 U	0.0031 U	0.0032 U	0.0028 U	0.0031 U	0.0032 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	29PS-1	29PS-2			29PS-3		
					Sample ID:	LPA29-QD-001 (10-12') (20160914)	LPA29-PS-002 (3-4') (20160915)	LPA29-PS-002 (6-7') (20160915)	LPA29-PS-002 (10-11') (20160915)	LPA29-PS-003 (1-2') (20160915)	LPA29-PS-003 (6-8') (20160915)	LPA29-PS-003 (10-12') (20160915)
					Sample Date:	9/14/16	9/15/16	9/15/16	9/15/16	9/15/16	9/15/16	9/15/16
					Sample Depth (ft bgs):	10-12 ft.	3-4 ft.	6-7 ft.	10-11 ft.	1-2 ft.	6-8 ft.	10-12 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	93	88	97	97	83	96	97
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	690	1300	770	640	3300	750	890
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	26000	5300	28000	31000	7800	28000	34000
	IRON	mg/kg	77000	55000	7100	2900	5000	2500	3000	**[9000]**	2900	2800
	POTASSIUM	mg/kg	NA	NA	NA	190 U	190 U	180 U	170 U	200	180 U	200 U
	SODIUM	mg/kg	NA	NA	NA	30	25	28	30	27	29	46
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.14	0.14	0.12 U	0.12 U	0.34	0.13 U	0.14 U
	ARSENIC	mg/kg	9.5	0.68	5.9	1.1	**[12]**	2.2	2.4	**[16]**	2.6	1.6
	BARIUM	mg/kg	21000	15000	1700	7.8	26	11	6.4	91	5.7	5.8
	CADMIUM	mg/kg	99	71	7.5	0.19 U	0.19 U	0.18 U	0.17 U	0.60	0.18 U	0.2 U
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	2.7	3.4	2.9	2.7	9.1	3.4	3.2
	COBALT	mg/kg	32	23	5.4	1.1	1.5	1.6	1.2	2.6	1.7	1.8
	COPPER	mg/kg	4300	3100	920	1.9	3.5	2.5	2.5	21	3.0	3.0
	LEAD	mg/kg	400	400	270	1.6	6.3	1.8	1.6	34	2.2	1.7
	MAGNESIUM	mg/kg	NA	NA	NA	5100 J	1800 J	5500 J	6000 J	1700 J	5700 J	5600 J
	MANGANESE	mg/kg	2500	1800	560	88	57	72	98	97	69	82
	NICKEL	mg/kg	2100	1500	510	2.5	2.2	3.0	1.7	5.3	2.3	2.6
	SELENIUM	mg/kg	550	390	5.3	0.53	0.95	0.61	0.76	2.1	0.97	0.66
	SILVER	mg/kg	550	390	16	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
	THALLIUM	mg/kg	1.1	0.78	2.9	0.48 U	0.46 U	0.44 U	0.43 U	0.46 U	0.46 U	0.5 U
	VANADIUM	mg/kg	550	390	1700	4.0	5.6	4.4	4.7	14	5.4	5.0
	ZINC	mg/kg	32000	NA	7500	4.9	12	6.6	6.2	46	9.2	11
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.034 U	0.097	0.037 U	0.038 U	0.063	0.038 U	0.038 U
SW9012	CYANIDE	mg/kg	32	23	40	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
SW9045C	PH	ph unit	NA	NA	NA	NS	8.0	NS	NS	7.86	NS	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0012 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 U	0.0011 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0012 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 U	0.0011 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0012 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 U	0.0011 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.0012 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 UJ	0.0011 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0012 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 U	0.0011 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0012 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 U	0.0011 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0012 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 UJ	0.0011 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0058 U	0.006 U	0.0052 U	0.0054 U	0.0057 U	0.0061 U	0.0053 U
	ACETONE	mg/kg	85000	61000	57	0.0058 UJ	0.006 U	0.0052 U	0.0023 J	0.0057 U	0.0080 J	0.010 J
	BENZENE	mg/kg	17	1.2	0.051	0.0012 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 U	0.0011 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0012 UJ	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 U	0.0011 U
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0012 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 U	0.0011 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0012 UJ	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 U	0.0011 U
	CYCLOHEXANE	mg/kg	120	NA	270	0.0012 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 UJ	0.0011 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0012 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 U	0.0011 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0012 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 UJ	0.0011 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0023 U	0.0024 U	0.0021 U	0.0022 U	0.0023 U	0.0024 U	0.0021 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.0058 U	0.006 U	0.0052 U	0.0054 U	0.0057 U	0.0061 U	0.0053 U
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0058 U	0.006 U	0.0052 U	0.0054 U	0.0057 U	0.0061 U	0.0053 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0012 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 UJ	0.0011 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0058 UJ	0.006 UJ	0.0052 UJ	0.013 J	0.0057 UJ	0.0061 UJ	0.0053 UJ
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0012 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 U	0.0011 U
	STYRENE	mg/kg	870	6000	2.2	0.0012 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 U	0.0011 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0012 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 U	0.0011 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0012 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 UJ	0.0011 U
	TOLUENE	mg/kg	820	4900	14	0.0012 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 U	0.0011 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0012 UJ	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 U	0.0011 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0012 UJ	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 U	0.0011 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0012 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 U	0.0011 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0012 U	0.0012 U	0.001 U	0.0011 U	0.0011 U	0.0012 U	0.0011 U
	Xylenes	mg/kg	260	580	200	0.0035 U	0.0036 U	0.0031 U	0.0033 U	0.0034 U	0.0036 U	0.0032 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	29PS-3	30PS-1			30PS-2		
					Sample ID:	LPA29-QD-001 (10-12') (20160915)	LPA30-PS-001 (2-3') (20160922)	LPA30-PS-001 (5-7') (20160922)	LPA30-PS-001 (8-10') (20160922)	LPA30-PS-002 (2-4') (20160922)	LPA30-PS-002 (6-8') (20160922)	LPA30-PS-002 (10-12') (20160922)
					Sample Date:	9/15/16	9/22/16	9/22/16	9/22/16	9/22/16	9/22/16	9/22/16
					Sample Depth (ft bgs):	10-12 ft.	2-3 ft.	5-7 ft.	8-10 ft.	2-4 ft.	6-8 ft.	10-12 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	97	89	69	53	86	95	94
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	960	3600 J	140	790	2100	930	1100
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	39000	60000 J	420000	320000	45000	39000	38000
	IRON	mg/kg	77000	55000	7100	3200	**[18000 J]**	2000	5400	**[11000]**	2000	3700
	POTASSIUM	mg/kg	NA	NA	NA	190 U	410	200 U	180 U	290	200 U	210
	SODIUM	mg/kg	NA	NA	NA	44	120 J	170	160	50	44	37
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.13 U	2.3	0.14 U	0.13 U	0.78	0.14 U	0.13 U
	ARSENIC	mg/kg	9.5	0.68	5.9	1.6	**[9.9]**	2.0	3.3	**[13]**	0.84	0.86
	BARIUM	mg/kg	21000	15000	1700	6.6	190	210	200	80	4.3	3.4
	CADMIUM	mg/kg	99	71	7.5	0.19 U	2.4	0.2 U	0.18 U	0.67	0.2 U	0.19 U
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	4.2	33	2 U	2 U	5.0	2 U	3.2
	COBALT	mg/kg	32	23	5.4	2.2	4.3	0.49	0.64	2.3	1.1	1.4
	COPPER	mg/kg	4300	3100	920	3.3	49	1 U	1.5	9.0	2.3	2.2
	LEAD	mg/kg	400	400	270	1.6	**[480]**	1 U	1 U	33	2.3	1.5
	MAGNESIUM	mg/kg	NA	NA	NA	8100 J	6300 J	7400 J	6100 J	4200 J	5800 J	5800 J
	MANGANESE	mg/kg	2500	1800	560	110	250	**[1100]**	**[700]**	210 J	77 J	80 J
	NICKEL	mg/kg	2100	1500	510	3.5	14	1 U	1.2	5.2	2.7	3.4
	SELENIUM	mg/kg	550	390	5.3	0.92	1.3	0.80	0.97	1.3	0.46	0.56
	SILVER	mg/kg	550	390	16	0.1 U	0.14	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
	THALLIUM	mg/kg	1.1	0.78	2.9	0.48 U	0.49 U	0.49 U	0.46 U	0.030 J	0.49 U	0.47 U
	VANADIUM	mg/kg	550	390	1700	5.8	11	1 U	2.4	8.9	2.5	4.3
	ZINC	mg/kg	32000	NA	7500	8.4	230	1.3	5.3	200	10	6.9
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.036 U	0.25	0.0058 J	0.019 J	0.077	0.0048 J	0.0037 J
SW9012	CYANIDE	mg/kg	32	23	40	0.2 U	0.81	8.2 U	9.4 U	0.2 U	0.2 U	0.2 U
SW9045C	PH	ph unit	NA	NA	NA	NS	8.1	NS	NS	8.15	NS	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0052 U	0.0052 U	0.0091 U	0.0096 U	0.005 U	0.0054 U	0.0056 U
	ACETONE	mg/kg	85000	61000	57	0.0052 UJ	0.0052 U	0.0091 U	0.0096 U	0.005 U	0.0054 U	0.0056 U
	BENZENE	mg/kg	17	1.2	0.051	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	CHLOROBENZENE	mg/kg	390	280	1.4	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	CYCLOHEXANE	mg/kg	120	NA	270	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0021 U	0.0021 U	0.0036 U	0.0038 U	0.002 U	0.0021 U	0.0022 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.0052 U	0.0052 U	0.0091 U	0.0096 U	0.005 U	0.0054 U	0.0056 U
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0052 U	0.0052 U	0.0091 U	0.0096 U	0.005 U	0.0054 U	0.0056 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0052 UJ	0.0052 UJ	0.018 J	0.0027 J	0.0017 J	0.0039 J	0.0039 J
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	STYRENE	mg/kg	870	6000	2.2	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	TOLUENE	mg/kg	820	4900	14	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.001 U	0.001 U	0.0018 U	0.0019 U	0.001 U	0.0011 U	0.0011 U
	Xylenes	mg/kg	260	580	200	0.0031 U	0.0031 U	0.0054 U	0.0058 U	0.003 U	0.0032 U	0.0034 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	30PS-3			31PS-1			31PS-2
					Sample ID:	LPA30-PS-003 (2-4') (20160922)	LPA30-PS-003 (6-8') (20160922)	LPA30-PS-003 (8-10') (20160922)	LPA31-PS-001 (3-4') (20160926)	LPA31-PS-001 (5-7') (20160926)	LPA31-PS-001 (11-12') (20160926)	LPA31-PS-002 (2-4') (20160926)
					Sample Date:	9/22/16	9/22/16	9/22/16	9/26/16	9/26/16	9/26/16	9/26/16
					Sample Depth (ft bgs):	2-4 ft.	6-8 ft.	8-10 ft.	3-4 ft.	5-7 ft.	11-12 ft.	2-4 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	86	69	66	88	68	96	92
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	4500	130	210	3400 J	830	1000	1600
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	34000	330000	400000	17000 J	310000	27000	91000
	IRON	mg/kg	77000	55000	7100	**[16000]**	1200	3175 U	**[9500 J]**	**[11000]**	3900	**[7700]**
	POTASSIUM	mg/kg	NA	NA	NA	560	190 U	200 U	300	200 U	190	460
	SODIUM	mg/kg	NA	NA	NA	170	110	170	34	180	35	94
SW6020	ANTIMONY	mg/kg	43	31	5.4	1.2	0.13 U	0.20	6.5 U	0.1 U	0.1 U	6.5 U
	ARSENIC	mg/kg	9.5	0.68	5.9	**[9.5]**	2.1	2.7	**[6.3 J]**	**[17]**	**[6.2]**	3.7
	BARIUM	mg/kg	21000	15000	1700	310	170	230	39	180	6.2	18
	CADMIUM	mg/kg	99	71	7.5	2.0	0.19 U	0.2 U	0.24	0.2 U	0.18 U	0.36
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	24	2 U	2 U	7.5	2 U	3.1	3.9
	COBALT	mg/kg	32	23	5.4	3.4	0.48 U	0.60	2.8	0.89	1.4	1.8
	COPPER	mg/kg	4300	3100	920	74	1 U	1.8	8.1 J	2.3	2.6	6.1
	LEAD	mg/kg	400	400	270	**[290]**	1 U	1.1	19	3.7	1.6	42
	MAGNESIUM	mg/kg	NA	NA	NA	5000 J	6300 J	8500 J	5400 J	5800 J	5000 J	31000 J
	MANGANESE	mg/kg	2500	1800	560	290 J	**[740 J]**	**[1100 J]**	190 J	**[1400]**	88	240
	NICKEL	mg/kg	2100	1500	510	17	1 U	1 U	6.6 J	1.9	3.6	8.3
	SELENIUM	mg/kg	550	390	5.3	1.5	0.77	0.74	1.2	0.64	0.32	0.70
	SILVER	mg/kg	550	390	16	0.33	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.23
	THALLIUM	mg/kg	1.1	0.78	2.9	0.073 J	0.48 U	0.5 U	0.45 U	0.49 U	0.46 U	0.5 U
	VANADIUM	mg/kg	550	390	1700	13	1 U	1 U	20 J	2.6	4.4	25
	ZINC	mg/kg	32000	NA	7500	280	1.4	2.9	27	6.1	11	47
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.037 U	0.0063 J	0.0053 J	0.037	0.017 J	0.037 U	0.32
SW9012	CYANIDE	mg/kg	32	23	40	2.7	8.8 U	6.2 U	0.2 U	8.3 U	0.2 U	0.2 U
SW9045C	PH	ph unit	NA	NA	NA	8.23	NS	NS	7.93	NS	NS	9.33
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	2-HEXANONE	mg/kg	280	200	0.18	0.0052 U	0.0084 U	0.0087 U	0.0051 U	0.0082 U	0.005 U	0.0044 UJ
	ACETONE	mg/kg	85000	61000	57	0.0022 J	0.0084 U	0.0087 U	0.0051 U	0.0082 U	0.005 U	0.0097 J
	BENZENE	mg/kg	17	1.2	0.051	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	CHLOROBENZENE	mg/kg	390	280	1.4	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	CYCLOHEXANE	mg/kg	120	NA	270	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	ETHYLBENZENE	mg/kg	81	5.8	16	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0021 U	0.0033 U	0.0035 U	0.002 U	0.0033 U	0.002 U	0.0018 UJ
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.0052 U	0.0084 U	0.0087 U	0.0051 U	0.0082 U	0.005 U	0.0018 J
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0052 U	0.0084 U	0.0087 U	0.0051 U	0.0082 U	0.005 U	0.0044 UJ
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0052 UJ	0.0084 UJ	0.0087 UJ	0.0051 UJ	0.0082 UJ	0.005 UJ	0.0044 UJ
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	STYRENE	mg/kg	870	6000	2.2	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	TOLUENE	mg/kg	820	4900	14	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.001 U	0.0017 U	0.0017 U	0.001 U	0.0016 U	0.00099 U	0.00088 UJ
	Xylenes	mg/kg	260	580	200	0.0031 U	0.005 U	0.0052 U	0.003 U	0.0049 U	0.003 U	0.0026 UJ

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	31PS-2	31PS-3		32PS-1			32PS-2
					Sample ID:	LPA31-PS-002 (4-5') (20160926)	LPA31-PS-003 (3-4') (20160926)	LPA31-PS-003 (6-8') (20160926)	LPA32-PS-001 (2-4') (20160927)	LPA32-PS-001 (6-8') (20160927)	LPA32-QD-001 (6-8') (20160927)	LPA32-PS-002 (2-3') (20160927)
					Sample Date:	9/26/16	9/26/16	9/26/16	9/27/16	9/27/16	9/27/16	9/27/16
					Sample Depth (ft bgs):	4-5 ft.	3-4 ft.	6-8 ft.	2-4 ft.	6-8 ft.	6-8 ft.	2-3 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	69	69	97	97	97	97	71
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	4200	1600	790	780	830	710	1400
	BERYLLIUM	mg/kg	220	160	63	0.5 U	24 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	120000	97000	26000	24000	27000	32000	200000
	IRON	mg/kg	77000	55000	7100	**[16000]**	**[32000]**	3900	5200	2000	1700	**[8400]**
	POTASSIUM	mg/kg	NA	NA	NA	710	280	170 U	190 U	190 U	180 U	400
	SODIUM	mg/kg	NA	NA	NA	190	46	30	27	29	34	64
SW6020	ANTIMONY	mg/kg	43	31	5.4	6.5 U	0.1 U	0.12 U	0.13 U	0.13 U	0.12 U	0.1 U
	ARSENIC	mg/kg	9.5	0.68	5.9	**[13]**	**[61]**	4.8	**[17]**	0.67 J	0.69 J	**[15]**
	BARIUM	mg/kg	21000	15000	1700	210	87	5.1	5.1	4.4	4.5	210
	CADMIUM	mg/kg	99	71	7.5	1.2	0.19 U	0.17 U	0.19 U	0.19 U	0.18 U	0.2 U
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	9.2	4.0	2.8	2.6	2.8	1.8 J	3.1
	COBALT	mg/kg	32	23	5.4	2.8	2.3	1.7	1.2	1.2	1.1	2.3
	COPPER	mg/kg	4300	3100	920	40	3.9	2.0	1.9	1.7	1.7	4
	LEAD	mg/kg	400	400	270	260	4.6	1.5	1.4	1.2	1.3	3.3
	MAGNESIUM	mg/kg	NA	NA	NA	5100 J	3600 J	4600 J	4200 J	4100 J	7200 J	6300 J
	MANGANESE	mg/kg	2500	1800	560	450	310	140	63	64	76	560
	NICKEL	mg/kg	2100	1500	510	7.8	4.4	3.7	2.8	3.0	2.7	5.4
	SELENIUM	mg/kg	550	390	5.3	1.1	0.67	0.33	0.34	0.24	0.33	0.81
	SILVER	mg/kg	550	390	16	0.12	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
	THALLIUM	mg/kg	1.1	0.78	2.9	0.5 U	0.47 U	0.43 U	0.47 U	0.47 U	0.44 U	0.5 U
	VANADIUM	mg/kg	550	390	1700	11	12	4.9	4.2	3.4	2.8	7.6
	ZINC	mg/kg	32000	NA	7500	310	15	6.7	7.0	6.7	6.6	16
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.13	0.05 U	0.029 U	0.034 U	0.037 U	0.029 U	0.05 U
SW9012	CYANIDE	mg/kg	32	23	40	0.20	0.45	0.2 U	0.2 U	0.2 U	0.2 U	6.2 U
SW9045C	PH	ph unit	NA	NA	NA	NS	7.38	NS	8.62	NS	NS	8.23
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0071 U	0.0092 U	0.0053 U	0.0055 U	0.0054 U	0.0053 U	0.008 U
	ACETONE	mg/kg	85000	61000	57	0.057	0.0092 U	0.0053 U	0.0055 U	0.0029 J	0.0053 U	0.008 U
	BENZENE	mg/kg	17	1.2	0.051	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	CYCLOHEXANE	mg/kg	120	NA	270	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0028 U	0.0037 U	0.0021 U	0.0022 U	0.0022 U	0.0021 U	0.0032 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.013	0.0092 U	0.0053 U	0.0055 U	0.00089 J	0.0053 U	0.008 U
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0071 U	0.0092 U	0.0053 U	0.0055 U	0.0054 U	0.0053 U	0.008 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0071 UJ	0.0092 uj	0.0053 UJ	0.0055 UJ	0.0054 UJ	0.0053 UJ	0.008 UJ
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	STYRENE	mg/kg	870	6000	2.2	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	TOLUENE	mg/kg	820	4900	14	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0014 U	0.0018 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0016 U
	Xylenes	mg/kg	260	580	200	0.0042 U	0.0055 U	0.0032 U	0.0033 U	0.0033 U	0.0032 U	0.0048 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	32PS-2	32PS-3		SHTP-1		SHTP-2	SHTP-3
					Sample ID:	LPA32-PS-002 (4-6') (20160927)	LPA32-PS-003 (1-3') (20160927)	LPA32-PS-003 (5-7') (20160927)	LPASH-TP-001 (7.5') (20160712)	LPASH-TP-001(7.5') (2016 0712)-DUP	LPASH-TP-002(7.5') (20160712)	LPASH-TP-003(7.5') (20160713)
					Sample Date:	9/27/16	9/27/16	9/27/16	7/12/16	7/12/16	7/12/16	7/13/16
					Sample Depth (ft bgs):	4-6 ft.	1-3 ft.	5-7 ft.	7.5-7.5 ft.	7.5-7.5 ft.	7.5-7.5 ft.	7.5-7.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	93	71	94	62	56	74	83
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	920	1100	990	3200	3200	4500	3200
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	30000	210000	28000	51000	57000	140000	70000
	IRON	mg/kg	77000	55000	7100	3300	7100	1900	**[21000]**	**[17000]**	**[15000]**	**[11000]**
	POTASSIUM	mg/kg	NA	NA	NA	200	270	200	500 J	450	610	750
	SODIUM	mg/kg	NA	NA	NA	39	78	33	100	67	100	85
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.1 U	0.1 U	0.1 U	0.31	0.25	0.24	0.13 J
	ARSENIC	mg/kg	9.5	0.68	5.9	2.2	**[32]**	0.66 J	**[35]**	**[26]**	**[13]**	**[14]**
	BARIUM	mg/kg	21000	15000	1700	7.1	140	4.8	130	120	150	75
	CADMIUM	mg/kg	99	71	7.5	0.17 U	0.19 U	0.18 U	0.78	0.69	0.23	0.32
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	2.6	2.6	3.2	6.6	6.8	9.3	7.5
	COBALT	mg/kg	32	23	5.4	1.5	2.0	1.4	3.2	3.0	3.3	3.4
	COPPER	mg/kg	4300	3100	920	2.2	3.1	3.3	13	12	23	8.6
	LEAD	mg/kg	400	400	270	1.7	6.2	1.3	27	33	25	10
	MAGNESIUM	mg/kg	NA	NA	NA	8500 J	7500 J	4400 J	5800	4900	8600	11000
	MANGANESE	mg/kg	2500	1800	560	83	**[720]**	76	**[1000]**	**[570]**	**[940]**	560
	NICKEL	mg/kg	2100	1500	510	2.6	3.0	3.3	7.6	6.8	10	7.5
	SELENIUM	mg/kg	550	390	5.3	0.48	0.55	0.39	3.1	3.1	3.4	3.2
	SILVER	mg/kg	550	390	16	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U
	THALLIUM	mg/kg	1.1	0.78	2.9	0.41 U	0.48 U	0.44 U	0.11 J	0.077 J	0.062 J	0.065 J
	VANADIUM	mg/kg	550	390	1700	3.3	5.6	4.3	12	12	15	12
	ZINC	mg/kg	32000	NA	7500	9.3	17	7.1	46	46	35	28
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.04 U	0.05 U	0.034 U	0.067	0.084	0.031 J	0.062
SW9012	CYANIDE	mg/kg	32	23	40	0.2 U	9.8 U	0.2 U	0.38	0.31	0.2 U	0.2 U
SW9045C	PH	ph unit	NA	NA	NA	NS	8.24	NS	NS	NS	NS	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 UJ	0.0025 U	0.0013 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 UJ	0.0025 U	0.0013 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 UJ	0.0025 UJ	0.0013 UJ
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 UJ	0.0025 U	0.0013 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 UJ	0.0025 U	0.0013 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 UJ	0.0025 U	0.0013 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 UJ	0.0025 U	0.0013 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0054 U	0.0079 U	0.0052 U	0.012 UJ	0.011 UJ	0.012 U	0.0067 U
	ACETONE	mg/kg	85000	61000	57	0.0054 U	0.0079 U	0.0052 U	0.012 UJ	0.011 UJ	0.0072 J	0.0062 J
	BENZENE	mg/kg	17	1.2	0.051	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 UJ	0.0025 U	0.0013 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0011 U	0.0016 U	0.001 U	0.0033 J	0.0021 UJ	0.0025 U	0.00092 J
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 UJ	0.0025 U	0.0013 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 UJ	0.0025 U	0.0013 U
	CYCLOHEXANE	mg/kg	120	NA	270	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 UJ	0.0025 U	0.0013 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 UJ	0.0025 U	0.0013 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 UJ	0.0025 U	0.0013 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0021 U	0.0031 U	0.0021 U	0.0047 UJ	0.0043 UJ	0.005 U	0.0027 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.0054 U	0.0079 U	0.0052 U	0.012 UJ	0.011 UJ	0.012 U	0.0067 U
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0054 U	0.0079 U	0.0052 U	0.012 UJ	0.011 UJ	0.012 U	0.0067 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 UJ	0.0025 U	0.0013 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0054 UJ	0.0079 UJ	0.0052 UJ	0.012 UJ	0.011 UJ	0.0044 J	0.0025 J
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 UJ	0.0025 U	0.0013 U
	STYRENE	mg/kg	870	6000	2.2	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 UJ	0.0025 U	0.0013 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 UJ	0.0025 U	0.0013 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 UJ	0.0025 U	0.0013 U
	TOLUENE	mg/kg	820	4900	14	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 UJ	0.0025 U	0.0013 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 UJ	0.0025 UJ	0.0013 UJ
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 U	0.0025 U	0.0013 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 UJ	0.0025 UJ	0.0013 UJ
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0011 U	0.0016 U	0.001 U	0.0023 UJ	0.0021 UJ	0.0025 U	0.0013 U
	Xylenes	mg/kg	260	580	200	0.0032 U	0.0047 U	0.0031 U	0.007 UJ	0.0064 UJ	0.0074 U	0.004 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	SHTP-4	SHTP-5	SHTP-6	SHTP-7	SHTP-8	SHTP-9	SHTP-10
					Sample ID:	LPASH-TP-004 (10') (20160713)	LPASH-TP-005(7.5') (20160713)	LPASH-TP-006(7.5') (20160714)	LPASH-TP-007(7.5') (20160714)	LPASH-TP-008(7.5') (20160715)	LPASH-TP-009(7.5') (20160715)	LPASH-TP-010 (7.5') (20160718)
					Sample Date:	7/13/16	7/13/16	7/14/16	7/14/16	7/15/16	7/15/16	7/18/16
					Sample Depth (ft bgs):	10-10 ft.	7.5-7.5 ft.	7.5-7.5 ft.	7.5-7.5 ft.	7.5-7.5 ft.	7.5-7.5 ft.	7.5-7.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	70	51	90	56	58	69	64
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	2000	2100	4500	2200	2600	2700	2500
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	37000	120000	40000	110000	100000	61000	83000
	IRON	mg/kg	77000	55000	7100	**[15000]**	**[29000]**	**[16000]**	**[16000]**	**[28000]**	**[23000]**	**[19000]**
	POTASSIUM	mg/kg	NA	NA	NA	310	310	760	310	370 J	480	390
	SODIUM	mg/kg	NA	NA	NA	50	81	75	75	91 J	74	67
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.18	0.24	0.22	0.23	0.38	0.32	0.22
	ARSENIC	mg/kg	9.5	0.68	5.9	**[7.9]**	**[11]**	**[8.1]**	**[11]**	**[24 J]**	**[15]**	**[16]**
	BARIUM	mg/kg	21000	15000	1700	53	120	42	110	120	85	99
	CADMIUM	mg/kg	99	71	7.5	0.20	0.34	0.36	0.60	0.69	0.39	0.37
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	4.1	5.0	13	4.8	7.0	7.6	6.6
	COBALT	mg/kg	32	23	5.4	2.0	2.6	**[9.9]**	2.3	3.5	4.1	2.6
	COPPER	mg/kg	4300	3100	920	7.6	10	17	8.3	20	22	12
	LEAD	mg/kg	400	400	270	26	57	27	25	30	38	25
	MAGNESIUM	mg/kg	NA	NA	NA	4400	4500	14000	4300	5600	4800	5200
	MANGANESE	mg/kg	2500	1800	560	430	**[990]**	**[610]**	**[610]**	**[760]**	**[640]**	**[730]**
	NICKEL	mg/kg	2100	1500	510	4.4	5.2	15	4.6	7.8	8.0	6.0
	SELENIUM	mg/kg	550	390	5.3	2.0	2.5	**[6.2]**	2.2	3.0	3.4	2.8
	SILVER	mg/kg	550	390	16	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
	THALLIUM	mg/kg	1.1	0.78	2.9	0.036 J	0.036 J	0.16 J	0.037 J	0.048 J	0.090 J	0.047 J
	VANADIUM	mg/kg	550	390	1700	8.1	8.4	28	7.9	10	17	9.6
	ZINC	mg/kg	32000	NA	7500	25	37	170	39	49 J	68	37
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.063	0.029 J	0.076	0.14	0.052	0.088	0.081
SW9012	CYANIDE	mg/kg	32	23	40	0.2 U	0.91 U	0.86 U	0.86 U	0.81 U	0.27	0.98 U
SW9045C	PH	ph unit	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0017 U	0.0024 U	0.001 U	0.0019 U	0.0018 U	0.0019 U	0.0017 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0017 U	0.0024 U	0.001 U	0.0019 U	0.0018 U	0.0019 U	0.0017 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0017 UJ	0.0024 UJ	0.001 UJ	0.0019 UJ	0.0018 UJ	0.0019 UJ	0.0017 UJ
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.0017 U	0.0024 U	0.001 U	0.0019 U	0.0018 U	0.0019 U	0.0017 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0017 U	0.0024 U	0.001 U	0.0019 U	0.0018 U	0.0019 U	0.0017 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0017 U	0.0024 U	0.001 U	0.0019 U	0.0018 U	0.0019 U	0.0017 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0017 U	0.0024 U	0.001 U	0.0019 U	0.0018 U	0.0019 U	0.0017 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0028 J	0.012 U	0.0052 U	0.0097 U	0.009 U	0.0095 U	0.0083 U
	ACETONE	mg/kg	85000	61000	57	0.22	0.28	0.0056	0.21	0.14	0.18	0.21
	BENZENE	mg/kg	17	1.2	0.051	0.0017 U	0.0024 U	0.001 U	0.0019 U	0.0018 U	0.0019 U	0.0017 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0030 J	0.0040 J	0.001 UJ	0.002 J	0.0015 J	0.0020 J	0.0024 J
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0017 U	0.0024 U	0.001 U	0.0019 U	0.0018 U	0.0019 U	0.0017 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0017 U	0.0024 U	0.001 U	0.0019 U	0.0018 U	0.0019 U	0.0017 U
	CYCLOHEXANE	mg/kg	120	NA	270	0.0017 U	0.0024 U	0.001 U	0.0019 U	0.0018 U	0.0019 U	0.0017 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0017 U	0.0024 U	0.001 U	0.0019 U	0.0018 U	0.0019 U	0.0017 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0076	0.0024 U	0.001 U	0.0019 U	0.0018 U	0.0019 U	0.0017 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0021 J	0.0048 U	0.0021 U	0.0039 U	0.0036 U	0.0038 U	0.0033 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.050	0.070	0.0052 U	0.054	0.029	0.040	0.051
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0086 U	0.012 U	0.0052 U	0.0097 U	0.009 U	0.0095 U	0.0083 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0034	0.0024 U	0.001 U	0.0019 U	0.0018 U	0.0019 U	0.0017 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0096 J	0.024 J	0.010 J	0.011 J	0.0057 J	0.014 J	0.0044 J
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0010 J	0.0024 U	0.001 U	0.0019 U	0.0018 U	0.0019 U	0.0017 U
	STYRENE	mg/kg	870	6000	2.2	0.0014 J	0.0024 U	0.001 U	0.0019 U	0.0018 U	0.0019 U	0.0017 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0017 U	0.0024 U	0.001 U	0.0019 U	0.0018 U	0.0019 U	0.0017 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0017 U	0.0024 U	0.001 U	0.0019 U	0.0018 U	0.0019 U	0.0017 U
	TOLUENE	mg/kg	820	4900	14	0.0017 U	0.0024 U	0.001 U	0.0019 U	0.0018 U	0.0019 U	0.0017 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0017 UJ	0.0024 U	0.001 UJ	0.0019 UJ	0.0018 UJ	0.0019 UJ	0.0017 UJ
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0017 U	0.0024 U	0.001 U	0.0019 U	0.0018 U	0.0019 U	0.0017 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0017 UJ	0.0024 UJ	0.001 UJ	0.0019 UJ	0.0018 UJ	0.0019 UJ	0.0017 UJ
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0017 U	0.0024 U	0.001 U	0.0019 U	0.0018 U	0.0019 U	0.0017 U
	Xylenes	mg/kg	260	580	200	0.0032 J	0.0072 U	0.0031 U	0.0058 U	0.0054 U	0.0057 U	0.005 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10A. Detected Analytical Results Summary Subsurface Soils (Inorganics & Volatiles) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	SHTP-11	SHTP-12	SHTP-13
					Sample ID:	LPASH-TP-011 (7.5') (20160718)	LPASH-TP-012 (7.5') (20160719)	LPASH-TP-013 (7.5') (20160719)
					Sample Date:	7/18/16	7/19/16	7/19/2016
					Sample Depth (ft bgs):	7.5-7.5 ft.	7.5-7.5 ft.	7.5-7.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	67	70	72
SW6010B	ALUMINUM	mg/kg	100000	77000	600000	2500	1700	4800
	BERYLLIUM	mg/kg	220	160	63	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	NA	NA	NA	85000	120000	30000
	IRON	mg/kg	77000	55000	7100	**[31000]**	**[15000]**	**[34000]**
	POTASSIUM	mg/kg	NA	NA	NA	350	280	400
	SODIUM	mg/kg	NA	NA	NA	72	87	150
SW6020	ANTIMONY	mg/kg	43	31	5.4	0.53	0.17	0.47
	ARSENIC	mg/kg	9.5	0.68	5.9	**[32]**	**[15]**	**[29]**
	BARIUM	mg/kg	21000	15000	1700	110	120	180
	CADMIUM	mg/kg	99	71	7.5	0.88	0.25	0.46
	CHROMIUM, TOTAL	mg/kg	NA	120000	1E+06	7.8	5.0	63
	COBALT	mg/kg	32	23	5.4	4.5	2.2	**[6]**
	COPPER	mg/kg	4300	3100	920	18	6.1	24
	LEAD	mg/kg	400	400	270	45	16	64
	MAGNESIUM	mg/kg	NA	NA	NA	4300	5900	2300
	MANGANESE	mg/kg	2500	1800	560	**[820]**	**[900]**	190
	NICKEL	mg/kg	2100	1500	510	7.6	5.0	34
	SELENIUM	mg/kg	550	390	5.3	3.1	2.1	5.3
	SILVER	mg/kg	550	390	16	0.1 U	0.1 U	0.1 U
	THALLIUM	mg/kg	1.1	0.78	2.9	0.16 J	0.034 J	0.054 J
	VANADIUM	mg/kg	550	390	1700	10	8.2	19
	ZINC	mg/kg	32000	NA	7500	65	26	57
SW7470A	MERCURY	mg/kg	3.1	11	2.1	0.077	0.045	0.22
SW9012	CYANIDE	mg/kg	32	23	40	0.82 U	0.89 U	0.34
SW9045C	PH	ph unit	NA	NA	NA	NS	NS	NS
SW8260B	1,1,1-TRICHLOROETHANE	mg/kg	640	8100	1.4	0.0017 U	0.0015 U	0.0014 U
	1,1,2-TRICHLOROETHANE	mg/kg	2.1	1.1	0.032	0.0017 U	0.0015 U	0.0014 U
	1,1-DICHLOROETHENE	mg/kg	320	230	0.05	0.0017 UJ	0.0015 UJ	0.0014 UJ
	1,2,4-TRICHLOROBENZENE	mg/kg	81	24	4.1	0.0017 U	0.0015 U	0.0014 U
	1,2-DICHLOROBENZENE	mg/kg	380	1800	12	0.0017 U	0.0015 U	0.0014 U
	1,2-DICHLOROETHANE	mg/kg	6.4	0.46	0.028	0.0017 U	0.0015 U	0.0014 U
	1,4-DICHLOROBENZENE	mg/kg	36	2.6	1.4	0.0017 U	0.0015 U	0.0014 U
	2-HEXANONE	mg/kg	280	200	0.18	0.0084 U	0.0077 U	0.0072 U
	ACETONE	mg/kg	85000	61000	57	R	0.071	0.2
	BENZENE	mg/kg	17	1.2	0.051	0.0017 U	0.0015 U	0.0014 U
	CARBON DISULFIDE	mg/kg	740	770	4.8	0.0023 J	0.00091 J	0.0012 J
	CHLOROBENZENE	mg/kg	390	280	1.4	0.0017 U	0.0015 U	0.0014 U
	CIS-1,2-DICHLOROETHYLENE	mg/kg	220	160	0.41	0.0017 U	0.0015 U	0.0014 U
	CYCLOHEXANE	mg/kg	120	NA	270	0.0017 U	0.0015 U	0.0014 U
	ETHYLBENZENE	mg/kg	81	5.8	16	0.0017 U	0.0015 U	0.0014 U
	ISOPROPYLBENZENE(CUMENE)	mg/kg	270	1900	15	0.0017 U	0.0015 U	0.0014 U
	M,P-XYLENE(SUM OF ISOMERS)	mg/kg	NA	NA	NA	0.0033 U	0.0031 U	0.0029 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	28000	27000	23	0.088	0.016	0.051
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	mg/kg	3400	33000	28	0.0084 U	0.0077 U	0.0072 U
	METHYLCYCLOHEXANE	mg/kg	NA	NA	NA	0.0017 U	0.0015 U	0.0014 U
	METHYLENE CHLORIDE	mg/kg	490	57	0.025	0.0043 J	0.0075 J	0.0076 J
	O-XYLENE (1,2-DIMETHYLBENZENE)	mg/kg	430	650	3.7	0.0017 U	0.0015 U	0.0014 U
	STYRENE	mg/kg	870	6000	2.2	0.0017 U	0.0015 U	0.0014 U
	TERT-BUTYL METHYL ETHER	mg/kg	660	47	0.63	0.0017 U	0.0015 U	0.0014 U
	Tetrachloroethylene (PCE)	mg/kg	110	24	0.045	0.0017 U	0.0015 U	0.0014 U
	TOLUENE	mg/kg	820	4900	14	0.0017 U	0.0015 U	0.0014 U
	TRANS-1,2-DICHLOROETHENE	mg/kg	1900	1600	0.62	0.0017 UJ	0.0015 UJ	0.0014 UJ
	TRICHLOROETHYLENE (TCE)	mg/kg	5.7	0.94	0.036	0.0017 U	0.0015 U	0.0014 U
	TRICHLOROFLUOROMETHANE	mg/kg	1200	23000	66	0.0017 UJ	0.0015 UJ	0.0014 UJ
	VINYL CHLORIDE	mg/kg	0.83	0.059	0.014	0.0017 U	0.0015 U	0.0014 U
	Xylenes	mg/kg	260	580	200	0.005 U	0.0046 U	0.0043 U

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Rec Park Use DC SL is applied to arsenic (45 mg/kg), lead (800 mg/kg), benzene (470 mg/kg), toluene (820 mg/kg) and xylenes (260 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10B. Detected Analytical Results Summary Subsurface Soils
(Low Volatility Organics)
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	01PS-1		01PS-2		01PS-3	02PS-1		02PS-2
					Sample ID:	LPA01-PS-001 (3-4') (20160907)	LPA01-PS-001 (4-6') (20160907)	LPA01-PS-002 (2-3') (20160907)	LPA01-PS-002 (7-8') (20160907)	LPA01-PS-003 (3-4') (20160907)	LPA02-PS-001 (3-4') (20160907)	LPA02-PS-001 (4-6') (20160907)	LPA02-PS-002 (3-4') (20160907)
					Sample Date:	9/7/16	9/7/16	9/7/16	9/7/16	9/7/16	9/7/16	9/7/16	9/7/16
					Sample Depth (ft bgs):	3-4 ft.	4-6 ft.	2-3 ft.	7-8 ft.	3-4 ft.	3-4 ft.	4-6 ft.	3-4 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	79	89	84	81	80	78	84	83
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.042 U	0.0038 U	0.004 U	0.0041 U	0.0042 U	0.0043 U	0.0058	0.004 U
	METHOXYCHLOR	mg/kg	450	320	43	0.042 U	0.0038 U	0.004 U	0.0045	0.0042 U	0.0043 U	0.014	0.034 J
	P,P'-DDD	mg/kg	32	2.3	1.5	0.042 U	0.0038 U	0.004 U	0.0041 U	0.0042 U	0.0043 U	0.004 U	0.004 U
	P,P'-DDE	mg/kg	28	2	2.2	0.042 U	0.0038 U	0.004 U	0.0041 U	0.0042 U	0.0043 U	0.004 U	0.004 U
	P,P'-DDT	mg/kg	27	NA	16	0.042 U	0.0038 U	0.004 U	0.0041 U	0.0042 U	0.0043 U	0.004 U	0.004 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.042 U	0.0038 U	0.004 U	0.0041 U	0.0042 U	0.0043 U	0.004 U	0.004 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.11 U	0.1 U	0.11 U	0.11 U	0.11 U	0.12 U	0.11 U	0.11 UJ
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.15 U	0.14 U	0.15 U	0.15 U	0.15 U	0.16 U	0.15 U	0.15 UJ
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.21 U	0.19 U	0.2 U	0.2 UJ	0.21 U	0.43 U	0.2 U	0.4 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.11 U	0.093 U	0.099 U	0.1 UJ	0.1 UJ	0.21 U	0.062	0.2 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.042 U	0.037 U	0.039 U	0.041 UJ	0.041 U	0.085 U	0.36	0.17
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.085 U	0.075 U	0.08 U	0.082 UJ	0.083 UJ	0.17 U	0.079 UJ	0.16 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.085 U	0.075 U	0.08 U	0.082 UJ	0.083 UJ	0.17 U	0.043 J	0.16 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.042 U	0.037 U	0.039 U	0.041 UJ	0.041 U	0.085 U	0.042	0.25
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.042 U	0.037 U	0.039 U	0.041 UJ	0.041 U	0.085 U	0.039 U	0.14
	ANTHRACENE	mg/kg	25000	17900	1200	0.042 U	0.037 U	0.039 U	0.041 UJ	0.041 U	0.085 U	0.042	0.96
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.21 U	0.19 U	0.2 U	0.2 UJ	0.21 U	0.43 U	0.2 U	0.4 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.24	0.037 U	0.039 U	0.034 J	0.063	0.085 U	0.097	**[3.1]**
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.45	0.037 U	0.039 U	0.032 J	0.067	0.085 U	0.053 J	2.8
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.63	0.037 U	0.039 U	0.038 J	0.11	0.085 U	0.11 J	4.8
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.21	0.037 U	0.039 U	0.041 UJ	0.045	0.085 U	0.029 J	0.84
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.20	0.037 U	0.039 U	0.041 UJ	0.040 J	0.085 U	0.12 J	1.5
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.21 U	0.19 U	0.2 U	0.2 UJ	0.21 U	0.43 U	0.058 J	0.4 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.066	0.037 U	0.039 U	0.041 UJ	0.025 J	0.085 U	0.060	0.53
	CARBAZOLE	mg/kg	NA	NA	NA	0.042 U	0.037 U	0.039 U	0.041 UJ	0.041 U	0.085 U	0.039 U	0.39
	CHRYSENE	mg/kg	220	110	250	0.30	0.037 U	0.039 U	0.032 J	0.063	0.085 U	0.11	3.1
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.066	0.037 U	0.039 U	0.041 UJ	0.041 U	0.085 U	0.039 UJ	0.27
	DIBENZOFURAN	mg/kg	100	73	2.9	0.042 U	0.037 U	0.039 U	0.041 UJ	0.041 U	0.085 U	0.17	0.22
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.042 U	0.037 U	0.039 U	0.041 UJ	0.041 U	0.085 U	0.039 U	0.08 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.042 U	0.037 U	0.039 U	0.041 UJ	0.041 U	0.59	0.037 J	0.08 U
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.042 U	0.037 U	0.039 U	0.041 UJ	0.041 U	0.085 U	0.039 U	0.08 U
	FLUORENE	mg/kg	3400	2390	110	0.042 U	0.037 U	0.039 U	0.041 UJ	0.041 U	0.085 U	0.057	0.35
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.21	0.037 U	0.039 U	0.041 UJ	0.044	0.085 U	0.046	0.97
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.042 U	0.037 U	0.039 U	0.041 UJ	0.041 U	0.085 U	**[1.0]**	**[0.27]**
	PHENANTHRENE	mg/kg	NA	NA	NA	0.062	0.037 U	0.039 U	0.045 J	0.078	0.070 J	0.40	4.7
	PHENOL	mg/kg	27000	19000	67	0.11 U	0.093 U	0.099 U	0.1 UJ	0.1 UJ	0.21 U	0.099 U	0.2 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.041 U	0.0029 U	0.0016 U	0.08 U	0.041 U	0.17 U	0.078 U	0.39 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.041 U	0.0029 U	0.0016 U	0.08 U	0.041 U	0.17 U	NS	0.57
	ACENAPHTHENE	mg/kg	5000	3590	110	0.041 U	0.0029 U	0.0016 U	0.08 U	0.041 U	0.17 U	0.078 U	0.55
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.041 U	0.0029 U	0.0016 U	0.08 U	0.041 U	0.17 U	0.078 U	0.39 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.041 U	0.0044 J	0.0016 U	0.08 U	0.041 U	0.17 U	0.078 U	NS
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	0.016	0.0056	0.08 U	0.082	0.23	0.10	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	0.012 J	0.0047	0.08 U	0.057	0.17 U	0.078 U	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	0.022	0.0085	0.08 U	0.14	0.36	0.13	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	0.0088 J	0.0041	0.08 U	0.060	0.17 U	0.078 U	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	0.0077 J	0.0030	0.08 U	0.041 U	0.17 U	0.078 U	NS
	CHRYSENE	mg/kg	220	110	250	NS	0.015 U	0.0058	0.08 U	0.091	0.31	0.19	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.084	0.0029 U	0.0016 U	0.08 U	0.041 U	0.17 U	0.078 U	0.63
	FLUORENE	mg/kg	3400	2390	110	0.041 U	0.0029 U	0.0016 U	0.08 U	0.041 U	0.17 U	0.089	0.89
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	0.013 J	0.0055 J	0.08 UJ	0.076 J	0.17 UJ	0.078 UJ	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.041 U	0.0029 U	0.0016 U	0.08 U	0.041 U	0.17 U	NS	**[1.1]**
	PHENANTHRENE	mg/kg	NA	NA	NA	0.090	0.017	0.0035	0.08 U	0.090	0.47	NS	NS
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	02PS-3		03PS-1	03PS-2	03PS-3	04PS-1	04PS-2	04PS-3
					Sample ID:	LPA02-PS-003 (3-4') (20160907)	LPA02-PS-003 (7-8') (20160907)	LPA03-PS-001 (2-3') (20160907)	LPA03-PS-002 (3-4') (20160906)	LPA03-PS-003 (3-4') (20160906)	LPA04-PS-001 (2-4') (20160908)	LPA04-PS-002 (2-4') (20160908)	LPA04-PS-003 (2-4') (20160908)
					Sample Date:	9/7/16	9/7/16	9/7/16	9/6/16	9/6/16	9/8/16	9/8/16	9/8/16
					Sample Depth (ft bgs):	3-4 ft.	7-8 ft.	2-3 ft.	3-4 ft.	3-4 ft.	2-4 ft.	2-4 ft.	2-4 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	78	81	78	69	82	88	83	75
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.0043 U	0.0041 U	0.0043 U	0.0048 UJ	0.0041 U	0.0038 U	0.0069 J	0.0045 U
	METHOXYCHLOR	mg/kg	450	320	43	0.0043 U	0.0041 U	0.0043 U	0.0048 UJ	0.0041 U	0.0038 U	0.024 J	0.011
	P,P'-DDD	mg/kg	32	2.3	1.5	0.0043 U	0.0041 U	0.0043 U	0.0048 UJ	0.0041 U	0.0038 U	0.004 U	0.0045 U
	P,P'-DDE	mg/kg	28	2	2.2	0.0043 U	0.0041 U	0.0043 U	0.0048 UJ	0.0041 U	0.0038 U	0.004 U	0.0045 U
	P,P'-DDT	mg/kg	27	NA	16	0.0043 U	0.0041 U	0.0043 U	0.0048 UJ	0.0041 U	0.0038 U	0.004 U	0.0045 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.0043 U	0.0041 U	0.0043 U	0.0048 UJ	0.0041 U	0.0038 U	0.004 UJ	0.0045 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.12 U	0.11 U	0.12 U	0.13 UJ	0.11 U	0.1 U	0.11 U	0.12 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.16 U	0.15 U	0.16 U	0.18 UJ	0.15 U	0.14 U	0.15 U	0.16 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.21 U	0.2 U	0.21 UJ	0.24 U	0.41 U	0.19 U	0.4 U	1.1 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.11 U	0.1 UJ	0.11 UJ	0.12 U	0.2 U	0.094 U	0.2 U	0.56 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.042 U	0.041 U	0.042 UJ	0.048 U	0.081 U	0.037 U	0.079 U	0.22 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.085 U	0.082 UJ	0.086 UJ	0.097 U	0.16 U	0.076 U	0.16 U	0.45 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.085 U	0.082 UJ	0.086 UJ	0.097 U	0.16 U	0.076 U	0.16 U	0.45 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.063	0.041 U	0.042 UJ	0.048 U	0.081 U	0.037 U	0.079 U	0.22 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.042 U	0.041 U	0.042 UJ	0.048 U	0.081 U	0.037 U	0.079 U	0.22 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.19	0.041 U	0.042 UJ	0.048 U	0.047 J	0.052	0.16	0.22 U
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.21 U	0.2 U	0.21 UJ	0.24 U	0.41 U	0.19 U	0.4 U	1.1 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.63	0.023 J	0.18 J	0.048 U	0.18	0.21	0.60	0.29
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.61	0.041 U	0.22 J	0.048 U	0.16	0.20	0.56	0.28
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.97	0.032 J	0.32 J	0.048 U	0.23	0.39	0.86 J	0.38
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.20	0.041 U	0.14 J	0.048 U	0.078 J	0.11	0.25 J	0.16 J
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.35	0.041 U	0.10 J	0.048 U	0.081	0.11	0.28	0.15 J
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.21 U	0.2 U	0.21 UJ	0.24 U	0.41 U	0.19 U	0.4 U	1.1 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.055	0.041 U	0.042 UJ	0.048 U	0.15	0.15	0.048 J	0.99
	CARBAZOLE	mg/kg	NA	NA	NA	0.083	0.041 U	0.042 UJ	0.048 U	0.081 U	0.025 J	0.055 J	0.22 U
	CHRYSENE	mg/kg	220	110	250	0.64	0.022 J	0.21 J	0.048 U	0.18	0.25	0.62	0.28
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.063	0.041 U	0.043 J	0.048 U	0.081 U	0.036 J	0.083	0.22 U
	DIBENZOFURAN	mg/kg	100	73	2.9	0.028 J	0.041 U	0.042 UJ	0.048 U	0.081 U	0.037 U	0.079 U	0.22 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.042 U	0.041 U	0.042 UJ	0.048 U	0.081 U	0.037 U	0.079 U	0.22 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.11	0.041 U	0.042 UJ	0.048 U	0.081 U	0.037 U	0.079 U	0.22 U
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.042 U	0.041 U	0.042 UJ	0.048 U	0.081 U	0.037 U	0.079 U	0.22 U
	FLUORENE	mg/kg	3400	2390	110	0.058	0.041 U	0.042 UJ	0.048 U	0.081 U	0.037 U	0.043 J	0.22 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.21	0.041 U	0.13 J	0.048 U	0.072 J	0.11	0.28	0.18 J
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.042 U	0.041 U	0.042 UJ	0.048 U	0.081 U	0.037 U	0.079 U	0.22 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.76	0.073	0.045 J	0.048 U	0.24	0.28	0.67	0.29
	PHENOL	mg/kg	27000	19000	67	0.11 U	0.1 UJ	0.11 UJ	0.12 U	0.2 U	0.094 U	0.2 U	0.56 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.042 U	0.08 U	0.084 U	0.0019 UJ	0.4 U	0.074 U	0.078 U	0.17 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.042 U	0.08 U	0.084 U	0.0019 UJ	0.4 U	0.074 U	0.078 U	0.17 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.042 U	0.08 U	0.084 U	0.0019 UJ	0.4 U	0.074 U	0.078 U	0.17 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.042 U	0.08 U	0.084 U	0.0019 UJ	0.4 U	0.074 U	0.078 U	0.17 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.12	0.08 U	0.084 U	0.0019 UJ	0.4 U	0.14	0.22	0.24
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	0.08 U	NS	0.0019 UJ	0.4 U	NS	NS	0.74
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	0.08 U	0.42	0.0019 UJ	0.4 U	NS	NS	0.58
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	0.08 U	NS	0.0029 J	0.4 U	NS	NS	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	0.08 U	0.41	0.0019 UJ	0.4 U	NS	NS	0.41
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.19	0.08 U	0.28	0.0019 UJ	0.4 U	0.27	0.38	0.29
	CHRYSENE	mg/kg	220	110	250	NS	0.08 U	NS	0.0019 UJ	0.4 U	NS	NS	0.66
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.044	0.08 U	0.10	0.0019 UJ	0.4 U	0.091	0.13	0.17 U
	FLUORENE	mg/kg	3400	2390	110	0.042 U	0.08 U	0.084 U	0.0019 UJ	0.4 U	0.074 U	0.078 U	0.17 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	0.08 UJ	NS	0.0019 UJ	0.4 UJ	NS	NS	0.60 J
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.042 U	0.08 U	0.084 U	0.0019 UJ	0.4 U	0.074 U	0.078 U	0.17 U
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	0.10	0.10	0.0019 UJ	0.4 U	NS	NS	NS
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	04PS-3	05PS-1		05PS-2			05PS-3	
					Sample ID:	LPA04-QD-001 (2-4') (20160908)	LPA05-PS-001 (2-3') (20160909)	LPA05-PS-001 (9-10') (20160909)	LPA05-PS-002 (3-4.5') (20160909)	LPA05-PS-002 (9-10') (20160909)	LPA05-PS-002 (11-12') (20160909)	LPA05-PS-003 (2-4') (20160912)	LPA05-PS-003 (7-8') (20160912)
					Sample Date:	9/8/16	9/9/16	9/9/16	9/9/16	9/9/16	9/9/16	9/12/16	9/12/16
					Sample Depth (ft bgs):	2-4 ft.	2-3 ft.	9-10 ft.	3-4.5 ft.	9-10 ft.	11-12 ft.	2-4 ft.	7-8 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	75	90	89	61	78	81	89	89
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.0044 U	0.0037 U	0.037 U	0.011 U	0.0085 U	0.082 U	0.0037 U	0.0037 U
	METHOXYCHLOR	mg/kg	450	320	43	0.0075	0.0059	0.037 U	0.011 U	0.0085 U	0.082 U	0.0037 U	0.0037 U
	P,P'-DDD	mg/kg	32	2.3	1.5	0.0044 U	0.0037 U	0.037 U	0.054 U	0.085 U	0.082 U	0.0037 U	0.0037 U
	P,P'-DDE	mg/kg	28	2	2.2	0.0044 U	0.0037 U	0.037 U	0.011 U	0.0085 U	0.082 U	0.0037 U	0.0037 U
	P,P'-DDT	mg/kg	27	NA	16	0.0044 U	0.0037 U	0.037 U	0.011 U	0.0085 U	0.082 U	0.0037 U	0.0037 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.0044 U	0.0037 U	0.037 U	0.011 U	0.0085 U	0.082 U	0.0037 U	0.0037 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.12 U	0.099 U	0.1 U	0.15 U	0.11 U	0.11 U	0.1 U	0.1 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.16 U	0.13 U	0.14 U	0.2 U	0.16 U	0.15 U	0.14 U	0.14 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.44 U	0.18 UJ	0.37 U	1.4 UJ	0.42 U	0.2 U	0.93 UJ	0.19 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.22 U	0.092 UJ	0.19 U	0.68 UJ	1.1 U	0.1 U	0.47 UJ	0.093 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.088 U	0.036 UJ	0.074 U	0.27 UJ	0.42 U	0.037 J	0.19 UJ	0.037 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.18 U	0.074 UJ	0.15 U	0.54 UJ	0.85 U	0.082 U	0.37 UJ	0.074 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.18 U	0.074 UJ	0.15 U	0.54 UJ	0.85 U	0.082 U	0.37 UJ	0.074 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.088 U	0.036 UJ	0.074 U	0.27 UJ	0.42 U	0.041 U	0.19 UJ	0.037 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.088 U	0.036 UJ	0.074 U	0.27 UJ	0.42 U	0.041 U	0.19 UJ	0.037 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.080 J	0.037 J	0.074 U	0.15 J	0.42 U	0.030 J	0.10 J	0.037 U
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.44 U	0.18 UJ	0.37 U	1.4 UJ	0.42 U	0.2 U	0.93 UJ	0.19 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.36	0.082 J	0.056 J	0.26 J	0.42 U	0.15	0.33 J	0.037 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.34	0.074 J	0.048 J	0.88 J	0.42 U	0.24	0.32 J	0.037 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.47	0.10 J	0.069 J	1.3 J	0.42 U	0.51	0.39 J	0.037 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.13	0.021 J	0.074 U	1.7 J	0.42 U	0.18	0.13 J	0.037 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.21	0.048 J	0.074 U	0.25 J	0.42 U	0.068	0.20 J	0.037 U
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.44 U	0.18 UJ	0.37 U	1.4 UJ	0.42 U	0.2 U	0.93 UJ	0.19 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.15	0.036 UJ	0.074 U	0.27 UJ	0.37 J	0.17	0.19 UJ	0.042
	CARBAZOLE	mg/kg	NA	NA	NA	0.088 U	0.036 UJ	0.074 U	0.27 UJ	0.42 U	0.041 U	0.19 UJ	0.037 U
	CHRYSENE	mg/kg	220	110	250	0.38	0.073 J	0.074	0.40 J	0.63	0.16	0.32 J	0.037 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.088 U	0.036 UJ	0.074 U	0.20 J	0.42 U	0.041	0.19 UJ	0.037 U
	DIBENZOFURAN	mg/kg	100	73	2.9	0.088 U	0.036 UJ	0.074 U	0.27 UJ	0.42 U	0.041 U	0.19 UJ	0.037 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.088 U	0.036 UJ	0.074 U	0.27 UJ	0.42 U	0.041 U	0.19 UJ	0.037 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.088 U	0.036 UJ	0.074 U	0.27 UJ	0.42 U	0.041 U	0.19 UJ	0.037 U
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.088 U	0.036 UJ	0.074 U	0.27 UJ	0.88	0.041 U	0.19 UJ	0.037 U
	FLUORENE	mg/kg	3400	2390	110	0.088 U	0.036 UJ	0.074 U	0.27 UJ	0.42 U	0.041 U	0.19 UJ	0.037 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.16	0.026 J	0.074 U	1.0 J	0.42 U	0.17	0.14 J	0.037 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.088 U	0.036 UJ	0.074 U	0.27 UJ	0.42 U	0.027 J	0.19 UJ	0.037 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.36	0.17 J	0.18	0.27 UJ	1.0	0.13	0.46 J	0.033 J
	PHENOL	mg/kg	27000	19000	67	0.22 U	0.092 UJ	0.19 U	0.68 UJ	1.1 U	0.1 U	0.47 UJ	0.093 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.086 U	0.029 U	0.073 U	0.53 U	0.17 U	0.16 U	0.15 U	0.073 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.086 U	0.029 U	0.073 U	0.53 U	0.23	0.16 U	0.15 U	0.073 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.086 U	0.029 U	0.073 U	0.53 U	0.17 U	0.16 U	0.15 U	0.073 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.086 U	0.029 U	0.073 U	0.53 U	0.17 U	0.16 U	0.15 U	0.073 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.091	0.029 U	0.073 U	0.69	0.17 U	0.16 U	0.15 U	0.073 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.34 J	0.044 J	0.073 U	NS	0.17 U	0.27 J	0.47 J	0.073 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.28	0.029 U	0.073 U	NS	0.17 U	0.33 J	0.26 J	0.073 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	0.061 J	0.083 J	NS	0.17 U	NS	0.57 J	0.073 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.20 J	0.029 U	0.073 U	NS	0.17 U	0.43 J	0.16 J	0.073 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.14	0.029 U	0.073 U	2.2 J	0.17 U	0.20 J	0.18 J	0.073 U
	CHRYSENE	mg/kg	220	110	250	0.31	0.040 J	0.12 J	NS	0.49 J	0.26 J	0.42 J	0.073 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.086 U	0.029 U	0.073 U	0.87 J	0.17 U	0.16 U	0.15 U	0.073 U
	FLUORENE	mg/kg	3400	2390	110	0.086 U	0.029 U	0.073 U	0.53 U	0.17 U	0.16 U	0.15 U	0.073 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.29	0.029 U	0.073 U	NS	0.17 U	0.48 J	0.22 J	0.073 UJ
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.086 U	0.029 U	0.073 U	0.53 U	0.17 U	0.16 U	0.15 U	0.073 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.36	0.074	0.23	1.1	NS	0.16 U	0.63	0.073 U
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	05PS-3	06PS-1			06PS-2			06PS-3
					Sample ID:	LPA05-PS-003 (11-12') (20160912)	LPA06-PS-001 (2-4') (20160920)	LPA06-PS-001 (4-6') (20160920)	LPA06-PS-001 (10-12') (20160920)	LPA06-PS-002 (2-4') (20160920)	LPA06-PS-002 (7-8') (20160920)	LPA06-PS-002 (10-12') (20160920)	LPA06-PS-003 (1-3') (20160920)
					Sample Date:	9/12/16	9/20/16	9/20/16	9/20/16	9/20/16	9/20/16	9/20/16	9/20/16
					Sample Depth (ft bgs):	11-12 ft.	2-4 ft.	4-6 ft.	10-12 ft.	2-4 ft.	7-8 ft.	10-12 ft.	1-3 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	88	71	77	91	94	91	93	82
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.0038 U	0.0047 UJ	0.0043 U	0.0036 U	0.0035 U	0.0036 U	0.0036 U	0.02 U
	METHOXYCHLOR	mg/kg	450	320	43	0.011	0.0047 UJ	0.0043 U	0.0036 U	0.0035 U	0.0036 U	0.0036 U	0.02 U
	P,P'-DDD	mg/kg	32	2.3	1.5	0.0038 U	0.0046 UJ	0.0043 U	0.0036 U	0.0035 U	0.0036 U	0.0036 U	0.02 U
	P,P'-DDE	mg/kg	28	2	2.2	0.0038 U	0.0046 UJ	0.0043 U	0.0036 U	0.0035 U	0.0036 U	0.0036 U	0.02 U
	P,P'-DDT	mg/kg	27	NA	16	0.0038 U	0.0046 UJ	0.0043 U	0.0036 U	0.0035 U	0.0036 U	0.0036 U	0.02 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.0038 U	0.0047 UJ	0.0043 U	0.0036 U	0.0035 U	0.0036 U	0.0036 U	0.02 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.1 UJ	0.13 UJ	0.12 UJ	0.097 U	0.095 U	0.099 U	0.097 U	0.11 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.14 UJ	0.17 UJ	0.16 UJ	0.13 U	0.13 U	0.13 U	0.13 U	0.15 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.19 UJ	0.23 U	0.21 U	0.18 U	0.35 U	0.18 U	0.18 U	0.4 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.094 UJ	0.12 UJ	0.11 U	0.09 U	0.18 U	0.091 U	0.09 U	0.2 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.038 UJ	0.046 U	0.043 U	0.036 U	0.07 U	0.036 U	0.036 U	0.08 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.076 UJ	0.093 UJ	0.086 U	0.072 U	0.14 UJ	0.073 UJ	0.072 UJ	0.16 UJ
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.076 UJ	0.093 UJ	0.086 U	0.072 U	0.14 UJ	0.073 UJ	0.072 UJ	0.16 UJ
	ACENAPHTHENE	mg/kg	5000	3590	110	0.038 UJ	0.046 U	0.043 U	0.036 U	0.07 U	0.036 U	0.036 U	0.08 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.038 UJ	0.046 U	0.043 U	0.036 U	0.07 U	0.036 U	0.036 U	0.08 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.038 UJ	0.046 U	0.043 U	0.036 U	0.07 U	0.036 U	0.036 U	0.08 U
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.19 UJ	0.23 U	0.21 U	0.18 U	0.35 U	0.18 U	0.18 U	0.4 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.038 UJ	0.046 U	0.043 U	0.036 U	0.07 UJ	0.019 J	0.036 UJ	0.13 J
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.038 UJ	0.046 U	0.043 U	0.036 U	0.07 U	0.036 U	0.036 U	0.12
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.038 UJ	0.046 U	0.043 U	0.036 U	0.07 U	0.036 U	0.036 U	0.18
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.038 UJ	0.046 U	0.043 U	0.036 U	0.07 U	0.036 U	0.036 U	0.055 J
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.038 UJ	0.046 U	0.043 U	0.036 U	0.07 U	0.036 U	0.036 U	0.055 J
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.19 UJ	0.23 U	0.21 U	0.18 U	0.35 U	0.18 U	0.18 U	0.4 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.038 UJ	0.97	1.9	0.026 J	0.037 J	0.036 U	0.086	0.08 U
	CARBAZOLE	mg/kg	NA	NA	NA	0.038 UJ	0.046 U	0.043 U	0.036 U	0.07 U	0.036 U	0.036 U	0.08 U
	CHRYSENE	mg/kg	220	110	250	0.038 UJ	0.046 U	0.043 U	0.036 U	0.07 U	0.024 J	0.036 U	0.13
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.038 UJ	0.046 U	0.043 U	0.036 U	0.07 U	0.036 U	0.036 U	0.08 U
	DIBENZOFURAN	mg/kg	100	73	2.9	0.038 UJ	0.046 U	0.043 U	0.036 U	0.07 U	0.036 U	0.036 U	0.08 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.038 UJ	0.046 U	0.043 U	0.036 U	0.07 UJ	0.036 UJ	0.036 UJ	0.08 UJ
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.038 UJ	0.046 U	0.043 U	0.036 U	0.07 U	0.021 J	0.036 U	0.069 J
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.038 UJ	0.046 U	0.043 U	0.036 U	0.07 U	0.036 U	0.036 U	0.08 U
	FLUORENE	mg/kg	3400	2390	110	0.038 UJ	0.046 U	0.043 U	0.036 U	0.07 UJ	0.036 UJ	0.036 UJ	0.08 UJ
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.038 UJ	0.046 U	0.043 U	0.036 U	0.07 U	0.036 U	0.036 U	0.056 J
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.038 UJ	0.046 U	0.043 U	0.036 U	0.07 UJ	0.036 UJ	0.036 UJ	0.08 UJ
	PHENANTHRENE	mg/kg	NA	NA	NA	0.038 UJ	0.046 U	0.043 U	0.036 U	0.07 UJ	0.071 J	0.036 UJ	0.23 J
	PHENOL	mg/kg	27000	19000	67	0.094 UJ	0.12 UJ	0.11 U	0.09 U	0.18 UJ	0.091 UJ	0.09 UJ	0.2 UJ
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.03 U	0.018 U	0.0016 U	0.0014 U	0.069 U	0.028 U	0.028 U	0.04 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.03 U	0.018 U	0.0016 U	0.0014 U	0.069 U	0.028 U	0.028 U	0.04 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.03 U	0.018 U	0.0016 U	0.0014 U	0.069 U	0.028 U	0.028 U	0.04 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.03 U	0.018 U	0.0016 U	0.0014 U	0.069 U	0.028 U	0.028 U	0.04 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.03 U	0.018 U	0.0016 U	0.0014 U	0.069 U	0.028 U	0.028 U	0.048
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.03 U	0.018 U	0.0040 J	0.0014 U	0.069 U	0.028 U	0.028 U	0.20
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.03 U	0.018 U	0.0022 J	0.0014 U	0.069 U	0.028 U	0.028 U	0.14
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.03 U	0.018 U	0.0047 J	0.0015 J	0.069 U	0.028 U	0.028 U	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.03 U	0.018 U	0.0030 J	0.0014 U	0.069 U	0.028 U	0.028 U	0.083
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.03 U	0.018 U	0.0035 J	0.0014 U	0.069 U	0.028 U	0.028 U	0.097
	CHRYSENE	mg/kg	220	110	250	0.03 U	0.018 U	0.0043 J	0.0014 U	0.069 U	0.030	0.028 U	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.03 U	0.018 U	0.0025 J	0.0014 U	0.069 UJ	0.028 UJ	0.028 UJ	0.04 UJ
	FLUORENE	mg/kg	3400	2390	110	0.03 U	0.018 U	0.0016 U	0.0014 U	0.069 U	0.028 U	0.028 U	0.04 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.03 UJ	0.018 U	0.0034 J	0.0014 U	0.069 U	0.028 U	0.028 U	0.12
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.03 U	0.018 U	0.0016 U	0.0014 U	0.069 U	0.028 U	0.028 U	0.04 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.03 U	0.018 U	0.0016 U	0.0014 U	0.069 U	0.062	0.028 U	NS
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	06PS-3		07PS-1	07PS-2	07PS-3		08PS-1	08PS-2
					Sample ID:	LPA06-PS-003 (6-8') (20160920)	LPA06-PS-003 (10-12') (20160920)	LPA07-PS-001 (3-4') (20160906)	LPA07-PS-002 (3-4') (20160906)	LPA07-PS-003 (3-4') (20160906)	LPA07-PS-003 (7.5-9') (20160906)	LPA08-PS-001 (3-4') (20160908)	LPA08-PS-002 (2-3') (20160908)
					Sample Date:	9/20/16	9/20/16	9/6/16	9/6/16	9/6/16	9/6/16	9/8/16	9/8/16
					Sample Depth (ft bgs):	6-8 ft.	10-12 ft.	3-4 ft.	3-4 ft.	3-4 ft.	7.5-9 ft.	3-4 ft.	2-3 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	95	92	83	87	70	52	85	77
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.0035 U	0.0036 U	0.004 U	0.0038 U	0.0047 U	0.0064 UJ	0.0039 U	0.0043 U
	METHOXYCHLOR	mg/kg	450	320	43	0.0037	0.0038	0.0098	0.0038 U	0.013	0.0064 UJ	0.0039 U	0.019 J
	P,P'-DDD	mg/kg	32	2.3	1.5	0.0035 U	0.0036 U	0.004 U	0.0038 U	0.0047 U	0.0064 UJ	0.0039 U	0.0043 U
	P,P'-DDE	mg/kg	28	2	2.2	0.0035 U	0.0036 U	0.004 U	0.0038 U	0.0047 U	0.0064 UJ	0.0039 U	0.0043 U
	P,P'-DDT	mg/kg	27	NA	16	0.0035 U	0.0036 U	0.004 U	0.0038 U	0.0047 U	0.0064 UJ	0.0039 U	0.0043 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.0035 U	0.0036 U	0.004 U	0.0038 U	0.0047 U	0.0064 UJ	0.0039 U	0.0043 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.094 U	0.098 U	0.11 U	0.1 U	0.13 U	0.17 UJ	0.11 U	0.12 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.13 U	0.13 U	0.15 U	0.14 U	0.17 U	0.24 UJ	0.14 U	0.16 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.17 U	0.18 U	1 U	0.19 U	0.24 U	0.32 U	0.39 U	0.22 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.087 U	0.09 U	0.5 U	0.095 U	0.12 U	0.16 U	0.2 U	0.11 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.035 U	0.036 U	0.2 U	0.038 U	0.047 U	0.064 U	0.078 U	0.043 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.07 UJ	0.073 UJ	0.4 U	0.076 U	0.095 U	0.13 U	0.16 U	0.087 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.07 UJ	0.073 UJ	0.4 U	0.076 U	0.095 U	0.13 U	0.16 U	0.087 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.035 U	0.036 U	0.2 U	0.038 U	0.047 U	0.064 U	0.042 J	0.043 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.035 U	0.036 U	0.2 U	0.038 U	0.047 U	0.064 U	0.066 J	0.043 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.035 U	0.036 U	0.2 U	0.036 J	0.047 U	0.064 U	0.39	0.071
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.17 U	0.18 U	1 U	0.19 U	0.24 U	0.32 U	0.39 U	0.22 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.035 UJ	0.036 UJ	0.14 J	0.14	0.11	0.064 U	**[1.7]**	0.23
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.035 U	0.036 U	0.30	0.15	0.12	0.064 U	1.6	0.21
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.035 U	0.036 U	1.6	0.21	0.21	0.064 U	2.3	0.34
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.035 U	0.036 U	0.22	0.062	0.083	0.064 U	0.49	0.067
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.035 U	0.036 U	0.26	0.082	0.058	0.064 U	0.73	0.13
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.17 U	0.18 U	1 U	0.19 U	0.24 U	0.32 U	0.39 U	0.22 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.035 U	0.036 U	0.12 J	0.14	0.14	0.15	0.078 U	0.061
	CARBAZOLE	mg/kg	NA	NA	NA	0.035 U	0.036 U	0.2 U	0.038 U	0.047 U	0.064 U	0.046 J	0.041 J
	CHRYSENE	mg/kg	220	110	250	0.035 U	0.036 U	0.38	0.14	0.13	0.064 U	1.7	0.23
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.035 U	0.036 U	0.2 U	0.038 U	0.047 U	0.064 U	0.16	0.025 J
	DIBENZOFURAN	mg/kg	100	73	2.9	0.035 U	0.036 U	0.2 U	0.038 U	0.047 U	0.064 U	0.078 U	0.043 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.035 UJ	0.036 UJ	0.2 U	0.038 U	0.047 U	0.064 U	0.078 U	0.043 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.035 U	0.022 J	0.2 U	0.038 U	0.042 J	0.064 U	0.078 U	0.043 U
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.035 U	0.036 U	0.2 U	0.038 U	0.047 U	0.064 U	0.078 U	0.043 U
	FLUORENE	mg/kg	3400	2390	110	0.035 UJ	0.036 UJ	0.2 U	0.038 U	0.047 U	0.064 U	0.067 J	0.026 J
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.035 U	0.036 U	0.24	0.070	0.062	0.064 U	0.52	0.089
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.035 UJ	0.036 UJ	0.2 U	0.038 U	0.047 U	0.064 U	0.078 U	0.031 J
	PHENANTHRENE	mg/kg	NA	NA	NA	0.035 UJ	0.036 UJ	0.2 U	0.13	0.080	0.064 U	1.7	0.35
	PHENOL	mg/kg	27000	19000	67	0.087 UJ	0.09 UJ	0.5 U	0.095 U	0.12 U	0.16 U	0.2 U	0.11 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.014 U	0.028 U	0.39 U	0.037 U	0.18 U	0.0025 U	0.076 U	0.042 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.014 U	0.028 U	0.39 U	0.037 U	0.18 U	0.0025 U	0.076 U	0.042 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.014 U	0.028 U	0.39 U	0.037 U	0.18 U	0.0025 U	0.076 U	0.042 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.014 U	0.028 U	0.39 U	0.037 U	0.18 U	0.0025 U	0.076 U	0.042 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.014 U	0.028 U	0.39 U	0.085	0.18 U	0.0025 U	0.076 U	0.078
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.014 U	0.028 U	0.39 U	NS	0.18 U	0.0025 U	0.38 J	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.014 U	0.028 U	0.39 U	NS	0.18 U	0.0025 U	0.35	0.18
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.014 U	0.028 U	NS	NS	0.20	0.0026	NS	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.014 U	0.034	0.42	0.13	0.18 U	0.0025 U	0.27 J	0.17 J
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.014 U	0.028 U	0.39 U	0.12	0.18 U	0.0025 U	0.17	0.098
	CHRYSENE	mg/kg	220	110	250	0.014 U	0.028 U	0.58	NS	0.18 U	0.0025 U	0.37	0.21 J
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.014 UJ	0.028 UJ	0.39 U	0.037 U	0.18 U	0.0025 U	0.076 U	0.042 U
	FLUORENE	mg/kg	3400	2390	110	0.014 U	0.028 U	0.39 U	0.037 U	0.18 U	0.0025 U	0.076 U	0.042 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.014 U	0.034	0.61 J	NS	0.18 UJ	0.0025 UJ	0.38	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.014 U	0.028 U	0.39 U	0.037 U	0.18 U	0.0025 U	0.076 U	0.042 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.014 U	0.028 U	0.39 U	NS	0.18 U	0.0025 U	0.33	NS
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	08PS-3	09PS-1	09PS-2		09PS-3			10PS-1
					Sample ID:	LPA08-PS-003 (2-3') (20160908)	LPA09-PS-001 (4-5') (20160909)	LPA09-PS-002 (3-4') (20160912)	LPA09-PS-002 (8-9') (20160912)	LPA09-PS-003 (3-4') (20160913)	LPA09-PS-003 (6-8') (20160913)	LPA09-QD-001 (6-8') (20160913)	LPA10-PS-001 (2-3') (20160919)
					Sample Date:	9/8/16	9/9/16	9/12/16	9/12/16	9/13/16	9/13/16	9/13/16	9/19/16
					Sample Depth (ft bgs):	2-3 ft.	4-5 ft.	3-4 ft.	8-9 ft.	3-4 ft.	6-8 ft.	6-8 ft.	2-3 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	93	96	73	92	88	84	85	78
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.0036 U	0.0035 U	0.023 U	0.0036 U	0.0038 U	0.004 U	0.0039 U	0.021 U
	METHOXYCHLOR	mg/kg	450	320	43	0.0036 U	0.0035 U	0.023 U	0.0036 U	0.0038 U	0.004 U	0.0039 U	0.021 U
	P,P'-DDD	mg/kg	32	2.3	1.5	0.0036 U	0.0035 U	0.0046 U	0.0036 U	0.0038 U	0.004 U	0.0039 U	0.021 U
	P,P'-DDE	mg/kg	28	2	2.2	0.0042	0.0035 U	0.0046 U	0.0036 U	0.0038 U	0.004 U	0.0039 U	0.023
	P,P'-DDT	mg/kg	27	NA	16	0.0036 U	0.0035 U	0.023 U	0.0036 U	0.0038 U	0.004 U	0.0039 U	0.021 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.0036 U	0.0035 U	0.023 U	0.0036 U	0.0038 U	0.004 U	0.0039 U	0.021 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.096 U	0.094 U	0.12 UJ	0.098 U	0.1 U	0.11 U	0.11 U	0.11 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.13 U	0.13 U	0.17 UJ	0.13 U	0.14 U	0.14 U	0.14 U	0.15 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.18 U	0.17 U	1.1 U	0.36 U	0.38 U	0.2 U	0.2 U	1.1 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.089 U	0.086 U	0.57 U	0.18 U	0.19 UJ	0.099 U	0.098 U	0.53 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.035 U	0.034 U	0.23 U	0.072 U	0.075 UJ	0.039 UJ	0.039 UJ	0.21 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.071 U	0.069 U	0.46 U	0.14 U	0.15 UJ	0.079 UJ	0.079 UJ	0.42 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.071 U	0.069 U	0.46 U	0.14 U	0.15 UJ	0.079 UJ	0.079 UJ	0.42 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.035 U	0.034 U	0.23 U	0.072 U	0.038 J	0.039 UJ	0.039 UJ	0.21 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.035 U	0.034 U	0.23 U	0.072 U	0.075 UJ	0.039 UJ	0.039 UJ	0.21 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.035 U	0.034 U	0.58	0.072 U	0.11 J	0.039 UJ	0.039 UJ	0.23
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.18 U	0.17 U	1.1 U	0.36 U	0.38 U	0.2 U	0.2 U	1.1 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.090	0.11	**[3.3]**	0.072 U	0.30 J	0.056 J	0.069 J	**[1.0]**
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.086	0.13	3.3	0.072 U	0.27 J	0.067	0.086 J	1.1
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.13	0.19	4.3	0.072 U	0.35 J	0.088 J	0.12 J	1.6
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.033 J	0.044	1.2	0.072 U	0.13 J	0.032 J	0.053 J	0.40
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.045	0.069	1.9	0.072 U	0.15 J	0.032 J	0.036 J	0.62
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.18 U	0.17 U	1.1 U	0.36 U	0.38 U	0.2 U	0.2 U	1.1 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.020 J	0.066	0.23 U	0.072 U	0.075 UJ	0.43 J	0.039 UJ	22
	CARBAZOLE	mg/kg	NA	NA	NA	0.035 U	0.034 U	0.23 U	0.072 U	0.058 J	0.039 UJ	0.039 UJ	0.21 U
	CHRYSENE	mg/kg	220	110	250	0.083	0.11	3.3	0.072 U	0.30 J	0.057 J	0.086 J	0.99
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.035 U	0.034 U	0.31	0.072 U	0.043 J	0.039 UJ	0.039 UJ	0.11 J
	DIBENZOFURAN	mg/kg	100	73	2.9	0.035 U	0.034 U	0.23 U	0.072 U	0.075 UJ	0.039 UJ	0.039 UJ	0.21 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.035 U	0.034 U	0.23 U	0.072 U	0.075 UJ	0.039 UJ	0.039 UJ	0.21 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.035 U	0.034 U	0.23 U	0.072 U	0.075 UJ	0.039 UJ	0.039 UJ	0.21 U
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.035 U	0.034 U	0.23 U	0.072 U	0.075 UJ	0.039 UJ	0.039 UJ	0.21 U
	FLUORENE	mg/kg	3400	2390	110	0.035 U	0.034 U	0.23 U	0.072 U	0.042 J	0.039 UJ	0.039 UJ	0.21 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.037	0.055	1.5	0.072 U	0.15 J	0.032 J	0.049 J	0.46
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.035 U	0.034 U	0.23 U	0.072 U	0.075 UJ	0.039 UJ	0.039 UJ	0.21 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.085	0.051	2.4	0.072 U	0.44 J	0.038 J	0.048 J	1.1
	PHENOL	mg/kg	27000	19000	67	0.089 U	0.086 U	0.57 U	0.18 U	0.19 UJ	0.099 UJ	0.098 UJ	0.53 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.14 U	0.027 U	0.18 U	0.071 U	0.074 U	0.077 U	0.15 U	0.41 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.14 U	0.027 U	0.18 U	0.071 U	0.074 U	0.077 U	0.15 U	0.41 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.14 U	0.027 U	0.20	0.071 U	0.074 U	0.077 U	0.15 U	0.41 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.14 U	0.027 U	0.18 U	0.071 U	0.074 U	0.077 U	0.15 U	0.41 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.33	0.029	NS	0.071 U	0.082	0.077 U	0.15 U	0.41 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	NS	NS	0.071 U	0.35	0.12	0.15 U	**[1.4 J]**
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	NS	NS	0.071 U	0.21	0.093	0.15 U	0.98
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	NS	NS	0.071 U	NS	0.21	0.17	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	0.12 J	NS	0.071 U	0.16	0.089	0.15 U	0.83
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.65 J	0.10 J	NS	0.071 U	0.15	0.077 U	0.15 U	0.63
	CHRYSENE	mg/kg	220	110	250	NS	NS	NS	0.071 U	0.33	0.13	0.15 U	1.3 J
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.21 J	0.027 U	0.60 J	0.071 U	0.074 U	0.077 U	0.15 U	0.41 U
	FLUORENE	mg/kg	3400	2390	110	0.14 U	0.027 U	0.21	0.071 U	0.074 U	0.077 U	0.15 U	0.41 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	NS	NS	0.071 UJ	0.23 J	0.096 J	0.15 UJ	1.1 J
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.14 U	0.027 U	0.18 U	0.071 U	0.074 U	0.077 U	0.15 U	0.41 U
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	0.11	NS	0.071 U	0.35	0.077 U	0.15 U	1.0 J
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	10PS-1	10PS-2		10PS-3		11PS-1	11PS-2	
					Sample ID:	LPA10-PS-001 (6-7') (20160919)	LPA10-PS-002 (2-4') (20160919)	LPA10-PS-002 (10-12') (20160919)	LPA10-PS-003 (1-4') (20160919)	LPA10-QD-001 (1-4') (20160919)	LPA11-PS-001 (2-3') (20160920)	LPA11-PS-002 (2-4') (20160920)	LPA11-PS-002 (7-8') (20160920)
					Sample Date:	9/19/16	9/19/16	9/19/16	9/19/16	9/19/16	9/20/16	9/20/16	9/20/16
					Sample Depth (ft bgs):	6-7 ft.	2-4 ft.	10-12 ft.	1-4 ft.	1-4 ft.	2-3 ft.	2-4 ft.	7-8 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	89	81	95	78	80	82	86	87
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.018 U	0.081 U	0.0034 U	0.021 U	0.021 U	0.08 U	0.019 U	0.0037 UJ
	METHOXYCHLOR	mg/kg	450	320	43	0.018 U	0.64 J	0.0034 U	0.021 U	0.021 U	0.08 U	0.019 U	0.0037 UJ
	P,P'-DDD	mg/kg	32	2.3	1.5	0.018 U	0.081 U	0.0034 U	0.021 U	0.021 U	0.08 U	0.019 U	0.0037 UJ
	P,P'-DDE	mg/kg	28	2	2.2	0.022	0.081 U	0.0034 U	0.021 U	0.021 U	0.08 U	0.019 U	0.0037 UJ
	P,P'-DDT	mg/kg	27	NA	16	0.018 U	0.081 U	0.0034 U	0.021 U	0.021 U	0.08 U	0.019 U	0.0037 UJ
	Trans-Chlordane	mg/kg	NA	NA	NA	0.018 U	0.081 U	0.0034 U	0.021 U	0.021 U	0.08 U	0.019 U	0.0037 UJ
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.1 U	0.11 UJ	0.092 U	0.12 U	0.11 U	0.11 U	0.1 U	0.1 UJ
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.14 U	0.15 UJ	0.12 U	0.16 U	0.15 U	0.15 U	0.14 U	0.14 UJ
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.37 U	5 U	0.17 U	0.21 U	0.21 U	2 U	0.95 U	0.19 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.19 U	2.5 U	0.087 UJ	0.11 U	0.1 U	1 U	0.48 U	0.094 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.051 J	**[21]**	0.034 U	0.042 U	0.041 U	0.4 U	0.19 U	0.037 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.15 U	2 U	0.07 U	0.085 U	0.083 U	0.81 U	0.38 U	0.075 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.15 U	2 U	0.07 U	0.085 U	0.083 U	0.81 U	0.38 U	0.075 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.074 U	14	0.034 U	0.042 U	0.041 U	0.4 U	0.19 U	0.037 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.074 U	7.2	0.034 U	0.042 U	0.041 U	0.4 U	0.19 U	0.037 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.074 U	39	0.020 J	0.023 J	0.041 U	0.4 U	0.19 U	0.037 U
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.37 U	5 U	0.17 U	0.21 U	0.21 U	2 U	0.95 U	0.19 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.039 J	**[61]**	0.10	0.092	0.082	0.24 J	0.20	0.037 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.051 J	**[58]**	0.088 J	0.096	0.096	0.4 U	0.14 J	0.037 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.095	**[92]**	0.17	0.14	0.13	0.35 J	0.36	0.037 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.039 J	14	0.038 J	0.039 J	0.064	0.21 J	0.19 U	0.037 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.039 J	30	0.064	0.048	0.044	0.4 U	0.11 J	0.037 U
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.37 U	**[4.7 J]**	0.17 U	0.21 U	0.21 U	2 U	0.95 U	0.19 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.49	1 U	0.04	0.052	0.043	0.44	0.37	0.037
	CARBAZOLE	mg/kg	NA	NA	NA	0.074 U	19	0.034 U	0.042 U	0.041 U	0.4 U	0.19 U	0.037 U
	CHRYSENE	mg/kg	220	110	250	0.041 J	55	0.12	0.11	0.10	0.52	0.29	0.037 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.074 U	**[4.4]**	0.034 U	0.042 U	0.041 U	0.4 U	0.19 U	0.037 U
	DIBENZOFURAN	mg/kg	100	73	2.9	0.074 U	**[19]**	0.034 U	0.042 U	0.041 U	0.4 U	0.19 U	0.037 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.074 U	1 U	0.034 U	0.042 U	0.041 U	0.4 U	0.19 U	0.037 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.074 U	1 U	0.034 U	0.042 U	0.041 U	0.4 U	0.19 U	0.037 U
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.074 U	1 U	0.034 U	0.042 U	0.041 U	0.4 U	0.19 U	0.037 U
	FLUORENE	mg/kg	3400	2390	110	0.074 U	28	0.034 U	0.042 U	0.041 U	0.4 U	0.19 U	0.037 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.074 U	19	0.049	0.046	0.069	0.4 U	0.19 U	0.037 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.078	**[50]**	0.034 U	0.026 J	0.021 J	0.4 U	0.19 U	0.037 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.055 J	210 J	0.099	0.12	0.11	0.4 U	0.31	0.019 J
	PHENOL	mg/kg	27000	19000	67	0.19 U	2.5 U	0.087 U	0.11 U	0.1 U	1 U	0.48 U	0.094 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.15 U	4 U	0.027 U	0.033 U	0.032 U	1.9 U	2.2 U	0.015 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.15 U	NS	0.027 U	0.067	0.032 U	1.9 U	2.2 U	0.015 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.15 U	NS	0.027 U	0.033 U	0.032 U	1.9 U	2.2 U	0.015 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.15 U	NS	0.027 U	0.033 U	0.032 U	1.9 U	2.2 U	0.015 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.15 U	NS	0.052	0.11	0.032 U	1.9 U	2.2 U	0.015 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.15 U	NS	NS	NS	0.084 J	1.9 U	2.2 U	0.015 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.15 U	NS	NS	NS	0.060	1.9 U	2.2 U	0.015 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.15 U	NS	NS	NS	0.14 J	1.9 U	2.2 U	0.015 J
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.15 U	NS	NS	0.14	0.057	1.9 U	2.2 U	0.015 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.15 U	NS	NS	0.12	0.039	1.9 U	2.2 U	0.015 U
	CHRYSENE	mg/kg	220	110	250	0.15 U	NS	NS	NS	0.092 J	1.9 U	2.2 U	0.017 J
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.15 U	NS	0.039	0.035	0.032 U	1.9 U	2.2 U	0.015 U
	FLUORENE	mg/kg	3400	2390	110	0.15 U	NS	0.027 U	0.061	0.032 U	1.9 U	2.2 U	0.015 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.15 UJ	NS	NS	NS	0.076	1.9 U	2.2 U	0.015 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.15 U	NS	0.027 U	0.095	0.032 U	1.9 U	2.2 U	0.015 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.15 U	NS	NS	NS	0.091 J	1.9 U	2.2 U	0.020 J
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	11PS-2	11PS-3		12PS-1	12PS-2	12PS-3		13PS-1
					Sample ID:	LPA11-PS-002 (11-12') (20160920)	LPA11-PS-003 (2-3') (20160921)	LPA11-PS-003 (8-9') (20160921)	LPA12-PS-001 (2-3') (20160922)	LPA12-PS-002 (2-4') (20160922)	LPA12-PS-003 (3-4') (20160922)	LPA12-PS-003 (7-9') (20160922)	LPA13-PS-001 (1-2') (20160927)
					Sample Date:	9/20/16	9/21/16	9/21/16	9/22/16	9/22/16	9/22/16	9/22/16	9/27/16
					Sample Depth (ft bgs):	11-12 ft.	2-3 ft.	8-9 ft.	2-3 ft.	2-4 ft.	3-4 ft.	7-9 ft.	1-2 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	78	86	77	84	89	82	88	92
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.021 U	0.0039 U	0.0043 U	0.039 U	0.0037 U	0.04 U	0.0038 U	0.0036 U
	METHOXYCHLOR	mg/kg	450	320	43	0.021 U	0.0039 U	0.0043 U	0.039 U	0.0037 U	0.04 U	0.0038 U	0.0036 U
	P,P'-DDD	mg/kg	32	2.3	1.5	0.021 U	0.0039 U	0.0043 U	0.039 U	0.0037 U	0.04 U	0.0038 U	0.0036 U
	P,P'-DDE	mg/kg	28	2	2.2	0.021 U	0.0039 U	0.0043 U	0.039 U	0.0037 U	0.04 U	0.0038 U	0.0036 U
	P,P'-DDT	mg/kg	27	NA	16	0.021 U	0.0039 U	0.0043 U	0.039 U	0.0037 U	0.04 U	0.0038 U	0.0036 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.021 U	0.0041 J	0.0043 U	0.039 U	0.0037 U	0.04 U	0.0038 U	0.0036 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.11 UJ	0.1 U	0.12 UJ	0.11 UJ	0.1 U	0.11 U	0.1 U	0.098 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.16 UJ	0.14 U	0.16 UJ	0.14 UJ	0.14 U	0.15 U	0.14 U	0.13 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.21 U	0.39 U	0.22 U	0.98 U	0.19 U	0.2 U	0.19 U	0.18 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.11 U	0.19 U	0.11 U	0.49 U	0.093 U	0.066 J	0.094 U	0.09 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.023 J	0.077 U	0.043 U	0.2 U	0.037 U	0.036 J	0.037 U	0.036 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.085 U	0.15 U	0.087 U	0.39 U	0.075 U	0.19	0.075 U	0.072 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.085 U	0.15 U	0.087 U	0.39 U	0.075 U	0.28	0.075 U	0.072 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.042 U	0.077 U	0.043 U	0.2 U	0.037 U	0.04 U	0.037 U	0.036 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.042 U	0.077 U	0.043 U	0.2 U	0.037 U	0.04 U	0.037 U	0.036 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.042 U	0.077 U	0.043 U	0.2 U	0.037 U	0.04 U	0.037 U	0.036 U
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.21 U	0.39 U	0.22 U	0.98 U	0.19 U	0.2 U	0.19 U	0.18 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.084	0.16 J	0.043 UJ	0.2 UJ	0.037 UJ	0.04 UJ	0.037 UJ	0.036 UJ
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.16	0.16	0.043 U	0.2 U	0.037 U	0.04 U	0.037 U	0.036 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.26	0.21	0.043 U	0.2 U	0.022 J	0.028 J	0.037 U	0.036 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.15	0.067 J	0.043 U	0.2 U	0.037 U	0.04 U	0.037 U	0.036 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.088	0.084	0.043 U	0.2 U	0.037 U	0.04 U	0.037 U	0.036 U
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.21 U	0.39 U	0.22 U	0.98 U	0.19 U	0.057 J	0.19 U	0.18 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.042	0.070 J	0.043 U	0.2 U	0.037 U	0.04 U	0.037 U	0.036 U
	CARBAZOLE	mg/kg	NA	NA	NA	0.042 U	0.077 U	0.043 U	0.2 U	0.037 U	0.04 U	0.037 U	0.036 U
	CHRYSENE	mg/kg	220	110	250	0.15	0.17	0.043 U	0.2 U	0.037 U	0.036 J	0.037 U	0.036 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.047	0.077 UJ	0.043 UJ	0.2 UJ	0.037 UJ	0.04 UJ	0.037 UJ	0.036 UJ
	DIBENZOFURAN	mg/kg	100	73	2.9	0.042 U	0.077 U	0.043 U	0.2 U	0.037 U	0.068	0.037 U	0.036 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.042 U	0.077 U	0.043 U	0.2 U	0.037 U	0.04 U	0.037 U	0.036 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.042 U	0.077 U	0.043 U	0.2 U	0.037 U	0.04 U	0.037 U	0.036 U
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.042 U	0.077 U	0.043 U	0.2 U	0.037 U	0.04 U	0.037 U	0.036 U
	FLUORENE	mg/kg	3400	2390	110	0.042 U	0.077 U	0.043 U	0.2 UJ	0.037 UJ	0.04 UJ	0.037 UJ	0.036 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.15	0.072 J	0.043 U	0.2 U	0.037 U	0.04 U	0.037 U	0.036 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.042 U	0.077 UJ	0.043 UJ	0.2 UJ	0.037 UJ	0.075 J	0.037 UJ	0.036 UJ
	PHENANTHRENE	mg/kg	NA	NA	NA	0.069	0.13	0.035 J	0.2 UJ	0.037 UJ	0.12 J	0.037 UJ	0.036 U
	PHENOL	mg/kg	27000	19000	67	0.11 U	0.19 U	0.11 U	0.49 U	0.093 U	0.51	0.094 U	0.09 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.033 U	0.15 U	0.017 U	0.38 U	0.036 U	0.032 U	0.0015 U	0.014 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.033 U	0.15 U	0.017 U	0.38 U	0.036 U	0.079	0.0015 U	0.014 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.033 U	0.15 U	0.017 U	0.38 U	0.036 U	0.032 U	0.0015 U	0.014 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.033 U	0.15 U	0.017 U	0.38 U	0.036 U	0.032 U	0.0015 U	0.014 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.033 U	0.15 U	0.017 U	0.38 U	0.036 U	0.032 U	0.0015 U	0.014 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.084 J	0.24	0.030	0.38 U	0.036 U	0.032 U	0.0015 U	0.014 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.11	0.16	0.017 U	0.38 UJ	0.036 UJ	0.032 UJ	0.0015 UJ	0.014 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	0.34	0.035	0.38 U	0.040	0.039	0.0015 U	0.014 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.13	0.15 U	0.017 U	0.38 U	0.036 U	0.032 U	0.0015 U	0.014 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.079	0.15 U	0.017 U	0.38 U	0.036 U	0.032 U	0.0015 U	0.014 U
	CHRYSENE	mg/kg	220	110	250	0.13 J	0.24	0.029	0.38 U	0.036 U	0.052	0.0015 U	0.014 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.036	0.15 UJ	0.017 UJ	0.38 U	0.036 U	0.032 U	0.0015 U	0.014 U
	FLUORENE	mg/kg	3400	2390	110	0.033 U	0.15 U	0.017 U	0.38 U	0.036 U	0.032 U	0.0015 U	0.014 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	0.15 U	0.017 U	0.38 U	0.036 U	0.032 U	0.0015 U	0.014 UJ
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.033 U	0.15 U	0.017 U	0.38 U	0.036 U	**[0.12]**	0.0015 U	0.014 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.058 J	0.19	0.061	0.38 UJ	0.036 UJ	NS	0.0015 UJ	0.014 U
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	13PS-2		14PS-1		14PS-2		14PS-3	
					Sample ID:	LPA13-PS-002 (1-2') (20160927)	LPA13-PS-002 (4-6') (20160927)	LPA14-PS-001 (3-4) (20160803)	LPA14-PS-001 (7-8) (20160803)	LPA14-PS-002 (3-4) (20160803)	LPA14-PS-002 (6-7.5) (20160803)	LPA14-PS-003 (2.5-4) (20160803)	LPA14-PS-003 (7-8) (20160803)
					Sample Date:	9/27/16	9/27/16	8/3/16	8/3/16	8/3/16	8/3/16	8/3/16	8/3/16
					Sample Depth (ft bgs):	1-2 ft.	4-6 ft.	3-4 ft.	7-8 ft.	3-4 ft.	6-7.5 ft.	2.5-4 ft.	7-8 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	89	87	95	97	98	98	82	97
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.019 U	0.019 U	0.0035 U	0.0034 U	0.0034 U	0.0034 U	0.0041 U	0.0034 U
	METHOXYCHLOR	mg/kg	450	320	43	0.019 U	0.045	0.0035 U	0.0034 U	0.0034 U	0.0034 U	0.0041 U	0.0034 U
	P,P'-DDD	mg/kg	32	2.3	1.5	0.019 U	0.019 U	0.0035 U	0.0034 U	0.0034 U	0.0034 U	0.004 U	0.0034 U
	P,P'-DDE	mg/kg	28	2	2.2	0.019 U	0.019 U	0.0035 U	0.0034 U	0.0034 U	0.0034 U	0.004 U	0.0034 U
	P,P'-DDT	mg/kg	27	NA	16	0.019 U	0.019 U	0.0035 U	0.0034 U	0.0034 U	0.0034 U	0.004 U	0.0034 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.019 U	0.019 U	0.0035 U	0.0034 U	0.0034 U	0.0034 U	0.0041 U	0.0034 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.1 U	0.1 U	0.094 U	0.093 U	0.092 U	0.092 U	0.11 U	0.092 UJ
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.21	0.14 U	0.13 U	0.13 U	0.12 U	0.12 U	0.15 U	0.13 UJ
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.37 U	0.38 U	0.17 U	0.17 U	0.17 U	0.17 U	0.2 U	0.17 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.19 U	0.19 U	0.087 U	0.086 U	0.085 U	0.085 U	0.1 U	0.085 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.074 U	0.076 U	0.035 U	0.034 U	0.034 U	0.034 U	0.04 U	0.034 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.15 U	0.15 U	0.07 U	0.069 U	0.068 U	0.068 U	0.081 U	0.069 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.15 U	0.15 U	0.07 U	0.069 U	0.068 U	0.068 U	0.081 U	0.069 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.074 U	0.049 J	0.035 U	0.034 U	0.034 U	0.034 U	0.04 U	0.034 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.074 U	0.076 U	0.035 U	0.034 U	0.034 U	0.034 U	0.04 U	0.034 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.074 U	0.15	0.035 U	0.034 U	0.034 U	0.034 U	0.04 U	0.034 U
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.37 U	0.38 U	0.17 U	0.17 U	0.17 U	0.17 U	0.2 U	0.17 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.051 J	0.46 J	0.035 U	0.034 U	0.034 U	0.034 U	0.12	0.034 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.048 J	0.45	0.035 U	0.034 U	0.034 U	0.034 U	0.11	0.034 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.072 J	0.64	0.035 U	0.034 U	0.034 U	0.034 U	0.15	0.034 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.074 U	0.13	0.035 U	0.034 U	0.034 U	0.034 U	0.061	0.034 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.074 U	0.28	0.035 U	0.034 U	0.034 U	0.034 U	0.058	0.034 U
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.37 U	0.38 U	0.17 U	0.17 U	0.17 U	0.17 U	0.2 U	0.17 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.63	0.071 J	0.079	0.034 U	0.14	0.034 U	0.053	0.034 U
	CARBAZOLE	mg/kg	NA	NA	NA	0.074 U	0.060 J	0.035 U	0.034 U	0.034 U	0.034 U	0.04 U	0.034 U
	CHRYSENE	mg/kg	220	110	250	0.049 J	0.45	0.035 U	0.034 U	0.034 U	0.034 U	0.12	0.034 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.074 UJ	0.043 J	0.035 U	0.034 U	0.034 U	0.034 U	0.04 U	0.034 U
	DIBENZOFURAN	mg/kg	100	73	2.9	0.074 U	0.076 U	0.035 U	0.034 U	0.034 U	0.034 U	0.04 U	0.034 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.074 U	0.076 U	0.035 U	0.034 U	0.034 U	0.034 U	0.04 U	0.034 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.074 U	0.076 U	0.035 U	0.034 U	0.034 U	0.034 U	0.04 U	0.034 U
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.074 U	0.076 U	0.035 U	0.034 U	0.034 U	0.034 U	0.04 U	0.034 U
	FLUORENE	mg/kg	3400	2390	110	0.074 U	0.059 J	0.035 U	0.034 U	0.034 U	0.034 U	0.04 U	0.034 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.074 U	0.16	0.035 U	0.034 U	0.034 U	0.034 U	0.067	0.034 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.074 UJ	0.076 UJ	0.035 U	0.034 U	0.034 U	0.034 U	0.04 U	0.034 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.037 J	0.67	0.035 U	0.034 U	0.034 U	0.034 U	0.065	0.034 U
	PHENOL	mg/kg	27000	19000	67	0.19 U	0.19 U	0.087 U	0.086 U	0.085 U	0.085 U	0.1 U	0.085 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.36 U	0.15 U	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.0032 U	0.0027 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.36 U	0.15 U	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.0078 J	0.0027 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.36 U	0.15 U	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.0053 J	0.0027 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.36 U	0.15 U	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.0089 J	0.0027 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.36 U	0.25	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.079 U	0.0027 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.36 U	NS	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.16 J	0.0027 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.36 U	0.65	0.0027 UJ	0.0027 UJ	0.0026 UJ	0.0027 UJ	0.091 J	0.0027 UJ
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.36 U	NS	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.20 J	0.0027 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.36 U	0.39	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.079 U	0.0027 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.36 U	0.32	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.079 U	0.0027 U
	CHRYSENE	mg/kg	220	110	250	0.36 U	NS	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.17 J	0.0027 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.36 U	0.15 U	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.011 J	0.0027 U
	FLUORENE	mg/kg	3400	2390	110	0.36 U	0.15 U	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.0070 J	0.0027 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.36 UJ	0.59 J	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.084 J	0.0027 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.36 U	0.15 U	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.0059 J	0.0027 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.36 U	NS	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.12 J	0.0027 U
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS	NS	1000 U	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	15PS-1		15PS-2		15PS-3		16PS-1	
					Sample ID:	LPA15-PS-001 (3-4') (20160803)	LPA15-PS-001 (7-8') (20160803)	LPA15-PS-002 (3-4') (20160803)	LPA15-PS-002 (10-11') (20160803)	LPA15-PS-003 (3-4') (20160803)	LPA15-PS-003 (7-8') (20160803)	LPA16-PS-001 (2-3') (20160912)	LPA16-PS-001 (10-11') (20160912)
					Sample Date:	8/3/16	8/3/16	8/3/16	8/3/16	8/3/16	8/3/16	9/12/16	9/12/16
					Sample Depth (ft bgs):	3-4 ft.	7-8 ft.	3-4 ft.	10-11 ft.	3-4 ft.	7-8 ft.	2-3 ft.	10-11 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	97	86	76	94	92	68	91	71
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.0034 U	0.030 J	0.0044 U	0.0036 U	0.0036 U	0.0049 U	0.0037 U	0.0047 U
	METHOXYCHLOR	mg/kg	450	320	43	0.0034 U	0.11 J	0.0044 U	0.0036 U	0.0036 U	0.0049 U	0.020 J	0.0047 U
	P,P'-DDD	mg/kg	32	2.3	1.5	0.0034 U	0.0039 U	0.0044 U	0.0036 U	0.0036 U	0.0049 U	0.0037 U	0.024 U
	P,P'-DDE	mg/kg	28	2	2.2	0.0034 U	0.0039 U	0.0044 U	0.0036 U	0.0036 U	0.0049 U	0.0037 U	0.024 U
	P,P'-DDT	mg/kg	27	NA	16	0.0034 U	0.0039 U	0.0044 U	0.0036 U	0.0036 U	0.0049 U	0.0037 U	0.024 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.0034 U	0.0039 U	0.0044 U	0.0036 U	0.0036 U	0.0049 U	0.0037 U	0.024 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.092 U	0.1 UJ	0.12 U	0.096 U	0.098 U	0.13 U	0.099 U	0.13 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.12 U	0.14 UJ	0.16 U	0.13 U	0.13 U	0.18 U	0.13 U	0.17 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.17 U	0.97 U	1.1 U	0.18 U	0.91 U	0.24 U	0.91 U	0.47 UJ
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.085 U	0.48 U	0.55 U	0.089 U	0.45 U	0.12 U	0.46 U	0.23 UJ
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.034 U	0.19 U	0.22 U	0.035 U	0.18 U	0.048 U	0.091 J	0.093 UJ
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.068 U	0.39 U	0.44 U	0.071 U	0.36 U	0.098 U	0.37 U	0.19 UJ
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.068 U	0.39 U	0.44 U	0.071 U	0.36 U	0.098 U	0.37 U	0.19 UJ
	ACENAPHTHENE	mg/kg	5000	3590	110	0.034 U	0.19 U	0.22 U	0.035 U	0.18 U	0.048 U	0.25	0.093 UJ
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.034 U	0.35	0.22 U	0.035 U	0.18 U	0.048 U	0.18 U	0.093 UJ
	ANTHRACENE	mg/kg	25000	17900	1200	0.034 U	1.1	0.14 J	0.035 U	0.23	0.048 U	0.70	0.093 UJ
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.17 U	0.97 U	1.1 U	0.18 U	0.91 U	0.24 U	0.91 U	0.47 UJ
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.085	**[3.3]**	0.77	0.035 U	0.65	0.048 U	**[1.5]**	0.093 UJ
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.090	3.3	1.2	0.035 U	0.73	0.048 U	1.3	0.093 UJ
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.13	4.9	1.8	0.025 J	0.92	0.048 U	1.6	0.093 UJ
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.055	1.7	1.2	0.035 U	0.43	0.048 U	0.75	0.093 UJ
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.047	1.8	0.61	0.035 U	0.32	0.048 U	0.72	0.093 UJ
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.17 U	0.97 U	1.1 U	0.18 U	0.91 U	0.24 U	0.91 U	0.47 UJ
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.034 U	0.19 U	0.22 U	0.058	0.74	0.051	0.18 U	0.20 J
	CARBAZOLE	mg/kg	NA	NA	NA	0.034 U	0.20	0.22 U	0.035 U	0.10 J	0.048 U	0.32	0.093 UJ
	CHRYSENE	mg/kg	220	110	250	0.081	3.7	0.77	0.020 J	0.59	0.048 U	1.4	0.093 UJ
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.034 U	0.47	0.26	0.035 U	0.18 U	0.048 U	0.18	0.093 UJ
	DIBENZOFURAN	mg/kg	100	73	2.9	0.034 U	0.14 J	0.22 U	0.035 U	0.18 U	0.048 U	0.17 J	0.093 UJ
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.034 U	0.19 U	0.22 U	0.035 U	0.18 U	0.048 U	0.18 U	0.093 UJ
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.034 U	0.19 U	0.22 U	0.035 U	0.18 U	0.048 U	0.18 U	0.093 UJ
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.034 U	0.19 U	0.22 U	0.035 U	0.18 U	0.048 U	0.18 U	0.093 UJ
	FLUORENE	mg/kg	3400	2390	110	0.034 U	0.14 J	0.22 U	0.035 U	0.18 U	0.048 U	0.35	0.093 UJ
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.059	1.8	1.2	0.035 U	0.42	0.048 U	0.84	0.093 UJ
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.034 U	0.19 U	0.22 U	0.035 U	0.18 U	0.048 U	**[0.20]**	0.093 UJ
	PHENANTHRENE	mg/kg	NA	NA	NA	0.10	5.0	0.58	0.035 U	0.95	0.048 U	2.9	0.093 UJ
	PHENOL	mg/kg	27000	19000	67	0.085 U	0.48 U	0.55 U	0.089 U	0.45 U	0.12 U	0.46 U	0.23 UJ
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.0067 U	0.15 U	0.17 U	0.0028 U	0.14 U	0.0038 U	0.14 U	0.092 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.0067 U	0.15 U	0.17 U	0.0028 U	0.14 U	0.0038 U	0.21	0.092 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.0071	0.15 U	0.17 U	0.0028 U	0.14 U	0.0038 U	0.32	0.092 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.0067 U	0.39	0.17 U	0.0028 U	0.14 U	0.0038 U	0.14 U	0.092 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.067 U	1.6	0.17 U	0.0033 J	0.14 U	0.0038 U	NS	0.092 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.23	**[7.3 J]**	0.41	0.013 J	0.49	0.0038 U	NS	0.092 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.16 J	**[4.8 J]**	0.42 J	0.0094 J	0.34 J	0.0038 UJ	NS	0.092 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.32	**[9.3 J]**	1.0 J	0.028 U	0.66	0.0040 J	NS	0.092 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.096	3.3	0.52	0.011 J	0.24	0.0038 U	0.69 J	0.092 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.10	3.3	0.30	0.0084 J	0.22	0.0038 U	NS	0.092 U
	CHRYSENE	mg/kg	220	110	250	0.21	7.6 J	0.43	0.028 U	0.48	0.0038 U	NS	0.092 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.023	0.49	0.17 U	0.0028 U	0.14 U	0.0038 U	0.16 J	0.092 U
	FLUORENE	mg/kg	3400	2390	110	0.0071	0.23	0.17 U	0.0028 U	0.14 U	0.0038 U	0.57	0.092 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.14	4.7 J	0.67	0.028 U	0.35	0.0038 U	NS	0.092 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.0067 U	0.15 U	0.17 U	0.0034 J	0.14 U	0.0038 U	**[0.32]**	0.092 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.19	8.6 J	0.32	0.010	0.63	0.0038 U	NS	0.092 U
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	6700	NS	NS	NS	30000	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	16PS-2			16PS-3			17PS-1	
					Sample ID:	LPA16-PS-002 (2-3') (20160913)	LPA16-PS-002 (4-6') (20160913)	LPA16-PS-002 (11-12') (20160913)	LPA16-PS-003 (3-4') (20160913)	LPA16-PS-003 (7-8') (20160913)	LPA16-PS-003 (11-12') (20160913)	LPA17-PS-001 (1-2') (20160916)	LPA17-PS-001 (7-8') (20160916)
					Sample Date:	9/13/16	9/13/16	9/13/16	9/13/16	9/13/16	9/13/16	9/16/16	9/16/16
					Sample Depth (ft bgs):	2-3 ft.	4-6 ft.	11-12 ft.	3-4 ft.	7-8 ft.	11-12 ft.	1-2 ft.	7-8 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	90	74	85	88	89	89	90	88
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.0037 U	0.0045 U	0.0039 U	0.0038 U	0.0037 U	0.0038 U	0.0036 U	0.0037 UJ
	METHOXYCHLOR	mg/kg	450	320	43	0.0037 U	0.0045 U	0.0039 U	0.0075 U	0.0037 U	0.0038 U	0.0036 U	0.0037 UJ
	P,P'-DDD	mg/kg	32	2.3	1.5	0.0037 U	0.0045 U	0.0039 U	0.0038 U	0.0037 U	0.0038 U	0.0036 U	0.0037 UJ
	P,P'-DDE	mg/kg	28	2	2.2	0.0037 U	0.0045 U	0.0039 U	0.0038 U	0.0037 U	0.0038 U	0.0036 U	0.0037 UJ
	P,P'-DDT	mg/kg	27	NA	16	0.0037 U	0.009 U	0.0039 U	0.0038 U	0.0037 U	0.0038 U	0.0036 U	0.0037 UJ
	Trans-Chlordane	mg/kg	NA	NA	NA	0.0037 U	0.0045 U	0.0039 U	0.0038 U	0.0037 U	0.0038 U	0.0036 U	0.018 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.1 U	0.12 U	0.11 U	0.1 U	0.1 U	0.1 U	0.098 U	0.099 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.14 U	0.16 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.13 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.19 U	0.45 U	0.39 U	1.9 U	0.19 U	0.37 U	0.18 U	0.19 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.093 U	1.1 U	0.49 U	0.94 U	0.093 U	0.19 U	0.092 U	0.094 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.037 UJ	0.69 J	0.19 U	0.37 U	0.037 U	0.19	0.037 U	0.23
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.074 U	0.9 UJ	0.39 UJ	0.76 U	0.075 U	0.15 U	0.074 U	0.075 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.074 UJ	0.9 UJ	0.39 UJ	0.76 U	0.075 U	0.15 U	0.074 UJ	0.075 UJ
	ACENAPHTHENE	mg/kg	5000	3590	110	0.037 UJ	0.45 UJ	0.19 UJ	0.37 U	0.037 U	0.20	0.037 U	0.047 J
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.037 UJ	0.45 UJ	0.19 UJ	0.37 U	0.037 U	0.075 U	0.037 UJ	0.037 UJ
	ANTHRACENE	mg/kg	25000	17900	1200	0.037 UJ	0.45 UJ	0.19 UJ	2.3	0.037 U	0.29	0.037 UJ	0.079 J
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.19 U	0.45 U	0.39 U	1.9 U	0.19 U	0.37 U	0.18 U	0.19 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.032 J	0.45 UJ	0.19 UJ	**[3.3]**	0.022 J	0.72	0.023 J	0.16 J
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.028 J	0.45 UJ	0.19 UJ	2.9	0.024 J	0.73	0.037 UJ	0.17 J
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.040 J	0.45 UJ	0.19 UJ	3.5	0.022 J	0.98	0.021 J	0.24
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.037 UJ	0.45 UJ	0.19 UJ	0.88	0.037 U	0.25	0.037 U	0.068
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.020 J	0.45 UJ	0.19 UJ	1.5	0.037 U	0.33	0.037 U	0.097
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.19 U	0.092 J	0.39 U	1.9 U	0.19 U	0.37 U	0.18 U	0.14 J
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.035 J	0.24 J	0.19 UJ	0.37 U	0.14	0.075 U	0.037	9.1
	CARBAZOLE	mg/kg	NA	NA	NA	0.037 UJ	0.45 UJ	0.19 UJ	0.37 U	0.037 U	0.11	0.037 U	0.034 J
	CHRYSENE	mg/kg	220	110	250	0.032 J	0.78 J	0.27 J	3.0	0.025 J	0.64	0.037 U	0.16 J
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.037 UJ	0.45 UJ	0.19 UJ	0.30 J	0.037 U	0.082	0.037 UJ	0.021 J
	DIBENZOFURAN	mg/kg	100	73	2.9	0.037 UJ	0.45 UJ	0.19 UJ	0.37 U	0.037 U	0.096	0.037 U	0.058 J
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.037 UJ	0.45 UJ	0.19 UJ	0.37 U	0.037 U	0.075 U	0.037 UJ	0.037 UJ
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.037 UJ	0.45 UJ	0.19 UJ	0.37 U	0.037 U	0.075 U	0.037 U	0.037 UJ
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.037 UJ	0.45 UJ	0.19 UJ	0.37 U	0.037 U	0.075 U	0.037 U	0.037 U
	FLUORENE	mg/kg	3400	2390	110	0.037 UJ	0.45 UJ	0.19 UJ	0.37 U	0.037 U	0.23	0.037 UJ	0.091 J
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.037 UJ	0.45 UJ	0.19 UJ	1.1	0.037 U	0.32	0.037 UJ	0.085 J
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.037 UJ	0.45 UJ	0.19 UJ	0.37 UJ	0.037 UJ	**[0.33 J]**	0.037 UJ	**[0.20 J]**
	PHENANTHRENE	mg/kg	NA	NA	NA	0.046 J	0.66 J	0.21 J	5.5	0.037 U	1.1	0.036 J	0.38 J
	PHENOL	mg/kg	27000	19000	67	0.093 UJ	1.1 UJ	0.49 UJ	0.94 U	0.093 U	0.19 U	0.092 U	0.094 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.029 U	0.088 U	0.15 U	0.37 U	0.15 U	0.037 U	0.014 U	0.37 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.029 U	NS	0.15 U	0.37 U	0.15 U	0.18	0.014 U	0.37 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.029 U	0.19	0.15 U	0.37 U	0.15 U	0.14	0.014 U	0.37 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.029 U	0.088 U	0.15 U	0.37 U	0.15 U	0.037 U	0.014 U	0.37 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.029 U	0.091	0.15 U	0.57	0.15 U	0.18	0.014 U	0.37 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.093	0.21	0.15 U	**[1.2]**	0.15 U	NS	0.038	0.37 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.060	0.088 U	0.15 U	0.78	0.15 U	NS	0.019	0.37 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	0.26	0.15 U	1.3	0.15 U	NS	0.043	0.37 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.049	0.088 U	0.15 U	0.39	0.15 U	0.15	0.014 U	0.37 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.045	0.088 U	0.15 U	0.41	0.15 U	0.15	0.014 U	0.37 U
	CHRYSENE	mg/kg	220	110	250	0.10	NS	0.15 U	0.98	0.15 U	NS	0.033	0.37 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.029 U	0.088 U	0.15 U	0.37 U	0.15 U	0.037	0.014 U	0.37 U
	FLUORENE	mg/kg	3400	2390	110	0.029 U	0.20	0.15 U	0.37 U	0.15 U	0.18	0.014 U	0.37 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.071 J	0.089 J	0.15 UJ	0.59	0.15 U	NS	0.020 J	0.37 UJ
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.029 U	**[0.26]**	0.15 U	0.37 U	0.15 U	NS	0.014 U	0.37 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.070	NS	0.24	1.3	0.15 U	NS	0.067	0.37 U
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	17PS-1	17PS-2			17PS-3			18PS-1
					Sample ID:	LPA17-PS-001 (11-12') (20160916)	LPA17-PS-002 (1-2') (20160916)	LPA17-PS-002 (6-7') (20160916)	LPA17-PS-002 (11-12') (20160916)	LPA17-PS-003 (1-2') (20160916)	LPA17-PS-003 (7-8') (20160916)	LPA17-PS-003 (11-12') (20160916)	LPA18-PS-001 (1-2') (20160921)
					Sample Date:	9/16/16	9/16/16	9/16/16	9/16/16	9/16/16	9/16/16	9/16/16	9/21/16
					Sample Depth (ft bgs):	11-12 ft.	1-2 ft.	6-7 ft.	11-12 ft.	1-2 ft.	7-8 ft.	11-12 ft.	1-2 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	85	89	85	86	86	86	89	87
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.0078 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.0038 U
	METHOXYCHLOR	mg/kg	450	320	43	0.0039 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.0038 U
	P,P'-DDD	mg/kg	32	2.3	1.5	0.0039 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.0038 U
	P,P'-DDE	mg/kg	28	2	2.2	0.0039 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.0038 U
	P,P'-DDT	mg/kg	27	NA	16	0.0089 J	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.0038 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.0039 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.0038 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.11 U	0.1 U	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.14 U	0.14 U	0.064	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.38 U	0.18 U	0.39 U	0.95 U	0.95 U	0.38 U	0.93 U	0.95 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.95 U	0.091 U	0.19 U	0.47 U	0.48 U	0.19 U	0.47 U	0.48 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.20 J	0.036 U	0.077 U	0.19 U	0.19 U	0.075 U	0.18 U	0.19 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.77 U	0.073 U	0.16 U	0.38 U	0.38 U	0.15 U	0.37 U	0.38 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.77 U	0.073 U	0.16 U	0.38 U	0.38 U	0.15 U	0.37 U	0.38 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.38 U	0.036 U	0.077 U	0.19 U	0.19 U	0.075 U	0.18 U	0.19 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.38 U	0.036 U	0.077 U	0.19 U	0.19 U	0.075 U	0.18 U	0.19 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.38 U	0.036 U	0.077 U	0.15 J	0.19 U	0.075 U	0.14 J	0.19 U
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.38 U	0.18 U	0.39 U	0.95 U	0.95 U	0.38 U	0.93 U	0.95 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.38 U	0.058	0.048 J	0.51	0.27	0.043 J	0.44	0.25 J
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.38 U	0.055	0.049 J	0.53	0.28	0.039 J	0.33	0.26
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.38 U	0.083	0.087	0.68	0.36	0.052 J	0.37	0.34
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.38 U	0.021 J	0.077 U	0.22	0.15 J	0.075 U	0.19	0.19 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.38 U	0.030 J	0.077 U	0.34	0.18 J	0.075 U	0.11 J	0.13 J
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.076 J	0.18 U	0.39 U	0.95 U	0.95 U	0.38 U	0.93 U	0.95 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.38 U	0.074	1.0	0.19 U	0.19 U	0.054 J	0.18 U	0.19 U
	CARBAZOLE	mg/kg	NA	NA	NA	0.38 U	0.036 U	0.077 U	0.19 U	0.19 U	0.075 U	0.18 U	0.19 U
	CHRYSENE	mg/kg	220	110	250	0.26 J	0.060	0.047 J	0.54	0.31	0.062 J	0.50	0.23
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.38 U	0.036 U	0.077 U	0.19 U	0.19 U	0.075 U	0.18 U	0.19 UJ
	DIBENZOFURAN	mg/kg	100	73	2.9	0.38 U	0.036 U	0.077 U	0.19 U	0.19 U	0.075 U	0.18 U	0.19 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.38 U	0.036 U	0.077 U	0.19 U	0.19 U	0.075 U	0.18 U	0.19 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.38 U	0.036 U	0.077 U	0.19 U	0.19 U	0.075 U	0.18 U	0.19 U
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.38 U	0.036 U	0.077 U	0.19 U	0.19 U	0.075 U	0.18 U	0.19 U
	FLUORENE	mg/kg	3400	2390	110	0.38 U	0.036 U	0.077 U	0.19 U	0.19 U	0.075 U	0.18 U	0.19 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.38 U	0.020 J	0.077 U	0.26	0.17 J	0.075 U	0.15 J	0.11 J
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.38 U	0.036 U	0.077 U	0.19 U	0.19 U	0.075 U	0.18 U	0.19 UJ
	PHENANTHRENE	mg/kg	NA	NA	NA	0.63	0.060	0.077 U	0.52	0.37	0.041 J	0.73	0.22
	PHENOL	mg/kg	27000	19000	67	0.95 U	0.091 U	0.19 U	0.47 U	0.48 U	0.19 U	0.47 U	0.48 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.15 U	0.36 U	0.15 U	0.38 U	0.38 U	0.074 U	0.36 U	0.37 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.49	0.36 U	0.15 U	0.38 U	0.38 U	0.074 U	0.36 U	0.37 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.15 U	0.36 U	0.15 U	0.38 U	0.38 U	0.074 U	0.36 U	0.37 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.15 U	0.36 U	0.15 U	0.38 U	0.38 U	0.074 U	0.36 U	0.37 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.15 U	0.36 U	0.15 U	0.38 U	1.5	0.074 U	0.57	0.37 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.15 U	0.36 U	0.15 U	**[1.1 J]**	NS	0.074 U	**[1.3 J]**	0.37 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.15 U	0.36 U	0.15 U	0.71	NS	0.074 U	0.75	0.37 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.16 J	0.36 U	0.15 U	1.4 J	NS	0.080 J	1.3 J	0.37 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.15 U	0.36 U	0.15 U	0.42	2.5 J	0.074 U	0.57	0.37 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.15 U	0.36 U	0.15 U	0.45	NS	0.074 U	0.38	0.37 U
	CHRYSENE	mg/kg	220	110	250	0.45 J	0.36 U	0.15 U	1.0 J	NS	0.074 U	1.3 J	0.37 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.15 U	0.36 U	0.15 U	0.38 U	0.46	0.074 U	0.36 U	0.37 UJ
	FLUORENE	mg/kg	3400	2390	110	0.15 U	0.36 U	0.15 U	0.38 U	0.43	0.074 U	0.36 U	0.37 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.15 UJ	0.36 UJ	0.15 UJ	0.65 J	3.8 J	0.074 UJ	0.58 J	0.37 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	**[0.21]**	0.36 U	0.15 U	0.38 U	0.38 U	0.074 U	0.36 U	0.37 U
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	0.36 U	0.15 U	1.2 J	NS	0.074 U	NS	0.37 U
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	18PS-1	18PS-2		18PS-3		19PS-1	19PS-2	
					Sample ID:	LPA18-PS-001 (9-10') (20160921)	LPA18-PS-002 (1-2') (20160921)	LPA18-PS-002 (12-14') (20160921)	LPA18-PS-003 (1-4') (20160921)	LPA18-QD-001 (1-4') (20160921)	LPA19-PS-001 (4-5') (20160923)	LPA19-PS-002 (1-3') (20160923)	LPA19-QD-001 (1-3') (20160923)
					Sample Date:	9/21/16	9/21/16	9/21/16	9/21/16	9/21/16	9/23/16	9/23/16	9/23/16
					Sample Depth (ft bgs):	9-10 ft.	1-2 ft.	12-14 ft.	1-4 ft.	1-4 ft.	4-5 ft.	1-3 ft.	1-3 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	91	85	66	66	79	86	87	86
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.0037 U	0.02 U	0.005 U	0.051 U	0.042 U	0.19 U	0.038 U	0.039 U
	METHOXYCHLOR	mg/kg	450	320	43	0.0037 U	0.02 U	0.005 U	0.051 U	0.042 U	0.19 U	0.038 U	0.039 U
	P,P'-DDD	mg/kg	32	2.3	1.5	0.0037 U	0.02 U	0.005 U	0.05 U	0.042 U	0.19 U	0.038 U	0.039 U
	P,P'-DDE	mg/kg	28	2	2.2	0.0037 U	0.02 U	0.005 U	0.05 U	0.042 U	0.19 U	0.038 U	0.039 U
	P,P'-DDT	mg/kg	27	NA	16	0.0037 U	0.02 U	0.005 U	0.05 U	0.042 U	0.19 U	0.038 U	0.039 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.0037 U	0.02 U	0.005 UJ	0.051 U	0.042 U	0.19 U	0.038 U	0.039 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.099 U	0.11 UJ	0.14 U	0.14 U	0.11 UJ	0.1 U	0.1 UJ	0.1 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.13 U	0.14 UJ	0.18 U	0.18 U	0.15 UJ	0.14 U	0.14 UJ	0.14 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.18 UJ	0.39 U	1.2 U	2.5 U	2.1 U	1.9 U	0.95 U	0.97 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.091 UJ	0.2 U	1.2 U	1.3 U	1.1 U	0.97 U	0.48 U	0.48 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.036 UJ	0.078 U	0.5 U	0.5 U	0.42 U	0.38 U	0.12 J	0.19 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.073 UJ	0.16 U	1 U	1 U	0.84 U	0.78 U	0.38 U	0.39 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.073 UJ	0.16 U	1 U	1 U	0.84 U	0.78 U	0.38 U	0.39 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.036 UJ	0.041 J	0.5 U	0.40 J	0.31 J	0.38 U	0.17 J	0.099 J
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.036 UJ	0.078 U	0.5 U	0.5 U	0.42 U	0.38 U	0.11 J	0.19 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.036 UJ	0.14	0.5 U	1.7	1.2	0.38 UJ	0.48 J	0.33 J
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.18 UJ	0.39 U	1.2 U	2.5 U	2.1 U	1.9 U	0.95 U	0.97 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.036 UJ	0.48 J	0.5 UJ	**[3.9 J]**	**[2.4 J]**	0.38 UJ	**[1.4 J]**	**[1.2 J]**
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.036 UJ	0.45	0.5 U	4.3	2.3	0.38 UJ	1.3 J	1.1 J
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.036 UJ	0.61	0.5 U	5.2	2.9	0.21 J	1.5	1.4
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.036 UJ	0.15	0.5 U	2.8	1.4	0.38 UJ	0.81	0.62
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.036 UJ	0.23	0.5 U	2.3	1.3	0.38 UJ	0.63	0.42
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.18 UJ	0.39 U	1.2 U	2.5 U	2.1 U	1.9 U	0.95 U	0.97 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.036 UJ	0.078 U	0.5 U	0.5 U	0.42 U	0.38 U	0.19 U	0.19 U
	CARBAZOLE	mg/kg	NA	NA	NA	0.036 UJ	0.078 U	0.5 U	0.39 J	0.28 J	0.38 U	0.19	0.14
	CHRYSENE	mg/kg	220	110	250	0.036 UJ	0.46	0.35 J	3.8	2.2	0.38 U	1.3	1.2
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.036 UJ	0.045 J	0.5 UJ	0.60 J	0.37 J	0.38 UJ	0.19 J	0.16 J
	DIBENZOFURAN	mg/kg	100	73	2.9	0.036 UJ	0.078 U	0.5 U	0.28 J	0.23 J	0.38 U	0.12 J	0.19 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.036 UJ	0.078 U	0.5 U	0.5 U	0.42 U	0.38 UJ	0.19 UJ	0.19 UJ
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.036 UJ	0.078 U	0.5 U	0.5 U	0.42 U	0.38 UJ	0.19 UJ	0.19 UJ
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.036 UJ	0.078 U	0.5 U	0.5 U	0.42 U	0.38 U	0.19 U	0.19 U
	FLUORENE	mg/kg	3400	2390	110	0.036 UJ	0.078 U	0.5 U	0.62	0.50	0.38 UJ	0.20 J	0.13 J
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.036 UJ	0.18	0.5 U	2.9	1.6	0.38 UJ	0.78	0.70
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.036 UJ	0.078 UJ	0.5 UJ	**[0.86 J]**	**[0.51 J]**	0.38 UJ	**[0.20 J]**	0.19 UJ
	PHENANTHRENE	mg/kg	NA	NA	NA	0.036 UJ	0.61	0.53	5.6	4.1	0.38 UJ	2.5 J	1.7 J
	PHENOL	mg/kg	27000	19000	67	0.091 UJ	0.2 U	1.2 U	1.3 U	1.1 U	0.97 U	0.48 U	0.48 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.0014 U	0.077 U	0.2 U	0.49 U	0.41 U	0.76 U	0.15 U	0.15 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.0014 U	0.077 U	0.2 U	0.53	0.48	0.76 U	0.31	0.15 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.0014 U	0.077 U	0.2 U	1.0	0.58	0.76 U	0.28	0.15 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.0014 U	0.077 U	0.2 U	0.56	0.41 U	0.76 U	0.18	0.15 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.0014 U	0.15	0.2 U	NS	1.9	0.76 U	NS	0.15 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.0014	NS	0.2 U	NS	NS	0.76 U	NS	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.0014 U	NS	0.2 U	NS	NS	0.76 U	NS	NS
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.0017	NS	0.2 U	NS	NS	0.76 U	NS	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.0014 U	0.30	0.2 U	NS	NS	0.76 U	NS	NS
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.0014 U	0.38	0.2 U	NS	NS	0.76 U	NS	0.15 U
	CHRYSENE	mg/kg	220	110	250	0.0014 U	NS	0.34	NS	NS	0.76 U	NS	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.0014 UJ	0.077 UJ	0.2 UJ	1.6 J	0.63 J	0.76 U	0.25	0.17
	FLUORENE	mg/kg	3400	2390	110	0.0014 U	0.077 U	0.2 U	2.4	0.93	0.76 U	0.42	0.21
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.0014 U	NS	0.2 U	NS	NS	0.76 U	NS	NS
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.0014 U	0.077 U	0.2 U	**[0.83]**	**[0.83]**	0.76 U	**[0.54]**	0.15 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.0014 U	NS	0.36	NS	NS	0.76 U	NS	NS
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	19PS-3	20PS-1		20PS-2	20PS-3	21PS-1		21PS-2
					Sample ID:	LPA19-PS-003 (1-2') (20160923)	LPA20-PS-001 (1-2') (20160927)	LPA20-PS-001 (4-7') (20160927)	LPA20-PS-002 (1-2') (20160927)	LPA20-PS-003 (1-4') (20160927)	LPA21-PS-001 (3-4) (20160802)	LPA21-PS-001 (7-8) (20160802)	LPA21-PS-002 (3-4) (20160802)
					Sample Date:	9/23/16	9/27/16	9/27/16	9/27/16	9/27/16	8/2/16	8/2/16	8/2/16
					Sample Depth (ft bgs):	1-2 ft.	1-2 ft.	4-7 ft.	1-2 ft.	1-4 ft.	3-4 ft.	7-8 ft.	3-4 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	76	95	95	67	97	85	96	97
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.0044 U	0.0035 U	0.0035 U	0.0049 U	0.0034 U	0.0039 U	0.0035 U	0.0034 U
	METHOXYCHLOR	mg/kg	450	320	43	0.0044 U	0.0035 U	0.0035 U	0.0049 U	0.0034 U	0.0039 U	0.0035 U	0.0034 U
	P,P'-DDD	mg/kg	32	2.3	1.5	0.0044 U	0.0035 U	0.0035 U	0.0049 U	0.0034 U	0.0039 U	0.0035 U	0.0034 U
	P,P'-DDE	mg/kg	28	2	2.2	0.0044 U	0.0035 U	0.0035 U	0.0049 U	0.0034 U	0.0039 U	0.0035 U	0.0034 U
	P,P'-DDT	mg/kg	27	NA	16	0.0044 U	0.0035 U	0.0035 U	0.0053	0.0034 U	0.0039 U	0.0035 U	0.0034 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.0044 U	0.0035 U	0.0035 U	0.0049 U	0.0034 U	0.0039 U	0.0035 U	0.0034 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.12 U	0.094 U	0.094 U	0.13 U	0.093 U	0.11 U	0.094 U	0.093 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.16 U	0.13 U	0.13 U	0.18 U	0.13 U	0.14 U	0.13 U	0.13 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.44 U	0.17 U	0.17 U	0.25 U	0.17 U	0.97 U	0.17 U	0.17 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.22 U	0.087 U	0.087 U	0.12 U	0.086 U	0.49 U	0.087 U	0.086 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.087 U	0.035 U	0.035 U	0.049 U	0.034 U	0.19 U	0.034 U	0.034 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.17 U	0.07 U	0.07 U	0.099 U	0.069 U	0.39 U	0.07 U	0.069 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.17 U	0.07 U	0.07 U	0.099 U	0.069 U	0.39 U	0.07 U	0.069 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.087 U	0.035 U	0.035 U	0.049 U	0.034 U	0.19 U	0.034 U	0.034 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.087 U	0.035 U	0.035 U	0.049 U	0.034 U	0.19 U	0.034 U	0.034 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.073 J	0.035 U	0.035 U	0.049 U	0.034 U	0.24	0.034 U	0.034 U
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.44 U	0.17 U	0.17 U	0.25 U	0.17 U	0.97 U	0.17 U	0.17 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.25 J	0.035 UJ	0.035 UJ	0.049 UJ	0.034 UJ	0.61	0.034 U	0.034 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.24 J	0.035 U	0.035 U	0.049 U	0.034 U	0.57	0.034 U	0.027 J
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.38	0.035 U	0.035 U	0.025 J	0.034 U	0.76	0.034 U	0.034 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.083 J	0.035 U	0.035 U	0.049 U	0.034 U	0.34	0.034 U	0.034 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.12	0.035 U	0.035 U	0.049 U	0.034 U	0.26	0.034 U	0.034 U
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.44 U	0.17 U	0.17 U	0.25 U	0.17 U	0.97 U	0.17 U	0.17 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.087 U	0.039	0.035 U	0.033 J	0.034 U	0.19 U	0.067	0.034 U
	CARBAZOLE	mg/kg	NA	NA	NA	0.087 U	0.035 U	0.035 U	0.049 U	0.034 U	0.10 J	0.034 U	0.034 U
	CHRYSENE	mg/kg	220	110	250	0.24	0.035 U	0.035 U	0.049 U	0.034 U	0.55	0.034 U	0.034 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.087 UJ	0.035 UJ	0.035 UJ	0.049 UJ	0.034 UJ	0.19 U	0.034 U	0.034 U
	DIBENZOFURAN	mg/kg	100	73	2.9	0.087 U	0.035 U	0.035 U	0.049 U	0.034 U	0.19 U	0.034 U	0.034 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.087 UJ	0.035 U	0.035 U	0.049 U	0.034 U	0.19 U	0.034 U	0.034 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.087 UJ	0.035 U	0.035 UJ	0.049 U	0.034 U	0.19 U	0.034 U	0.034 U
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.087 U	0.035 U	0.035 U	0.049 U	0.034 U	0.19 U	0.034 U	0.034 U
	FLUORENE	mg/kg	3400	2390	110	0.087 UJ	0.035 U	0.035 U	0.049 U	0.034 U	0.14 J	0.034 U	0.034 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.10	0.035 U	0.035 U	0.049 U	0.034 U	0.35	0.034 U	0.034 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.087 UJ	0.035 UJ	0.035 UJ	0.049 UJ	0.034 UJ	0.11 J	0.034 U	0.034 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.34 J	0.035 U	0.035 U	0.049 U	0.034 U	1.3	0.034 U	0.034 U
	PHENOL	mg/kg	27000	19000	67	0.22 U	0.087 U	0.087 U	0.12 U	0.086 U	0.49 U	0.087 U	0.086 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.085 U	0.0027 U	0.0027 U	0.19 U	0.0013 U	0.15 U	0.0027 U	0.0067 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.085 U	0.0027 U	0.0027 U	0.19 U	0.0013 U	0.15 U	0.0027 U	0.0067 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.085 U	0.0027 U	0.0027 U	0.19 U	0.0013 U	0.15 U	0.0027 U	0.0067 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.085 U	0.0027 U	0.0027 U	0.19 U	0.0013 U	0.15 U	0.0027 U	0.0067 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.085 U	0.0027 U	0.0027 U	0.19 U	0.0013 U	0.15 U	0.0027 U	0.0067 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	0.0043 J	0.0027 U	0.19 U	0.0013 U	0.38	0.0027 U	0.0067 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	0.0032 J	0.0027 U	0.19 U	0.0013 U	0.25 J	0.0027 UJ	0.0067 UJ
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	0.0056 J	0.0027 U	0.19 U	0.0013 U	0.5	0.0027 U	0.0067 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	0.0027 U	0.0027 U	0.19 U	0.0013 U	0.16	0.0027 U	0.0067 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.085 U	0.0027 U	0.0027 U	0.19 U	0.0013 U	0.16	0.0027 U	0.0067 U
	CHRYSENE	mg/kg	220	110	250	NS	0.0039 J	0.0027 U	0.19 U	0.0013 U	0.36	0.0027 U	0.0067 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	0.0027 U	0.0027 U	0.19 U	0.0013 U	0.15 U	0.0027 U	0.0067 U
	FLUORENE	mg/kg	3400	2390	110	0.085 U	0.0027 U	0.0027 U	0.19 U	0.0013 U	0.15 U	0.0027 U	0.0067 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	0.0032 J	0.0027 UJ	0.19 UJ	0.0013 UJ	0.23	0.0027 U	0.0067 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.085 U	0.0027 U	0.0027 U	0.19 U	0.0013 U	0.15 U	0.0027 U	0.0067 U
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	0.0054 J	0.0027 U	0.19 U	0.0013 U	0.56	0.0027 U	0.0067 U
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	4600

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	21PS-2		21PS-3		22PS-1		22PS-2	
					Sample ID:	LPA21-PS-002 (7-8) (20160802)	LPA21-QD-001 (7-8) (20160802)	LPA21-PS-003 (3-4) (20160802)	LPA21-PS-003 (6-7) (20160802)	LPA22-PS-001 (3-4') (20160804)	LPA22-PS-001 (7-8') (20160804)	LPA22-PS-002 (2-3') (20160804)	LPA22-PS-002 (7-8') (20160804)
					Sample Date:	8/2/16	8/2/16	8/2/16	8/2/16	8/4/16	8/4/16	8/4/16	8/4/16
					Sample Depth (ft bgs):	7-8 ft.	7-8 ft.	3-4 ft.	6-7 ft.	3-4 ft.	7-8 ft.	2-3 ft.	7-8 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	97	97	98	96	89	97	95	81
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.0034 U	0.0034 U	0.0034 U	0.0035 U	0.0037 U	0.0034 U	0.0035 U	0.0041 U
	METHOXYCHLOR	mg/kg	450	320	43	0.0034 U	0.0034 U	0.0034 U	0.0035 U	0.0037 U	0.0034 U	0.0035 U	0.0041 U
	P,P'-DDD	mg/kg	32	2.3	1.5	0.0034 U	0.0034 U	0.0034 U	0.0035 U	0.0037 U	0.0034 U	0.0035 U	0.0041 U
	P,P'-DDE	mg/kg	28	2	2.2	0.0034 U	0.0034 U	0.0034 U	0.0035 U	0.0037 U	0.0034 U	0.0035 U	0.0041 U
	P,P'-DDT	mg/kg	27	NA	16	0.0034 U	0.0034 U	0.0034 U	0.0035 U	0.0037 U	0.0034 U	0.0035 U	0.0041 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.0034 U	0.0034 U	0.0034 U	0.0035 U	0.0037 U	0.0034 U	0.0035 U	0.0041 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.092 U	0.092 U	0.091 U	0.094 U	0.1 U	0.093 U	0.095 U	0.11 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.13 U	0.13 U	0.12 U	0.13 U	0.14 U	0.13 U	0.13 U	0.15 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.17 U	0.17 U	0.17 U	0.17 U	0.19 U	0.17 U	0.35 U	0.21 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.085 U	0.085 U	0.084 U	0.086 U	0.093 U	0.085 U	0.18 U	0.1 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.034 U	0.034 U	0.034 U	0.034 U	0.037 U	0.034 U	0.07 U	0.041 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.068 U	0.069 U	0.068 U	0.069 U	0.075 U	0.069 U	0.14 U	0.082 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.068 U	0.069 U	0.068 U	0.069 U	0.075 U	0.069 U	0.14 U	0.082 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.034 U	0.034 U	0.034 U	0.034 U	0.037 U	0.034 U	0.078	0.041 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.034 U	0.034 U	0.034 U	0.034 U	0.037 U	0.034 U	0.07 U	0.041 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.034 U	0.034 U	0.034 U	0.034 U	0.037 U	0.034 U	0.16	0.041 U
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.17 U	0.17 U	0.17 U	0.17 U	0.19 U	0.17 U	0.35 U	0.21 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.034 U	0.034 U	0.034 U	0.034 U	0.037 U	0.034 U	0.35	0.041 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.034 U	0.034 U	0.034 U	0.034 U	0.037 U	0.034 U	0.27	0.041 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.034 U	0.034 U	0.034 U	0.034 U	0.037 U	0.034 U	0.39	0.041 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.034 U	0.034 U	0.034 U	0.034 U	0.037 U	0.034 U	0.14	0.041 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.034 U	0.034 U	0.034 U	0.034 U	0.037 U	0.034 U	0.16	0.041 U
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.17 U	0.17 U	0.17 U	0.17 U	0.19 U	0.17 U	0.35 U	0.21 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.32	3.1	0.040	0.13	0.037 U	0.059	0.07 U	0.041 U
	CARBAZOLE	mg/kg	NA	NA	NA	0.034 U	0.034 U	0.034 U	0.034 U	0.037 U	0.034 U	0.061 J	0.041 U
	CHRYSENE	mg/kg	220	110	250	0.034 U	0.034 U	0.034 U	0.034 U	0.037 U	0.034 U	0.35	0.041 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.034 U	0.034 U	0.034 U	0.034 U	0.037 U	0.034 U	0.047 J	0.041 U
	DIBENZOFURAN	mg/kg	100	73	2.9	0.034 U	0.034 U	0.034 U	0.034 U	0.037 U	0.034 U	0.07 U	0.041 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.034 U	0.034 U	0.034 U	0.034 U	0.037 U	0.034 U	0.07 U	0.041 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.034 U	0.034 U	0.034 U	0.034 U	0.037 U	0.034 U	0.07 U	0.041 U
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.034 U	0.034 U	0.034 U	0.034 U	0.037 U	0.034 U	0.07 U	0.041 U
	FLUORENE	mg/kg	3400	2390	110	0.034 U	0.034 U	0.034 U	0.034 U	0.037 U	0.034 U	0.073	0.041 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.034 U	0.034 U	0.034 U	0.034 U	0.037 U	0.034 U	0.15	0.041 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.034 U	0.034 U	0.034 U	0.034 U	0.037 U	0.034 U	0.07 U	0.041 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.034 U	0.034 U	0.034 U	0.034 U	0.037 U	0.034 U	0.73	0.041 U
	PHENOL	mg/kg	27000	19000	67	0.085 U	0.085 U	0.084 U	0.086 U	0.093 U	0.085 U	0.18 U	0.1 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.0029 U	0.0027 U	0.0069 U	0.0032 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.0029 U	0.0027 U	0.0069 U	0.0032 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.0029 U	0.0027 U	0.0069 U	0.0032 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.0029 U	0.0027 U	0.0069 U	0.0032 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.0052 J	0.0027 U	0.0069 U	0.0032 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.013 J	0.0027 U	0.020	0.0032 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.0027 UJ	0.0027 UJ	0.0026 UJ	0.0027 UJ	0.0071 J	0.0027 UJ	0.014 J	0.0032 UJ
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.029 U	0.0027 U	0.032	0.0032 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.0051 J	0.0027 U	0.011	0.0032 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.0055 J	0.0027 U	0.010	0.0032 U
	CHRYSENE	mg/kg	220	110	250	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.012 J	0.0027 U	0.021	0.0032 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.0029 U	0.0027 U	0.0069 U	0.0032 U
	FLUORENE	mg/kg	3400	2390	110	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.0029 U	0.0027 U	0.0069 U	0.0032 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.0076 J	0.0027 U	0.015	0.0032 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.0029 U	0.0027 U	0.0069 U	0.0032 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.0027 U	0.0027 U	0.0026 U	0.0027 U	0.029 U	0.0027 U	0.019	0.0032 U
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	1000 U	NS	NS	15000	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	22PS-2	22PS-3			23PS-1			23PS-2
					Sample ID:	LPA22-PS-002 (7-8') (20160809)	LPA22-PS-003 (3-4') (20160804)	LPA22-PS-003 (7-8.5') (20160804)	LPA22-PS-003 (11-12') (20160804)	LPA23-PS-001 (2-3') (20160913)	LPA23-PS-001 (7-8') (20160913)	LPA23-PS-001 (10-12') (20160913)	LPA23-PS-002 (2-3') (20160913)
					Sample Date:	8/9/16	8/4/16	8/4/16	8/4/16	9/13/16	9/13/16	9/13/16	9/13/16
					Sample Depth (ft bgs):	7-8 ft.	3-4 ft.	7-8.5 ft.	11-12 ft.	2-3 ft.	7-8 ft.	10-12 ft.	2-3 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	98	84	97	97	92	96	96	81
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	NS	0.004 U	0.0034 U	0.0034 U	0.036 U	0.0035 U	0.0035 U	0.021 U
	METHOXYCHLOR	mg/kg	450	320	43	NS	0.004 U	0.0034 U	0.0034 U	0.036 U	0.0035 U	0.0046 J	0.021 U
	P,P'-DDD	mg/kg	32	2.3	1.5	NS	0.0065	0.0034 U	0.0034 U	0.036 U	0.0035 U	0.0035 U	0.0041 U
	P,P'-DDE	mg/kg	28	2	2.2	NS	0.0036 J	0.0034 U	0.0034 U	0.036 U	0.0035 U	0.0035 U	0.0041 U
	P,P'-DDT	mg/kg	27	NA	16	NS	0.0039 U	0.0034 U	0.0034 U	0.036 U	0.0035 U	0.0035 U	0.0041 U
	Trans-Chlordane	mg/kg	NA	NA	NA	NS	0.004 U	0.0034 U	0.0034 U	0.036 U	0.0035 U	0.0035 U	0.0041 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	NS	0.11 U	0.093 U	0.092 U	0.098 UJ	0.093 UJ	0.093 U	0.11 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	NS	0.14 U	0.13 U	0.13 U	0.13 UJ	0.13 UJ	0.13 U	0.15 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	0.99 U	0.17 U	0.17 U	0.9 U	0.17 U	0.17 U	0.41 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	NS	0.49 U	0.085 U	0.085 U	0.45 U	0.086 U	0.086 U	0.21 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	0.2 U	0.034 U	0.034 U	0.24	0.034 U	0.034 U	0.082 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	NS	0.4 U	0.069 U	0.068 U	0.36 U	0.069 U	0.069 U	0.17 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	NS	0.4 U	0.069 U	0.068 U	0.36 U	0.069 U	0.069 U	0.17 U
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	0.2 U	0.034 U	0.034 U	0.34	0.034 U	0.034 U	0.082 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	0.2 U	0.034 U	0.034 U	0.19	0.034 U	0.034 U	0.082 U
	ANTHRACENE	mg/kg	25000	17900	1200	NS	0.2 U	0.034 U	0.034 U	1.3	0.034 U	0.034 U	0.16
	BENZALDEHYDE	mg/kg	1200	NA	0.84	NS	0.99 U	0.17 U	0.17 U	0.9 U	0.17 U	0.17 U	0.41 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	0.35	0.034 U	0.034 U	**[4.3]**	0.019 J	0.034 U	0.59
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	0.32	0.034 U	0.034 U	**[5.0]**	0.034 U	0.034 U	0.58
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	0.43	0.034 U	0.034 U	6.7	0.020 J	0.034 U	0.76
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	0.16 J	0.034 U	0.034 U	1.5	0.034 U	0.034 U	0.24
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	0.17 J	0.034 U	0.034 U	2.7	0.034 U	0.034 U	0.34
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	NS	0.99 U	0.17 U	0.17 U	0.9 U	0.17 U	0.17 U	0.41 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	NS	0.2 U	0.034 U	0.034 U	0.18 U	0.040	0.034 U	12
	CARBAZOLE	mg/kg	NA	NA	NA	NS	0.2 U	0.034 U	0.034 U	0.40	0.034 U	0.034 U	0.050 J
	CHRYSENE	mg/kg	220	110	250	NS	0.31	0.034 U	0.034 U	4.0	0.034 U	0.034 U	0.60
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	0.2 U	0.034 U	0.034 U	0.45	0.034 U	0.034 U	0.074 J
	DIBENZOFURAN	mg/kg	100	73	2.9	NS	0.2 U	0.034 U	0.034 U	0.27	0.034 U	0.034 U	0.082 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	NS	0.2 U	0.034 U	0.034 U	0.18 U	0.034 U	0.034 U	0.082 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	NS	0.2 U	0.034 U	0.034 U	0.18 U	0.034 U	0.034 U	0.082 U
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	NS	0.2 U	0.034 U	0.034 U	0.18 U	0.034 U	0.034 U	0.082 U
	FLUORENE	mg/kg	3400	2390	110	NS	0.2 U	0.034 U	0.034 U	0.53	0.034 U	0.034 U	0.050 J
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	0.20	0.034 U	0.034 U	1.7	0.034 U	0.034 U	0.29
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	0.2 U	0.034 U	0.034 U	**[0.37]**	0.034 U	0.034 U	0.082 UJ
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	0.29	0.034 U	0.034 U	4.8	0.034 U	0.034 UJ	0.81
	PHENOL	mg/kg	27000	19000	67	NS	0.49 U	0.085 U	0.085 U	0.45 U	0.086 U	0.086 U	0.21 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	0.15 U	0.0027 U	0.0027 U	0.35 U	0.0027 U	0.0014 U	0.16 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	0.15 U	0.0027 U	0.0027 U	0.38	0.0027 U	0.0014 U	0.16 U
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	0.15 U	0.0027 U	0.0027 U	0.54	0.0027 U	0.0014 UJ	0.16 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	0.15 U	0.0027 U	0.0027 U	0.35 U	0.0027 U	0.0014 U	0.16 U
	ANTHRACENE	mg/kg	25000	17900	1200	NS	0.15 U	0.0027 U	0.0027 U	NS	0.0065	0.0014 U	0.16 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	0.41	0.0027 U	0.0027 U	NS	NS	0.0014 UJ	0.41
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	0.27 J	0.0027 UJ	0.0027 UJ	NS	NS	0.0014 UJ	0.32
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	0.58	0.0030 J	0.0027 U	NS	NS	0.0019 J	0.55
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	0.18	0.0027 U	0.0027 U	NS	0.014 J	0.0014 UJ	0.22
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	0.20	0.0027 U	0.0027 U	NS	0.014 J	0.0014 U	0.16 U
	CHRYSENE	mg/kg	220	110	250	NS	0.39	0.0027 U	0.0027 U	NS	NS	0.0014 UJ	0.36
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	0.15 U	0.0027 U	0.0027 U	0.59 J	0.0029 J	0.0014 U	0.16 U
	FLUORENE	mg/kg	3400	2390	110	NS	0.15 U	0.0027 U	0.0027 U	0.89	0.0027 U	0.0014 U	0.16 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	0.25	0.0027 U	0.0027 U	NS	NS	0.0014 UJ	0.31
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	0.15 U	0.0027 U	0.0027 U	**[0.54]**	0.0027 U	0.0014 U	0.16 U
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	0.24	0.0027 U	0.0027 U	NS	NS	0.0014 U	0.47
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	1200	NS	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	23PS-2		23PS-3			24PS-1		
					Sample ID:	LPA23-PS-002 (5-7') (20160913)	LPA23-PS-002 (10-12') (20160913)	LPA23-PS-003 (2-3') (20160914)	LPA23-PS-003 (7-8') (20160914)	LPA23-PS-003 (11-12') (20160914)	LPA24-PS-001 (3-4') (20160915)	LPA24-PS-001 (4-5') (20160915)	LPA24-PS-001 (10-12') (20160915)
					Sample Date:	9/13/16	9/13/16	9/14/16	9/14/16	9/14/16	9/15/16	9/15/16	9/15/16
					Sample Depth (ft bgs):	5-7 ft.	10-12 ft.	2-3 ft.	7-8 ft.	11-12 ft.	3-4 ft.	4-5 ft.	10-12 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	80	91	92	92	93	88	88	94
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.0042 U	0.0037 U	0.0036 U	0.0036 U	0.0035 U	0.037 U	0.038 U	0.0035 U
	METHOXYCHLOR	mg/kg	450	320	43	0.0042 U	0.0037 U	0.0036 U	0.0036 U	0.0035 U	0.037 U	0.038 U	0.0035 U
	P,P'-DDD	mg/kg	32	2.3	1.5	0.0042 U	0.0037 U	0.0036 U	0.0036 U	0.0035 U	0.037 U	0.038 U	0.0035 U
	P,P'-DDE	mg/kg	28	2	2.2	0.0042 U	0.0037 U	0.0036 U	0.0036 U	0.0035 U	0.037 U	0.038 U	0.0035 U
	P,P'-DDT	mg/kg	27	NA	16	0.0042 U	0.0037 U	0.0036 U	0.0036 U	0.0035 U	0.037 U	0.038 U	0.0035 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.0042 U	0.0037 U	0.0036 U	0.0036 U	0.0035 U	0.037 U	0.038 U	0.0035 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.11 U	0.099 U	0.098 U	0.097 U	0.096 U	0.1 U	0.1 U	0.095 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.15 U	0.13 U	0.13 U	0.13 U	0.13 U	0.14 U	0.14 U	0.13 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.21 UJ	0.18 U	0.18 U	0.18 UJ	0.18 U	0.19 UJ	0.19 UJ	0.18 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.1 UJ	0.091 U	0.09 U	0.09 UJ	0.089 U	0.094 UJ	0.094 UJ	0.088 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.041 UJ	0.036 U	0.022 J	0.036 UJ	0.035 U	0.037 UJ	0.019 J	0.035 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.084 UJ	0.073 U	0.073 U	0.072 UJ	0.072 U	0.075 UJ	0.076 UJ	0.071 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.084 UJ	0.073 U	0.073 U	0.072 UJ	0.072 U	0.075 UJ	0.076 UJ	0.071 UJ
	ACENAPHTHENE	mg/kg	5000	3590	110	0.041 UJ	0.036 U	0.036 U	0.036 UJ	0.019 J	0.037 UJ	0.038 UJ	0.035 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.041 UJ	0.036 U	0.036 U	0.036 UJ	0.035 U	0.037 UJ	0.038 UJ	0.035 UJ
	ANTHRACENE	mg/kg	25000	17900	1200	0.041 UJ	0.036 U	0.022 J	0.036 UJ	0.054	0.020 J	0.038 UJ	0.035 UJ
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.21 UJ	0.18 U	0.18 U	0.18 UJ	0.18 U	0.19 UJ	0.19 UJ	0.18 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.041 UJ	0.036 U	0.066	0.024 J	0.16	0.12 J	0.043 J	0.035 UJ
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.041 UJ	0.036 U	0.065	0.020 J	0.15	0.10 J	0.045 J	0.035 UJ
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.041 UJ	0.036 U	0.088	0.031 J	0.19	0.15 J	0.068 J	0.035 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.041 UJ	0.036 U	0.026 J	0.036 UJ	0.064	0.058 J	0.020 J	0.035 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.041 UJ	0.036 U	0.037	0.036 UJ	0.078	0.058 J	0.027 J	0.035 U
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.21 UJ	0.18 U	0.18 U	0.18 UJ	0.18 U	0.19 UJ	0.19 UJ	0.18 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.041 UJ	0.10	0.036 U	0.036 UJ	0.026 J	0.084 J	0.038 UJ	0.035 U
	CARBAZOLE	mg/kg	NA	NA	NA	0.041 UJ	0.036 U	0.036 U	0.036 UJ	0.027 J	0.037 UJ	0.038 UJ	0.035 U
	CHRYSENE	mg/kg	220	110	250	0.041 UJ	0.036 U	0.070	0.023 J	0.15	0.11 J	0.038 UJ	0.035 UJ
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.041 UJ	0.036 U	0.036 U	0.036 UJ	0.035 U	0.037 UJ	0.038 UJ	0.035 UJ
	DIBENZOFURAN	mg/kg	100	73	2.9	0.041 UJ	0.036 U	0.036 U	0.036 UJ	0.035 U	0.037 UJ	0.038 UJ	0.035 UJ
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.041 UJ	0.036 U	0.036 U	0.036 UJ	0.035 U	0.037 UJ	0.038 UJ	0.035 UJ
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.041 UJ	0.036 U	0.036 U	0.036 UJ	0.035 U	0.037 UJ	0.063 J	0.035 UJ
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.041 UJ	0.036 U	0.036 U	0.036 UJ	0.035 U	0.037 UJ	0.038 UJ	0.035 U
	FLUORENE	mg/kg	3400	2390	110	0.041 UJ	0.036 U	0.036 U	0.036 UJ	0.035 U	0.037 UJ	0.038 UJ	0.035 UJ
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.041 UJ	0.036 U	0.030 J	0.036 UJ	0.076	0.064 J	0.022 J	0.035 UJ
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.041 UJ	0.036 UJ	0.036 UJ	0.036 UJ	0.035 UJ	0.024 J	0.022 J	0.035 UJ
	PHENANTHRENE	mg/kg	NA	NA	NA	0.041 UJ	0.036 U	0.11	0.036 UJ	0.29	0.084 J	0.063 J	0.035 UJ
	PHENOL	mg/kg	27000	19000	67	0.1 UJ	0.091 U	0.09 U	0.09 UJ	0.089 U	0.094 UJ	0.094 UJ	0.088 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.0016 U	0.0029 U	0.035 U	0.028 U	0.035 U	0.037 U	0.029 U	0.0069 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.0016 U	0.0029 U	0.035 U	0.028 U	0.035 U	0.062	0.035	0.010
	ACENAPHTHENE	mg/kg	5000	3590	110	0.0016 U	0.0029 U	0.035 U	0.028 U	0.035 U	0.037 U	0.029 U	0.010
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.0016 U	0.0029 U	0.035 U	0.028 U	0.035 U	0.037 U	0.029 U	0.0069 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.0016 U	0.0029 U	0.035 U	0.028 U	0.062	0.10	0.029 U	0.029
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.0016 U	0.0029 U	0.035 U	0.065	0.11	NS	0.075	0.067 J
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.0016 U	0.0029 U	0.035 U	0.057	0.072	NS	0.050	0.039 J
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.0017	0.0029 U	0.046	0.12	0.13	NS	0.12	0.074 J
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.0016 U	0.0029 U	0.035 U	0.042	0.043	NS	0.038	0.025
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.0016 U	0.0029 U	0.035 U	0.032	0.040	0.18	0.037	0.023
	CHRYSENE	mg/kg	220	110	250	0.0016 U	0.0029 U	0.035 U	0.066	0.092	NS	0.085	0.055 J
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.0016 U	0.0029 U	0.035 U	0.028 U	0.035 U	0.064	0.029 U	0.0069 U
	FLUORENE	mg/kg	3400	2390	110	0.0016 U	0.0029 U	0.035 U	0.028 U	0.035 U	0.038	0.029 U	0.015
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.0016 U	0.0029 U	0.035 UJ	0.059 J	0.069 J	NS	0.052	0.037 J
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.0016 U	0.0029 U	0.035 U	0.028 U	0.035 U	0.061	0.033	0.015
	PHENANTHRENE	mg/kg	NA	NA	NA	0.0019	0.0029 U	0.056	0.034	NS	NS	0.11	0.14 J
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	24PS-2			24PS-3			25PS-1	
					Sample ID:	LPA24-PS-002 (1-2') (20160915)	LPA24-PS-002 (6-7') (20160915)	LPA24-PS-002 (10-12') (20160915)	LPA24-PS-003 (2-4') (20160916)	LPA24-PS-003 (7-8') (20160916)	LPA24-PS-003 (10-12') (20160916)	LPA25-PS-001 (2-4') (20160921)	LPA25-PS-001 (7-8') (20160921)
					Sample Date:	9/15/16	9/15/16	9/15/16	9/16/16	9/16/16	9/16/16	9/21/16	9/21/16
					Sample Depth (ft bgs):	1-2 ft.	6-7 ft.	10-12 ft.	2-4 ft.	7-8 ft.	10-12 ft.	2-4 ft.	7-8 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	92	88	87	86	79	63	85	89
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.0035 U	0.075 U	0.019 U	0.019 U	0.0042 U	0.0052 U	0.039 U	0.037 U
	METHOXYCHLOR	mg/kg	450	320	43	0.0035 U	0.075 U	0.019 U	0.019 U	0.0042 U	0.0052 U	0.039 U	0.037 U
	P,P'-DDD	mg/kg	32	2.3	1.5	0.0035 U	0.075 U	0.019 U	0.019 U	0.0042 U	0.0052 U	0.039 U	0.037 U
	P,P'-DDE	mg/kg	28	2	2.2	0.0035 U	0.075 U	0.019 U	0.019 U	0.0042 U	0.0052 U	0.039 U	0.037 U
	P,P'-DDT	mg/kg	27	NA	16	0.0035 U	0.075 U	0.019 U	0.019 U	0.0042 U	0.0052 U	0.039 U	0.037 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.0035 U	0.075 U	0.019 U	0.019 U	0.0042 U	0.0052 U	0.039 U	0.037 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.095 U	0.1 U	0.1 U	0.1 U	0.11 U	0.14 UJ	0.11 U	0.1 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.13 U	0.14 U	0.14 U	0.14 U	0.15 U	0.19 UJ	0.14 U	0.14 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.18 U	1.9 U	1.9 U	0.19 U	0.21 U	0.26 U	1.9 U	1.9 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.09 U	0.95 U	0.96 U	0.096 U	0.1 U	0.13 U	0.97 U	0.93 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.036 U	0.38 U	0.36 J	0.038 U	0.042 U	0.052 U	0.39 U	0.37 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.072 U	0.76 U	0.77 U	0.077 U	0.084 U	0.11 U	0.78 U	0.75 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.072 UJ	0.76 UJ	0.77 UJ	0.077 UJ	0.084 UJ	0.11 UJ	0.78 U	0.75 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.036 UJ	0.61 J	1.1 J	0.038 UJ	0.042 UJ	0.052 UJ	0.39 U	0.37 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.036 UJ	0.38 UJ	0.38 UJ	0.038 UJ	0.042 UJ	0.052 UJ	0.39 U	0.37 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.036 UJ	2.6 J	4.6	0.034 J	0.042 UJ	0.052 UJ	0.39 U	0.37 U
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.18 U	1.9 U	1.9 U	0.19 U	0.21 U	0.26 U	1.9 U	1.9 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.027 J	**[3.1 J]**	**[8.9 J]**	0.093 J	0.042 UJ	0.052 UJ	0.39 UJ	0.33 J
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.019 J	2.5 J	**[7.5 J]**	0.094 J	0.042 UJ	0.052 UJ	0.39 U	0.28 J
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.028 J	3.1	**[9.7]**	0.13	0.042 U	0.052 U	0.39 U	0.20 J
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.036 U	0.98	2.8	0.044	0.042 U	0.052 U	0.39 U	0.37 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.036 U	1.4	4.2	0.053	0.042 U	0.052 U	0.39 U	0.37 U
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.18 U	1.9 U	1.9 U	0.19 U	0.21 U	0.26 U	1.9 U	1.9 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.036 U	0.38 U	0.22 J	0.046	0.042 U	0.052 U	0.39 U	0.37 U
	CARBAZOLE	mg/kg	NA	NA	NA	0.036 U	0.53	1.6	0.038 U	0.042 U	0.052 U	0.39 U	0.37 U
	CHRYSENE	mg/kg	220	110	250	0.025 J	3 J	7.7 J	0.11 J	0.042 UJ	0.052 UJ	0.39 U	0.40
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.036 UJ	0.30 J	0.72 J	0.038 UJ	0.042 UJ	0.052 UJ	0.39 UJ	0.37 UJ
	DIBENZOFURAN	mg/kg	100	73	2.9	0.036 UJ	0.44 J	0.94 J	0.038 UJ	0.042 UJ	0.052 UJ	0.39 U	0.37 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.036 UJ	0.38 UJ	0.38 UJ	0.038 UJ	0.042 UJ	0.052 UJ	0.39 U	0.37 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.036 UJ	13 J	4.6 J	0.063 J	0.042 UJ	0.052 UJ	0.39 U	0.37 U
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.036 U	0.38 U	0.38 U	0.038 U	0.042 U	0.052 U	0.39 U	0.37 U
	FLUORENE	mg/kg	3400	2390	110	0.036 UJ	1.1 J	2.4 J	0.038 UJ	0.042 UJ	0.052 UJ	0.39 U	0.37 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.036 UJ	1.2 J	3.3 J	0.052 J	0.042 UJ	0.052 UJ	0.39 U	0.37 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.036 UJ	**[0.33 J]**	**[0.37 J]**	0.038 UJ	0.042 UJ	0.052 UJ	0.39 UJ	0.37 UJ
	PHENANTHRENE	mg/kg	NA	NA	NA	0.028 J	8.2 J	18 J	0.16 J	0.042 UJ	0.052 UJ	0.39 U	0.26 J
	PHENOL	mg/kg	27000	19000	67	0.09 U	0.95 U	0.96 U	0.096 U	0.1 U	0.13 U	0.97 U	0.93 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.0028 U	0.37 U	0.38 U	0.038 U	0.041 U	0.02 U	0.15 U	0.37 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.0028 U	0.37 U	0.46	0.038 U	0.041 U	0.02 U	0.15 U	0.37 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.0028 U	0.37 U	0.38 U	0.038 U	0.041 U	0.02 U	0.15 U	0.37 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.0028 U	0.37 U	0.38 U	0.038 U	0.041 U	0.02 U	0.15 U	0.37 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.0028 U	0.37 U	0.67	0.038 U	0.041 U	0.02 U	0.15 U	0.37 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	0.48	0.74	0.095	0.041 U	0.02 U	0.15 U	0.37 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.0091	0.37 U	0.38 U	0.055	0.041 U	0.02 U	0.15 U	0.37 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	0.61	0.69	0.13	0.041 U	0.02 U	0.15 U	0.37 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.0057	0.37 U	0.38 U	0.048	0.041 U	0.02 U	0.15 U	0.37 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.0062	0.37 U	0.38 U	0.038 U	0.041 U	0.02 U	0.15 U	0.37 U
	CHRYSENE	mg/kg	220	110	250	0.013	0.47	0.87	0.11	0.041 U	0.02 U	0.15 U	0.37 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.0028 U	0.37 U	0.38 U	0.038 U	0.041 U	0.02 U	0.15 UJ	0.37 UJ
	FLUORENE	mg/kg	3400	2390	110	0.0028 U	0.37 U	0.76	0.038 U	0.041 U	0.02 U	0.15 U	0.37 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.0085	0.37 U	0.38 U	0.063 J	0.041 UJ	0.02 UJ	0.15 U	0.37 UJ
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.0028 U	0.37 U	**[0.45]**	0.038 U	0.041 U	0.02 U	0.15 U	0.37 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.0097	0.54	NS	0.14	0.041 U	0.02 U	0.15 U	0.37 U
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	25PS-2			25PS-3		26PS-1		26PS-2
					Sample ID:	LPA25-PS-002 (3-4') (20160921)	LPA25-PS-002 (7-8') (20160921)	LPA25-PS-002 (10-12') (20160921)	LPA25-PS-003 (2-4') (20160921)	LPA25-PS-003 (6-8') (20160921)	LPA26-PS-001 (4-5) (20160802)	LPA26-PS-001 (8-9) (20160802)	LPA26-PS-002 (3-4) (20160802)
					Sample Date:	9/21/16	9/21/16	9/21/16	9/21/16	9/21/16	8/2/16	8/2/16	8/2/16
					Sample Depth (ft bgs):	3-4 ft.	7-8 ft.	10-12 ft.	2-4 ft.	6-8 ft.	4-5 ft.	8-9 ft.	3-4 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	88	87	80	86	73	89	93	99
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.038 U	0.038 U	0.042 U	0.039 U	0.0046 U	0.0037 U	0.0036 U	0.0034 U
	METHOXYCHLOR	mg/kg	450	320	43	0.038 U	0.038 U	0.042 U	0.039 U	0.0046 U	0.0037 U	0.0036 U	0.0034 U
	P,P'-DDD	mg/kg	32	2.3	1.5	0.038 U	0.038 U	0.041 U	0.039 U	0.0046 U	0.0037 U	0.0036 U	0.0034 U
	P,P'-DDE	mg/kg	28	2	2.2	0.038 U	0.038 U	0.041 U	0.039 U	0.0046 U	0.0037 U	0.0036 U	0.0034 U
	P,P'-DDT	mg/kg	27	NA	16	0.038 U	0.038 U	0.041 U	0.039 U	0.0046 U	0.0037 U	0.0036 U	0.0034 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.038 U	0.038 U	0.042 U	0.039 U	0.0046 U	0.0037 U	0.0036 U	0.0034 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.1 U	0.1 U	0.11 UJ	0.1 U	0.12 U	0.1 U	0.096 U	0.091 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.14 U	0.14 U	0.15 UJ	0.14 U	0.17 U	0.14 U	0.13 U	0.12 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	1.9 U	1.9 U	5.2 U	0.39 U	0.46 U	0.19 U	0.18 U	0.17 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.94 U	0.95 U	2.6 U	0.19 U	0.23 U	0.093 U	0.089 U	0.084 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.38 U	0.38 U	**[6.0]**	0.077 U	0.091 U	0.037 U	0.035 U	0.033 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.76 U	0.76 U	2.1 U	0.15 U	0.18 U	0.075 U	0.071 U	0.068 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.76 U	0.76 U	2.1 U	0.15 U	0.18 U	0.075 U	0.071 U	0.068 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.38 U	0.38 U	1 U	0.077 U	0.091 U	0.037 U	0.035 U	0.033 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.38 U	0.38 U	1 U	0.077 U	0.091 U	0.037 U	0.035 U	0.033 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.38 U	0.38 U	1 U	0.077 U	0.091 U	0.037 U	0.035 U	0.033 U
	BENZALDEHYDE	mg/kg	1200	NA	0.84	1.9 U	1.9 U	5.2 U	0.39 U	0.46 U	0.19 U	0.18 U	0.17 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.26 J	0.21 J	1 UJ	0.048 J	0.11 J	0.037 U	0.035 U	0.033 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.19 J	0.38 U	1 U	0.077 U	0.099	0.037 U	0.035 U	0.033 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.28 J	0.22 J	1 U	0.062 J	0.15	0.037 U	0.035 U	0.033 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.38 U	0.38 U	1 U	0.077 U	0.050 J	0.037 U	0.035 U	0.033 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.38 U	0.38 U	1 U	0.077 U	0.053 J	0.037 U	0.035 U	0.033 U
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	1.9 U	1.9 U	5.2 U	0.39 U	0.46 U	0.19 U	0.18 U	0.17 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.38 U	0.38 U	1 U	0.12	0.091 U	0.16	0.035 U	0.077
	CARBAZOLE	mg/kg	NA	NA	NA	0.38 U	0.38 U	1 U	0.077 U	0.091 U	0.037 U	0.035 U	0.033 U
	CHRYSENE	mg/kg	220	110	250	0.22 J	0.20 J	0.66 J	0.046 J	0.12	0.037 U	0.035 U	0.033 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.38 UJ	0.38 UJ	1 UJ	0.077 UJ	0.091 UJ	0.037 U	0.035 U	0.033 U
	DIBENZOFURAN	mg/kg	100	73	2.9	0.38 U	0.38 U	1 U	0.077 U	0.091 U	0.037 U	0.035 U	0.033 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.38 U	0.38 U	1 U	0.077 U	0.091 U	0.037 U	0.035 U	0.033 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.38 U	0.38 U	2.2	0.077 U	0.049 J	0.037 U	0.035 U	0.033 U
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.38 U	0.38 U	1 U	0.077 U	0.091 U	0.037 U	0.035 U	0.033 U
	FLUORENE	mg/kg	3400	2390	110	0.38 U	0.38 U	1 U	0.077 U	0.091 U	0.037 U	0.035 U	0.033 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.38 U	0.38 U	1 U	0.077 U	0.048 J	0.037 U	0.035 U	0.033 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.38 UJ	0.38 UJ	**[1.9 J]**	0.077 UJ	0.091 UJ	0.037 U	0.035 U	0.033 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.36 J	0.26 J	1.8	0.064 J	0.18	0.037 U	0.035 U	0.033 U
	PHENOL	mg/kg	27000	19000	67	0.94 U	0.95 U	2.6 U	0.19 U	0.23 U	0.093 U	0.089 U	0.084 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.37 U	0.15 U	0.41 U	0.15 U	0.045 U	0.0029 U	0.0028 U	0.0026 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.37 U	0.15 U	NS	0.15 U	0.045 U	0.0029 U	0.0028 U	0.0026 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.37 U	0.15 U	0.41 U	0.15 U	0.045 U	0.0029 U	0.0028 U	0.0026 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.37 U	0.15 U	0.41 U	0.15 U	0.077	0.0029 U	0.0028 U	0.0026 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.37 U	0.15 U	0.41 U	0.15 U	0.092	0.0029 U	0.0028 U	0.0026 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.37 U	0.15	0.43	0.15 U	NS	0.0056 J	0.0028 U	0.0026 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.37 U	0.15 U	0.41 UJ	0.15 UJ	NS	0.0031 J	0.0028 UJ	0.0026 UJ
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.43	0.21	0.63	0.15 U	NS	0.0080 J	0.0028 U	0.0026 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.37 U	0.15 U	0.41 UJ	0.15 UJ	0.22	0.0029 U	0.0028 U	0.0026 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.37 U	0.15 U	0.41 U	0.15 U	0.21	0.0029 U	0.0028 U	0.0026 U
	CHRYSENE	mg/kg	220	110	250	0.37 U	0.15	0.64	0.15 U	NS	0.0054 J	0.0028 U	0.0026 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.37 UJ	0.15 UJ	0.41 UJ	0.15 UJ	0.056	0.0029 U	0.0028 U	0.0026 U
	FLUORENE	mg/kg	3400	2390	110	0.37 U	0.15 U	0.47	0.15 U	0.045 U	0.0029 U	0.0028 U	0.0026 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.37 UJ	0.15 UJ	0.41 UJ	0.15 UJ	NS	0.0034 J	0.0028 U	0.0026 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.37 U	0.15 U	**[1.6]**	0.15 U	0.045 U	0.0029 U	0.0028 U	0.0026 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.47	0.17	1.7	0.15 U	NS	0.0071 J	0.0028 U	0.0026 U
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS	NS	20000	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	26PS-2	26PS-3		27PS-1		27PS-2		
					Sample ID:	LPA26-PS-002 (7-8) (20160802)	LPA26-PS-003 (3-4) (20160802)	LPA26-PS-003 (7-8) (20160802)	LPA27-PS-001 (3-4') (20160804)	LPA27-PS-001 (7-8') (20160804)	LPA27-PS-002 (3-4') (20160804)	LPA27-PS-002 (7-8') (20160804)	LPA27-QD-002 (7-8') (20160804)
					Sample Date:	8/2/16	8/2/16	8/2/16	8/4/16	8/4/16	8/4/16	8/4/16	8/4/16
					Sample Depth (ft bgs):	7-8 ft.	3-4 ft.	7-8 ft.	3-4 ft.	7-8 ft.	3-4 ft.	7-8 ft.	7-8 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	92	90	97	76	84	66	97	97
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.0036 U	0.0037 U	0.0034 U	0.0044 U	0.004 U	0.005 U	0.0034 U	0.0034 U
	METHOXYCHLOR	mg/kg	450	320	43	0.0036 U	0.0037 U	0.0034 U	0.0044 U	0.004 U	0.005 U	0.0034 U	0.0034 U
	P,P'-DDD	mg/kg	32	2.3	1.5	0.0036 U	0.0037 U	0.0034 U	0.0044 U	0.004 U	0.005 U	0.0034 U	0.0034 U
	P,P'-DDE	mg/kg	28	2	2.2	0.0036 U	0.0037 U	0.0034 U	0.0044 U	0.004 U	0.005 U	0.0034 U	0.0034 U
	P,P'-DDT	mg/kg	27	NA	16	0.0036 U	0.0037 U	0.0034 U	0.0044 U	0.004 U	0.005 U	0.0034 U	0.0034 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.0036 U	0.0037 U	0.0034 U	0.0044 U	0.004 U	0.005 U	0.0034 U	0.0034 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.098 UJ	0.1 U	0.092 U	0.12 U	0.11 U	0.14 U	0.093 U	0.092 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.13 UJ	0.14 U	0.13 U	0.16 U	0.14 U	0.18 U	0.13 U	0.13 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.18 U	0.18 U	0.17 U	0.22 U	0.2 U	0.25 U	0.17 U	0.17 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.09 U	0.092 U	0.085 U	0.11 U	0.099 U	0.13 U	0.086 U	0.085 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.036 U	0.037 U	0.034 U	0.044 U	0.039 U	0.05 U	0.034 U	0.034 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.072 U	0.074 U	0.068 U	0.088 U	0.079 U	0.1 U	0.069 U	0.068 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.072 U	0.074 U	0.068 U	0.088 U	0.079 U	0.1 U	0.069 U	0.068 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.036 U	0.037 U	0.034 U	0.044 U	0.039 U	0.05 U	0.034 U	0.034 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.036 U	0.037 U	0.034 U	0.044 U	0.039 U	0.05 U	0.034 U	0.034 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.036 U	0.037 U	0.034 U	0.044 U	0.039 U	0.05 U	0.034 U	0.034 U
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.18 U	0.18 U	0.17 U	0.22 U	0.2 U	0.25 U	0.17 U	0.17 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.036 U	0.037 U	0.034 U	0.044 U	0.039 U	0.05 U	0.034 U	0.034 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.036 U	0.037 U	0.034 U	0.044 U	0.039 U	0.05 U	0.034 U	0.034 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.036 U	0.037 U	0.034 U	0.044 U	0.039 U	0.05 U	0.034 U	0.034 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.036 U	0.037 U	0.034 U	0.044 U	0.039 U	0.05 U	0.034 U	0.034 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.036 U	0.037 U	0.034 U	0.044 U	0.039 U	0.05 U	0.034 U	0.034 U
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.18 U	0.18 U	0.17 U	0.22 U	0.2 U	0.25 U	0.17 U	0.17 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.036 U	0.023 J	0.044	0.044 U	0.039 U	0.05 U	0.034 U	0.034 U
	CARBAZOLE	mg/kg	NA	NA	NA	0.036 U	0.037 U	0.034 U	0.044 U	0.039 U	0.05 U	0.034 U	0.034 U
	CHRYSENE	mg/kg	220	110	250	0.036 U	0.037 U	0.034 U	0.044 U	0.039 U	0.05 U	0.034 U	0.034 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.036 U	0.037 U	0.034 U	0.044 U	0.039 U	0.05 U	0.034 U	0.034 U
	DIBENZOFURAN	mg/kg	100	73	2.9	0.036 U	0.037 U	0.034 U	0.044 U	0.039 U	0.05 U	0.034 U	0.034 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.036 U	0.037 U	0.034 U	0.044 U	0.039 U	0.05 U	0.034 U	0.034 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.036 U	0.037 U	0.034 U	0.044 U	0.039 U	0.05 U	0.034 U	0.034 U
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.036 U	0.037 U	0.034 U	0.044 U	0.039 U	0.05 U	0.034 U	0.034 U
	FLUORENE	mg/kg	3400	2390	110	0.036 U	0.037 U	0.034 U	0.044 U	0.039 U	0.05 U	0.034 U	0.034 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.036 U	0.037 U	0.034 U	0.044 U	0.039 U	0.05 U	0.034 U	0.034 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.036 U	0.037 U	0.034 U	0.044 U	0.039 U	0.05 U	0.034 U	0.034 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.036 U	0.037 U	0.034 U	0.044 U	0.039 U	0.05 U	0.034 U	0.034 U
	PHENOL	mg/kg	27000	19000	67	0.09 U	0.092 U	0.085 U	0.11 U	0.099 U	0.13 U	0.086 U	0.085 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.0028 U	0.0029 U	0.0027 U	0.0034 U	0.0031 U	0.0039 U	0.0027 U	0.0027 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.0028 U	0.0029 U	0.0027 U	0.0034 U	0.0031 U	0.0039 U	0.0027 U	0.0027 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.0028 U	0.0029 U	0.0027 U	0.0034 U	0.0031 U	0.0039 U	0.0027 U	0.0027 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.0028 U	0.0029 U	0.0027 U	0.0034 U	0.0031 U	0.0039 U	0.0027 U	0.0027 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.0028 U	0.0029 U	0.0027 U	0.0034 U	0.0031 U	0.0039 U	0.0027 U	0.0027 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.0028 U	0.0029 U	0.0027 U	0.0034 U	0.0031 U	0.0039 U	0.0027 U	0.0027 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.0028 UJ	0.0029 UJ	0.0027 UJ	0.0034 UJ	0.0031 UJ	0.0039 UJ	0.0027 UJ	0.0027 UJ
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.0028 U	0.0029 U	0.0027 U	0.0034 U	0.0031 U	0.0039 U	0.0027 U	0.0027 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.0028 U	0.0029 U	0.0027 U	0.0034 U	0.0031 U	0.0039 U	0.0027 U	0.0027 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.0028 U	0.0029 U	0.0027 U	0.0034 U	0.0031 U	0.0039 U	0.0027 U	0.0027 U
	CHRYSENE	mg/kg	220	110	250	0.0028 U	0.0029 U	0.0027 U	0.0034 U	0.0031 U	0.0039 U	0.0027 U	0.0027 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.0028 U	0.0029 U	0.0027 U	0.0034 U	0.0031 U	0.0039 U	0.0027 U	0.0027 U
	FLUORENE	mg/kg	3400	2390	110	0.0028 U	0.0029 U	0.0027 U	0.0034 U	0.0031 U	0.0039 U	0.0027 U	0.0027 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.0028 U	0.0029 U	0.0027 U	0.0034 U	0.0031 U	0.0039 U	0.0027 U	0.0027 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.0028 U	0.0029 U	0.0027 U	0.0034 U	0.0031 U	0.0039 U	0.0027 U	0.0027 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.0028 U	0.0029 U	0.0027 U	0.0034 U	0.0031 U	0.0039 U	0.0027 U	0.0027 U
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	13000	NS	NS	NS	NS	1000 U	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	27PS-2	27PS-3		28PS-1			28PS-2	
					Sample ID:	LPA27-PS-002 (10-12') (20160804)	LPA27-PS-003 (3-4') (20160804)	LPA27-PS-003 (7-8') (20160804)	LPA28-PS-001 (1-2') (20160914)	LPA28-PS-001 (6-8') (20160914)	LPA28-PS-001 (10-12') (20160914)	LPA28-PS-002 (3-4') (20160914)	LPA28-PS-002 (6-8') (20160914)
					Sample Date:	8/4/16	8/4/16	8/4/16	9/14/16	9/14/16	9/14/16	9/14/16	9/14/16
					Sample Depth (ft bgs):	10-12 ft.	3-4 ft.	7-8 ft.	1-2 ft.	6-8 ft.	10-12 ft.	3-4 ft.	6-8 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	97	72	98	83	97	97	95	97
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.0034 U	0.0046 U	0.0034 UJ	0.004 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U
	METHOXYCHLOR	mg/kg	450	320	43	0.0034 U	0.0046 U	0.0034 UJ	0.004 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U
	P,P'-DDD	mg/kg	32	2.3	1.5	0.0034 U	0.0046 U	0.0034 UJ	0.004 U	0.0034 U	0.0034 U	0.0034 U	0.0033 U
	P,P'-DDE	mg/kg	28	2	2.2	0.0034 U	0.0046 U	0.0034 UJ	0.004 U	0.0034 U	0.0034 U	0.0034 U	0.0033 U
	P,P'-DDT	mg/kg	27	NA	16	0.0034 U	0.0046 U	0.0034 UJ	0.004 U	0.0034 U	0.0034 U	0.0034 U	0.0033 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.0034 U	0.0046 U	0.0034 UJ	0.004 U	0.0034 U	0.0034 U	0.0034 U	0.0034 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.092 UJ	0.13 U	**0.037 J**	0.11 U	0.093 U	0.093 U	0.093 U	0.091 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.12 UJ	0.17 U	0.12 U	0.15 U	0.13 U	0.13 U	0.13 U	0.12 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.17 U	0.23 U	0.17 U	0.2 U	0.17 U	0.17 U	0.17 U	0.17 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.085 U	0.12 U	0.085 U	0.099 U	0.086 U	0.085 U	0.087 U	0.086 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.034 U	0.046 U	0.034 U	0.04 U	0.034 U	0.034 U	0.035 U	0.034 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.068 U	0.093 U	0.068 U	0.08 U	0.069 U	0.069 U	0.07 U	0.069 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.068 U	0.093 U	0.068 U	0.08 U	0.069 U	0.069 U	0.07 U	0.069 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.034 U	0.046 U	0.034 U	0.04 U	0.034 U	0.034 U	0.035 U	0.034 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.034 U	0.046 U	0.034 U	0.04 U	0.034 U	0.034 U	0.035 U	0.034 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.034 U	0.046 U	0.034 U	0.04 U	0.034 U	0.034 U	0.035 U	0.034 U
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.17 U	0.23 U	0.17 U	0.2 U	0.17 U	0.17 U	0.17 U	0.17 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.034 U	0.046 U	0.034 U	**0.021 J**	0.034 U	0.034 U	0.035 U	0.034 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.034 U	0.046 U	0.034 U	0.04 U	0.034 U	0.034 U	0.035 U	0.034 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.034 U	0.046 U	0.034 U	**0.024 J**	0.034 U	0.034 U	0.035 U	0.034 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.034 U	0.046 U	0.034 U	0.04 U	0.034 U	0.034 U	0.035 U	0.034 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.034 U	0.046 U	0.034 U	0.04 U	0.034 U	0.034 U	0.035 U	0.034 U
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.17 U	0.23 U	0.17 U	0.2 U	0.17 U	0.17 U	0.17 U	0.17 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.034 U	0.046 U	0.034 U	**6.5**	0.034 U	**0.039**	**0.082**	0.034 U
	CARBAZOLE	mg/kg	NA	NA	NA	0.034 U	0.046 U	0.034 U	0.04 U	0.034 U	0.034 U	0.035 U	0.034 U
	CHRYSENE	mg/kg	220	110	250	0.034 U	0.046 U	0.034 U	0.04 U	0.034 U	0.034 U	0.035 U	0.034 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.034 U	0.046 U	0.034 U	0.04 U	0.034 U	0.034 U	0.035 U	0.034 U
	DIBENZOFURAN	mg/kg	100	73	2.9	0.034 U	0.046 U	0.034 U	0.04 U	0.034 U	0.034 U	0.035 U	0.034 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.034 U	0.046 U	0.034 U	0.04 U	0.034 U	0.034 U	0.035 U	0.034 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.034 U	0.046 U	0.034 U	0.04 U	0.034 U	0.034 U	0.035 U	0.034 U
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.034 U	0.046 U	0.034 U	0.04 U	0.034 U	0.034 U	0.035 U	0.034 U
	FLUORENE	mg/kg	3400	2390	110	0.034 U	0.046 U	0.034 U	0.04 U	0.034 U	0.034 U	0.035 U	0.034 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.034 U	0.046 U	0.034 U	0.04 U	0.034 U	0.034 U	0.035 U	0.034 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.034 U	0.046 U	0.034 U	0.04 UJ	0.034 UJ	0.034 UJ	0.035 UJ	0.034 UJ
	PHENANTHRENE	mg/kg	NA	NA	NA	0.034 U	0.046 U	0.034 U	0.04 U	0.034 U	0.034 U	0.035 U	0.034 U
	PHENOL	mg/kg	27000	19000	67	0.085 U	0.12 U	0.085 U	0.099 U	0.086 U	0.085 U	0.087 U	0.086 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.0027 U	0.0036 U	0.0027 U	0.078 U	0.0027 U	0.0027 U	0.0027 U	0.0027 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.0027 U	0.0036 U	0.0027 U	0.078 U	0.0027 U	0.0027 U	0.0027 U	0.0027 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.0027 U	0.0036 U	0.0027 U	0.078 U	0.0027 U	0.0027 U	0.0027 U	0.0027 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.0027 U	**0.0046 J**	0.0027 U	0.078 U	0.0027 U	0.0027 U	0.0027 U	0.0027 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.0027 U	0.0036 U	0.0027 U	0.078 U	0.0027 U	0.0027 U	0.0027 U	0.0027 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.0027 U	**0.0080 J**	0.0027 U	0.078 U	0.0027 U	0.0027 U	0.0027 U	0.0027 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.0027 UJ	**0.0063 J**	0.0027 UJ	0.078 U	0.0027 U	0.0027 U	0.0027 U	0.0027 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.0027 U	**0.012 J**	0.0027 U	0.078 U	0.0027 U	0.0027 U	0.0027 U	0.0027 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.0027 U	0.0036 U	0.0027 U	0.078 U	0.0027 U	0.0027 U	0.0027 U	0.0027 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.0027 U	**0.0040 J**	0.0027 U	0.078 U	0.0027 U	0.0027 U	0.0027 U	0.0027 U
	CHRYSENE	mg/kg	220	110	250	0.0027 U	**0.0090 J**	0.0027 U	0.078 U	0.0027 U	0.0027 U	0.0027 U	0.0027 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.0027 U	0.0036 U	0.0027 U	0.078 U	0.0027 U	0.0027 U	0.0027 U	0.0027 U
	FLUORENE	mg/kg	3400	2390	110	0.0027 U	0.0036 U	0.0027 U	0.078 U	0.0027 U	0.0027 U	0.0027 U	0.0027 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.0027 U	**0.0038 J**	0.0027 U	0.078 UJ	0.0027 UJ	0.0027 UJ	0.0027 UJ	0.0027 UJ
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.0027 U	0.0036 U	0.0027 U	0.078 U	0.0027 U	0.0027 U	0.0027 U	0.0027 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.0027 UJ	**0.0086 J**	0.0027 U	0.078 U	0.0027 U	0.0027 U	0.0027 U	0.0027 U
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	**1700**	NS	NS	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	28PS-2	28PS-3			29PS-1			
					Sample ID:	LPA28-PS-002 (10-12') (20160914)	LPA28-PS-003 (2-3') (20160915)	LPA28-PS-003 (6-8') (20160915)	LPA28-PS-003 (10-12') (20160915)	LPA29-PS-001 (3-4') (20160914)	LPA29-PS-001 (5-8') (20160914)	LPA29-PS-001 (10-12') (20160914)	LPA29-QD-001 (10-12') (20160914)
					Sample Date:	9/14/16	9/15/16	9/15/16	9/15/16	9/14/16	9/14/16	9/14/16	9/14/16
					Sample Depth (ft bgs):	10-12 ft.	2-3 ft.	6-8 ft.	10-12 ft.	3-4 ft.	5-8 ft.	10-12 ft.	10-12 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	95	90	96	97	92	96	97	93
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.0034 U	0.074 U	0.0034 U	0.0034 U	0.0036 U	0.0035 U	0.0034 U	0.0036 U
	METHOXYCHLOR	mg/kg	450	320	43	0.0034 U	0.074 U	0.0034 U	0.0034 U	0.0036 U	0.0035 U	0.0034 U	0.0036 U
	P,P'-DDD	mg/kg	32	2.3	1.5	0.0034 U	0.074 U	0.0034 U	0.0034 U	0.0036 U	0.0035 U	0.0034 U	0.0036 U
	P,P'-DDE	mg/kg	28	2	2.2	0.0034 U	0.074 U	0.0034 U	0.0034 U	0.0036 U	0.0035 U	0.0034 U	0.0036 U
	P,P'-DDT	mg/kg	27	NA	16	0.0034 U	0.22	0.0034 U	0.0034 U	0.0036 U	0.0035 U	0.0034 U	0.0036 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.0034 U	0.074 U	0.0034 U	0.0034 U	0.0036 U	0.0035 U	0.0034 U	0.0036 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.093 U	0.1 U	0.091 U	0.092 U	0.098 U	0.094 U	0.093 U	0.096 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.13 U	0.13 U	0.12 U	0.12 U	0.13 U	0.13 U	0.13 U	0.13 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.17 U	0.37 U	0.17 U	0.17 U	0.18 U	0.17 U	0.17 U	0.18 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.087 U	0.19 U	0.086 U	0.085 U	0.09 U	0.086 U	0.086 U	0.089 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.035 U	0.074 U	0.034 U	0.034 U	0.036 U	0.034 U	0.034 U	0.035 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.07 U	0.15 UJ	0.069 U	0.068 U	0.072 U	0.069 U	0.069 U	0.071 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.07 U	0.15 U	0.069 UJ	0.068 UJ	0.072 U	0.069 U	0.069 U	0.071 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.035 U	0.074 UJ	0.034 UJ	0.034 UJ	0.036 U	0.034 U	0.034 U	0.035 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.035 U	0.074 UJ	0.034 UJ	0.034 UJ	0.036 U	0.034 U	0.034 U	0.035 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.035 U	0.096 J	0.034 UJ	0.034 UJ	0.036 U	0.034 U	0.034 U	0.035 U
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.17 U	0.37 U	0.17 U	0.17 U	0.18 U	0.17 U	0.17 U	0.18 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.035 U	0.26 J	0.034 UJ	0.034 UJ	0.036 U	0.034 UJ	0.034 U	0.035 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.035 U	0.28 J	0.034 UJ	0.034 UJ	0.036 U	0.034 U	0.034 U	0.035 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.035 U	0.36	0.034 U	0.034 U	0.036 U	0.034 U	0.034 U	0.035 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.035 U	0.13	0.034 U	0.034 U	0.036 U	0.034 U	0.034 U	0.035 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.035 U	0.16	0.034 U	0.034 U	0.036 U	0.034 U	0.034 U	0.035 U
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.17 U	0.37 U	0.17 U	0.17 U	0.18 U	0.17 U	0.17 U	0.18 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.043	0.074 U	0.034 U	0.034 U	0.036 U	0.034 U	0.018 J	0.021 J
	CARBAZOLE	mg/kg	NA	NA	NA	0.035 U	0.074 U	0.034 U	0.034 U	0.036 U	0.034 U	0.034 U	0.035 U
	CHRYSENE	mg/kg	220	110	250	0.035 U	0.28 J	0.034 UJ	0.034 UJ	0.036 U	0.034 UJ	0.034 U	0.035 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.035 U	0.074 UJ	0.034 UJ	0.034 UJ	0.036 U	0.034 U	0.034 U	0.035 U
	DIBENZOFURAN	mg/kg	100	73	2.9	0.035 U	0.074 UJ	0.034 UJ	0.034 UJ	0.036 U	0.034 U	0.034 U	0.035 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.035 U	0.074 UJ	0.034 UJ	0.034 UJ	0.036 U	0.034 UJ	0.034 U	0.035 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.035 U	0.11 J	0.034 UJ	0.034 UJ	0.036 U	0.034 U	0.034 U	0.035 U
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.035 U	0.074 U	0.034 U	0.034 U	0.036 U	0.034 U	0.034 U	0.035 U
	FLUORENE	mg/kg	3400	2390	110	0.035 U	0.074 UJ	0.034 UJ	0.034 UJ	0.036 U	0.034 U	0.034 U	0.035 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.035 U	0.15 J	0.034 UJ	0.034 UJ	0.036 U	0.034 U	0.034 UJ	0.035 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.035 UJ	0.041 J	0.034 UJ	0.034 UJ	0.036 UJ	0.034 UJ	0.034 UJ	0.035 UJ
	PHENANTHRENE	mg/kg	NA	NA	NA	0.035 U	0.44 J	0.034 UJ	0.034 UJ	0.036 U	0.034 UJ	0.034 U	0.035 U
	PHENOL	mg/kg	27000	19000	67	0.087 U	0.19 U	0.086 U	0.085 U	0.09 U	0.086 U	0.086 U	0.089 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.0027 U	0.072 U	0.0014 U	0.0013 U	0.0028 U	0.0014 U	0.0027 U	0.0014 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.0027 U	0.072 U	0.0014 U	0.0013 U	0.0028 U	0.0014 U	0.0027 U	0.0014 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.0027 U	0.072 U	0.0014 U	0.0013 U	0.0028 U	0.0014 U	0.0027 U	0.0014 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.0027 U	0.072 U	0.0014 U	0.0013 U	0.0028 U	0.0014 U	0.0027 U	0.0014 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.0027 U	0.13	0.0014 U	0.0013 U	0.0028 U	0.0014 UJ	0.0027 U	0.0014 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.0027 U	NS	0.0014 U	0.0022 J	0.0028 U	0.0014 U	0.0027 U	0.0014 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.0027 U	0.28	0.0014 U	0.0013 J	0.0028 U	0.0014 UJ	0.0027 U	0.0014 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.0027 U	NS	0.0018 J	0.0032 J	0.0028 U	0.0014 U	0.0027 U	0.0014 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.0027 U	0.21	0.0014 U	0.0015 J	0.0030 J	0.0014 U	0.0027 U	0.0014 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.0027 U	0.18	0.0014 U	0.0013 U	0.0028 U	0.0014 U	0.0027 U	0.0014 U
	CHRYSENE	mg/kg	220	110	250	0.0027 U	NS	0.0018 J	0.0027 J	0.0028 U	0.0014 U	0.0027 U	0.0014 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.0027 U	0.072 U	0.0014 U	0.0013 U	0.0028 U	0.0014 U	0.0027 U	0.0014 U
	FLUORENE	mg/kg	3400	2390	110	0.0027 U	0.072 U	0.0014 U	0.0013 U	0.0028 U	0.0014 U	0.0027 U	0.0014 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.0027 UJ	0.30	0.0014 U	0.0014 J	0.0028 UJ	0.0014 UJ	0.0027 U	0.0014 UJ
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.0027 U	0.072 U	0.0014 U	0.0013 U	0.0028 U	0.0014 U	0.0027 U	0.0014 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.0027 U	NS	0.0020 J	0.0030 J	0.0028 U	0.0014 UJ	0.0027 U	0.0018
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	29PS-2			29PS-3				30PS-1
					Sample ID:	LPA29-PS-002 (3-4') (20160915)	LPA29-PS-002 (6-7') (20160915)	LPA29-PS-002 (10-11') (20160915)	LPA29-PS-003 (1-2') (20160915)	LPA29-PS-003 (6-8') (20160915)	LPA29-PS-003 (10-12') (20160915)	LPA29-QD-001 (10-12') (20160915)	LPA30-PS-001 (2-3') (20160922)
					Sample Date:	9/15/16	9/15/16	9/15/16	9/15/16	9/15/16	9/15/16	9/15/16	9/22/16
					Sample Depth (ft bgs):	3-4 ft.	6-7 ft.	10-11 ft.	1-2 ft.	6-8 ft.	10-12 ft.	10-12 ft.	2-3 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	88	97	97	83	96	97	97	89
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.0038 U	0.0034 U	0.0034 U	0.004 U	0.0034 U	0.0034 U	0.0034 U	0.038 U
	METHOXYCHLOR	mg/kg	450	320	43	0.0038 U	0.0034 U	0.0034 U	0.004 U	0.0034 U	0.0034 U	0.0034 U	0.15
	P,P'-DDD	mg/kg	32	2.3	1.5	0.0038 U	0.0034 U	0.0034 U	0.004 U	0.0034 U	0.0034 U	0.0034 U	0.038 U
	P,P'-DDE	mg/kg	28	2	2.2	0.0038 U	0.0034 U	0.0034 U	0.004 U	0.0034 U	0.0034 U	0.0034 U	0.038 U
	P,P'-DDT	mg/kg	27	NA	16	0.0038 U	0.0034 U	0.0034 U	0.004 U	0.0034 U	0.0034 U	0.0034 U	0.038 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.0038 U	0.0034 U	0.0034 U	0.004 U	0.0034 U	0.0034 U	0.0034 U	0.038 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.1 U	0.092 U	0.091 U	0.11 U	0.091 U	0.093 U	0.092 U	0.1 UJ
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.14 U	0.12 U	0.12 U	0.15 U	0.12 U	0.13 U	0.13 U	0.14 UJ
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.19 U	0.17 U	0.17 U	0.2 U	0.17 UJ	0.17 U	0.17 U	1.9 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.094 U	0.085 U	0.085 U	0.1 UJ	0.086 U	0.085 U	0.086 U	0.93 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.037 U	0.034 U	0.034 U	0.04 U	0.034 U	0.034 U	0.034 U	0.21 J
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.076 U	0.069 U	0.069 U	0.081 U	0.069 U	0.069 U	0.069 U	0.75 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.076 UJ	0.069 UJ	0.069 UJ	0.081 UJ	0.069 UJ	0.069 UJ	0.069 UJ	0.75 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.037 UJ	0.034 UJ	0.034 U	0.04 UJ	0.034 UJ	0.034 UJ	0.034 UJ	0.66
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.037 UJ	0.034 UJ	0.034 UJ	0.04 UJ	0.034 UJ	0.034 UJ	0.034 UJ	0.37 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.037 UJ	0.034 UJ	0.034 UJ	0.04 U	0.034 UJ	0.034 UJ	0.034 UJ	2.2
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.19 U	0.17 U	0.17 U	0.2 U	0.17 UJ	0.17 U	0.17 U	1.9 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.037 UJ	0.034 UJ	0.034 UJ	0.031 J	0.034 UJ	0.034 UJ	0.034 UJ	**[5.8 J]**
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.037 UJ	0.034 UJ	0.034 UJ	0.025 J	0.034 UJ	0.034 UJ	0.034 UJ	**[5.8]**
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.037 U	0.034 U	0.034 U	0.033 J	0.034 U	0.034 U	0.034 U	7.4
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.037 U	0.034 U	0.034 U	0.04 U	0.034 UJ	0.034 U	0.034 U	2.2
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.037 U	0.034 U	0.034 U	0.04 U	0.034 U	0.034 U	0.034 U	2.2
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.19 U	0.17 U	0.17 U	0.2 U	0.17 U	0.17 U	0.17 U	1.9 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.037 U	0.034 U	0.034 U	0.04 U	0.11	0.034 U	0.061	0.37 U
	CARBAZOLE	mg/kg	NA	NA	NA	0.037 U	0.034 U	0.034 U	0.04 U	0.034 U	0.034 U	0.034 U	0.47
	CHRYSENE	mg/kg	220	110	250	0.037 UJ	0.034 UJ	0.034 UJ	0.027 J	0.034 UJ	0.034 UJ	0.034 UJ	5.4
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.037 UJ	0.034 UJ	0.034 UJ	0.04 UJ	0.034 UJ	0.034 UJ	0.034 UJ	0.59 J
	DIBENZOFURAN	mg/kg	100	73	2.9	0.037 UJ	0.034 UJ	0.034 UJ	0.04 UJ	0.034 UJ	0.034 UJ	0.034 UJ	0.34 J
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.037 UJ	0.034 UJ	0.034 UJ	0.04 UJ	0.034 UJ	0.034 UJ	0.034 UJ	0.37 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.037 UJ	0.034 UJ	0.034 UJ	0.04 UJ	0.034 UJ	0.034 UJ	0.034 UJ	0.37 U
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.037 U	0.034 U	0.034 U	0.04 U	0.034 U	0.034 U	0.034 U	0.37 U
	FLUORENE	mg/kg	3400	2390	110	0.037 UJ	0.034 UJ	0.034 UJ	0.04 UJ	0.034 UJ	0.034 UJ	0.034 UJ	0.66
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.037 UJ	0.034 UJ	0.034 UJ	0.04 UJ	0.034 UJ	0.034 UJ	0.034 UJ	2.3
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.037 UJ	0.034 UJ	0.034 UJ	0.04 UJ	0.034 UJ	0.034 UJ	0.034 UJ	**[0.20 J]**
	PHENANTHRENE	mg/kg	NA	NA	NA	0.037 UJ	0.034 UJ	0.034 UJ	0.030 J	0.034 UJ	0.034 UJ	0.034 UJ	8.8
	PHENOL	mg/kg	27000	19000	67	0.094 U	0.085 U	0.085 U	0.1 U	0.086 U	0.085 U	0.086 U	0.93 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.0029 U	0.0013 U	0.0013 U	0.016 U	0.0013 U	0.0013 U	0.0013 U	0.37 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.0029 U	0.0013 U	0.0013 U	0.016 U	0.0013 U	0.0013 U	0.0013 U	0.37 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.0029 U	0.0013 U	0.0013 U	0.016 U	0.0013 U	0.0013 U	0.0013 U	0.37 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.0029 U	0.0013 U	0.0013 U	0.016 U	0.0013 U	0.0013 U	0.0013 U	0.37 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.0065	0.0013 U	0.0013 U	0.016 U	0.0013 U	0.0013 U	0.0013 U	0.68
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.020 J	0.0013 U	0.0013 U	0.017	0.0013 U	0.0013 U	0.0013 U	NS
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.011	0.0013 U	0.0013 U	0.016 U	0.0013 U	0.0013 U	0.0013 U	1.4 J
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.019 J	0.0013 U	0.0013 U	0.025	0.0013 U	0.0013 U	0.0013 U	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.0068	0.0013 U	0.0013 U	0.016 U	0.0013 U	0.0013 U	0.0013 U	0.95
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.0053	0.0013 U	0.0013 U	0.016 U	0.0013 U	0.0013 U	0.0013 U	0.67
	CHRYSENE	mg/kg	220	110	250	0.018 J	0.0015 J	0.0013 U	0.016 U	0.0013 U	0.0013 U	0.0014 J	1.7
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.0029 U	0.0013 U	0.0013 U	0.016 U	0.0013 U	0.0013 U	0.0013 U	0.37 U
	FLUORENE	mg/kg	3400	2390	110	0.0040	0.0013 U	0.0013 U	0.016 U	0.0013 U	0.0013 U	0.0013 U	0.37 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.0085	0.0013 U	0.0013 U	0.016 U	0.0013 U	0.0013 U	0.0013 U	1.3 J
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.0029 U	0.0013 U	0.0013 U	0.016 U	0.0013 U	0.0013 U	0.0013 U	0.37 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.037 J	0.0013 U	0.0013 U	0.016 U	0.0013 U	0.0013 U	0.0013 U	NS
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	30PS-1		30PS-2			30PS-3		
					Sample ID:	LPA30-PS-001 (5-7') (20160922)	LPA30-PS-001 (8-10') (20160922)	LPA30-PS-002 (2-4') (20160922)	LPA30-PS-002 (6-8') (20160922)	LPA30-PS-002 (10-12') (20160922)	LPA30-PS-003 (2-4') (20160922)	LPA30-PS-003 (6-8') (20160922)	LPA30-PS-003 (8-10') (20160922)
					Sample Date:	9/22/16	9/22/16	9/22/16	9/22/16	9/22/16	9/22/16	9/22/16	9/22/16
					Sample Depth (ft bgs):	5-7 ft.	8-10 ft.	2-4 ft.	6-8 ft.	10-12 ft.	2-4 ft.	6-8 ft.	8-10 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	69	53	86	95	94	86	69	66
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.0048 U	0.0063 UJ	0.0039 U	0.0035 U	0.0036 U	0.0039 U	0.0049 U	R
	METHOXYCHLOR	mg/kg	450	320	43	0.0048 U	0.0063 UJ	0.0039 U	0.0035 U	0.0036 U	0.0039 U	0.0049 U	R
	P,P'-DDD	mg/kg	32	2.3	1.5	0.0048 U	0.0063 UJ	0.0039 U	0.0035 U	0.0035 U	0.0039 U	0.0049 U	R
	P,P'-DDE	mg/kg	28	2	2.2	0.0048 U	0.0063 UJ	0.0039 U	0.0035 U	0.0035 U	0.0039 U	0.0049 U	R
	P,P'-DDT	mg/kg	27	NA	16	0.0048 U	0.0063 UJ	0.0039 U	0.0035 U	0.0035 U	0.0039 U	0.0049 U	R
	Trans-Chlordane	mg/kg	NA	NA	NA	0.0048 U	0.0063 UJ	0.0039 U	0.0035 U	0.0036 U	0.0039 U	0.0049 U	R
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.13 U	0.17 UJ	0.1 U	0.094 U	0.096 U	0.1 U	0.13 U	0.14 UJ
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.18 U	0.23 UJ	0.14 U	0.13 U	0.13 U	0.14 U	0.18 U	0.19 UJ
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.24 U	0.31 U	0.39 U	0.17 U	0.18 U	0.38 U	0.24 U	0.25 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.12 U	0.16 U	0.19 U	0.087 U	0.088 U	0.19 U	0.12 U	0.13 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.048 U	0.062 U	0.077 U	0.035 U	0.035 U	0.077 U	0.048 U	0.05 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.097 U	0.13 U	0.16 U	0.07 U	0.071 U	0.15 U	0.097 U	0.1 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.097 U	0.13 U	0.16 U	0.07 U	0.071 U	0.15 U	0.097 U	0.1 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.048 U	0.062 U	0.077 U	0.035 U	0.035 U	0.077 U	0.048 U	0.05 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.048 U	0.062 U	0.077 U	0.035 U	0.035 U	0.077 U	0.048 U	0.05 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.048 U	0.062 U	0.077 U	0.035 U	0.035 U	0.077 U	0.048 U	0.05 U
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.24 U	0.31 U	0.39 U	0.17 U	0.18 U	0.38 U	0.24 U	0.25 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.048 UJ	0.062 UJ	0.043 J	0.035 UJ	0.035 UJ	0.045 J	0.048 UJ	0.05 UJ
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.048 U	0.062 U	0.077 U	0.035 U	0.035 U	0.042 J	0.048 U	0.05 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.048 U	0.062 U	0.055 J	0.035 U	0.035 U	0.056 J	0.048 U	0.05 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.048 U	0.062 U	0.077 U	0.035 U	0.035 U	0.077 U	0.048 U	0.05 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.048 U	0.062 U	0.077 U	0.035 U	0.035 U	0.077 U	0.048 U	0.05 U
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.24 U	0.31 U	0.39 U	0.17 U	0.18 U	0.38 U	0.24 U	0.25 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.048 U	0.062 U	0.077 U	0.035 U	0.035 U	0.077 U	0.048 U	0.05 U
	CARBAZOLE	mg/kg	NA	NA	NA	0.048 U	0.062 U	0.077 U	0.035 U	0.035 U	0.077 U	0.048 U	0.05 U
	CHRYSENE	mg/kg	220	110	250	0.048 U	0.062 U	0.077 U	0.035 U	0.035 U	0.044 J	0.048 U	0.05 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.048 UJ	0.062 UJ	0.077 UJ	0.035 UJ	0.035 UJ	0.077 UJ	0.048 UJ	0.05 UJ
	DIBENZOFURAN	mg/kg	100	73	2.9	0.048 U	0.062 U	0.077 U	0.035 U	0.035 U	0.077 U	0.048 U	0.05 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.048 U	0.062 U	0.077 U	0.035 U	0.035 U	0.077 U	0.048 U	0.05 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.048 U	0.062 U	0.077 U	0.035 U	0.035 U	0.077 U	0.048 U	0.05 U
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.048 U	0.062 U	0.077 U	0.035 U	0.035 U	0.077 U	0.048 U	0.05 U
	FLUORENE	mg/kg	3400	2390	110	0.048 U	0.062 U	0.077 U	0.035 U	0.035 UJ	0.077 UJ	0.048 UJ	0.05 UJ
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.048 U	0.062 U	0.077 U	0.035 U	0.035 U	0.077 U	0.048 U	0.05 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.048 UJ	0.062 UJ	0.077 UJ	0.035 UJ	0.035 UJ	0.077 UJ	0.048 UJ	0.05 UJ
	PHENANTHRENE	mg/kg	NA	NA	NA	0.048 U	0.062 U	0.077 U	0.035 U	0.035 UJ	0.052 J	0.048 UJ	0.05 UJ
	PHENOL	mg/kg	27000	19000	67	0.12 U	0.16 U	0.19 U	0.087 U	0.088 U	0.19 U	0.12 U	0.13 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.0038 U	0.25 U	0.015 U	0.0014 U	0.0035 J	0.15 U	0.0038 U	0.004 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.0038 U	0.25 U	0.015 U	0.0014 U	0.0028 U	0.15 U	0.0038 U	0.004 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.0038 U	0.25 U	0.015 U	0.0014 U	0.0028 U	0.15 U	0.0038 U	0.004 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.0038 U	0.25 U	0.015 U	0.0014 U	0.0028 U	0.15 U	0.0038 U	0.004 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.0038 U	0.25 U	0.015 U	0.0014 U	0.0028 U	0.15 U	0.0038 U	0.004 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.0066	0.25 U	0.015 U	0.0014 U	0.0028 U	0.15 U	0.0038 U	0.004 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.0044 J	0.25 UJ	0.015 UJ	0.0014 UJ	0.0028 UJ	0.15 UJ	0.0038 UJ	0.004 UJ
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.0076	0.25 U	0.015 U	0.0014 U	0.0028 U	0.15 U	0.0038 U	0.004 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.0038 U	0.25 U	0.015 U	0.0014 UJ	0.0028 UJ	0.15 U	0.0038 U	0.004 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.0038 U	0.25 U	0.015 U	0.0014 U	0.0028 U	0.15 U	0.0038 U	0.004 U
	CHRYSENE	mg/kg	220	110	250	0.0057	0.25 U	0.015 U	0.0014 U	0.0028 U	0.15 U	0.0038 U	0.004 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.0038 U	0.25 U	0.015 U	0.0014 UJ	0.0028 UJ	0.15 U	0.0038 U	0.004 U
	FLUORENE	mg/kg	3400	2390	110	0.0038 U	0.25 U	0.015 U	0.0014 U	0.0028 U	0.15 U	0.0038 U	0.004 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.0043 J	0.25 UJ	0.015 UJ	0.0014 UJ	0.0028 UJ	0.15 U	0.0038 U	0.004 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.0038 U	0.25 U	0.015 U	0.0014 U	0.0028 U	0.15 U	0.0038 U	0.004 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.0096 J	0.25 UJ	0.015 UJ	0.0014 UJ	0.0028 UJ	0.15 UJ	0.0038 UJ	0.004 UJ
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	31PS-1			31PS-2		31PS-3		32PS-1
					Sample ID:	LPA31-PS-001 (3-4') (20160926)	LPA31-PS-001 (5-7') (20160926)	LPA31-PS-001 (11-12') (20160926)	LPA31-PS-002 (2-4') (20160926)	LPA31-PS-002 (4-5') (20160926)	LPA31-PS-003 (3-4') (20160926)	LPA31-PS-003 (6-8') (20160926)	LPA32-PS-001 (2-4') (20160927)
					Sample Date:	9/26/16	9/26/16	9/26/16	9/26/16	9/26/16	9/26/16	9/26/16	9/27/16
					Sample Depth (ft bgs):	3-4 ft.	5-7 ft.	11-12 ft.	2-4 ft.	4-5 ft.	3-4 ft.	6-8 ft.	2-4 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	88	68	96	92	69	69	97	97
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.038 U	0.0049 U	0.0035 U	0.036 U	0.049 U	0.0048 U	0.0034 U	0.0034 U
	METHOXYCHLOR	mg/kg	450	320	43	0.038 U	0.0049 U	0.0035 U	0.036 U	0.049 U	0.0048 U	0.0034 U	0.0034 U
	P,P'-DDD	mg/kg	32	2.3	1.5	0.038 U	0.0049 U	0.0035 U	0.036 U	0.048 U	0.0048 U	0.0034 U	0.0034 U
	P,P'-DDE	mg/kg	28	2	2.2	0.038 U	0.0049 U	0.0035 U	0.036 U	0.048 U	0.0048 U	0.0034 U	0.0034 U
	P,P'-DDT	mg/kg	27	NA	16	0.038 U	0.0049 U	0.0035 U	0.036 U	0.048 U	0.0048 U	0.0034 U	0.0034 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.038 U	0.0049 U	0.0035 U	0.036 U	0.049 U	0.0048 U	0.0034 U	0.0034 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.1 U	0.13 U	0.094 U	0.098 U	0.13 U	0.13 U	0.093 U	0.093 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.14 U	0.18 U	0.13 U	0.13 U	0.18 U	0.18 U	0.13 U	0.13 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.38 U	0.24 U	0.17 U	1.8 U	1.2 U	0.24 U	0.17 U	0.17 U
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.19 U	0.12 U	0.087 U	0.91 U	0.61 U	0.12 U	0.086 U	0.086 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.075 U	0.048 U	0.034 U	0.36 U	0.24 U	0.048 U	0.034 U	0.034 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.15 U	0.098 U	0.07 U	0.73 U	0.49 U	0.097 U	0.069 U	0.069 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.15 U	0.098 U	0.07 U	0.73 U	0.49 U	0.097 U	0.069 U	0.069 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.075 U	0.048 U	0.034 U	0.36 U	0.33	0.048 U	0.034 U	0.034 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.075 U	0.048 U	0.034 U	0.36 U	0.24 U	0.048 U	0.034 U	0.034 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.075 UJ	0.048 UJ	0.034 UJ	0.36 UJ	2.1 J	0.048 UJ	0.034 UJ	0.034 U
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.38 U	0.24 U	0.17 U	1.8 U	1.2 U	0.24 U	0.17 U	0.17 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.075 UJ	0.048 UJ	0.034 UJ	0.31 J	**[5.2 J]**	0.048 UJ	0.034 UJ	0.034 UJ
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.075 UJ	0.048 UJ	0.034 UJ	0.27 J	**[4.9 J]**	0.048 UJ	0.034 UJ	0.034 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.075 UJ	0.048 U	0.034 U	0.49	7.4 J	0.048 UJ	0.034 UJ	0.034 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.075 UJ	0.048 U	0.034 UJ	0.36 UJ	1.2 J	0.048 UJ	0.034 UJ	0.034 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.075 UJ	0.048 U	0.034 UJ	0.36 UJ	2.5 J	0.048 UJ	0.034 UJ	0.034 U
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.38 U	0.24 U	0.17 U	1.8 U	1.2 U	0.24 U	0.17 U	0.17 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.075 U	0.048 U	0.034 U	1.1	0.24 U	0.048 U	0.034 U	0.034 U
	CARBAZOLE	mg/kg	NA	NA	NA	0.075 U	0.048 U	0.034 U	0.36 U	0.18 J	0.048 U	0.034 U	0.034 U
	CHRYSENE	mg/kg	220	110	250	0.075 U	0.048 U	0.034 U	0.24 J	4.7	0.048 U	0.034 U	0.034 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.075 UJ	0.048 UJ	0.034 UJ	0.36 UJ	0.43 J	0.048 UJ	0.034 UJ	0.034 UJ
	DIBENZOFURAN	mg/kg	100	73	2.9	0.075 U	0.048 U	0.034 U	0.36 U	0.20 J	0.048 U	0.034 U	0.034 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.075 UJ	0.048 UJ	0.034 UJ	0.36 UJ	0.24 UJ	0.048 UJ	0.034 UJ	0.034 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.075 UJ	0.048 UJ	0.034 UJ	0.36 UJ	0.24 UJ	0.048 UJ	0.034 UJ	0.034 U
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.075 U	0.048 U	0.034 U	0.36 U	0.24 U	0.048 U	0.034 U	0.034 U
	FLUORENE	mg/kg	3400	2390	110	0.075 UJ	0.048 UJ	0.034 UJ	0.36 UJ	0.24 UJ	0.048 UJ	0.034 UJ	0.034 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.075 UJ	0.048 U	0.034 UJ	0.36 UJ	1.6 J	0.048 UJ	0.034 UJ	0.034 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.075 UJ	0.048 UJ	0.034 UJ	0.36 UJ	0.24 UJ	0.048 UJ	0.034 UJ	0.034 UJ
	PHENANTHRENE	mg/kg	NA	NA	NA	0.075 UJ	0.048 UJ	0.034 UJ	0.36 UJ	7.3 J	0.048 UJ	0.034 UJ	0.034 U
	PHENOL	mg/kg	27000	19000	67	0.19 U	0.12 U	0.087 U	0.91 U	0.61 U	0.12 U	0.086 U	0.086 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.37 U	0.0038 U	0.0027 U	0.35 U	0.19 U	0.0038 U	0.0013 U	0.0013 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.37 U	0.0038 U	0.0027 U	0.35 U	0.19 U	0.0038 U	0.0013 U	0.0013 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.37 U	0.0038 U	0.0027 U	0.35 U	0.19 U	0.0038 U	0.0013 U	0.0013 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.37 U	0.0038 U	0.0027 U	0.35 U	0.19 U	0.0038 U	0.0013 U	0.0013 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.37 U	0.0038 U	0.0027 U	0.35 U	0.19 U	0.0038 U	0.0013 U	0.0013 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.37 U	0.0038 U	0.0027 U	0.35 U	NS	0.0038 U	0.0013 U	0.0013 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.37 U	0.0038 U	0.0027 U	0.35 U	NS	0.0038 U	0.0013 U	0.0013 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.37 U	0.0038 U	0.0027 U	0.35 U	NS	0.0038 U	0.0013 U	0.0013 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.37 U	0.0038 U	0.0027 U	0.35 U	NS	0.0038 U	0.0013 U	0.0013 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.37 U	0.0038 U	0.0027 U	0.35 U	0.19 U	0.0038 U	0.0013 U	0.0013 U
	CHRYSENE	mg/kg	220	110	250	0.37 U	0.0038 U	0.0027 U	0.35 U	NS	0.0038 U	0.0013 U	0.0013 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.37 U	0.0038 U	0.0027 U	0.35 U	0.22	0.0038 U	0.0013 U	0.0013 U
	FLUORENE	mg/kg	3400	2390	110	0.37 U	0.0038 U	0.0027 U	0.35 U	0.19 U	0.0038 U	0.0013 U	0.0013 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.37 UJ	0.0038 UJ	0.0027 UJ	0.35 UJ	NS	0.0038 UJ	0.0013 UJ	0.0013 UJ
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.37 U	0.0038 U	0.0027 U	0.35 U	0.19 U	0.0038 U	0.0013 U	0.0013 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.37 U	0.0038 U	0.0027 U	0.35 U	NS	0.0038 U	0.0013 U	0.0013 U
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	32PS-1		32PS-2		32PS-3		SHTP-1	
					Sample ID:	LPA32-PS-001 (6-8') (20160927)	LPA32-QD-001 (6-8') (20160927)	LPA32-PS-002 (2-3') (20160927)	LPA32-PS-002 (4-6') (20160927)	LPA32-PS-003 (1-3') (20160927)	LPA32-PS-003 (5-7') (20160927)	LPASH-TP-001 (7.5') (20160712)	LPASH-TP-001 (7.5')(2016 0712)-DUP
					Sample Date:	9/27/16	9/27/16	9/27/16	9/27/16	9/27/16	9/27/16	7/12/16	7/12/16
					Sample Depth (ft bgs):	6-8 ft.	6-8 ft.	2-3 ft.	4-6 ft.	1-3 ft.	5-7 ft.	7.5-7.5 ft.	7.5-7.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	97	97	71	93	71	94	62	56
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.0034 U	0.0034 U	0.047 U	0.0036 U	0.0047 U	0.0035 U	0.0054 U	0.0059 U
	METHOXYCHLOR	mg/kg	450	320	43	0.0034 U	0.0034 U	0.047 U	0.0036 U	0.0047 U	0.0035 U	0.0054 U	0.0059 U
	P,P'-DDD	mg/kg	32	2.3	1.5	0.0034 U	0.0034 U	0.047 U	0.0036 U	0.0047 U	0.0035 U	0.0054 U	0.0059 U
	P,P'-DDE	mg/kg	28	2	2.2	0.0034 U	0.0034 U	0.047 U	0.0036 U	0.0047 U	0.0035 U	0.0054 U	0.0059 U
	P,P'-DDT	mg/kg	27	NA	16	0.0034 U	0.0034 U	0.047 U	0.0036 U	0.0047 U	0.0035 U	0.0054 U	0.0059 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.0034 U	0.0034 U	0.047 U	0.0036 U	0.0047 U	0.0035 U	0.0054 U	0.0059 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.093 U	0.093 U	0.13 U	0.097 U	0.13 U	0.095 U	0.15 U	0.16 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.13 U	0.13 U	0.17 U	0.13 U	0.17 U	0.13 U	0.2 U	0.22 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.17 U	0.17 U	0.23 U	0.18 U	0.23 U	0.18 U	R	R
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.086 U	0.086 U	0.12 U	0.089 U	0.12 U	0.088 U	0.13 U	0.15 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.034 U	0.034 U	0.046 U	0.035 U	0.046 U	0.035 U	0.053 U	0.059 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.069 U	0.069 U	0.094 U	0.072 U	0.094 U	0.071 U	0.11 U	0.12 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.069 U	0.069 U	0.094 U	0.072 U	0.094 U	0.071 U	0.11 U	0.12 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.034 U	0.034 U	0.046 U	0.035 U	0.046 U	0.035 U	0.053 U	0.059 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.034 U	0.034 U	0.046 U	0.035 U	0.046 U	0.035 U	0.053 U	0.059 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.034 U	0.034 U	0.046 U	0.035 U	0.046 U	0.035 U	0.053 U	0.059 U
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.17 U	0.17 U	0.23 U	0.18 U	0.23 U	0.18 U	0.27 U	0.3 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.034 UJ	0.034 UJ	0.046 UJ	0.035 UJ	0.046 UJ	0.035 UJ	0.053 U	0.059 U
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.034 U	0.034 U	0.046 U	0.035 U	0.046 U	0.035 U	0.053 U	0.059 U
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.034 U	0.034 U	0.046 U	0.035 U	0.046 U	0.035 U	0.053 U	0.059 U
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.034 U	0.034 U	0.046 U	0.035 U	0.046 U	0.035 U	0.053 U	0.059 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.034 U	0.034 U	0.046 U	0.035 U	0.046 U	0.035 U	0.053 U	0.059 U
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.17 U	0.17 U	0.23 U	0.18 U	0.23 U	0.18 U	0.27 U	0.3 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.034 U	0.034 U	0.046 U	0.035 U	0.046 U	0.035 U	0.041 J	0.037 J
	CARBAZOLE	mg/kg	NA	NA	NA	0.034 U	0.034 U	0.046 U	0.035 U	0.046 U	0.035 U	0.053 U	0.059 U
	CHRYSENE	mg/kg	220	110	250	0.034 U	0.034 U	0.046 U	0.035 U	0.046 U	0.035 U	0.053 U	0.059 U
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.034 UJ	0.034 UJ	0.046 UJ	0.035 UJ	0.046 UJ	0.035 UJ	0.053 U	0.059 U
	DIBENZOFURAN	mg/kg	100	73	2.9	0.034 U	0.034 U	0.046 U	0.035 U	0.046 U	0.035 U	0.053 U	0.059 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.034 U	0.034 U	0.046 U	0.035 U	0.046 U	0.035 U	0.042 J	0.059 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.034 U	0.034 U	0.046 U	0.035 U	0.046 U	0.035 U	0.29	0.17
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.034 U	0.034 U	0.046 U	0.035 U	0.046 U	0.035 U	0.053 U	0.059 U
	FLUORENE	mg/kg	3400	2390	110	0.034 U	0.034 U	0.046 U	0.035 U	0.046 U	0.035 U	0.053 U	0.059 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.034 U	0.034 U	0.046 U	0.035 U	0.046 U	0.035 U	0.053 U	0.059 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.034 UJ	0.034 UJ	0.046 UJ	0.035 UJ	0.046 UJ	0.035 UJ	0.053 U	0.059 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.034 U	0.034 U	0.046 U	0.035 U	0.046 U	0.035 U	0.053 U	0.059 U
	PHENOL	mg/kg	27000	19000	67	0.086 U	0.086 U	0.12 U	0.089 U	0.12 U	0.088 U	0.13 U	0.15 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.0027 U	0.0013 U	0.0036 U	0.0014 U	0.0036 U	0.0014 U	R	R
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.0027 U	0.0013 U	0.0036 U	0.0014 U	0.0036 U	0.0014 U	R	R
	ACENAPHTHENE	mg/kg	5000	3590	110	0.0027 U	0.0013 U	0.0036 U	0.0014 U	0.0036 U	0.0014 U	R	R
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.0027 U	0.0013 U	0.0036 U	0.0014 U	0.0036 U	0.0014 U	R	R
	ANTHRACENE	mg/kg	25000	17900	1200	0.0027 U	0.0013 U	0.0036 U	0.0014 U	0.0036 U	0.0014 U	R	R
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.0027 U	0.0013 U	0.0036 U	0.0014 U	0.0037	0.0014 U	R	R
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.0027 U	0.0013 U	0.0036 U	0.0014 U	0.0036 U	0.0014 U	R	R
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.0027 U	0.0013 U	0.0036 U	0.0014 U	0.0067	0.0014 U	R	R
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.0027 U	0.0013 U	0.0036 U	0.0014 U	0.0036 U	0.0014 U	R	R
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.0027 U	0.0013 U	0.0036 U	0.0014 U	0.0036 U	0.0014 U	R	R
	CHRYSENE	mg/kg	220	110	250	0.0027 U	0.0013 U	0.0036 U	0.0014 U	0.0038	0.0014 U	R	R
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.0027 U	0.0013 U	0.0036 U	0.0014 U	0.0036 U	0.0014 U	R	R
	FLUORENE	mg/kg	3400	2390	110	0.0027 U	0.0013 U	0.0036 U	0.0014 U	0.0036 U	0.0014 U	R	R
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.0027 UJ	0.0013 UJ	0.0036 UJ	0.0014 UJ	0.0041 J	0.0014 UJ	R	R
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.0027 U	0.0013 U	0.0036 U	0.0014 U	0.0036 U	0.0014 U	R	R
	PHENANTHRENE	mg/kg	NA	NA	NA	0.0027 U	0.0013 U	0.0036 U	0.0014 U	0.0036 U	0.0014 U	R	R
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	SHTP-2	SHTP-3	SHTP-4	SHTP-5	SHTP-6	SHTP-7	SHTP-8	SHTP-9
					Sample ID:	LPASH-TP-002 (7.5') (20160712)	LPASH-TP-003 (7.5') (20160713)	LPASH-TP-004 (10') (20160713)	LPASH-TP-005 (7.5') (20160713)	LPASH-TP-006 (7.5') (20160714)	LPASH-TP-007 (7.5') (20160714)	LPASH-TP-008 (7.5') (20160715)	LPASH-TP-009 (7.5') (20160715)
					Sample Date:	7/12/16	7/13/16	7/13/16	7/13/16	7/14/16	7/14/16	7/15/16	7/15/16
					Sample Depth (ft bgs):	7.5-7.5 ft.	7.5-7.5 ft.	10-10 ft.	7.5-7.5 ft.	7.5-7.5 ft.	7.5-7.5 ft.	7.5-7.5 ft.	7.5-7.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	74	83	70	51	90	56	58	69
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.0045 U	0.004 U	0.0048 U	0.0066 U	0.0037 U	0.006 U	0.0058 UJ	0.024 U
	METHOXYCHLOR	mg/kg	450	320	43	0.0045 U	0.004 U	0.0048 U	0.0066 U	0.0037 U	0.006 U	0.0058 UJ	0.024 U
	P,P'-DDD	mg/kg	32	2.3	1.5	0.0045 U	0.004 U	0.0047 U	0.0066 U	0.0037 U	0.006 U	0.0058 UJ	0.024 U
	P,P'-DDE	mg/kg	28	2	2.2	0.0045 U	0.004 U	0.0047 U	0.0066 U	0.0037 U	0.006 U	0.0058 UJ	0.024 U
	P,P'-DDT	mg/kg	27	NA	16	0.0045 U	0.004 U	0.0047 U	0.0066 U	0.0037 U	0.006 U	0.0058 UJ	0.024 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.0045 U	0.004 U	0.0048 U	0.0066 U	0.0037 U	0.006 U	0.0058 UJ	0.024 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.12 U	0.11 U	0.13 U	0.18 UJ	0.1 U	0.16 U	0.16 UJ	0.13 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.16 U	0.15 U	0.17 U	0.24 UJ	0.14 U	0.22 U	0.21 UJ	0.18 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	R	R	R	R	R	R	R	R
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.11 U	0.099 U	0.12 U	0.16 U	0.092 U	0.15 U	0.14 U	0.12 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.044 U	0.04 U	0.065	0.065 U	0.037 U	0.059 U	0.057 U	0.048 U
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.09 U	0.08 U	0.095 U	0.13 U	0.074 U	0.12 U	0.12 U	0.097 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.09 U	0.08 U	0.095 U	0.13 U	0.074 U	0.12 U	0.12 U	0.097 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.045	0.04 U	0.074	0.065 U	0.037 U	0.059 U	0.057 U	0.048 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.044 U	0.04 U	0.047 U	0.065 U	0.037 U	0.059 U	0.057 U	0.048 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.12	0.04 U	0.042 J	0.065 U	0.037 U	0.059 U	0.057 U	0.048 U
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.22 U	0.2 U	0.24 U	0.33 U	0.18 U	0.3 U	0.29 U	0.24 U
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.32	0.04 U	0.025 J	0.065 U	0.037 U	0.059 U	0.057 U	0.040 J
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.31	0.04 U	0.047 U	0.065 U	0.18 U	0.059 U	0.057 U	0.034 J
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.49	0.04 U	0.047 U	0.065 U	0.18 U	0.059 U	0.057 U	0.057
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.15	0.04 U	0.047 U	0.065 U	0.18 U	0.059 U	0.057 U	0.048 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.16	0.04 U	0.047 U	0.065 U	0.18 U	0.059 U	0.057 U	0.048 U
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.22 U	0.2 U	0.24 U	0.33 U	0.18 U	0.3 U	0.29 U	0.24 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	0.032 J	0.04 U	0.047 U	0.065 U	0.037 U	0.059 U	0.057 U	0.048 U
	CARBAZOLE	mg/kg	NA	NA	NA	0.081	0.04 U	0.047 U	0.065 U	0.037 U	0.059 U	0.057 U	0.048 U
	CHRYSENE	mg/kg	220	110	250	0.34	0.04 U	0.047 U	0.065 U	0.037 U	0.059 U	0.057 U	0.041 J
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.038 J	0.04 U	0.047 U	0.065 U	0.18 U	0.059 U	0.057 U	0.048 U
	DIBENZOFURAN	mg/kg	100	73	2.9	0.044 U	0.04 U	0.057	0.065 U	0.037 U	0.059 U	0.057 U	0.048 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.027 J	0.04 U	0.044 J	0.065 U	0.023 J	0.059 U	0.049 J	0.048 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.15	0.04 U	0.047 U	0.065 U	0.037 U	0.059 U	0.057 U	0.048 U
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.044 U	0.04 U	0.047 U	0.065 U	0.037 U	0.059 U	0.057 U	0.048 U
	FLUORENE	mg/kg	3400	2390	110	0.043 J	0.04 U	0.12	0.065 U	0.037 U	0.059 U	0.057 U	0.048 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.17	0.04 U	0.047 U	0.065 U	0.18 U	0.059 U	0.057 U	0.048 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.025 J	0.04 U	0.042 J	0.065 U	0.037 U	0.059 U	0.057 U	0.048 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.53	0.04 U	0.088	0.065 U	0.037 U	0.059 U	0.057 U	0.066
	PHENOL	mg/kg	27000	19000	67	0.11 U	0.099 U	0.12 U	0.16 U	0.092 U	0.15 U	0.14 U	0.12 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	NS	R	R	R	R	R	R	R
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	NS	R	NS	R	R	R	R	R
	ACENAPHTHENE	mg/kg	5000	3590	110	NS	R	NS	R	R	R	R	R
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	NS	R	R	R	R	R	R	R
	ANTHRACENE	mg/kg	25000	17900	1200	NS	R	R	R	R	R	R	R
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	NS	R	R	R	R	R	R	R
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	NS	R	R	R	R	R	R	R
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	NS	R	R	R	R	R	R	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	NS	R	R	R	R	R	R	R
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	NS	R	R	R	R	R	R	R
	CHRYSENE	mg/kg	220	110	250	NS	R	R	R	R	R	R	R
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	NS	R	R	R	R	R	R	R
	FLUORENE	mg/kg	3400	2390	110	NS	R	NS	R	R	R	R	R
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	NS	R	R	R	R	R	R	R
	NAPHTHALENE	mg/kg	53	3.83	0.11	NS	R	R	R	R	R	R	R
	PHENANTHRENE	mg/kg	NA	NA	NA	NS	R	NS	R	R	R	R	NS
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Prepared by: AN 07/12/17
Checked by: KS 8/04/17

Table 10B. Detected Analytical Results Summary Subsurface Soils (Low Volatility Organics) Beck's Lake LaSalle Park Area South Bend, IN

					Location:	SHTP-10	SHTP-11	SHTP-12	SHTP-13
					Sample ID:	LPASH-TP-010 (7.5') (20160718)	LPASH-TP-011 (7.5') (20160718)	LPASH-TP-012 (7.5') (20160719)	LPASH-TP-013 (7.5')(20160719)
					Sample Date:	7/18/16	7/18/16	7/19/16	7/19/2016
					Sample Depth (ft bgs):	7.5-7.5 ft.	7.5-7.5 ft.	7.5-7.5 ft.	7.5-7.5 ft.
Method	**Analyte**	**Units**	**IDEM Res Soil DC**	**EPA Region 5 Res Soil RSL**	**IDEM Soil MTG**	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	NA	NA	NA	64	67	70	72
SW8081A	ENDRIN KETONE	mg/kg	NA	NA	NA	0.0052 U	0.005 U	0.0048 U	0.023 U
	METHOXYCHLOR	mg/kg	450	320	43	0.0052 U	0.005 U	0.0048 U	0.023 U
	P,P'-DDD	mg/kg	32	2.3	1.5	0.0052 U	0.005 U	0.0048 U	0.023 U
	P,P'-DDE	mg/kg	28	2	2.2	0.0052 U	0.005 U	0.0048 U	0.023 U
	P,P'-DDT	mg/kg	27	NA	16	0.0052 U	0.005 U	0.0048 U	0.023 U
	Trans-Chlordane	mg/kg	NA	NA	NA	0.052 U	0.005 U	0.0048 U	0.023 U
SW8082	PCB-1016 (AROCLOR 1016)	mg/kg	5.7	4.1	2.7	0.14 U	0.13 U	0.13 U	0.12 U
	PCB-1260 (AROCLOR 1260)	mg/kg	3.4	NA	1.1	0.19 U	0.18 U	0.17 U	0.17 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	0.26 UJ	0.25 UJ	0.24 UJ	0.23 UJ
	2,4-DIMETHYLPHENOL	mg/kg	1800	1300	8.5	0.13 U	0.12 U	0.12 U	0.12 U
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	0.051 U	0.049 U	0.047 U	**0.026 J**
	2-METHYLPHENOL (O-CRESOL)	mg/kg	4500	3200	15	0.1 U	0.1 U	0.095 U	0.092 U
	3,4-Methylphenol (m,p Cresol)	mg/kg	NA	NA	NA	0.1 U	0.1 U	0.095 U	0.092 U
	ACENAPHTHENE	mg/kg	5000	3590	110	0.051 U	0.049 U	0.047 U	0.046 U
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	0.051 U	0.049 U	0.047 U	0.046 U
	ANTHRACENE	mg/kg	25000	17900	1200	0.051 U	0.049 U	0.047 U	0.046 U
	BENZALDEHYDE	mg/kg	1200	NA	0.84	0.26 U	0.25 U	0.24 U	**0.056 J**
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	0.051 U	**0.044 J**	**0.029 J**	**0.037 J**
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	0.051 U	**0.037 J**	0.047 U	**0.024 J**
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	0.051 U	**0.052**	**0.027 J**	**0.055**
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	0.051 U	0.049 U	0.047 U	0.046 U
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	0.051 U	**0.023 J**	0.047 U	0.046 U
	BIPHENYL (DIPHENYL)	mg/kg	66	47	0.17	0.26 U	0.25 U	0.24 U	0.23 U
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	550	39	29	**0.079**	0.049 U	**0.055**	**0.058**
	CARBAZOLE	mg/kg	NA	NA	NA	0.051 U	0.049 U	0.047 U	0.046 U
	CHRYSENE	mg/kg	220	110	250	0.051 U	**0.040 J**	0.047 U	**0.087**
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	0.051 U	0.049 U	0.047 U	0.046 U
	DIBENZOFURAN	mg/kg	100	73	2.9	0.051 U	0.049 U	0.047 U	0.046 U
	DIETHYL PHTHALATE	mg/kg	71000	51000	120	0.051 U	0.049 U	0.047 U	0.046 U
	DI-N-BUTYL PHTHALATE	mg/kg	8800	6300	45	0.051 U	0.049 U	0.047 U	0.046 U
	DI-N-OCTYLPHTHALATE	mg/kg	880	630	1100	0.051 U	0.049 U	0.047 U	0.046 U
	FLUORENE	mg/kg	3400	2390	110	0.051 U	0.049 U	0.047 U	0.046 U
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	0.051 U	0.049 U	0.047 U	0.046 U
	NAPHTHALENE	mg/kg	53	3.83	0.11	0.051 U	0.049 U	0.047 U	0.046 U
	PHENANTHRENE	mg/kg	NA	NA	NA	0.051 U	**0.054**	**0.035 J**	**0.15**
	PHENOL	mg/kg	27000	19000	67	0.13 U	0.12 U	0.12 U	0.12 U
SW8270C -SIM	1,4-DIOXANE (P-DIOXANE)	mg/kg	74	NA	0.019	R	R	R	R
	2-METHYLNAPHTHALENE	mg/kg	340	239	3.7	R	R	R	R
	ACENAPHTHENE	mg/kg	5000	3590	110	R	R	R	R
	ACENAPHTHYLENE	mg/kg	NA	NA	NA	R	R	R	R
	ANTHRACENE	mg/kg	25000	17900	1200	R	R	R	R
	BENZO(A)ANTHRACENE	mg/kg	2.2	1.1	0.85	R	R	R	R
	BENZO(A)PYRENE	mg/kg	0.22	0.11	4.7	R	R	R	R
	BENZO(B)FLUORANTHENE	mg/kg	2.2	1.1	8.2	R	NS	R	NS
	BENZO(G,H,I)PERYLENE	mg/kg	NA	NA	NA	R	R	R	R
	BENZO(K)FLUORANTHENE	mg/kg	22	11	80	R	R	R	R
	CHRYSENE	mg/kg	220	110	250	R	R	R	NS
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.22	0.11	2.6	R	R	R	R
	FLUORENE	mg/kg	3400	2390	110	R	R	R	R
	INDENO(1,2,3-C,D)PYRENE	mg/kg	2.2	1.1	27	R	R	R	R
	NAPHTHALENE	mg/kg	53	3.83	0.11	R	R	R	R
	PHENANTHRENE	mg/kg	NA	NA	NA	R	NS	R	NS
WBLACK	TOTAL ORGANIC CARBON	mg/kg	NA	NA	NA	NS	NS	NS	NS

Notes:

mg/kg - milligrams per kilogram

U – Concentration was non-detect; Value represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected Result

NS – Analyte was not analyzed

Only compounds with at least one detected result for this matrix are shown

Yellow highlighted results detected above the IDEM OLQ 2017 Recreational (Rec) Park Use Soil Direct Contact (DC) Screening Level (SL).

Underlined - concentration above EPA Region 5 2017 Residential (Res) Soil RSL

[BOLD] detected concentration above the IDEM OLQ 2017 Soil MTG SL

The IDEM OLQ 2017 Recreation Park Use DC SL apllies to benzo(A)pyrene (0.98 mg/kg)

Table 11A. Detected Analytical Results Summary
Groundwater Grab (Inorganics)
Beck's Lake LaSalle Park Area
South Bend, IN

				Location:	01PS-1	02PS-1	03PS-1	04PS-1	05PS-1	06PS-1	07PS-1	08PS-1
				Sample ID:	LPA01-PW-001 (5'-10') (20160907)	LPA02-PW-001 (6'-11') (20160907)	LPA03-PW-001 (3'-8') (20160907)	LPA04-PW-001 (5'-10') (20160908)	LPA05-PW-001 (12'-17') (20160909)	LPA06-PW-001 (13-18') (20160920)	LPA07-PW-001 (5'-10') (20160906)	LPA08-PW-001 (4'-9') (20160908)
				Sample Date:	9/7/16	9/7/16	9/7/16	9/8/16	9/9/16	9/20/16	9/6/16	9/8/16
				Sample Depth (ft bgs):	5-10 ft.	6-11 ft.	3-8 ft.	5-10 ft.	12-17 ft.	13-18 ft.	5-10 ft.	4-9 ft.
Method	**Analyte**	**Units**	**IDEM Tap Res SL**	**EPA Tap RSL**	Result	Result	Result	Result	Result	Result	Result	Result
E335.4	CYANIDE	ug/l	200	1.5	5 U	**[12]**	5 U	5 U	5 U	5 U	5 U	5 U
SW6010B	ALUMINUM	ug/l	20000	20000	15000	96	1000	560	330	110	150	3500
	ALUMINUM, DISSOLVED	ug/l	20000	20000	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
	BERYLLIUM	ug/l	4.0	25	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	BERYLLIUM, DISSOLVED	ug/l	4.0	25	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	CALCIUM	ug/l	NA	NA	180000	260000	130000	100000	200000	260000	130000	150000
	CALCIUM, DISSOLVED	ug/l	NA	NA	170000	260000	120000	97000	200000	240000	120000	150000
	IRON	ug/l	14000	14000	**[30000]**	8600	1200	740	690	1600	200	3400
	IRON, DISSOLVED	ug/l	14000	14000	**[18000]**	7400	240	210	330	1100	18	250
	POTASSIUM	ug/l	NA	NA	12000	27000	15000	20000	33000	26000	19000	31000
	POTASSIUM, DISSOLVED	ug/l	NA	NA	12000	28000	17000	22000	35000	29000	22000 J	34000
	SODIUM	ug/l	NA	NA	30000	20000	20000	20000	41000	52000	25000	41000
	SODIUM, DISSOLVED	ug/l	NA	NA	30000	18000	19000	20000	41000	54000	25000	40000
SW6020	ANTIMONY	ug/l	6.0	7.8	0.8 U	0.8 U	5.9	4.0	0.8 U	0.8 U	3.1	1.5
	ANTIMONY, DISSOLVED	ug/l	6.0	7.8	0.8 U	0.8 U	6.0	4.9	0.8 U	0.8 U	3.3	0.83
	ARSENIC	ug/l	10	0.052	**[14]**	**[4.2]**	**[3.5]**	**[2.1]**	1 U	1 U	**[1.7]**	**[3.1]**
	ARSENIC, DISSOLVED	ug/l	10	0.052	**[9.8]**	**[4.4]**	**[2.6]**	**[2.0]**	1 U	1 U	**[1.7]**	**[1.6]**
	BARIUM	ug/l	2000	3800	1000 J	330	280	300	490	100 U	170 J	260
	BARIUM, DISSOLVED	ug/l	2000	3800	860	340	250	300	490	100 U	160	180
	CADMIUM	ug/l	5.0	9.2	0.41	0.63	0.90	0.71	0.51	1 U	1.6	0.81
	CADMIUM, DISSOLVED	ug/l	5.0	9.2	0.04 U	0.04 U	0.77	0.71	0.089	0.04 U	1.9	0.58
	CHROMIUM, TOTAL	ug/l	100	22000	25	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	CHROMIUM, TOTAL, DISSOL	ug/l	100	22000	10 U	0.88 J	10 U	10 U	0.79 J	10 U	10 U	10 U
	COBALT	ug/l	6.0	6.0	4.8	1.7	2.0	2.9	3.0	**[18]**	1.6 U	**[7.1]**
	COBALT, DISSOLVED	ug/l	6.0	6.0	1.6 U	1.6 U	1.6 U	2.0	1.6 U	**[16]**	1.6 U	3.9
	COPPER	ug/l	1300	NA	36	15	26	18	6.4	4 U	17	37
	COPPER, DISSOLVED	ug/l	1300	NA	4 U	4 U	9.4	6.5	4 U	4 U	12	7.1
	LEAD	ug/l	15	15	**[45]**	**[49]**	**[74]**	**[16]**	3 U	3 U	3.7	**[64]**
	LEAD, DISSOLVED	ug/l	15	15	0.048 J	0.29 J	4.0	2.2 J	0.076 J	3 U	1.5 J	1.5 J
	MAGNESIUM	ug/l	NA	NA	50000 UJ	120000	50000 U	50000 U	110000	58000	50000 UJ	56000
	MAGNESIUM, DISSOLVED	ug/l	NA	NA	33000 J	120000	35000 J	47000 J	110000	60000	47000 J	56000
	MANGANESE	ug/l	430	430	**[460 J]**	360 J	140	**[520 J]**	240	**[1400 J]**	47 J	**[970 J]**
	MANGANESE, DISSOLVED	ug/l	430	430	380 J	360 J	120 J	**[510 J]**	230 J	**[1500 J]**	37 J	**[940 J]**
	NICKEL	ug/l	390	390	14	6.2	16	15	3.2	21	8.8	20
	NICKEL, DISSOLVED	ug/l	390	390	0.55	4.4	11	12	0.4 U	18	6.4 J	9.8
	SELENIUM	ug/l	50	100	4.4	0.87 U	2.5	1.6	0.95	1.4	4.6	2.7
	SELENIUM, DISSOLVED	ug/l	50	100	0.87 U	1.0	3.1	1.9	0.87 U	0.95	8.0	1.5
	SILVER	ug/l	94	NA	0.2 U	0.2 U	0.2 U	0.47	0.2 U	0.2 U	0.2 U	0.2 U
	SILVER, DISSOLVED	ug/l	94	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
	THALLIUM	ug/l	2.0	0.20	0.18	0.087 U	0.13	0.12	0.10	0.097	**[0.30]**	0.11
	THALLIUM, DISSOLVED	ug/l	2.0	0.20	0.087 U	0.087 U	0.087 U	0.087 U	0.087 U	0.11	0.11	0.087 U
	VANADIUM	ug/l	86	86	31	1.4	3.8	2.4	3.5	0.8 U	1.5	11
	VANADIUM, DISSOLVED	ug/l	86	86	0.8 U	0.98	0.8 U	0.8 U	0.8 U	0.8 U	0.92	0.85
	ZINC	ug/l	6000	6000	82	34	210	150	150 U	30 U	240 J	280
	ZINC, DISSOLVED	ug/l	6000	6000	30 U	30 U	190	180	30 U	30 U	230	210
SW7470A	MERCURY	ug/l	2.0	0.63	0.39	0.058 J	0.057 J	0.12 U	0.044 J	0.12 U	0.074 J	0.077 J
	MERCURY, DISSOLVED	ug/l	2.0	0.63	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U

Notes:
ug/L - microgram per liter
U – Concentration non-detect; Value represents laboratory reporting limi
J – Concentration is an estimated value
R - Rejected result
NS – Analyte was not analyzed
Only compounds with at least one detect in media shown
Yellow highlighted results are detected concentrations exceeding the IDEM OLQ 2017 Tapwater (Tap) Residential (Res) Screening Level (SL)
[BOLD] result detected above the EPA Region 5 2017 Tap SL

Prepared by: KBS 8/04/17
Checked by: LM 8/04/17

Table 11A. Detected Analytical Results Summary
Groundwater Grab (Inorganics)
Beck's Lake LaSalle Park Area
South Bend, IN

				Location:	09PS-1	10PS-1	11PS-2	12PS-1	13PS-1	14PS-1	15PS-1	16PS-1
				Sample ID:	LPA09-PW-001 (9'-14') (20160909)	LPA10-PW-001 (12-17') (20160919)	LPA11-PW-001 (10'-15') (20160920)	LPA12-PW-001 (4'-9') (20160922)	LPA13-PW-001 (3'-8') (20160927)	LPA14-PW-001 (8'-12') (20160803)	LPA15-PW-001 (8'-12') (20160803)	LPA16-PW-001 (11'-16') (20160912)
				Sample Date:	9/9/16	9/19/16	9/20/16	9/22/16	9/27/16	8/3/16	8/3/16	9/12/16
				Sample Depth (ft bgs):	9-14 ft.	12-17 ft.	10-15 ft.	4-9 ft.	3-8 ft.	8-12 ft.	8-12 ft.	11-16 ft.
Method	**Analyte**	**Units**	**IDEM Tap Res SL**	**EPA Tap RSL**	Result	Result	Result	Result	Result	Result	Result	Result
E335.4	CYANIDE	ug/l	200	1.5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
SW6010B	ALUMINUM	ug/l	20000	20000	330	50 U	1900 J	1100	**[27000]**	51	560	50 U
	ALUMINUM, DISSOLVED	ug/l	20000	20000	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
	BERYLLIUM	ug/l	4.0	25	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	BERYLLIUM, DISSOLVED	ug/l	4.0	25	1 U	0.074	1 U	1 U	1 U	1 U	1 U	1 U
	CALCIUM	ug/l	NA	NA	120000	370000	230000	170000	250000	170000	130000	180000
	CALCIUM, DISSOLVED	ug/l	NA	NA	120000	340000	220000	180000	160000	180000	140000	170000
	IRON	ug/l	14000	14000	1900	**[29000]**	1100 J	**[35000]**	**[81000]**	1700	980	250
	IRON, DISSOLVED	ug/l	14000	14000	1500	**[29000 J]**	200 U	**[32000]**	**[20000]**	1500	270	110
	POTASSIUM	ug/l	NA	NA	29000	37000	37000	7700	12000	41000	44000	3300
	POTASSIUM, DISSOLVED	ug/l	NA	NA	32000 J	39000 J	41000 J	8700	9500	36000	44000	3600
	SODIUM	ug/l	NA	NA	31000	42000	38000	6600	49000	57000	77000	2600
	SODIUM, DISSOLVED	ug/l	NA	NA	32000	42000	38000	6700	47000	64000	85000	2700
SW6020	ANTIMONY	ug/l	6.0	7.8	6.2	0.8 U	6.1	1.3	0.96	0.89	3.7	2.4
	ANTIMONY, DISSOLVED	ug/l	6.0	7.8	4.4	0.8 U	6.1	0.8 U	0.8 U	0.89	4.2	2.8
	ARSENIC	ug/l	10	0.052	**[1.8]**	**[4.6]**	**[12]**	**[4.6]**	**[38]**	1 U	**[1.3]**	**[1.6]**
	ARSENIC, DISSOLVED	ug/l	10	0.052	**[1.7]**	**[5.6]**	**[8.3 J]**	**[4]**	**[16]**	1 U	1 U	**[2.3 J]**
	BARIUM	ug/l	2000	3800	170	140	330 J	420	660	120	180	410
	BARIUM, DISSOLVED	ug/l	2000	3800	160	140	170	320	270	100 U	100 U	400
	CADMIUM	ug/l	5.0	9.2	1.6	0.077	0.97 J	1.2	2.1	0.04 U	1.2	0.91
	CADMIUM, DISSOLVED	ug/l	5.0	9.2	1.6	0.04 U	0.62	0.04 U	0.04 U	0.04 U	0.89 J	1.2
	CHROMIUM, TOTAL	ug/l	100	22000	10 U	10 U	10	14	51	10 U	10 U	10 U
	CHROMIUM, TOTAL, DISSOL	ug/l	100	22000	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	COBALT	ug/l	6.0	6.0	2.9	3.2	3.6 J	1.6 U	**[15]**	4.4	2	1.6 U
	COBALT, DISSOLVED	ug/l	6.0	6.0	2.1	2.6	1.6 U	0.29 J	0.17 J	3.0	1.6 U	1.6 U
	COPPER	ug/l	1300	NA	19	4 U	47	88	74	1.7 J	28	1000
	COPPER, DISSOLVED	ug/l	1300	NA	7.3	4 U	16 J	4 U	4 U	4 U	12	930
	LEAD	ug/l	15	15	**[51]**	3 U	**[110]**	**[700]**	**[480]**	3 U	**[190]**	**[20]**
	LEAD, DISSOLVED	ug/l	15	15	7.3	3 U	3.2	3 U	3 U	3 U	**[35 J]**	**[17]**
	MAGNESIUM	ug/l	NA	NA	71000 J	65000	62000 J	R	R	100000 U	100000 U	50000 U
	MAGNESIUM, DISSOLVED	ug/l	NA	NA	69000	67000	59000 J	R	R	56000	39000	14000 J
	MANGANESE	ug/l	430	430	420 J	**[1300 J]**	220 J	**[1200 J]**	**[2500 J]**	**[590]**	**[520]**	190
	MANGANESE, DISSOLVED	ug/l	430	430	420 J	**[1600 J]**	140 J	**[1200 J]**	**[960 J]**	**[640 J]**	**[570 J]**	170 J
	NICKEL	ug/l	390	390	15	5.3	16	14	38	15	21	110
	NICKEL, DISSOLVED	ug/l	390	390	11	4.6	6.6 J	0.68	0.4 U	11	17	93
	SELENIUM	ug/l	50	100	2.4	1.7	28	1.2	13	2.0	1.7	1.7
	SELENIUM, DISSOLVED	ug/l	50	100	3.8	1.1	40 J	0.87 U	0.87 U	2.3	2.3 J	2.5 J
	SILVER	ug/l	94	NA	0.2 U	0.2 U	0.36	1.2	0.32	0.2 U	0.2 U	0.2 U
	SILVER, DISSOLVED	ug/l	94	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
	THALLIUM	ug/l	2.0	0.20	0.17	0.087 U	0.16	0.087 U	**[0.46]**	0.11	0.095	0.087 U
	THALLIUM, DISSOLVED	ug/l	2.0	0.20	0.094	0.087 U	0.087 U	0.087 U	0.087 U	0.087 U	0.087 U	0.087 U
	VANADIUM	ug/l	86	86	1.6	0.8 U	18	3.4	68	0.8 U	1.3	0.8 U
	VANADIUM, DISSOLVED	ug/l	86	86	0.8 U	0.8 U	6.0	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
	ZINC	ug/l	6000	6000	300	55	480	200	430	30 U	600	1700
	ZINC, DISSOLVED	ug/l	6000	6000	250	51	360	30 U	30 U	30 U	NS	1500 U
SW7470A	MERCURY	ug/l	2.0	0.63	0.12 U	0.12 U	0.12 U	0.11	0.23	0.12 U	0.13	0.076 J
	MERCURY, DISSOLVED	ug/l	2.0	0.63	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U

Notes:
ug/L - microgram per liter
U – Concentration non-detect; Value represents laboratory reporting limi
J – Concentration is an estimated value
R - Rejected result
NS – Analyte was not analyzed
Only compounds with at least one detect in media shown
Yellow highlighted results are detected concentrations exceeding the IDEM OLQ 2017 Tapwater (Tap) Residential (Res) Screening Level (SL)
[BOLD] result detected above the EPA Region 5 2017 Tap SL

Table 11A. Detected Analytical Results Summary
Groundwater Grab (Inorganics)
Beck's Lake LaSalle Park Area
South Bend, IN

				Location:	16PS-1	17PS-1		18PS-2	19PS-1	20PS-1	21PS-1	22PS-1
				Sample ID:	LPA16-PW-001R(11'-16') (20160914)	LPA17-PW-001 (11'-16') (20160915)	LPA17-QD-001 (11'-16') (20160916)	LPA18-PW-001 (14'-19') (20160921)	LPA19-PW-001 (8'-13') (20160923)	LPA20-PW-001 (6'-11') (20160927)	LPA21-PW-001 (8'-12') (20160802)	LPA22-PW-001 (8'-12') (20160804)
				Sample Date:	9/14/16	9/16/16	9/16/16	9/21/16	9/23/16	9/27/16	8/2/16	8/4/16
				Sample Depth (ft bgs):	11-16 ft.	11-16 ft.	11-16 ft.	14-19 ft.	8-13 ft.	6-11 ft.	8-12 ft.	8-12 ft.
Method	**Analyte**	**Units**	**IDEM Tap Res SL**	**EPA Tap RSL**	Result	Result	Result	Result	Result	Result	Result	Result
E335.4	CYANIDE	ug/l	200	1.5	NS	5 U	5 U	5 U	5 U	**[49]**	5 U	5 U
SW6010B	ALUMINUM	ug/l	20000	20000	NS	95	270	580	1800	87	35 J	35 J
	ALUMINUM, DISSOLVED	ug/l	20000	20000	NS	50 U	50 U	50 U	50 U	50 U	50 U	50 U
	BERYLLIUM	ug/l	4.0	25	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	BERYLLIUM, DISSOLVED	ug/l	4.0	25	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	CALCIUM	ug/l	NA	NA	NS	96000	94000	160000	380000	96000	260000	430000
	CALCIUM, DISSOLVED	ug/l	NA	NA	NS	92000	100000	170000	360000	100000	250000	420000
	IRON	ug/l	14000	14000	NS	14000	14000	**[16000]**	**[23000]**	760	1600	930
	IRON, DISSOLVED	ug/l	14000	14000	NS	13000	14000	**[15000]**	**[17000]**	480	1700	910
	POTASSIUM	ug/l	NA	NA	NS	23000	23000	34000	23000	2100	4800	6500
	POTASSIUM, DISSOLVED	ug/l	NA	NA	NS	26000	26000	37000	24000	2400	5600	7200
	SODIUM	ug/l	NA	NA	NS	13000	14000	23000	20000	2400	110000	430000
	SODIUM, DISSOLVED	ug/l	NA	NA	NS	14000	15000	24000	21000	2700	110000	420000
SW6020	ANTIMONY	ug/l	6.0	7.8	NS	0.8 U	0.8 U	0.89	0.36 J	0.8 U	0.8 U	0.8 U
	ANTIMONY, DISSOLVED	ug/l	6.0	7.8	NS	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
	ARSENIC	ug/l	10	0.052	NS	**[3.0]**	**[3.4]**	**[3.9]**	**[6.2]**	**[0.43 J]**	1 U	1 U
	ARSENIC, DISSOLVED	ug/l	10	0.052	NS	**[3.8]**	**[3.8]**	**[3.9]**	**[2.0]**	1 U	1 U	2 U
	BARIUM	ug/l	2000	3800	NS	1300	1300	710	890	100 U	100 U	100 U
	BARIUM, DISSOLVED	ug/l	2000	3800	NS	5000 U	5000 U	640	700	100 U	100 U	100 U
	CADMIUM	ug/l	5.0	9.2	NS	0.088	0.19	0.14	1.0	0.13	0.043	0.041
	CADMIUM, DISSOLVED	ug/l	5.0	9.2	NS	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U	0.08 U
	CHROMIUM, TOTAL	ug/l	100	22000	NS	10 U	10 U	10	10 U	10 U	10 U	10 U
	CHROMIUM, TOTAL, DISSOL	ug/l	100	22000	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U
	COBALT	ug/l	6.0	6.0	NS	1.6 U	1.6 U	2.2	2.0	4.7	3.4	2.6
	COBALT, DISSOLVED	ug/l	6.0	6.0	NS	1.6 U	1.6 U	0.87 J	0.59 J	3.8	2.7	3.2 U
	COPPER	ug/l	1300	NA	NS	4 U	4 U	9.8	8.8	7.2	0.28 J	1.7 J
	COPPER, DISSOLVED	ug/l	1300	NA	NS	4 U	4 U	4 U	4 U	9.2	4 U	4 U
	LEAD	ug/l	15	15	NS	9.0	10	**[25]**	**[170]**	3 U	3 U	3 U
	LEAD, DISSOLVED	ug/l	15	15	NS	3 U	3 U	3 U	3 U	3 U	3 U	3 U
	MAGNESIUM	ug/l	NA	NA	NS	50000 U	50000 U	52000 J	76000 J	R	100000 U	15000
	MAGNESIUM, DISSOLVED	ug/l	NA	NA	NS	50000 U	50000 U	51000 J	69000 J	R	32000	25000 U
	MANGANESE	ug/l	430	430	NS	280	280	**[610 J]**	**[860 J]**	240 J	230	160
	MANGANESE, DISSOLVED	ug/l	430	430	NS	290 J	270 J	**[600 J]**	**[820 J]**	210 J	260 J	160 J
	NICKEL	ug/l	390	390	NS	1.1	1.7	3.6	3.6	9.3	8.0	6.0
	NICKEL, DISSOLVED	ug/l	390	390	NS	0.61	1.0	0.70	0.71	9.1	6.0	5.8
	SELENIUM	ug/l	50	100	NS	0.91	1.1	2.2	3.1	1.9	0.87 U	1.5
	SELENIUM, DISSOLVED	ug/l	50	100	NS	0.87 U	0.87 U	0.87 U	1.1	3.0	0.87 U	1.7 U
	SILVER	ug/l	94	NA	NS	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
	SILVER, DISSOLVED	ug/l	94	NA	NS	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
	THALLIUM	ug/l	2.0	0.20	NS	0.087 U	**[0.21]**	0.087 U	0.033 J	0.087 U	0.087 U	0.11
	THALLIUM, DISSOLVED	ug/l	2.0	0.20	NS	0.087 U	0.087 U	0.087 U	0.087 U	0.087 U	0.087 U	0.17 U
	VANADIUM	ug/l	86	86	NS	0.8 U	1	4.5	11	0.8 U	0.8 U	0.8 U
	VANADIUM, DISSOLVED	ug/l	86	86	NS	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	1.6 U
	ZINC	ug/l	6000	6000	NS	29 J	33	63	330	30 U	30 U	30 U
	ZINC, DISSOLVED	ug/l	6000	6000	NS	30 U	30 U	30 U	30 U	30 U	30 U	60 U
SW7470A	MERCURY	ug/l	2.0	0.63	NS	0.14	0.15	0.12	0.14	0.12 U	0.057 J	0.061 J
	MERCURY, DISSOLVED	ug/l	2.0	0.63	NS	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U

Notes:
ug/L - microgram per liter
U – Concentration non-detect; Value represents laboratory reporting limi
J – Concentration is an estimated value
R - Rejected result
NS – Analyte was not analyzed
Only compounds with at least one detect in media shown
Yellow highlighted results are detected concentrations exceeding the IDEM OLQ 2017 Tapwater (Tap) Residential (Res) Screening Level (SL)
[BOLD] result detected above the EPA Region 5 2017 Tap SL

Prepared by: KBS 8/04/17
Checked by: LM 8/04/17

Table 11A. Detected Analytical Results Summary
Groundwater Grab (Inorganics)
Beck's Lake LaSalle Park Area
South Bend, IN

				Location:	22PS-1	23PS-1		24PS-1	25PS-2	26PS-1	27PS-1	28PS-1
				Sample ID:	LPA22-QD-001 (8'-12') (20160804)	LPA023-PW-001(11'-16') (20160913)	LPA23-PW-001R(11'-16') (20160915)	LPA24-PW-001 (12'-17') (20160915)	LPA25-PW-001 (12'-17') (20160921)	LPA26-PW-001 (8'-12') (20160802)	LPA27-PW-001 (9'-13') (20160804)	LPA28-PW-001 (11'-16') (20160914)
				Sample Date:	8/4/16	9/13/16	9/15/16	9/15/16	9/21/16	8/2/16	8/4/16	9/14/16
				Sample Depth (ft bgs):	8-12 ft.	11-16 ft.	11-16 ft.	12-17 ft.	12-17 ft.	8-12 ft.	9-13 ft.	11-16 ft.
Method	**Analyte**	**Units**	**IDEM Tap Res SL**	**EPA Tap RSL**	Result	Result	Result	Result	Result	Result	Result	Result
E335.4	CYANIDE	ug/l	200	1.5	5 U	5 U	NS	5 U	**[25]**	5 U	5 U	5 U
SW6010B	ALUMINUM	ug/l	20000	20000	37 J	370	NS	110	2700	35 J	64	1900
	ALUMINUM, DISSOLVED	ug/l	20000	20000	50 U	50 U	NS	50 U	50 U	50 U	50 U	50 U
	BERYLLIUM	ug/l	4.0	25	1 U	1 U	NS	1 U	1 U	1 U	1 U	1 U
	BERYLLIUM, DISSOLVED	ug/l	4.0	25	1 U	1 U	NS	1 U	1 U	1 U	1 U	1 U
	CALCIUM	ug/l	NA	NA	430000	270000	NS	140000	70000	140000	140000	440000
	CALCIUM, DISSOLVED	ug/l	NA	NA	400000	260000	NS	140000	69000	160000 J	150000	420000
	IRON	ug/l	14000	14000	960	1600	NS	13000	11000	630	230	4500
	IRON, DISSOLVED	ug/l	14000	14000	930	1100	NS	13000	4400	620	200 U	2600
	POTASSIUM	ug/l	NA	NA	6300	3800	NS	39000	31000	1600 J	2700	11000
	POTASSIUM, DISSOLVED	ug/l	NA	NA	7200	4100	NS	43000	34000	1800	3100	11000
	SODIUM	ug/l	NA	NA	430000	80000	NS	12000	31000	1400	3800	780000
	SODIUM, DISSOLVED	ug/l	NA	NA	400000	81000	NS	13000	32000	1600	4200	750000
SW6020	ANTIMONY	ug/l	6.0	7.8	0.8 U	0.8 U	NS	1.6	2.6	0.8 U	0.8 U	0.8 U
	ANTIMONY, DISSOLVED	ug/l	6.0	7.8	0.8 U	0.8 U	NS	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
	ARSENIC	ug/l	10	0.052	1 U	1 U	NS	**[21]**	**[6.0]**	1 U	1 U	**[1.1]**
	ARSENIC, DISSOLVED	ug/l	10	0.052	1 U	1 U	NS	**[30]**	**[2.2]**	1 U	1 U	1 U
	BARIUM	ug/l	2000	3800	100 U	100 U	NS	130	1400	100 U	100 U	110
	BARIUM, DISSOLVED	ug/l	2000	3800	100 U	100 U	NS	130	1000	100 U	100 U	5000 U
	CADMIUM	ug/l	5.0	9.2	0.04 U	0.24	NS	0.04 U	**[160]**	0.04 U	0.04 U	0.21
	CADMIUM, DISSOLVED	ug/l	5.0	9.2	0.045	0.23	NS	0.04 U	0.087	0.04 U	0.04 U	0.13
	CHROMIUM, TOTAL	ug/l	100	22000	10 U	10 U	NS	10 U	16	10 U	10 U	10 U
	CHROMIUM, TOTAL, DISSOL	ug/l	100	22000	10 U	10 U	NS	10 U	10 U	10 U	10 U	10 U
	COBALT	ug/l	6.0	6.0	2.7	**[8.9]**	NS	1.6 U	2.7	1.6 U	1.6 U	5.5
	COBALT, DISSOLVED	ug/l	6.0	6.0	2.1	5.3	NS	1.6 U	0.59 J	1.6 U	1.6 U	3.0
	COPPER	ug/l	1300	NA	2.4 J	4 U	NS	4 U	170	0.82 J	0.32 J	4 U
	COPPER, DISSOLVED	ug/l	1300	NA	4 U	4 U	NS	4 U	4 U	4 U	4 U	4 U
	LEAD	ug/l	15	15	3 U	3 U	NS	3 U	**[460]**	3 U	3 U	3 U
	LEAD, DISSOLVED	ug/l	15	15	3 U	3 U	NS	3 U	3 U	3 U	3 U	3 U
	MAGNESIUM	ug/l	NA	NA	15000	50000 U	NS	50000 U	R	15000	22000	59000
	MAGNESIUM, DISSOLVED	ug/l	NA	NA	25000 U	36000 J	NS	50000 U	R	25000 U	25000 U	57000
	MANGANESE	ug/l	430	430	160	410 J	NS	**[1800 J]**	260 J	110	64	**[700 J]**
	MANGANESE, DISSOLVED	ug/l	430	430	160 J	390 J	NS	**[1800]**	170	120 J	66 J	**[690]**
	NICKEL	ug/l	390	390	6.2	38	NS	1.2	36	3.2	2.8	14
	NICKEL, DISSOLVED	ug/l	390	390	5.5	13	NS	0.4 U	0.75	2.6	1.4	6.0
	SELENIUM	ug/l	50	100	1.4	22	NS	1.3	3.4	0.87 U	0.87 U	1.6
	SELENIUM, DISSOLVED	ug/l	50	100	1.2	38	NS	0.90	0.87 U	0.87 U	0.87 U	1.3
	SILVER	ug/l	94	NA	0.2 U	0.2 U	NS	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
	SILVER, DISSOLVED	ug/l	94	NA	0.2 U	0.2 U	NS	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
	THALLIUM	ug/l	2.0	0.20	0.10	0.087 U	NS	0.087 U	0.088	0.087 U	0.087 U	0.20
	THALLIUM, DISSOLVED	ug/l	2.0	0.20	0.11	0.087 U	NS	0.087 U	0.087 U	0.087 U	0.087 U	0.14
	VANADIUM	ug/l	86	86	0.8 U	1.1	NS	0.8 U	10	0.8 U	0.8 U	3.1
	VANADIUM, DISSOLVED	ug/l	86	86	0.8 U	0.8 U	NS	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
	ZINC	ug/l	6000	6000	30 U	30	NS	30 U	430	30 U	30 U	30 U
	ZINC, DISSOLVED	ug/l	6000	6000	60 U	30 U	NS	30 U	30 U	30 U	30 U	30 U
SW7470A	MERCURY	ug/l	2.0	0.63	0.077 J	0.12 U	NS	0.12 U	0.57	0.057 J	0.049 J	0.12 U
	MERCURY, DISSOLVED	ug/l	2.0	0.63	0.12 U	0.12 U	NS	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U

Notes:
ug/L - microgram per liter
U – Concentration non-detect; Value represents laboratory reporting limi
J – Concentration is an estimated value
R - Rejected result
NS – Analyte was not analyzec
Only compounds with at least one detect in media shown
Yellow highlighted results are detected concentrations exceeding the IDEM
OLQ 2017 Tapwater (Tap) Residential (Res) Screening Level (SL)
[BOLD] result detected above the EPA Region 5 2017 Tap SL

Prepared by: KBS 8/04/17
Checked by: LM 8/04/17

Table 11A. Detected Analytical Results Summary
Groundwater Grab (Inorganics)
Beck's Lake LaSalle Park Area
South Bend, IN

				Location:	29PS-1	30PS-2	31PS-1	32PS-1
				Sample ID:	LPA29-PW-001 (11'-16') (20160914)	LPA30-PW-001 (11'-16') (20160922)	LPA31-PW-001 (13'-18') (20160926)	LPA32-PW-001 (6'-11') (20160927)
				Sample Date:	9/14/16	9/22/16	9/26/16	9/27/16
				Sample Depth (ft bgs):	11-16 ft.	11-16 ft.	13-18 ft.	6-11 ft.
Method	**Analyte**	**Units**	**IDEM Tap Res SL**	**EPA Tap RSL**	Result	Result	Result	Result
E335.4	CYANIDE	ug/l	200	1.5	5 U	5 U	5 U	5 U
SW6010B	ALUMINUM	ug/l	20000	20000	50 U	50 U	220	93
	ALUMINUM, DISSOLVED	ug/l	20000	20000	50 U	50 U	50 U	50 U
	BERYLLIUM	ug/l	4.0	25	1 U	1 U	1 U	1 U
	BERYLLIUM, DISSOLVED	ug/l	4.0	25	1 U	1 U	1 U	1 U
	CALCIUM	ug/l	NA	NA	150000	140000	410000	120000
	CALCIUM, DISSOLVED	ug/l	NA	NA	150000	150000	400000	120000
	IRON	ug/l	14000	14000	1100	720	3000	590
	IRON, DISSOLVED	ug/l	14000	14000	890	610	2200	300
	POTASSIUM	ug/l	NA	NA	3100	2100	3700	1900
	POTASSIUM, DISSOLVED	ug/l	NA	NA	3500	2300	3900	2100
	SODIUM	ug/l	NA	NA	37000	3700	16000	4400
	SODIUM, DISSOLVED	ug/l	NA	NA	37000	4000	17000	4900
SW6020	ANTIMONY	ug/l	6.0	7.8	0.8 U	0.8 U	0.18 J	0.8 U
	ANTIMONY, DISSOLVED	ug/l	6.0	7.8	0.8 U	0.8 U	0.8 U	0.8 U
	ARSENIC	ug/l	10	0.052	1 U	**[0.31 J]**	**[1.2]**	**[0.70 J]**
	ARSENIC, DISSOLVED	ug/l	10	0.052	1 U	1 U	1 U	1 U
	BARIUM	ug/l	2000	3800	100 U	100 U	100 U	100 U
	BARIUM, DISSOLVED	ug/l	2000	3800	100 U	100 U	100 U	100 U
	CADMIUM	ug/l	5.0	9.2	0.050	0.04 U	0.15	0.04 U
	CADMIUM, DISSOLVED	ug/l	5.0	9.2	0.048	0.04 U	0.13	0.04 U
	CHROMIUM, TOTAL	ug/l	100	22000	10 U	10 U	10 U	10 U
	CHROMIUM, TOTAL, DISSOL	ug/l	100	22000	10 U	10 U	10 U	10 U
	COBALT	ug/l	6.0	6.0	3.5	5.4	**[25]**	**[10]**
	COBALT, DISSOLVED	ug/l	6.0	6.0	3.1	3.7	**[16]**	**[7.5]**
	COPPER	ug/l	1300	NA	4 U	7.5	6.6	4 U
	COPPER, DISSOLVED	ug/l	1300	NA	4 U	4 U	4 U	4 U
	LEAD	ug/l	15	15	3 U	3 U	3 U	3 U
	LEAD, DISSOLVED	ug/l	15	15	3 U	3 U	3 U	3 U
	MAGNESIUM	ug/l	NA	NA	50000 U	R	R	R
	MAGNESIUM, DISSOLVED	ug/l	NA	NA	28000 J	R	R	R
	MANGANESE	ug/l	430	430	**[800 J]**	250 J	**[2500 J]**	350 J
	MANGANESE, DISSOLVED	ug/l	430	430	**[790 J]**	270 J	**[2500 J]**	330 J
	NICKEL	ug/l	390	390	8.6	8.1	39	6.9
	NICKEL, DISSOLVED	ug/l	390	390	7	6.0	26	5.1
	SELENIUM	ug/l	50	100	2.8	0.87 U	1.6	0.87 U
	SELENIUM, DISSOLVED	ug/l	50	100	4.5	0.88	0.87 U	0.87 U
	SILVER	ug/l	94	NA	0.2 U	0.2 U	0.2 U	0.2 U
	SILVER, DISSOLVED	ug/l	94	NA	0.2 U	0.2 U	0.2 U	0.2 U
	THALLIUM	ug/l	2.0	0.20	**[0.26]**	0.087 U	0.079 J	0.087 U
	THALLIUM, DISSOLVED	ug/l	2.0	0.20	**[0.29]**	0.087 U	0.087 U	0.087 U
	VANADIUM	ug/l	86	86	0.8 U	0.8 U	1.5	0.8 U
	VANADIUM, DISSOLVED	ug/l	86	86	0.8 U	0.8 U	0.8 U	0.8 U
	ZINC	ug/l	6000	6000	30 U	30 U	30 U	30 U
	ZINC, DISSOLVED	ug/l	6000	6000	30 U	30 U	30 U	30 U
SW7470A	MERCURY	ug/l	2.0	0.63	0.12 U	0.12 U	0.12 U	0.12 U
	MERCURY, DISSOLVED	ug/l	2.0	0.63	0.12 U	0.12 U	0.12 U	0.12 U

Notes:
ug/L - microgram per liter
U – Concentration non-detect; Value represents laboratory reporting limi
J – Concentration is an estimated value
R - Rejected result
NS – Analyte was not analyzec
Only compounds with at least one detect in media shown
Yellow highlighted results are detected concentrations exceeding the IDEM
OLQ 2017 Tapwater (Tap) Residential (Res) Screening Level (SL)
[BOLD] result detected above the EPA Region 5 2017 Tap SL

Prepared by: KBS 8/04/17
Checked by: LM 8/04/17

Table 11B. Detected Analytical Results Summary
Groundwater Grab (Organics)
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	01PS-1	02PS-1	03PS-1	04PS-1	05PS-1	06PS-1
					Sample ID:	LPA01-PW-001 (5'-10') (20160907)	LPA02-PW-001 (6'-11') (20160907)	LPA03-PW-001 (3'-8') (20160907)	LPA04-PW-001 (5'-10') (20160908)	LPA05-PW-001 (12'-17') (20160909)	LPA06-PW-001 (13-18') (20160920)
					Sample Date:	09/07/16	09/07/16	09/07/16	09/08/16	09/09/16	09/20/16
					Sample Depth (ft bgs):	5-10 ft.	6-11 ft.	3-8 ft.	5-10 ft.	12-17 ft.	13-18 ft.
Method	**Analyte**	**Units**	**IDEM Tap Res SL**	**IDEM GW VE Res SL**	**EPA Tap RSL**	Result	Result	Result	Result	Result	Result
SW8081A	cis-Chlordane	ug/l	NA	NA	NA	0.011 UJ	0.058 U	0.012 UJ	0.011 U	0.12 U	0.012 UJ
	P,P'-DDD	ug/l	0.32	NA	NA	0.011 UJ	0.058 U	0.012 UJ	0.011 U	0.12 U	0.012 UJ
	P,P'-DDE	ug/l	0.46	NA	NA	0.01 UJ	0.053 U	0.011 UJ	0.01 U	0.11 U	0.011 UJ
	P,P'-DDT	ug/l	2.3	NA	NA	0.011 UJ	0.058 U	0.012 UJ	0.011 U	0.12 U	0.012 UJ
	Trans-Chlordane	ug/l	NA	NA	NA	0.01 UJ	0.053 U	0.011 UJ	0.01 U	0.11 U	0.011 UJ
SW8260B	1,2-DICHLOROETHANE	ug/l	5.0	50	0.17	1 U	**[8.2]**	1 U	1 U	1 U	1 U
	ACETONE	ug/l	14000	NA	14000	10 U	2.7 J	10 U	10 U	10 U	10 UJ
	BENZENE	ug/l	5.0	28	0.46	1 U	1 U	1 U	1 U	**[1.1]**	1 U
	CIS-1,2-DICHLOROETHYLENE	ug/l	70	NA	36	1 U	0.78 J	1 U	1 U	2.4	1 U
	ETHYLBENZENE	ug/l	700	NA	1.5	1 U	1 U	1 U	1 U	1 U	1 U
	ISOPROPYLBENZENE (CUMENE)	ug/l	450	NA	450	1 U	1 U	1 U	1 U	1 U	1 U
	M,P-XYLENE (SUM OF ISOMERS)	ug/l	NA	NA	NA	2 U	2 U	2 U	2 U	2 U	2 U
	METHYL ETHYL KETONE (2-BUTANONE)	ug/l	5600	NA	5600	5 U	1.4 J	5 U	5 U	5 U	5 U
	METHYLCYCLOHEXANE	ug/l	NA	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U
	O-XYLENE	ug/l	190	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U
	Tetrachloroethylene (PCE)	ug/l	5.0	110	11	1 U	1 U	1 U	1 U	1 U	1 U
	TRANS-1,2-DICHLOROETHENE	ug/l	100	NA	360	1 U	1 U	1 U	1 U	1 U	1 UJ
	TRICHLOROETHYLENE (TCE)	ug/l	5.0	9.1	0.49	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
	VINYL CHLORIDE	ug/l	2.0	2.1	0.019	1 UJ	**[2.8 J]**	1 UJ	1 UJ	1 UJ	1 UJ
	Xylenes	ug/l	10000	NA	190	3 U	3 U	3 U	3 U	3 U	3 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	ug/l	4.6	NA	NA	4.8 UJ	4.8 UJ	4.8 UJ	4.8 UJ	4.8 UJ	4.9 UJ
	2-METHYLNAPHTHALENE	ug/l	36	NA	36	0.95 U	0.97 U	0.96 U	0.96 U	0.95 U	0.98 U
	3,4-Methylphenol (m,p Cresol)	ug/l	NA	NA	NA	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.5 U
	ACENAPHTHENE	ug/l	530	NA	530	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.5 U
	ANTHRACENE	ug/l	1800	NA	1800	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.5 U
	BENZO(A)ANTHRACENE	ug/l	0.12	NA	0.030	0.95 U	0.97 U	0.96 U	0.96 U	0.95 U	0.98 U
	BENZO(A)PYRENE	ug/l	0.20	NA	0.025	0.95 U	0.97 UJ	0.96 U	0.96 U	0.95 U	0.98 U
	BENZO(B)FLUORANTHENE	ug/l	0.34	NA	0.25	0.95 U	0.97 UJ	0.96 U	0.96 U	0.95 U	0.98 U
	BENZO(G,H,I)PERYLENE	ug/l	NA	NA	NA	0.95 U	0.97 UJ	0.96 U	0.96 U	0.95 U	0.98 U
	BENZO(K)FLUORANTHENE	ug/l	3.4	NA	2.5	0.95 U	0.97 UJ	0.96 U	0.96 U	0.95 U	0.98 U
	BIS(2-ETHYLHEXYL) PHTHALATE	ug/l	6.0	NA	5.6	0.95 U	2.4 U	0.96 U	0.96 U	0.95 U	0.98 U
	CARBAZOLE	ug/l	NA	NA	NA	0.95 U	0.97 U	0.96 U	0.96 U	0.95 U	0.98 U
	CHRYSENE	ug/l	34	NA	25	0.95 U	0.97 U	0.96 U	0.96 U	0.95 U	0.98 U
	DI-N-BUTYL PHTHALATE	ug/l	900	NA	900	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.5 U
	FLUORENE	ug/l	290	NA	290	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.5 U
	INDENO(1,2,3-C,D)PYRENE	ug/l	0.34	NA	0.25	0.95 U	0.97 UJ	0.96 U	0.96 U	0.95 U	0.98 U
	NAPHTHALENE	ug/l	1.7	110	0.17	0.95 U	0.97 U	0.96 U	0.96 U	0.95 U	0.98 U
	PHENANTHRENE	ug/l	NA	NA	NA	0.95 U	0.97 U	0.96 U	0.96 U	0.95 U	0.98 U
SW8270C SIM	1,4-DIOXANE (P-DIOXANE)	ug/l	4.6	NA	NA	0.021 J	0.13 J	0.010 J	0.022 J	0.18	0.015 J
	2-METHYLNAPHTHALENE	ug/l	36	NA	36	0.08 J	0.066 J	0.038 U	0.038 U	0.038 U	0.04 U
	ACENAPHTHENE	ug/l	530	NA	530	0.13 J	0.19 U	0.038 U	0.038 U	0.038 U	0.04 U
	ANTHRACENE	ug/l	1800	NA	1800	0.041 J	0.039 U	0.038 U	0.038 U	0.038 U	0.04 U
	BENZO(A)ANTHRACENE	ug/l	0.12	NA	0.030	**[0.057 J]**	0.039 U	0.038 U	0.038 U	0.038 U	0.04 U
	BENZO(A)PYRENE	ug/l	0.20	NA	0.025	**[0.045 J]**	0.039 U	0.038 U	0.038 U	0.038 U	0.04 U
	BENZO(B)FLUORANTHENE	ug/l	0.34	NA	0.25	0.07 J	0.039 U	0.038 U	0.038 U	0.038 U	0.04 U
	BENZO(G,H,I)PERYLENE	ug/l	NA	NA	NA	0.045 J	0.039 U	0.038 U	0.038 U	0.038 U	0.04 U
	BENZO(K)FLUORANTHENE	ug/l	3.4	NA	2.5	0.039 U	0.039 U	0.038 U	0.038 U	0.038 U	0.04 U
	CHRYSENE	ug/l	34	NA	25	0.066 J	0.039 U	0.038 U	0.038 U	0.038 U	0.04 U
	FLUORENE	ug/l	290	NA	290	0.13 J	0.19 U	0.038 U	0.038 U	0.038 U	0.04 U
	INDENO(1,2,3-C,D)PYRENE	ug/l	0.34	NA	0.25	0.047 J	0.039 U	0.038 U	0.038 U	0.038 U	0.04 U
	NAPHTHALENE	ug/l	1.7	110	0.17	0.053 J	0.13 J	0.038 U	0.038 U	0.038 U	0.04 U
	PHENANTHRENE	ug/l	NA	NA	NA	0.062 J	0.071 J	0.038 U	0.038 U	0.038 U	0.04 U

Notes:

ug/L - microgram per liter
U – Concentration was non-detect; Value presented represents laboratory reporting limit
J – Concentration is an estimated value
R - Rejected result
NS – Analyte was not analyzed
Table includes only compounds where at least one detect was measured in a sample for the given matrix.
Yellow highlighted results are detected concentrations exceeding the IDEM OLQ 2017 Tapwater (Tap) Residential (Res) Screening Level (SL).
Underlined results are detected concentrations exceeding the IDEM OLQ 2017 GW Vapor Exposure (VE) Res SL.
[BOLD] results are detected concentrations exceeding the EPA Region 5 2017 Tap RSL.

Prepared by: KBS 7/12/17
Checked by: LM 8/04/17

Table 11B. Detected Analytical Results Summary
Groundwater Grab (Organics)
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	07PS-1	08PS-1	09PS-1	10PS-1	11PS-2	12PS-1
					Sample ID:	LPA07-PW-001 (5'-10') (20160906)	LPA08-PW-001 (4'-9') (20160908)	LPA09-PW-001 (9'-14') (20160909)	LPA10-PW-001 (12-17') (20160919)	LPA11-PW-001 (10'-15') (20160920)	LPA12-PW-001 (4'-9') (20160922)
					Sample Date:	09/06/16	09/08/16	09/09/16	09/19/16	09/20/16	09/22/16
					Sample Depth (ft bgs):	5-10 ft.	4-9 ft.	9-14 ft.	12-17 ft.	10-15 ft.	4-9 ft.
Method	**Analyte**	**Units**	**IDEM Tap Res SL**	**IDEM GW VE Res SL**	**EPA Tap RSL**	Result	Result	Result	Result	Result	Result
SW8081A	cis-Chlordane	ug/l	NA	NA	NA	0.025	0.011 U	0.012 U	0.012 UJ	0.012 U	0.06 U
	P,P'-DDD	ug/l	0.32	NA	NA	0.011 U	0.011 U	0.012 U	0.012 UJ	0.012 U	0.14
	P,P'-DDE	ug/l	0.46	NA	NA	0.011 U	0.011 U	0.011 U	0.011 UJ	0.011 U	0.011 U
	P,P'-DDT	ug/l	2.3	NA	NA	0.011 U	0.011 U	0.012 U	0.012 UJ	0.012 U	0.012 U
	Trans-Chlordane	ug/l	NA	NA	NA	0.020	0.011 U	0.011 U	0.011 UJ	0.011 U	0.055 U
SW8260B	1,2-DICHLOROETHANE	ug/l	5.0	50	0.17	1 U	1 U	1 U	1 U	1 U	1 U
	ACETONE	ug/l	14000	NA	14000	10 U	10 U	10 UJ	10 U	10 U	1.7 J
	BENZENE	ug/l	5.0	28	0.46	1 U	1 U	1 U	1 U	1 U	1 U
	CIS-1,2-DICHLOROETHYLENE	ug/l	70	NA	36	1 U	1 U	1 U	1 U	1 U	1 U
	ETHYLBENZENE	ug/l	700	NA	1.5	1 U	1 U	1 U	1 U	1 U	1 U
	ISOPROPYLBENZENE (CUMENE)	ug/l	450	NA	450	1 U	1 U	1 U	1 U	1 U	1 U
	M,P-XYLENE (SUM OF ISOMERS)	ug/l	NA	NA	NA	2 U	2 U	2 U	2 U	2 U	2 U
	METHYL ETHYL KETONE (2-BUTANONE)	ug/l	5600	NA	5600	5 U	5 U	5 U	5 U	5 U	5 U
	METHYLCYCLOHEXANE	ug/l	NA	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U
	O-XYLENE	ug/l	190	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U
	Tetrachloroethylene (PCE)	ug/l	5.0	110	11	1 U	2.2	1 U	1 U	1 U	1 U
	TRANS-1,2-DICHLOROETHENE	ug/l	100	NA	360	1 U	1 U	1 UJ	1 U	1 U	1 U
	TRICHLOROETHYLENE (TCE)	ug/l	5.0	9.1	0.49	1 UJ	**[0.77 J]**	1 UJ	1 U	1 UJ	1 UJ
	VINYL CHLORIDE	ug/l	2.0	2.1	0.019	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
	Xylenes	ug/l	10000	NA	190	3 U	3 U	3 U	3 U	3 U	3 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	ug/l	4.6	NA	NA	4.8 UJ	4.8 UJ	5 UJ	4.8 UJ	5.1 U	5 U
	2-METHYLNAPHTHALENE	ug/l	36	NA	36	0.95 U	0.95 U	0.99 UJ	0.96 U	1 U	1 U
	3,4-Methylphenol (m,p Cresol)	ug/l	NA	NA	NA	2.4 U	2.4 UJ	2.5 UJ	3.2	2.5 U	2.5 U
	ACENAPHTHENE	ug/l	530	NA	530	2.4 U	2.4 U	2.5 U	2.4 U	2.5 U	2.5 U
	ANTHRACENE	ug/l	1800	NA	1800	2.4 U	2.4 U	2.5 UJ	2.4 U	2.5 U	2.5 U
	BENZO(A)ANTHRACENE	ug/l	0.12	NA	0.030	0.95 U	0.95 U	0.99 UJ	0.96 U	1 U	**[1.0]**
	BENZO(A)PYRENE	ug/l	0.20	NA	0.025	0.95 U	0.95 U	0.99 UJ	0.96 U	1 U	**[0.95 J]**
	BENZO(B)FLUORANTHENE	ug/l	0.34	NA	0.25	0.95 U	0.95 U	0.99 U	0.96 U	1 U	**[1.4]**
	BENZO(G,H,I)PERYLENE	ug/l	NA	NA	NA	0.95 U	0.95 U	0.99 U	0.96 U	1 U	1 U
	BENZO(K)FLUORANTHENE	ug/l	3.4	NA	2.5	0.95 U	0.95 U	0.99 U	0.96 U	1 U	0.66 J
	BIS(2-ETHYLHEXYL) PHTHALATE	ug/l	6.0	NA	5.6	0.95 U	0.95 U	0.99 UJ	0.96 U	0.75 J	1 U
	CARBAZOLE	ug/l	NA	NA	NA	0.95 U	0.95 U	0.99 U	0.96 U	1 U	1 U
	CHRYSENE	ug/l	34	NA	25	0.95 U	0.95 U	0.99 U	0.96 U	1 U	0.97 J
	DI-N-BUTYL PHTHALATE	ug/l	900	NA	900	2.4 U	2.4 U	2.5 UJ	2.4 U	2.5 U	2.5 U
	FLUORENE	ug/l	290	NA	290	2.4 U	2.4 U	2.5 UJ	2.4 U	2.5 U	2.5 U
	INDENO(1,2,3-C,D)PYRENE	ug/l	0.34	NA	0.25	0.95 U	0.95 U	0.99 U	0.96 U	1 U	**[0.51 J]**
	NAPHTHALENE	ug/l	1.7	110	0.17	0.95 U	0.95 U	0.99 UJ	0.96 U	1 U	1 U
	PHENANTHRENE	ug/l	NA	NA	NA	0.95 U	0.95 U	0.99 UJ	0.96 U	1 U	0.97 J
SW8270C SIM	1,4-DIOXANE (P-DIOXANE)	ug/l	4.6	NA	NA	0.011 J	0.035 J	0.016 J	0.49 UJ	0.014 J	2.1 U
	2-METHYLNAPHTHALENE	ug/l	36	NA	36	0.038 U	0.038 U	0.039 U	0.19 U	0.041 U	0.82 U
	ACENAPHTHENE	ug/l	530	NA	530	0.038 U	0.038 U	0.039 U	0.31 J	0.041 U	0.82 U
	ANTHRACENE	ug/l	1800	NA	1800	0.062 J	0.038 U	0.039 U	0.19 U	0.041 U	0.82 U
	BENZO(A)ANTHRACENE	ug/l	0.12	NA	0.030	**[0.11 J]**	0.038 U	**[0.053]**	0.19 U	0.041 U	0.82 U
	BENZO(A)PYRENE	ug/l	0.20	NA	0.025	**[0.072 J]**	0.038 U	**[0.043 J]**	0.19 U	0.041 U	0.82 U
	BENZO(B)FLUORANTHENE	ug/l	0.34	NA	0.25	0.18 J	0.038 U	0.10	0.19 U	0.064	**[1.2]**
	BENZO(G,H,I)PERYLENE	ug/l	NA	NA	NA	0.053 J	0.038 U	0.042	0.19 U	0.041 U	0.82 U
	BENZO(K)FLUORANTHENE	ug/l	3.4	NA	2.5	0.052 J	0.038 U	0.039 U	0.19 U	0.041 U	0.82 U
	CHRYSENE	ug/l	34	NA	25	0.11 J	0.038 U	0.052	0.19 U	0.041 U	0.82 U
	FLUORENE	ug/l	290	NA	290	0.038 U	0.038 U	0.039 U	0.19 U	0.041 U	0.82 U
	INDENO(1,2,3-C,D)PYRENE	ug/l	0.34	NA	0.25	0.078 J	0.038 U	0.057	0.19 U	0.043 J	0.82 UJ
	NAPHTHALENE	ug/l	1.7	110	0.17	0.038 U	0.038 U	0.039 U	0.19 U	0.041 U	0.82 U
	PHENANTHRENE	ug/l	NA	NA	NA	0.16 J	0.038 U	0.039 U	0.19 U	0.046	0.82 U

Notes:

ug/L - microgram per liter
U – Concentration was non-detect; Value presented represents laboratory reporting limit
J – Concentration is an estimated value
R - Rejected result
NS – Analyte was not analyzed
Table includes only compounds where at least one detect was measured in a sample for the given matrix.
Yellow highlighted results are detected concentrations exceeding the IDEM OLQ 2017 Tapwater (Tap) Residential (Res) Screening Level (SL).
Underlined results are detected concentrations exceeding the IDEM OLQ 2017 GW Vapor Exposure (VE) Res SL.
[BOLD] results are detected concentrations exceeding the EPA Region 5 2017 Tap RSL.

Prepared by: KBS 7/12/17
Checked by: LM 8/04/17

Table 11B. Detected Analytical Results Summary
Groundwater Grab (Organics)
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	13PS-1	14PS-1	15PS-1	16PS-1	16PS-1	17PS-1
					Sample ID:	LPA13-PW-001 (3'-8') (20160927)	LPA14-PW-001 (8'-12') (20160803)	LPA15-PW-001 (8'-12') (20160803)	LPA16-PW-001 (11'-16') (20160912)	LPA16-PW-001R (11'-16') (20160914)	LPA17-PW-001 (11'-16') (20160915)
					Sample Date:	09/27/16	08/03/16	08/03/16	09/12/16	09/14/16	09/16/16
					Sample Depth (ft bgs):	3-8 ft.	8-12 ft.	8-12 ft.	11-16 ft.	11-16 ft.	11-16 ft.
Method	**Analyte**	**Units**	**IDEM Tap Res SL**	**IDEM GW VE Res SL**	**EPA Tap RSL**	Result	Result	Result	Result	Result	Result
SW8081A	cis-Chlordane	ug/l	NA	NA	NA	0.013 U	0.012 U	0.011 U	0.012 U	NS	0.012 UJ
	P,P'-DDD	ug/l	0.32	NA	NA	0.013 U	0.012 U	0.011 UJ	0.012 U	NS	0.012 UJ
	P,P'-DDE	ug/l	0.46	NA	NA	0.012 U	0.011 U	0.01 U	0.011 U	NS	0.011 UJ
	P,P'-DDT	ug/l	2.3	NA	NA	0.013 U	0.012 U	0.011 U	0.012 U	NS	0.012 UJ
	Trans-Chlordane	ug/l	NA	NA	NA	0.012 U	0.011 U	0.01 U	0.011 U	NS	0.011 UJ
SW8260B	1,2-DICHLOROETHANE	ug/l	5.0	50	0.17	1 U	1 U	1 U	NS	1 U	1 U
	ACETONE	ug/l	14000	NA	14000	1.5 J	4.1 J	10 U	NS	10 UJ	10 UJ
	BENZENE	ug/l	5.0	28	0.46	1 U	1 U	1 U	NS	1 U	**[0.69 J]**
	CIS-1,2-DICHLOROETHYLENE	ug/l	70	NA	36	1 U	1 U	1 U	NS	1 U	1 U
	ETHYLBENZENE	ug/l	700	NA	1.5	1 U	1 U	1 U	NS	1 U	**[4.8]**
	ISOPROPYLBENZENE (CUMENE)	ug/l	450	NA	450	1 U	1 U	1 U	NS	1 U	3.5
	M,P-XYLENE (SUM OF ISOMERS)	ug/l	NA	NA	NA	2 U	2 U	2 U	NS	2 U	7.7
	METHYL ETHYL KETONE (2-BUTANONE)	ug/l	5600	NA	5600	5 U	1.2 J	5 U	NS	5 U	5 U
	METHYLCYCLOHEXANE	ug/l	NA	NA	NA	5 U	0.99 J	5 U	NS	5 U	5 U
	O-XYLENE	ug/l	190	NA	NA	1 U	1 U	1 U	NS	1 U	0.57 J
	Tetrachloroethylene (PCE)	ug/l	5.0	110	11	1 U	1 U	1 U	NS	1 U	1 U
	TRANS-1,2-DICHLOROETHENE	ug/l	100	NA	360	1 U	0.57 J	1 U	NS	1 UJ	1 UJ
	TRICHLOROETHYLENE (TCE)	ug/l	5.0	9.1	0.49	1 UJ	1 U	1 U	NS	1 UJ	1 UJ
	VINYL CHLORIDE	ug/l	2.0	2.1	0.019	1 UJ	1 U	1 U	NS	1 UJ	1 UJ
	Xylenes	ug/l	10000	NA	190	3 U	3 U	3 U	NS	3 U	8.3
SW8270C	1,4-DIOXANE (P-DIOXANE)	ug/l	4.6	NA	NA	5.1 U	4.9 UJ	4.8 UJ	4.9 UJ	NS	4.8 UJ
	2-METHYLNAPHTHALENE	ug/l	36	NA	36	1 U	0.97 UJ	0.95 U	0.98 UJ	NS	0.96 U
	3,4-Methylphenol (m,p Cresol)	ug/l	NA	NA	NA	2.5 U	R	R	2.4 UJ	NS	2.4 U
	ACENAPHTHENE	ug/l	530	NA	530	2.5 U	2.4 UJ	2.4 U	2.4 U	NS	2.4 U
	ANTHRACENE	ug/l	1800	NA	1800	2.5 U	2.4 UJ	2.4 U	2.4 UJ	NS	2.4 U
	BENZO(A)ANTHRACENE	ug/l	0.12	NA	0.030	1 U	0.97 UJ	0.95 U	0.98 UJ	NS	0.96 U
	BENZO(A)PYRENE	ug/l	0.20	NA	0.025	1 U	0.97 UJ	0.95 U	0.98 UJ	NS	0.96 U
	BENZO(B)FLUORANTHENE	ug/l	0.34	NA	0.25	1 U	0.97 UJ	0.95 U	0.98 U	NS	0.96 U
	BENZO(G,H,I)PERYLENE	ug/l	NA	NA	NA	1 U	0.97 UJ	0.95 U	0.98 U	NS	0.96 U
	BENZO(K)FLUORANTHENE	ug/l	3.4	NA	2.5	1 U	0.97 UJ	0.95 U	0.98 U	NS	0.96 U
	BIS(2-ETHYLHEXYL) PHTHALATE	ug/l	6.0	NA	5.6	1 U	0.97 UJ	0.95 U	0.98 UJ	NS	2.4 U
	CARBAZOLE	ug/l	NA	NA	NA	1 U	0.97 UJ	0.95 U	0.98 U	NS	0.96 U
	CHRYSENE	ug/l	34	NA	25	1 U	0.97 UJ	0.95 U	0.98 U	NS	0.96 U
	DI-N-BUTYL PHTHALATE	ug/l	900	NA	900	2.5 U	2.4 UJ	2.4 U	2.4 UJ	NS	2.4 U
	FLUORENE	ug/l	290	NA	290	2.5 U	2.4 UJ	2.4 U	2.4 UJ	NS	2.4 U
	INDENO(1,2,3-C,D)PYRENE	ug/l	0.34	NA	0.25	1 U	0.97 UJ	0.95 U	0.98 U	NS	0.96 U
	NAPHTHALENE	ug/l	1.7	110	0.17	1 U	0.97 UJ	0.95 U	0.98 U	NS	0.96 U
	PHENANTHRENE	ug/l	NA	NA	NA	1 U	0.97 UJ	0.95 U	0.98 UJ	NS	0.96 U
SW8270C SIM	1,4-DIOXANE (P-DIOXANE)	ug/l	4.6	NA	NA	0.1 UJ	R	R	0.099 UJ	NS	0.2 UJ
	2-METHYLNAPHTHALENE	ug/l	36	NA	36	0.041 U	R	R	0.04 U	NS	0.21 J
	ACENAPHTHENE	ug/l	530	NA	530	0.13 J	R	R	0.04 U	NS	0.08 U
	ANTHRACENE	ug/l	1800	NA	1800	0.041 U	R	R	0.04 U	NS	0.08 U
	BENZO(A)ANTHRACENE	ug/l	0.12	NA	0.030	**[0.049 J]**	R	R	0.04 U	NS	0.08 U
	BENZO(A)PYRENE	ug/l	0.20	NA	0.025	**[0.044 J]**	R	R	0.04 UJ	NS	0.08 U
	BENZO(B)FLUORANTHENE	ug/l	0.34	NA	0.25	0.080 J	R	R	0.04 U	NS	0.08 U
	BENZO(G,H,I)PERYLENE	ug/l	NA	NA	NA	0.046 J	R	R	0.04 U	NS	0.08 U
	BENZO(K)FLUORANTHENE	ug/l	3.4	NA	2.5	0.041 U	R	R	0.04 U	NS	0.08 U
	CHRYSENE	ug/l	34	NA	25	0.051 J	R	R	0.04 U	NS	0.08 U
	FLUORENE	ug/l	290	NA	290	0.062 J	R	R	0.04 U	NS	0.08 U
	INDENO(1,2,3-C,D)PYRENE	ug/l	0.34	NA	0.25	0.063 J	R	R	0.04 U	NS	0.08 U
	NAPHTHALENE	ug/l	1.7	110	0.17	0.041 U	R	R	0.04 U	NS	**[0.24 J]**
	PHENANTHRENE	ug/l	NA	NA	NA	0.081 J	R	R	0.062 J	NS	0.08 U

Notes:

ug/L - microgram per liter
U – Concentration was non-detect; Value presented represents laboratory reporting limit
J – Concentration is an estimated value
R - Rejected result
NS – Analyte was not analyzed
Table includes only compounds where at least one detect was measured in a sample for the given matrix.
Yellow highlighted results are detected concentrations exceeding the IDEM OLQ 2017 Tapwater (Tap) Residential (Res) Screening Level (SL).
Underlined results are detected concentrations exceeding the IDEM OLQ 2017 GW Vapor Exposure (VE) Res SL.
[BOLD] results are detected concentrations exceeding the EPA Region 5 2017 Tap RSL.

Prepared by: KBS 7/12/17
Checked by: LM 8/04/17

Table 11B. Detected Analytical Results Summary
Groundwater Grab (Organics)
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	17PS-1	18PS-2	19PS-1	20PS-1	21PS-1	22PS-1
					Sample ID:	LPA17-QD-001 (11'-16') (20160916)	LPA18-PW-001 (14'-19') (20160921)	LPA19-PW-001 (8'-13') (20160923)	LPA20-PW-001 (6'-11') (20160927)	LPA21-PW-001 (8'-12') (20160802)	LPA22-PW-001 (8'-12') (20160804)
					Sample Date:	09/16/16	09/21/16	09/23/16	09/27/16	08/02/16	08/04/16
					Sample Depth (ft bgs):	11-16 ft.	14-19 ft.	8-13 ft.	6-11 ft.	8-12 ft.	8-12 ft.
Method	**Analyte**	**Units**	**IDEM Tap Res SL**	**IDEM GW VE Res SL**	**EPA Tap RSL**	Result	Result	Result	Result	Result	Result
SW8081A	cis-Chlordane	ug/l	NA	NA	NA	0.012 U	0.012 UJ	0.061 U	0.012 U	0.012 U	0.011 U
	P,P'-DDD	ug/l	0.32	NA	NA	0.012 U	0.012 UJ	0.21	0.012 U	0.012 U	0.011 U
	P,P'-DDE	ug/l	0.46	NA	NA	0.011 U	0.011 UJ	0.031 J	0.011 U	0.011 U	0.01 U
	P,P'-DDT	ug/l	2.3	NA	NA	0.012 U	0.012 UJ	0.67	0.012 U	0.012 U	0.011 U
	Trans-Chlordane	ug/l	NA	NA	NA	0.011 U	0.011 UJ	0.056 U	0.011 U	0.011 U	0.01 U
SW8260B	1,2-DICHLOROETHANE	ug/l	5.0	50	0.17	1 U	1 U	1 U	1 U	1 U	1 U
	ACETONE	ug/l	14000	NA	14000	10 UJ	10 U	3.4 J	1.3 J	10 U	3.6 J
	BENZENE	ug/l	5.0	28	0.46	**[0.64 J]**	1 U	1 U	1 U	1 U	1 U
	CIS-1,2-DICHLOROETHYLENE	ug/l	70	NA	36	1 U	1 U	1 U	1 U	1 U	1 U
	ETHYLBENZENE	ug/l	700	NA	1.5	**[5.0]**	1 U	1 U	1 U	1 U	1 U
	ISOPROPYLBENZENE (CUMENE)	ug/l	450	NA	450	3.8	1 U	1 U	1 U	1 U	1 U
	M,P-XYLENE (SUM OF ISOMERS)	ug/l	NA	NA	NA	7.9	2 U	2 U	2 U	2 U	2 U
	METHYL ETHYL KETONE (2-BUTANONE)	ug/l	5600	NA	5600	5 U	5 U	5 U	5 U	5 U	1.3 J
	METHYLCYCLOHEXANE	ug/l	NA	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U
	O-XYLENE	ug/l	190	NA	NA	0.64 J	1 U	1 U	1 U	1 U	1 U
	Tetrachloroethylene (PCE)	ug/l	5.0	110	11	1 U	1 U	1 U	1 U	1 U	1 U
	TRANS-1,2-DICHLOROETHENE	ug/l	100	NA	360	1 UJ	1 U	1 U	1 U	1 U	1 U
	TRICHLOROETHYLENE (TCE)	ug/l	5.0	9.1	0.49	1 UJ	1 UJ	1 UJ	1 U	1 U	1 U
	VINYL CHLORIDE	ug/l	2.0	2.1	0.019	1 UJ	1 UJ	1 UJ	1 UJ	1 U	1 U
	Xylenes	ug/l	10000	NA	190	8.5	3 U	3 U	3 U	3 U	3 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	ug/l	4.6	NA	NA	4.9 UJ	5.1 U	5.1 U	5 U	4.8 UJ	4.8 UJ
	2-METHYLNAPHTHALENE	ug/l	36	NA	36	0.98 U	1 U	0.59 J	1 U	0.95 U	0.96 U
	3,4-Methylphenol (m,p Cresol)	ug/l	NA	NA	NA	R	2.5 U	2.5 U	2.5 U	2.4 UJ	R
	ACENAPHTHENE	ug/l	530	NA	530	2.5 U	1.0 J	1.2 J	2.5 U	2.4 U	2.4 U
	ANTHRACENE	ug/l	1800	NA	1800	2.5 U	2.5 U	2.5 U	2.5 U	2.4 U	2.4 U
	BENZO(A)ANTHRACENE	ug/l	0.12	NA	0.030	0.98 U	1 U	**[0.59 J]**	1 U	0.95 U	0.96 U
	BENZO(A)PYRENE	ug/l	0.20	NA	0.025	0.98 U	1 U	**[0.52 J]**	1 U	0.95 U	0.96 U
	BENZO(B)FLUORANTHENE	ug/l	0.34	NA	0.25	0.98 U	1 U	**[0.78 J]**	1 U	0.95 U	0.96 U
	BENZO(G,H,I)PERYLENE	ug/l	NA	NA	NA	0.98 U	1 U	1 U	1 U	0.95 U	0.96 U
	BENZO(K)FLUORANTHENE	ug/l	3.4	NA	2.5	0.98 U	1 U	1 U	1 U	0.95 U	0.96 U
	BIS(2-ETHYLHEXYL) PHTHALATE	ug/l	6.0	NA	5.6	2.5 U	1 U	1 U	1 U	0.95 U	0.96 U
	CARBAZOLE	ug/l	NA	NA	NA	0.98 U	0.79 J	1 U	1 U	0.95 U	0.96 U
	CHRYSENE	ug/l	34	NA	25	0.98 U	1 U	0.57 J	1 U	0.95 U	0.96 U
	DI-N-BUTYL PHTHALATE	ug/l	900	NA	900	2.5 U	2.5 U	2.5 U	2.5 U	2.4 U	2.4 U
	FLUORENE	ug/l	290	NA	290	2.5 U	0.74 J	1.3 J	2.5 U	2.4 U	2.4 U
	INDENO(1,2,3-C,D)PYRENE	ug/l	0.34	NA	0.25	0.98 U	1 U	1 U	1 U	0.95 U	0.96 U
	NAPHTHALENE	ug/l	1.7	110	0.17	0.98 U	**[5.2]**	1 U	1 U	0.95 U	0.96 U
	PHENANTHRENE	ug/l	NA	NA	NA	0.98 U	0.94 J	2.1	1 U	0.95 U	0.96 U
SW8270C SIM	1,4-DIOXANE (P-DIOXANE)	ug/l	4.6	NA	NA	0.19 UJ	0.019 J	0.98 U	0.1 UJ	R	R
	2-METHYLNAPHTHALENE	ug/l	36	NA	36	0.22 J	0.44 J	1.1	0.04 U	R	R
	ACENAPHTHENE	ug/l	530	NA	530	0.077 U	1.2 J	1.5	0.04 U	R	R
	ANTHRACENE	ug/l	1800	NA	1800	0.077 U	0.23 J	0.56	0.04 U	R	R
	BENZO(A)ANTHRACENE	ug/l	0.12	NA	0.030	0.077 U	**[0.061]**	**[0.85]**	0.04 U	R	R
	BENZO(A)PYRENE	ug/l	0.20	NA	0.025	0.077 U	0.039 U	**[0.68]**	0.04 U	R	R
	BENZO(B)FLUORANTHENE	ug/l	0.34	NA	0.25	0.077 U	0.064	**[1.2]**	0.04 U	R	R
	BENZO(G,H,I)PERYLENE	ug/l	NA	NA	NA	0.077 U	0.039 U	0.54	0.04 U	R	R
	BENZO(K)FLUORANTHENE	ug/l	3.4	NA	2.5	0.077 U	0.039 U	0.39 U	0.04 U	R	R
	CHRYSENE	ug/l	34	NA	25	0.077 U	0.070	0.79	0.04 U	R	R
	FLUORENE	ug/l	290	NA	290	0.077 U	0.98 J	1.7	0.04 U	R	R
	INDENO(1,2,3-C,D)PYRENE	ug/l	0.34	NA	0.25	0.077 U	0.039 UJ	**[0.77 J]**	0.04 UJ	R	R
	NAPHTHALENE	ug/l	1.7	110	0.17	**[0.25 J]**	NS	0.39 U	0.04 U	R	R
	PHENANTHRENE	ug/l	NA	NA	NA	0.082 J	1.2 J	NS	0.04 U	R	R

Notes:

ug/L - microgram per liter
U – Concentration was non-detect; Value presented represents laboratory reporting limit
J – Concentration is an estimated value
R - Rejected result
NS – Analyte was not analyzed
Table includes only compounds where at least one detect was measured in a sample for the given matrix.
Yellow highlighted results are detected concentrations exceeding the IDEM OLQ 2017 Tapwater (Tap) Residential (Res) Screening Level (SL).
Underlined results are detected concentrations exceeding the IDEM OLQ 2017 GW Vapor Exposure (VE) Res SL.
[BOLD] results are detected concentrations exceeding the EPA Region 5 2017 Tap RSL.

Prepared by: KBS 7/12/17
Checked by: LM 8/04/17

Table 11B. Detected Analytical Results Summary
Groundwater Grab (Organics)
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	22PS-1	23PS-1	23PS-1	24PS-1	25PS-2	26PS-1
					Sample ID:	LPA22-QD-001 (8'-12') (20160804)	LPA023-PW-001 (11'-16') (20160913)	LPA23-PW-001R (11'-16') (20160915)	LPA24-PW-001 (12'-17') (20160915)	LPA25-PW-001 (12'-17') (20160921)	LPA26-PW-001 (8'-12') (20160802)
					Sample Date:	08/04/16	09/13/16	09/15/16	09/15/16	09/21/16	08/02/16
					Sample Depth (ft bgs):	8-12 ft.	11-16 ft.	11-16 ft.	12-17 ft.	12-17 ft.	8-12 ft.
Method	**Analyte**	**Units**	**IDEM Tap Res SL**	**IDEM GW VE Res SL**	**EPA Tap RSL**	Result	Result	Result	Result	Result	Result
SW8081A	cis-Chlordane	ug/l	NA	NA	NA	0.012 U	0.012 U	NS	0.012 UJ	0.012 UJ	0.012 U
	P,P'-DDD	ug/l	0.32	NA	NA	0.012 U	0.012 U	NS	0.012 UJ	0.012 UJ	0.012 U
	P,P'-DDE	ug/l	0.46	NA	NA	0.011 U	0.011 U	NS	0.011 UJ	0.011 UJ	0.011 U
	P,P'-DDT	ug/l	2.3	NA	NA	0.012 U	0.012 U	NS	0.012 UJ	0.012 UJ	0.012 U
	Trans-Chlordane	ug/l	NA	NA	NA	0.011 U	0.011 U	NS	0.011 UJ	0.011 UJ	0.011 U
SW8260B	1,2-DICHLOROETHANE	ug/l	5.0	50	0.17	1 U	NS	1 U	1 U	1 U	1 U
	ACETONE	ug/l	14000	NA	14000	2.1 J	NS	10 UJ	10 UJ	1.6 J	7.5 J
	BENZENE	ug/l	5.0	28	0.46	1 U	NS	1 U	1 U	1 U	1 U
	CIS-1,2-DICHLOROETHYLENE	ug/l	70	NA	36	1 U	NS	1 U	1 U	1 U	1 U
	ETHYLBENZENE	ug/l	700	NA	1.5	1 U	NS	1 U	1 U	1 U	1 U
	ISOPROPYLBENZENE (CUMENE)	ug/l	450	NA	450	1 U	NS	1 U	1 U	1 U	1 U
	M,P-XYLENE (SUM OF ISOMERS)	ug/l	NA	NA	NA	2 U	NS	2 U	2 U	2 U	2 U
	METHYL ETHYL KETONE (2-BUTANONE)	ug/l	5600	NA	5600	0.97 J	NS	5 U	5 U	5 U	2 J
	METHYLCYCLOHEXANE	ug/l	NA	NA	NA	5 U	NS	5 U	5 U	5 U	5 U
	O-XYLENE	ug/l	190	NA	NA	1 U	NS	1 U	1 U	1 U	1 U
	Tetrachloroethylene (PCE)	ug/l	5.0	110	11	1 U	NS	1 U	1 U	1 U	1 U
	TRANS-1,2-DICHLOROETHENE	ug/l	100	NA	360	1 U	NS	1 UJ	1 UJ	1 U	1 U
	TRICHLOROETHYLENE (TCE)	ug/l	5.0	9.1	0.49	1 U	NS	1 UJ	1 UJ	1 UJ	1 U
	VINYL CHLORIDE	ug/l	2.0	2.1	0.019	1 U	NS	1 UJ	1 UJ	1 UJ	1 U
	Xylenes	ug/l	10000	NA	190	3 U	NS	3 U	3 U	3 U	3 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	ug/l	4.6	NA	NA	4.8 UJ	4.9 UJ	NS	4.9 UJ	5.1 U	4.8 UJ
	2-METHYLNAPHTHALENE	ug/l	36	NA	36	0.95 U	0.99 UJ	NS	0.98 U	0.85 J	0.96 U
	3,4-Methylphenol (m,p Cresol)	ug/l	NA	NA	NA	R	2.5 UJ	NS	2.4 U	2.5 U	R
	ACENAPHTHENE	ug/l	530	NA	530	2.4 U	2.5 U	NS	2.4 U	2.5 U	2.4 U
	ANTHRACENE	ug/l	1800	NA	1800	2.4 U	2.5 UJ	NS	2.4 U	2.5 U	2.4 U
	BENZO(A)ANTHRACENE	ug/l	0.12	NA	0.030	0.95 U	0.99 UJ	NS	0.98 U	1 U	0.96 U
	BENZO(A)PYRENE	ug/l	0.20	NA	0.025	0.95 U	0.99 UJ	NS	0.98 U	1 U	0.96 U
	BENZO(B)FLUORANTHENE	ug/l	0.34	NA	0.25	0.95 U	0.99 U	NS	0.98 U	1 U	0.96 U
	BENZO(G,H,I)PERYLENE	ug/l	NA	NA	NA	0.95 U	0.99 U	NS	0.98 U	1 U	0.96 U
	BENZO(K)FLUORANTHENE	ug/l	3.4	NA	2.5	0.95 U	0.99 U	NS	0.98 U	1 U	0.96 U
	BIS(2-ETHYLHEXYL) PHTHALATE	ug/l	6.0	NA	5.6	0.95 U	0.99 UJ	NS	0.98 U	1 U	0.96 U
	CARBAZOLE	ug/l	NA	NA	NA	0.95 U	0.99 U	NS	0.98 U	1 U	0.96 U
	CHRYSENE	ug/l	34	NA	25	0.95 U	0.99 U	NS	0.98 U	1 U	0.96 U
	DI-N-BUTYL PHTHALATE	ug/l	900	NA	900	2.4 U	2.5 UJ	NS	2.4 U	3.1	2.4 U
	FLUORENE	ug/l	290	NA	290	2.4 U	2.5 UJ	NS	2.4 U	2.5 U	2.4 U
	INDENO(1,2,3-C,D)PYRENE	ug/l	0.34	NA	0.25	0.95 U	0.99 U	NS	0.98 U	1 U	0.96 U
	NAPHTHALENE	ug/l	1.7	110	0.17	0.95 U	0.99 UJ	NS	0.98 U	**[0.58 J]**	0.96 U
	PHENANTHRENE	ug/l	NA	NA	NA	0.95 U	0.99 UJ	NS	0.98 U	0.72 J	0.96 U
SW8270C SIM	1,4-DIOXANE (P-DIOXANE)	ug/l	4.6	NA	NA	R	0.099 UJ	NS	0.2 UJ	0.51 U	R
	2-METHYLNAPHTHALENE	ug/l	36	NA	36	R	0.04 U	NS	0.079 U	1.2 J	R
	ACENAPHTHENE	ug/l	530	NA	530	R	0.04 U	NS	0.079 U	0.2 U	R
	ANTHRACENE	ug/l	1800	NA	1800	R	0.04 U	NS	0.079 U	0.22	R
	BENZO(A)ANTHRACENE	ug/l	0.12	NA	0.030	R	0.04 U	NS	0.079 U	**[0.40]**	R
	BENZO(A)PYRENE	ug/l	0.20	NA	0.025	R	0.04 UJ	NS	0.079 U	**[0.26]**	R
	BENZO(B)FLUORANTHENE	ug/l	0.34	NA	0.25	R	0.04 U	NS	0.079 U	**[0.49]**	R
	BENZO(G,H,I)PERYLENE	ug/l	NA	NA	NA	R	0.04 U	NS	0.079 U	0.23	R
	BENZO(K)FLUORANTHENE	ug/l	3.4	NA	2.5	R	0.04 U	NS	0.079 U	0.2 U	R
	CHRYSENE	ug/l	34	NA	25	R	0.04 U	NS	0.079 U	0.44	R
	FLUORENE	ug/l	290	NA	290	R	0.04 U	NS	0.079 U	0.24	R
	INDENO(1,2,3-C,D)PYRENE	ug/l	0.34	NA	0.25	R	0.04 U	NS	0.079 U	**[0.31 J]**	R
	NAPHTHALENE	ug/l	1.7	110	0.17	R	0.04 U	NS	0.079 U	**[0.62]**	R
	PHENANTHRENE	ug/l	NA	NA	NA	R	0.04 U	NS	0.079 U	0.67	R

Notes:

ug/L - microgram per liter
U – Concentration was non-detect; Value presented represents laboratory reporting limit
J – Concentration is an estimated value
R - Rejected result
NS – Analyte was not analyzed
Table includes only compounds where at least one detect was measured in a sample for the given matrix.
Yellow highlighted results are detected concentrations exceeding the IDEM OLQ 2017 Tapwater (Tap) Residential (Res) Screening Level (SL).
Underlined results are detected concentrations exceeding the IDEM OLQ 2017 GW Vapor Exposure (VE) Res SL.
[BOLD] results are detected concentrations exceeding the EPA Region 5 2017 Tap RSL.

Prepared by: KBS 7/12/17
Checked by: LM 8/04/17

Table 11B. Detected Analytical Results Summary
Groundwater Grab (Organics)
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	27PS-1	28PS-1	29PS-1	30PS-2	31PS-1	32PS-1
					Sample ID:	LPA27-PW-001 (9'-13') (20160804)	LPA28-PW-001 (11'-16') (20160914)	LPA29-PW-001 (11'-16') (20160914)	LPA30-PW-001 (11'-16') (20160922)	LPA31-PW-001 (13'-18') (20160926)	LPA32-PW-001 (6'-11') (20160927)
					Sample Date:	08/04/16	09/14/16	09/14/16	09/22/16	09/26/16	09/27/16
					Sample Depth (ft bgs):	9-13 ft.	11-16 ft.	11-16 ft.	11-16 ft.	13-18 ft.	6-11 ft.
Method	**Analyte**	**Units**	**IDEM Tap Res SL**	**IDEM GW VE Res SL**	**EPA Tap RSL**	Result	Result	Result	Result	Result	Result
SW8081A	cis-Chlordane	ug/l	NA	NA	NA	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U
	P,P'-DDD	ug/l	0.32	NA	NA	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U
	P,P'-DDE	ug/l	0.46	NA	NA	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
	P,P'-DDT	ug/l	2.3	NA	NA	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U
	Trans-Chlordane	ug/l	NA	NA	NA	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
SW8260B	1,2-DICHLOROETHANE	ug/l	5.0	50	0.17	1 U	1 U	1 U	1 U	1 U	1 U
	ACETONE	ug/l	14000	NA	14000	2.1 J	3.4 J	3.7 J	10 U	10 U	10 U
	BENZENE	ug/l	5.0	28	0.46	1 U	1 U	1 U	1 U	1 U	1 U
	CIS-1,2-DICHLOROETHYLENE	ug/l	70	NA	36	1 U	1 U	1 U	1 U	1 U	1 U
	ETHYLBENZENE	ug/l	700	NA	1.5	1 U	1 U	1 U	1 U	1 U	1 U
	ISOPROPYLBENZENE (CUMENE)	ug/l	450	NA	450	1 U	1 U	1 U	1 U	1 U	1 U
	M,P-XYLENE (SUM OF ISOMERS)	ug/l	NA	NA	NA	2 U	2 U	2 U	2 U	2 U	2 U
	METHYL ETHYL KETONE (2-BUTANONE)	ug/l	5600	NA	5600	1.1 J	1.7 J	1.5 J	5 U	5 U	5 U
	METHYLCYCLOHEXANE	ug/l	NA	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U
	O-XYLENE	ug/l	190	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U
	Tetrachloroethylene (PCE)	ug/l	5.0	110	11	1 U	1 U	1 U	1 U	1 U	1 U
	TRANS-1,2-DICHLOROETHENE	ug/l	100	NA	360	1 U	1 UJ	1 UJ	1 U	1 U	1 U
	TRICHLOROETHYLENE (TCE)	ug/l	5.0	9.1	0.49	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
	VINYL CHLORIDE	ug/l	2.0	2.1	0.019	1 U	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
	Xylenes	ug/l	10000	NA	190	3 U	3 U	3 U	3 U	3 U	3 U
SW8270C	1,4-DIOXANE (P-DIOXANE)	ug/l	4.6	NA	NA	4.8 UJ	4.8 UJ	4.8 UJ	5.1 U	5.1 U	5 U
	2-METHYLNAPHTHALENE	ug/l	36	NA	36	0.95 U	0.96 U	0.95 U	1 U	1 U	0.99 U
	3,4-Methylphenol (m,p Cresol)	ug/l	NA	NA	NA	R	2.4 U	R	2.5 U	R	2.5 U
	ACENAPHTHENE	ug/l	530	NA	530	2.4 U	2.4 U	2.4 U	2.5 U	2.5 U	2.5 U
	ANTHRACENE	ug/l	1800	NA	1800	2.4 U	2.4 U	2.4 U	2.5 U	2.5 U	2.5 U
	BENZO(A)ANTHRACENE	ug/l	0.12	NA	0.030	0.95 U	0.96 U	0.95 U	1 U	1 U	0.99 U
	BENZO(A)PYRENE	ug/l	0.20	NA	0.025	0.95 U	0.96 U	0.95 U	1 U	1 U	0.99 U
	BENZO(B)FLUORANTHENE	ug/l	0.34	NA	0.25	0.95 U	0.96 U	0.95 U	1 U	1 U	0.99 U
	BENZO(G,H,I)PERYLENE	ug/l	NA	NA	NA	0.95 U	0.96 U	0.95 U	1 U	1 U	0.99 U
	BENZO(K)FLUORANTHENE	ug/l	3.4	NA	2.5	0.95 U	0.96 U	0.95 U	1 U	1 U	0.99 U
	BIS(2-ETHYLHEXYL) PHTHALATE	ug/l	6.0	NA	5.6	0.95 U	2.4 U	0.95 U	1 U	1 U	0.99 U
	CARBAZOLE	ug/l	NA	NA	NA	0.95 U	0.96 U	0.95 U	1 U	1 U	0.99 U
	CHRYSENE	ug/l	34	NA	25	0.95 U	0.96 U	0.95 U	1 U	1 U	0.99 U
	DI-N-BUTYL PHTHALATE	ug/l	900	NA	900	2.4 U	2.4 U	2.4 U	2.5 U	2.5 U	2.5 U
	FLUORENE	ug/l	290	NA	290	2.4 U	2.4 U	2.4 U	2.5 U	2.5 U	2.5 U
	INDENO(1,2,3-C,D)PYRENE	ug/l	0.34	NA	0.25	0.95 U	0.96 U	0.95 U	1 U	1 U	0.99 U
	NAPHTHALENE	ug/l	1.7	110	0.17	0.95 U	0.96 U	0.95 U	1 U	1 U	0.99 U
	PHENANTHRENE	ug/l	NA	NA	NA	0.95 U	0.96 U	0.95 U	1 U	1 U	0.99 U
SW8270C SIM	1,4-DIOXANE (P-DIOXANE)	ug/l	4.6	NA	NA	R	0.1 UJ	0.013 J	0.1 U	0.099 UJ	0.1 UJ
	2-METHYLNAPHTHALENE	ug/l	36	NA	36	R	0.04 U	0.039 U	0.04 U	0.04 U	0.04 U
	ACENAPHTHENE	ug/l	530	NA	530	R	0.04 U	0.039 U	0.04 U	0.04 U	0.04 U
	ANTHRACENE	ug/l	1800	NA	1800	R	0.04 U	0.039 U	0.04 U	0.04 U	0.04 U
	BENZO(A)ANTHRACENE	ug/l	0.12	NA	0.030	R	0.04 U	0.039 U	0.04 U	0.04 U	0.04 U
	BENZO(A)PYRENE	ug/l	0.20	NA	0.025	R	0.04 U	0.039 U	0.04 U	0.04 U	0.04 U
	BENZO(B)FLUORANTHENE	ug/l	0.34	NA	0.25	R	0.04 U	0.039 U	0.04 U	0.04 U	0.04 U
	BENZO(G,H,I)PERYLENE	ug/l	NA	NA	NA	R	0.04 U	0.039 U	0.04 U	0.04 U	0.04 U
	BENZO(K)FLUORANTHENE	ug/l	3.4	NA	2.5	R	0.04 U	0.039 U	0.04 U	0.04 U	0.04 U
	CHRYSENE	ug/l	34	NA	25	R	0.04 U	0.039 U	0.04 U	0.04 U	0.04 U
	FLUORENE	ug/l	290	NA	290	R	0.04 U	0.039 U	0.04 U	0.04 U	0.04 U
	INDENO(1,2,3-C,D)PYRENE	ug/l	0.34	NA	0.25	R	0.04 U	0.039 U	0.04 UJ	0.04 UJ	0.04 UJ
	NAPHTHALENE	ug/l	1.7	110	0.17	R	0.04 U	0.039 U	0.04 U	0.04 U	0.04 U
	PHENANTHRENE	ug/l	NA	NA	NA	R	0.04 U	0.039 U	0.04 U	0.04 U	0.04 U

Notes:

ug/L - microgram per liter
U – Concentration was non-detect; Value presented represents laboratory reporting limit
J – Concentration is an estimated value
R - Rejected result
NS – Analyte was not analyzed
Table includes only compounds where at least one detect was measured in a sample for the given matrix.
Yellow highlighted results are detected concentrations exceeding the IDEM OLQ 2017 Tapwater (Tap) Residential (Res) Screening Level (SL).
Underlined results are detected concentrations exceeding the IDEM OLQ 2017 GW Vapor Exposure (VE) Res SL.
[BOLD] results are detected concentrations exceeding the EPA Region 5 2017 Tap RSL.

Prepared by: KBS 7/12/17
Checked by: LM 8/04/17

Table 11C. Detected Analytical Results Summary
Groundwater Monitoring Well Samples
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	MW-5	MW-4d	MW-4s	MW-7d	MW-7s	MW-3d	MW-3s	
					Sample ID:	LPA01-MW-005 (4'-14') (20161018)	LPA06-MW-004D (30'-35') (20161019)	LPA06-MW-004S (9'-19') (20161019)	LPA13-MW-007D (35'-40') (20161018)	LPA13-MW-007S (3'-13') (20161019)	LPA17-MW-003D(30'-35') (20161020)	LPA17-MW-003S (8'-18') (20161020)	LPA17-QD-003S (8'-18') (20161020)
					Sample Date:	10/18/16	10/19/16	10/19/16	10/18/16	10/19/16	10/20/16	10/20/16	10/20/16
					Sample Depth (ft bgs):	4-14 ft.	30-35 ft.	9-19 ft.	35-40 ft.	3-13 ft.	30-35 ft.	8-18 ft.	8-18 ft.
Method	**Analyte**	**Units**	**IDEM Tap Res**	**IDEM GW VE Res SL**	**EPA Tap RSL**	Result	Result	Result	Result	Result	Result	Result	Result
E335.4 Rv1.0	CYANIDE	ug/l	200	NA	1.5	**[18]**	R	5 U	5 U	5 U	5 U	5 U	5 U
SW6010B	ALUMINUM	ug/l	20000	NA	20000	740	75 J	50 U	200	1100	140	50 U	50 U
	ALUMINUM, DISSOLVED	ug/l	20000	NA	20000	50 U	R	50 U	50 U	50 U	50 U	50 U	50 U
	CALCIUM	ug/l	NA	NA	NA	170000	150000 J	150000	160000	160000	37000	280000	280000
	CALCIUM, DISSOLVED	ug/l	NA	NA	NA	160000	150000 J	150000	150000	170000	37000	270000	280000
	IRON	ug/l	14000	NA	14000	**[16000]**	6100 J	4800	6500	**[28000]**	4600	600	550
	IRON, DISSOLVED	ug/l	14000	NA	14000	13000	5600 J	4600	5200	**[30000]**	4000	450	500
	POTASSIUM	ug/l	NA	NA	NA	18000	17000 J	26000	3500	10000	77000	15000	16000
	POTASSIUM, DISSOLVED	ug/l	NA	NA	NA	18000	17000 J	28000	3500	11000	75000	16000	16000
	SODIUM	ug/l	NA	NA	NA	35000	55000 J	60000	45000	58000	100000	14000	14000
	SODIUM, DISSOLVED	ug/l	NA	NA	NA	34000	55000 J	63000	44000	63000	100000	14000	14000
SW6020	ANTIMONY	ug/l	6.0	NA	7.8	0.8 U	R	0.8 U	0.8 U	0.8 U	0.8 U	2.8	2.7
	ANTIMONY, DISSOLVED	ug/l	6.0	NA	7.8	0.8 U	R	0.8 U	0.8 U	0.8 U	0.8 U	3.2	3.2
	ARSENIC	ug/l	10	NA	0.052	**[5.9]**	**[5.6 J]**	**[3.2]**	**[6.3]**	**[23]**	**[3.1]**	1 U	1 U
	ARSENIC, DISSOLVED	ug/l	10	NA	0.052	**[7.9]**	**[7.9 J]**	**[4.8]**	**[5.6]**	**[32]**	**[3.8 J]**	1 U	1 U
	BARIUM	ug/l	2000	NA	3800	3200	R	100 U	110	290	1300	100 U	100 U
	BARIUM, DISSOLVED	ug/l	2000	NA	3800	2800	R	100 U	110	270	1200	100 U	100 U
	CADMIUM	ug/l	5.0	NA	9.2	**[11]**	R	0.2 U	0.2 U	0.088	0.11	1.2	1.3
	CADMIUM, DISSOLVED	ug/l	5.0	NA	9.2	0.04 U	R	0.04 U	0.04 U	0.04 U	0.04 U	1.5	1.5
	CHROMIUM, TOTAL	ug/l	100	NA	22000	14	R	10 U	13	10 U	10 U	11	11
	CHROMIUM, TOTAL, DISSOLVED	ug/l	100	NA	22000	10 U	13 J	10 U	10 U	10 U	10	10 U	10 U
	COBALT	ug/l	6.0	NA	6	1.6 U	R	3.4	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
	COBALT, DISSOLVED	ug/l	6.0	NA	6	1.6 U	R	3.0	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
	COPPER	ug/l	1300	NA	NA	32	R	10 U	10 U	10 U	10 U	10 U	10 U
	COPPER, DISSOLVED	ug/l	1300	NA	NA	4 U	R	4 U	4 U	4 U	4 U	4.2	4.0 J
	LEAD	ug/l	15	NA	15	**[48]**	R	3 U	3 U	**[16]**	11	3 U	3 U
	LEAD, DISSOLVED	ug/l	15	NA	15	3 U	R	3 U	3 U	3 U	3 U	3 U	3 U
	MAGNESIUM	ug/l	NA	NA	NA	R	R	55000 J	R	R	52000 J	R	R
	MAGNESIUM, DISSOLVED	ug/l	NA	NA	NA	R	R	52000 J	R	R	R	R	R
	MANGANESE	ug/l	430	NA	430	**[500 J]**	**[760 J]**	**[930 J]**	390 J	**[900 J]**	130 J	190 J	190 J
	MANGANESE, DISSOLVED	ug/l	430	NA	430	390 J	**[750 J]**	**[920 J]**	230 J	**[750 J]**	100 J	170 J	170 J
	NICKEL	ug/l	390	NA	390	8.7	2.6 J	6.0	4.0	1.9	2.4	41	41
	NICKEL, DISSOLVED	ug/l	390	NA	390	3.0	3.6 J	5.6	0.89	0.4 U	2.7	34	34
	SELENIUM	ug/l	50	NA	100	0.87 U	R	0.87 U	0.87 U	0.87 U	0.87 U	10	10
	SELENIUM, DISSOLVED	ug/l	50	NA	100	0.87 U	R	0.87 U	0.87 U	0.87 U	0.95 J	20	20
	SILVER	ug/l	94	NA	NA	0.30	R	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
	SILVER, DISSOLVED	ug/l	94	NA	NA	0.2 U	R	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
	THALLIUM	ug/l	2.0	NA	0.20	0.087 U	R	0.087 U	0.087 U	0.087 U	0.087 U	**[0.60]**	**[0.59]**
	THALLIUM, DISSOLVED	ug/l	2.0	NA	0.20	0.087 U	R	0.087 U	0.087 U	0.087 U	0.087 U	**[0.57]**	**[0.56]**
	VANADIUM	ug/l	86	NA	86	2.2	R	0.8 U	0.90	3.0	0.8 U	0.8 U	0.8 U
	VANADIUM, DISSOLVED	ug/l	86	NA	86	0.8 U	R	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
	ZINC	ug/l	6000	NA	6000	86	R	30 U	30 U	30 U	30 U	280	290
	ZINC, DISSOLVED	ug/l	6000	NA	6000	30 U	R	30 U	30 U	30 U	30 U	280	280
SW7470A	MERCURY	ug/l	2.0	NA	0.63	0.22	R	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
	MERCURY, DISSOLVED	ug/l	2.0	NA	0.63	0.12 U	R	0.2 U	0.12 U	0.12 U	0.2 U	0.2 U	0.12 U
SW8081A	ALDRIN	ug/l	0.0092	NA	NA	0.0096 U	0.0097 U	0.0095 U	0.0097 U	0.0098 U	0.0097 UJ	0.0097 U	0.0099 J
SW8260B	ACETONE	ug/l	14000	NA	14000	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
	BENZENE	ug/l	5.0	28	0.46	**[0.64 J]**	1 U	1 U	1 U	1 U	**[0.59 J]**	1 U	1 U
	CIS-1,2-DICHLOROETHYLENE	ug/l	70	NA	36	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	M,P-XYLENE (SUM OF ISOMERS)	ug/l	NA	NA	NA	2 U	2 U	2 U	2 U	2 U	0.96 J	2 U	2 U
	TRANS-1,2-DICHLOROETHENE	ug/l	100	NA	360	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	Xylenes	ug/l	10000	NA	190	3 U	3 U	3 U	3 U	3 U	0.96 J	3 U	3 U
SW8270C	BIS(2-ETHYLHEXYL) PHTHALATE	ug/l	6.0	NA	5.6	0.67 J	0.97 UJ	0.96 UJ	0.96 UJ	0.97 UJ	0.96 UJ	0.96 UJ	0.97 UJ
	CAPROLACTAM	ug/l	9900	NA	9900	6.3 J	R	R	R	R	R	R	R
	NAPHTHALENE	ug/l	1.7	110	0.17	0.98 U	0.97 U	0.96 U	0.96 U	0.97 U	**[1.0]**	0.96 U	0.97 U
SW8270C-SIM	1,4-DIOXANE (P-DIOXANE)	ug/l	4.6	NA	NA	0.023 J	0.058 J	0.038 J	0.090 J	0.097 U	0.039 J	0.096 U	0.097 U
	ACENAPHTHENE	ug/l	530	NA	530	0.039 U	0.039 U	0.039 U	0.039 U	0.051	0.083	0.038 U	0.039 U
	ANTHRACENE	ug/l	1800	NA	1800	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.056 J	0.038 U	0.039 U
	BENZO(A)ANTHRACENE	ug/l	0.12	NA	0.030	0.039 U	0.039 U	0.039 U	0.039 U	**[0.062]**	0.039 U	0.038 U	0.039 U
	BENZO(A)PYRENE	ug/l	0.20	NA	0.025	0.039 U	0.039 U	0.039 U	0.039 U	**[0.061]**	0.039 U	0.038 U	0.039 U
	BENZO(B)FLUORANTHENE	ug/l	0.34	NA	0.25	0.039 U	0.039 U	0.039 U	0.039 U	0.10	0.039 U	0.038 U	0.039 U
	BENZO(G,H,I)PERYLENE	ug/l	NA	NA	NA	0.039 U	0.039 U	0.039 U	0.039 U	0.049	0.039 U	0.038 U	0.039 U
	CHRYSENE	ug/l	34	NA	25	0.039 U	0.039 U	0.039 U	0.039 U	0.061	0.039 U	0.038 U	0.039 U
	FLUORENE	ug/l	290	NA	290	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.090	0.038 U	0.039 U
	INDENO(1,2,3-C,D)PYRENE	ug/l	0.34	NA	0.25	0.039 UJ	0.039 UJ	0.039 UJ	0.039 UJ	0.071 J	0.039 UJ	0.038 UJ	0.039 UJ
	NAPHTHALENE	ug/l	1.7	110	0.17	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	**1.5 UJ**	0.16 U	0.17 U
	PHENANTHRENE	ug/l	NA	NA	NA	0.068	0.039 U	0.039 U	0.039 U	0.067	0.098	0.038 U	0.039 U

Notes:

ug/L - microgram per liter

U – Concentration non-detect; Value presented is laboratory reporting limit

J – Concentration is an estimated value

R - Rejected result

NS – Analyte was not analyzed

Only compounds detected in the media are shown

sample for the given matrix.

Yellow highlighted results are detected concentrations exceeding the IDEM OLQ 2017 Tapwater (Tap) Residential (Res) Screening Level (SL).

Underlined results are detected concentrations exceeding the IDEM OLQ 2017 GW Vapor Exposure (VE) Res SL.

[BOLD] result exceeds the EPA Region 5 2017 Tap RSL.

Prepared by: AN 7/12/17
Checked by: KS 8/4/17

Table 11C. Detected Analytical Results Summary
Groundwater Monitoring Well Samples
Beck's Lake LaSalle Park Area
South Bend, IN

					Location:	MW-2d	MW-2s	MW-2s	MW-1	MW-6	MW-8d	MW-8S
					Sample ID:	LPA21-MW-002D (30'-35') (20161018)	LPA21-MW-002S (4-14') (20160808)	LPA21-QD-002S (4-14') (20160808)	LPA26-MW-001 (5-15') (20160808)	LPA31-MW-006 (07'-17') (20161017)	LPA32-MW-008D (32'-37') (20161017)	LPA32-MW-008S (06'-16') (20161017)
					Sample Date:	10/18/16	8/8/16	8/8/16	8/8/16	10/17/16	10/17/16	10/17/16
					Sample Depth (ft bgs):	30-35 ft.	4-14 ft.	4-14 ft.	5-15 ft.	7-17 ft.	32-37 ft.	6-16 ft.
Method	**Analyte**	**Units**	**IDEM Tap Res**	**IDEM GW VE Res SL**	**EPA Tap RSL**	Result	Result	Result	Result	Result	Result	Result
E335.4 Rv1.0	CYANIDE	ug/l	200	NA	1.5	5 U	5 U	5 U	5 U	5 U	5 U	5 U
SW6010B	ALUMINUM	ug/l	20000	NA	20000	160	50 U	50 U	50 U	50 U	2100	750
	ALUMINUM, DISSOLVED	ug/l	20000	NA	20000	50 U	50 U	50 U	50 U	50 U	50 U	50 U
	CALCIUM	ug/l	NA	NA	NA	81000	150000	160000	400000 J	270000	180000	180000
	CALCIUM, DISSOLVED	ug/l	NA	NA	NA	80000	160000	160000	370000 J	250000	170000	170000
	IRON	ug/l	14000	NA	14000	870	200 U	200 U	200 U	200 U	11000	500
	IRON, DISSOLVED	ug/l	14000	NA	14000	600	200 U	200 U	200 U	200 U	6800	200 U
	POTASSIUM	ug/l	NA	NA	NA	2000	2600	2700	2100	3800	7400 J	3400
	POTASSIUM, DISSOLVED	ug/l	NA	NA	NA	2100	2900	2900	2400	4000	6700 J	3500
	SODIUM	ug/l	NA	NA	NA	14000	71000	68000	3300	51000	53000	45000
	SODIUM, DISSOLVED	ug/l	NA	NA	NA	14000	71000	70000	3600	52000	53000	46000
SW6020	ANTIMONY	ug/l	6.0	NA	7.8	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
	ANTIMONY, DISSOLVED	ug/l	6.0	NA	7.8	0.8 U	0.8 UJ	0.8 UJ	0.8 UJ	0.8 U	0.8 U	0.8 U
	ARSENIC	ug/l	10	NA	0.052	**[4.6]**	1 U	1 U	1 U	1 U	**[6.6]**	**[1.2]**
	ARSENIC, DISSOLVED	ug/l	10	NA	0.052	**[6.7]**	1 UJ	1 UJ	1 UJ	1 U	**[4.7]**	1 U
	BARIUM	ug/l	2000	NA	3800	100 U	140	150	100 U	100 U	100 UJ	100 U
	BARIUM, DISSOLVED	ug/l	2000	NA	3800	100 U	150 J	140 J	100 UJ	100 U	100 U	100 U
	CADMIUM	ug/l	5.0	NA	9.2	0.076	0.04 U	0.04 U	0.04 U	0.048	0.043	0.066
	CADMIUM, DISSOLVED	ug/l	5.0	NA	9.2	0.04 U	0.04 UJ	0.04 UJ	0.04 UJ	0.057	0.04 U	0.05
	CHROMIUM, TOTAL	ug/l	100	NA	22000	10 U	10 U	0.63 J	10 U	10 U	10 U	10 U
	CHROMIUM, TOTAL, DISSOLVED	ug/l	100	NA	22000	10 U	10 UJ	10 UJ	10 UJ	10 U	10 U	10 U
	COBALT	ug/l	6.0	NA	6	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	2.1	5.4
	COBALT, DISSOLVED	ug/l	6.0	NA	6	1.6 U	1.6 UJ	1.6 UJ	1.6 UJ	1.6 U	1.6 U	3.6
	COPPER	ug/l	1300	NA	NA	10 U	4 U	4 U	4 U	10 U	10 UJ	10 U
	COPPER, DISSOLVED	ug/l	1300	NA	NA	4 U	4 UJ	4 UJ	4 UJ	4 U	4 U	6.0
	LEAD	ug/l	15	NA	15	3 U	3 U	3 U	3 U	3 U	3.9	3 U
	LEAD, DISSOLVED	ug/l	15	NA	15	3 U	3 UJ	3 UJ	3 UJ	3 U	3 U	3 U
	MAGNESIUM	ug/l	NA	NA	NA	R	50000 UJ	50000 U	50000 U	R	R	R
	MAGNESIUM, DISSOLVED	ug/l	NA	NA	NA	R	50000 UJ	50000 U	50000 U	R	R	R
	MANGANESE	ug/l	430	NA	430	200 J	260 J	260	200	200 J	**[860 J]**	**[1000 J]**
	MANGANESE, DISSOLVED	ug/l	430	NA	430	200 J	260 J	260 J	200 J	170 J	**[740 J]**	**[910 J]**
	NICKEL	ug/l	390	NA	390	2.7	2.3	3.7	2.9	3.2	5.4 J	12
	NICKEL, DISSOLVED	ug/l	390	NA	390	0.40	2.2 J	1.5 J	1.8 J	2.6	2.0	9.6
	SELENIUM	ug/l	50	NA	100	0.87 U	0.59 J	0.58 J	0.44 J	0.87 U	0.87 U	0.87 U
	SELENIUM, DISSOLVED	ug/l	50	NA	100	0.87 U	0.87 UJ	0.87 UJ	0.87 UJ	0.87 U	0.87 U	0.87 U
	SILVER	ug/l	94	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
	SILVER, DISSOLVED	ug/l	94	NA	NA	0.2 U	0.2 UJ	0.2 UJ	0.2 UJ	0.2 U	0.2 U	0.2 U
	THALLIUM	ug/l	2.0	NA	0.20	0.087 U	0.087 U	0.087 U	0.10	0.087 U	0.087 U	0.087 U
	THALLIUM, DISSOLVED	ug/l	2.0	NA	0.20	0.087 U	0.087 UJ	0.087 UJ	0.087 UJ	0.087 U	0.087 U	0.087 U
	VANADIUM	ug/l	86	NA	86	1.0	0.8 U	0.8 U	0.8 U	0.8 U	5.3 J	1.4
	VANADIUM, DISSOLVED	ug/l	86	NA	86	0.8 U	0.8 UJ	0.8 UJ	0.8 UJ	0.8 U	0.8 U	0.8 U
	ZINC	ug/l	6000	NA	6000	30 U	12 J	30 U	15 J	30 U	30 U	30 U
	ZINC, DISSOLVED	ug/l	6000	NA	6000	30 U	30 UJ	30 UJ	30 UJ	30 U	30 U	30 U
SW7470A	MERCURY	ug/l	2.0	NA	0.63	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
	MERCURY, DISSOLVED	ug/l	2.0	NA	0.63	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.2 U	0.2 U
SW8081A	ALDRIN	ug/l	0.0092	NA	NA	0.0096 U	0.0095 U	0.0095 U	0.0095 U	0.0096 U	0.0097 U	0.0097 U
SW8260B	ACETONE	ug/l	14000	NA	14000	10 UJ	3.4 J	3.1 J	10 U	10 UJ	10 UJ	10 UJ
	BENZENE	ug/l	5.0	28	0.46	1 U	1 U	1 U	1 U	1 U	1 U	1 U
	CIS-1,2-DICHLOROETHYLENE	ug/l	70	NA	36	1 U	1 U	1 U	1 U	1 U	16	1 U
	M,P-XYLENE (SUM OF ISOMERS)	ug/l	NA	NA	NA	2 U	2 U	2 U	2 U	2 U	2 U	2 U
	TRANS-1,2-DICHLOROETHENE	ug/l	100	NA	360	1 U	1 U	1 U	1 U	1 U	2.0	1 U
	Xylenes	ug/l	10000	NA	190	3 U	3 U	3 U	3 U	3 U	3 U	3 U
SW8270C	BIS(2-ETHYLHEXYL) PHTHALATE	ug/l	6.0	NA	5.6	0.98 U	0.95 U	0.95 U	0.96 U	0.99 U	1.4	0.97 U
	CAPROLACTAM	ug/l	9900	NA	9900	2.2 J	3.5 J	4.8 UJ	4.8 UJ	7.1 J	7.6 J	10 J
	NAPHTHALENE	ug/l	1.7	110	0.17	0.98 U	0.95 U	0.95 U	0.96 U	0.99 U	0.98 U	0.97 U
SW8270C-SIM	1,4-DIOXANE (P-DIOXANE)	ug/l	4.6	NA	NA	0.096 U	R	R	R	0.025 J	0.028 J	0.099 U
	ACENAPHTHENE	ug/l	530	NA	530	0.039 U	R	R	R	0.039 U	0.04 U	0.04 U
	ANTHRACENE	ug/l	1800	NA	1800	0.039 U	R	R	R	0.039 U	0.04 U	0.04 U
	BENZO(A)ANTHRACENE	ug/l	0.12	NA	0.030	0.039 U	R	R	R	0.039 U	0.04 U	0.04 U
	BENZO(A)PYRENE	ug/l	0.20	NA	0.025	0.039 U	R	R	R	0.039 U	0.04 U	0.04 U
	BENZO(B)FLUORANTHENE	ug/l	0.34	NA	0.25	0.039 U	R	R	R	0.039 U	0.04 U	0.04 U
	BENZO(G,H,I)PERYLENE	ug/l	NA	NA	NA	0.039 U	R	R	R	0.039 U	0.04 U	0.04 U
	CHRYSENE	ug/l	34	NA	25	0.039 U	R	R	R	0.039 U	0.04 U	0.04 U
	FLUORENE	ug/l	290	NA	290	0.039 U	R	R	R	0.039 U	0.04 U	0.04 U
	INDENO(1,2,3-C,D)PYRENE	ug/l	0.34	NA	0.25	0.039 UJ	R	R	R	0.039 UJ	0.04 UJ	0.04 UJ
	NAPHTHALENE	ug/l	1.7	110	0.17	0.039 U	R	R	R	0.039 U	0.04 U	0.04 U
	PHENANTHRENE	ug/l	NA	NA	NA	0.039 U	R	R	R	0.039 U	0.04 U	0.04 U

Notes:

ug/L - microgram per liter

U – Concentration non-detect; Value presented is laboratory reporting limit

J – Concentration is an estimated value

R - Rejected result

NS – Analyte was not analyzed

Only compounds detected in the media are shown sample for the given matrix.

Yellow highlighted results are detected concentrations exceeding the IDEM OLQ 2017 Tapwater (Tap) Residential (Res) Screening Level (SL).

Underlined results are detected concentrations exceeding the IDEM OLQ 2017 GW Vapor Exposure (VE) Res SL.

[BOLD] result exceeds the EPA Region 5 2017 Tap RSL.

Prepared by: AN 7/12/17
Checked by: KS 8/4/17

Table 12. Detected Analytical Results Summary
Soil Vapor
Beck's Lake LaSalle Park Area
South Bend, IN

				Location:	01VP-5s	17VP-3s		21VP-2s	21VP-2d	26VP-1s	26VP-1d	31VP-6s	31VP-6d	32VP-8s
				Sample ID:	LPA01-VP-005 (3.5')(20161101)	LPA17-QD-003S (5')(20161101)	LPA17-VP-003S (5')(20161101)	LPA21-VP02 (4)(20160802)	LPA21-VP02 (7.5)(20160802)	LPA-26-VP-VP01 (4) (20160802)	LPA-26-VP-VP01 (8)(20160802)	LPA31-VP-006 (4')(20161101)	LPA31-VP-006 (8')(20161101)	LPA32-VP-008S (4')(20161101)
				Sample Date:	11/1/2016	11/1/2016	11/1/2016	8/2/2016	8/2/2016	8/2/2016	8/2/2016	11/1/2016	11/1/2016	11/1/2016
				Sample Depth (ft bgs):	3.5-3.5 ft.	5-5 ft.	5-5 ft.	4-4 ft.	7.5-7.5 ft.	4-4 ft.	8-8 ft.	4-4 ft.	8-8 ft.	4-4 ft.
Method	**Analyte**	**Units**	**IDEM IA VESL Res***	**EPA IA Res RSL**	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
TO15	1,2-DICHLOROETHANE	µg/m3	36.7	0.11	0.81 U	0.81 U	0.81 U	0.4 U	0.4 U	0.4 U	0.4 U	0.81 U	0.81 U	0.81 U
	2-HEXANONE	µg/m3	1033	3.1	0.82 U	2.1	1.2	0.49	0.41 U	0.41 U	0.65	1.4	1.6	1.1
	ACETONE	µg/m3	1.1E+06	3200	47 J	51 J	68 J	13 J	22 J	27 J	16 J	150 J	120 J	100 J
	BENZENE	µg/m3	120	0.36	0.64 U	0.64 U	0.64 U	0.32 U	**1.1**	**0.40**	**0.81**	0.64 U	0.64 U	0.64 U
	BROMOMETHANE	µg/m3	173	0.52	0.78 U	0.78 U	0.78 U	0.39 U	0.39 U	0.39 U	0.39 U	0.78 U	0.78 U	0.78 U
	CARBON DISULFIDE	µg/m3	2E+04	73	6.2 U	10	9.4	4.8	5.6	3.5	4.9	25	6.2 U	6.2 U
	CARBON TETRACHLORIDE	µg/m3	157	0.47	1.3 U	1.3 U	1.3 U	0.63 U	0.63 U	0.63 U	0.63 U	1.3 U	1.3 U	1.3 U
	CHLOROETHANE	µg/m3	3.3E+05	1000	0.53 U	0.53 U	0.53 U	0.26 U	0.26 U	0.26 U	0.26 U	0.53 U	0.53 U	0.53 U
	CHLOROFORM	µg/m3	40.0	0.12	0.98 U	**1.3**	**1.1**	0.49 U	0.49 U	0.49 U	0.49 U	**1.5**	**1.1**	**2.0**
	CHLOROMETHANE	µg/m3	3133	9.4	1.7	0.83 U	0.83 U	0.41 U	0.41 U	0.85	0.41 U	1.2	1.4	0.83 U
	CYCLOHEXANE	µg/m3	2.1E+05	630	0.69 U	0.69 U	0.69 U	0.34 U	2.1	2.4	0.9	0.69 U	0.69 U	0.69 U
	DICHLORODIFLUOROMETHANE	µg/m3	3333	10	1.1 J	1.1 J	1.1 J	0.63	0.54	0.81	0.68	0.99 UJ	0.99 UJ	0.99 UJ
	ETHANOL	µg/m3	NA	NA	NS	NS	NS	7.5 U	9.5 J	17 J	7.5 U	NS	NS	NS
	ETHYL ACETATE	µg/m3	2433	7.3	NS	NS	NS	0.77	3.0	5.4	0.68	NS	NS	NS
	ETHYLBENZENE	µg/m3	367	1.1	0.87 U	0.87 U	1.0	0.76	**1.9**	**1.3**	**2.0**	**1.5**	**2.0**	**1.3**
	M,P-XYLENE (SUM OF ISOMERS)	µg/m3	NA	NA	1.7 U	2.8	3.5	1.6	3.8	3.5	3.8	4.0	3.9	4.2
	METHYL ETHYL KETONE (2-BUTANONE)	µg/m3	1.7E+05	520	24 U	24 U	26	12 U	12 U	12 U	12 U	190	190	58
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	µg/m3	1.0E+05	310	0.82 U	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	2.4	3.0	0.82 U
	METHYLENE CHLORIDE	µg/m3	2.1E+04	63	6.9 U	6.9 U	6.9 U	3.5 U	6.7	13	3.5 U	22	13	10
	NAPHTHALENE	µg/m3	27.7	0.083	1 UJ	**1.0 J**	**1.1 J**	0.52 U	0.52 U	0.52 U	0.52 U	1 UJ	1 UJ	1 UJ
	O-XYLENE (1,2-DIMETHYLBENZENE)	µg/m3	3333	10	0.87 U	1.2	1.4	0.63	1.7	1.7	1.4	1.8	2.0	1.7
	STYRENE	µg/m3	3.3E+04	100	0.85 U	1.2	1.5	1.1	1.1	1.6	0.72	0.85 U	0.85 U	1.4
	TERT-BUTYL METHYL ETHER	µg/m3	3667	11	0.72 U	0.72 U	0.72 U	0.36 U	0.36 U	0.36 U	0.36 U	0.72 U	0.72 U	0.72 U
	Tetrachloroethylene (PCE)	µg/m3	1400	4.2	1.4 U	**42**	**4.5**	2.3	1.9	1.2	0.68 U	**35**	1.4 U	1.4 U
	TOLUENE	µg/m3	1.7E+05	520	1.2	2.4	7.6	2.2	7.8	7.6	5.4	9.0	14	6.8
	TRICHLOROFLUOROMETHANE	µg/m3	NA	NA	4.5 U	4.5 U	4.5 U	2.2 U	2.2 U	2.2 U	2.2 U	4.5 U	4.5 U	4.5 U

Notes:
µg/m3 - micrograms per cubic meter
U – Concentration was non-detect; Value presented represents laboratory reporting limit
J – Concentration is an estimated value
Table includes only compounds where at least one detect was measured in a sample for the given matrix
(*) = For soil gas criteria IDEM Residential Indoor Air (IA) Vapor Exposure Screening Level (VESL) was divided by 0.03 attenuation factor
Underlined results are detected concentrations above the EPA Region 5 Target Subslab and soil gas conc. Vapor Intrusion Screening Level Calculator version 3.5.1 (June 2017)

Created by: AN 08/04/17
Checked by: LM 08/04/17

Table 13. Detected Analytical Results Summary
Ambient Air
Beck's Lake LaSalle Park Area
South Bend, IN

		Location:	22VA-2	27VA-1	28VA-3	31VA-4
		Sample ID:	LPA22-VA-VA-02 (20160802)	LPA27-VA-VA-01 (20160802)	LPA28-VA-003 (5')(20161101)	LPA31-VA-004 (5')(20161101)
		Sample Date:	8/2/2016	8/2/2016	11/1/2016	11/1/2016
Method	**Analyte**	**Units**	Result	Result	Result	Result
TO15	1,2-DICHLOROETHANE	µg/m3	1.2	0.75	0.21	0.24
	2-HEXANONE	µg/m3	45	56	2.6	3.1
	ACETONE	µg/m3	14000 J	18000 J	280 J	360 J
	BENZENE	µg/m3	3.9	4.0	1.1	0.83
	BROMOMETHANE	µg/m3	0.39 U	0.60	0.14 U	0.14 U
	CARBON DISULFIDE	µg/m3	10	9.4	1.1 U	1.1 U
	CARBON TETRACHLORIDE	µg/m3	0.63 U	0.63 U	0.44	0.49
	CHLOROETHANE	µg/m3	0.42	0.53	0.093 U	0.093 U
	CHLOROFORM	µg/m3	8.9	11	4.3	5.7
	CHLOROMETHANE	µg/m3	7.2	8.3	1.4	1.5
	CYCLOHEXANE	µg/m3	6.7	1.5	0.74	0.74
	DICHLORODIFLUOROMETHANE	µg/m3	0.71	0.57	0.52 J	0.53 J
	ETHANOL	µg/m3	330 J	270 J	NS	NS
	ETHYL ACETATE	µg/m3	29	16	NS	NS
	ETHYLBENZENE	µg/m3	4.1	2.9	2.1	2.8
	M,P-XYLENE (SUM OF ISOMERS)	µg/m3	12	8.3	7.5	10
	METHYL ETHYL KETONE (2-BUTANONE)	µg/m3	290	200	24	27
	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	µg/m3	2.9	2.3	0.14 U	0.14 U
	METHYLENE CHLORIDE	µg/m3	31	4.0	5.1	5.2
	NAPHTHALENE	µg/m3	2.4	4.4	0.9	0.79
	O-XYLENE (1,2-DIMETHYLBENZENE)	ug/m3	5.6	3.2	2.8	4.1
	STYRENE	µg/m3	7.5	7.1	2.9	3.1
	TERT-BUTYL METHYL ETHER	µg/m3	0.58	0.38	0.13 U	0.13 U
	TETRACHLOROETHYLENE (PCE)	µg/m3	1.6	1.9	1.7	1.6
	TOLUENE	µg/m3	22	12	12	15
	TRICHLOROFLUOROMETHANE	µg/m3	2.2 U	2.2 U	1.1	1.1

Notes:
µg/m3 - micrograms per cubic meters
U – Concentration was non-detect; Value presented represents laboratory reporting limit
J – Concentration is an estimated value
R - Rejected Result
NS – Analyte was not analyzed
Table includes only compounds where at least one detect was measured in a sample for the given matrix.

Created by: AN 07/17/17
Checked by: LM 08/04/17

Table 14. Detected Analytical Results Summary
Sediment
Beck's Lake LaSalle Park Area
South Bend, IN

		Location:	BLSW/SD-1	BLSW/SD-2	BLSW/SD-3	BLSW/SD-4	BLSW/SD-5	BLSW/SD-6	
		Sample ID:	LPABL-SD-001 (00-01) (20160726)	LPABL-SD-002 (00-01) (20160726)	LPABL-SD-003 (00-01) (20160726)	LPABL-SD-004 (00-01) (20160726)	LPABL-SD-005 (00-01) (20160727)	LPABL-SD-006 (00-01) (20160727)	LPABL-SD-006 (00-01) (20160727) DUP
		Sample Date:	7/26/2016	7/26/2016	7/26/2016	7/26/2016	7/27/2016	7/27/2016	7/27/2016
		Sample Depth (ft bgs):	0-1 ft.	0-1 ft.	0-1 ft.	0-1 ft.	0-1 ft.	0-1 ft.	0-1 ft.
Method	**Analyte**	**Units**	Result	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	18	66	21	17	48	48	48
D2974	TOTAL ORGANIC CARBON	%	26	6.9	26	28	6.7	10	8.5
SW6010B	ALUMINUM	mg/kg	6000	3700	9900	9500	2600	2100	2100
	BERYLLIUM	mg/kg	0.5 U	0.5 U	4.4	4.0	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	73000	20000	110000	66000	130000	82000	58000
	IRON	mg/kg	27000	17000	48000	42000	15000	11000	7700
	POTASSIUM	mg/kg	820	350	1400	1300 J	360	260	290
	SODIUM	mg/kg	300	250	750	890	210	190	150
SW6020	ANTIMONY	mg/kg	1.2	1.6	1.4	1.7	0.89	0.26	0.24
	ARSENIC	mg/kg	18	5.4	21	21	8.4	5.1	4.5
	BARIUM	mg/kg	190	53	180	170	110	76	68
	CADMIUM	mg/kg	1.8	0.39	2.3	2.9	0.64	0.27	0.23
	CHROMIUM, TOTAL	mg/kg	24	9.9	31	49	9.1	9.1	8.9
	COBALT	mg/kg	6.7	3.4	7.5	8.3	3.0	2.2	2.1
	COPPER	mg/kg	51	25	61	91	16	14	9.7
	LEAD	mg/kg	310	200	320	430	99	30	23
	MAGNESIUM	mg/kg	7500	2400	7700	10000	5200	5300	5800
	MANGANESE	mg/kg	760 J	280 J	1200 J	960 J	620 J	420 J	360 J
	NICKEL	mg/kg	21	10	26	39	9.1	8.8	8.0
	SELENIUM	mg/kg	3.7	1.8	4.8	5.6	1.5	1.6	1.1
	SILVER	mg/kg	0.26	0.016 J	0.33	0.46	0.052 J	0.017 J	0.1 U
	VANADIUM	mg/kg	26	16	28	38	9.7	9.8	10
	ZINC	mg/kg	300	73	350	500	67	31	43
SW7470A	MERCURY	mg/kg	0.40	0.033	0.31	0.45	0.057	0.035	0.073
SW8260B	ACETONE	mg/kg	1.2 J	0.16	0.94 J	0.67 J	0.17	0.38	0.52
	BENZENE	mg/kg	0.024 UJ	0.004 U	0.031 J	0.011 J	0.0056 U	0.0045 J	0.0053 J
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	0.27 J	0.036	0.20 J	0.15 J	0.035	0.084	0.13
	METHYLENE CHLORIDE	mg/kg	0.11 J	0.014 J	0.060 J	0.042 J	0.017 J	0.029 J	0.025 J
	TERT-BUTYL METHYL ETHER	mg/kg	0.024 UJ	0.004 U	0.022 UJ	0.02 UJ	0.0056 U	0.0072 U	0.0069 U
	TOLUENE	mg/kg	0.024 UJ	0.004 U	0.012 J	0.02 UJ	0.0056 U	0.0072 U	0.0069 U
SW8270C	2-METHYLNAPHTHALENE	mg/kg	0.18 UJ	0.14 J	0.16 UJ	0.19 UJ	0.069 UJ	0.34 UJ	0.068 UJ
	ACENAPHTHENE	mg/kg	0.15 J	0.28 J	0.16 UJ	0.19 UJ	0.069 UJ	0.34 UJ	0.068 UJ
	ACETOPHENONE	mg/kg	0.92 U	0.5 U	0.78 U	0.96 U	0.35 U	1.7 U	0.34 U
	ANTHRACENE	mg/kg	0.24 J	0.50 J	0.16 UJ	0.19 UJ	0.069 UJ	0.34 UJ	0.068 UJ
	BENZO(A)ANTHRACENE	mg/kg	0.50 J	1.0 J	0.080 J	0.19 UJ	0.069 UJ	0.34 UJ	0.041 J
	BENZO(A)PYRENE	mg/kg	0.49 J	1.0 J	0.16 UJ	0.19 UJ	0.069 UJ	0.34 UJ	0.047 J
	BENZO(B)FLUORANTHENE	mg/kg	0.85 J	1.5 J	0.11 J	0.14 J	0.069 UJ	0.34 UJ	0.079 J
	BENZO(G,H,I)PERYLENE	mg/kg	0.11 J	0.21 J	0.16 UJ	0.19 UJ	0.069 UJ	0.34 UJ	0.068 UJ
	BENZO(K)FLUORANTHENE	mg/kg	0.24 J	0.53 J	0.16 UJ	0.19 UJ	0.069 UJ	0.34 UJ	0.068 UJ
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	0.18 UJ	0.099 UJ	0.16 UJ	0.19 UJ	0.069 UJ	0.34 UJ	0.068 UJ
	CARBAZOLE	mg/kg	0.18 UJ	0.16 J	0.16 UJ	0.19 UJ	0.069 UJ	0.34 UJ	0.068 UJ
	CHRYSENE	mg/kg	0.51 J	0.91 J	0.16 UJ	0.098 J	0.069 UJ	0.34 UJ	0.047 J
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.18 UJ	0.063 J	0.16 UJ	0.19 UJ	0.069 UJ	0.34 UJ	0.068 UJ
	DIBENZOFURAN	mg/kg	0.18 UJ	0.12 J	0.16 UJ	0.19 UJ	0.069 UJ	0.34 UJ	0.068 UJ
	DIETHYL PHTHALATE	mg/kg	0.18 UJ	0.099 UJ	0.16 UJ	0.19 UJ	0.069 UJ	0.34 UJ	0.068 UJ
	DI-N-BUTYL PHTHALATE	mg/kg	0.31 J	0.099 UJ	0.59 J	0.65 J	0.31 J	0.34 UJ	0.14 J
	FLUORENE	mg/kg	0.14 J	0.22 J	0.16 UJ	0.19 UJ	0.069 UJ	0.34 UJ	0.068 UJ
	INDENO(1,2,3-C,D)PYRENE	mg/kg	0.13 J	0.25 J	0.16 UJ	0.19 UJ	0.069 UJ	0.34 UJ	0.068 UJ
	NAPHTHALENE	mg/kg	0.18 UJ	0.18 J	0.16 UJ	0.19 UJ	0.069 UJ	0.34 UJ	0.068 UJ
	PHENANTHRENE	mg/kg	1.3 J	2.2 J	0.16 UJ	0.19 UJ	0.069 UJ	0.34 UJ	0.068 UJ
SW8270C-SIM	2-METHYLNAPHTHALENE	mg/kg	R	R	R	R	R	R	R
	ACENAPHTHENE	mg/kg	R	R	R	R	R	R	R
	ANTHRACENE	mg/kg	R	R	R	R	R	R	R
	BENZO(A)ANTHRACENE	mg/kg	R	R	R	R	R	R	R
	BENZO(A)PYRENE	mg/kg	R	R	R	R	R	R	R
	BENZO(B)FLUORANTHENE	mg/kg	R	R	R	R	R	R	R
	BENZO(G,H,I)PERYLENE	mg/kg	R	R	R	R	R	R	R
	BENZO(K)FLUORANTHENE	mg/kg	R	R	R	R	R	R	R
	CHRYSENE	mg/kg	R	R	R	R	R	R	R
	DIBENZ(A,H)ANTHRACENE	mg/kg	R	R	R	R	R	R	R
	FLUORENE	mg/kg	R	R	R	R	R	R	R
	INDENO(1,2,3-C,D)PYRENE	mg/kg	R	R	R	R	R	R	R
	NAPHTHALENE	mg/kg	R	R	R	R	R	R	R
	PHENANTHRENE	mg/kg	R	R	R	R	R	R	R
SW9012	CYANIDE	mg/kg	1.1	0.26	1.5	0.87	0.75 U	0.22 U	0.62 U
SW9045C	PH	ph units	NS	NS	NS	NS	NS	7.32	7.57

Notes:

mg/kg - milligrams per kilogram
U – Concentration was non-detect; Value presented represents laboratory reporting limit
J – Concentration is an estimated value
R - Rejected Result
NS – Analyte was not analyzed
Table includes only compounds where at least one detect was measured in a sample for the given matrix.

Created by: AN 07/14/17
Checked by: LM 08/04/17

Table 14. Detected Analytical Results Summary
Sediment
Beck's Lake LaSalle Park Area
South Bend, IN

		Location:	BLSW/SD-7	BLSW/SD-8	BLSW/SD-9	BLSW/SD-10	BLSW/SD-11	BLSW/SD-12
		Sample ID:	LPABL-SD-007 (00-01) (20160727)	LPABL-SD-008 (00-01) (20160727)	LPABL-SD-009 (00-01) (20160727)	LPABL-SD-010 (00-01) (20160728)	LPABL-SD-011 (00-01) (20160728)	LPABL-SD-012 (00-01) (20160728)
		Sample Date:	7/27/2016	7/27/2016	7/27/2016	7/28/2016	7/28/2016	7/28/2016
		Sample Depth (ft bgs):	0-1 ft.	0-1 ft.	0-1 ft.	0-1 ft.	0-1 ft.	0-1 ft.
Method	**Analyte**	**Units**	Result	Result	Result	Result	Result	Result
D2216	SOLIDS, PERCENT	%	18	24	21	13	11	42
D2974	TOTAL ORGANIC CARBON	%	42	29	23	32	33	6.2
SW6010B	ALUMINUM	mg/kg	4800	8000	5500	7400	4300	2800
	BERYLLIUM	mg/kg	4.5	5.6	4.1	0.5 U	0.5 U	0.5 U
	CALCIUM	mg/kg	59000	68000	71000	31000	15000	24000
	IRON	mg/kg	24000	60000	33000	23000	13000	7600
	POTASSIUM	mg/kg	700	960	700	940	510	400
	SODIUM	mg/kg	520	320	320	330	220	190
SW6020	ANTIMONY	mg/kg	0.93	1.2	1.4	1.6	0.92	0.46
	ARSENIC	mg/kg	17	37	23	12	6.6	5.0
	BARIUM	mg/kg	150	200	170	130 J	69	35
	CADMIUM	mg/kg	1.3	1.8	2.5	3.0	1.6	0.79
	CHROMIUM, TOTAL	mg/kg	26	24	33	47	30	14
	COBALT	mg/kg	6.1	8.5	7.6	5.7	3.2	3.2
	COPPER	mg/kg	47	44	69	95	55	26
	LEAD	mg/kg	160	200	340	420	190	110
	MAGNESIUM	mg/kg	7300	5900	11000	9700	4600	10000
	MANGANESE	mg/kg	790 J	1600 J	1100 J	780 J	450 J	230 J
	NICKEL	mg/kg	27	22	29	36 J	27	11
	SELENIUM	mg/kg	3.3	4.8	4.3	4.4	2.4	1.7
	SILVER	mg/kg	0.16	0.19	0.36	0.45	0.27	0.069 J
	VANADIUM	mg/kg	22	27	28	32	18	15
	ZINC	mg/kg	280	220	490	530	290	110
SW7470A	MERCURY	mg/kg	0.22	0.21	0.46	0.70	0.57	0.12
SW8260B	ACETONE	mg/kg	1.2 J	0.85 J	1.1 J	1.3 J	1.7 J	0.74
	BENZENE	mg/kg	0.019 UJ	0.016 UJ	0.021 J	0.026 UJ	0.038 UJ	0.013 U
	METHYL ETHYL KETONE (2-BUTANONE)	mg/kg	1.1 J	0.17 J	0.27 J	0.29 J	0.37 J	0.18
	METHYLENE CHLORIDE	mg/kg	0.096 UJ	0.023 J	0.032 J	0.13 UJ	0.033 J	0.027 J
	TERT-BUTYL METHYL ETHER	mg/kg	0.019 UJ	0.016 UJ	0.02 UJ	0.026 UJ	0.038 UJ	0.013 U
	TOLUENE	mg/kg	0.019 UJ	0.016 UJ	0.02 UJ	0.026 UJ	0.038 UJ	0.013 U
SW8270C	2-METHYLNAPHTHALENE	mg/kg	0.18 UJ	0.14 UJ	0.15 UJ	0.25 UJ	0.31 UJ	R
	ACENAPHTHENE	mg/kg	0.18 UJ	0.14 UJ	0.15 UJ	0.25 UJ	0.31 UJ	R
	ACETOPHENONE	mg/kg	0.91 U	0.7 UJ	0.78 U	1.3 U	1.5 U	R
	ANTHRACENE	mg/kg	0.18 UJ	0.14 UJ	0.15 UJ	0.25 UJ	0.31 UJ	R
	BENZO(A)ANTHRACENE	mg/kg	0.14 J	0.14 UJ	0.15 UJ	0.16 J	0.17 J	R
	BENZO(A)PYRENE	mg/kg	0.13 J	0.14 UJ	0.15 UJ	0.15 J	0.16 J	R
	BENZO(B)FLUORANTHENE	mg/kg	0.27 J	0.14 UJ	0.086 J	0.36 J	0.31 J	0.046 J
	BENZO(G,H,I)PERYLENE	mg/kg	0.18 UJ	0.14 UJ	0.15 UJ	0.25 UJ	0.31 UJ	R
	BENZO(K)FLUORANTHENE	mg/kg	0.10 J	0.14 UJ	0.15 UJ	0.25 UJ	0.31 UJ	R
	BIS(2-ETHYLHEXYL) PHTHALATE	mg/kg	0.18 UJ	0.14 UJ	0.15 UJ	0.25 UJ	0.31 UJ	R
	CARBAZOLE	mg/kg	0.18 UJ	0.14 UJ	0.15 UJ	0.25 UJ	0.31 UJ	R
	CHRYSENE	mg/kg	0.17 J	0.14 UJ	0.15 UJ	0.19 J	0.19 J	R
	DIBENZ(A,H)ANTHRACENE	mg/kg	0.18 UJ	0.14 UJ	0.15 UJ	0.25 UJ	0.31 UJ	R
	DIBENZOFURAN	mg/kg	0.18 UJ	0.14 UJ	0.15 UJ	0.25 U	0.31 UJ	R
	DIETHYL PHTHALATE	mg/kg	0.18 UJ	0.14 UJ	0.15 J	0.25 UJ	0.31 UJ	R
	DI-N-BUTYL PHTHALATE	mg/kg	0.52 J	0.42 J	0.50 J	0.96 J	1.1 J	0.21 J
	FLUORENE	mg/kg	0.18 UJ	0.14 UJ	0.15 UJ	0.25 UJ	0.31 UJ	R
	INDENO(1,2,3-C,D)PYRENE	mg/kg	0.18 UJ	0.14 UJ	0.15 UJ	0.25 UJ	0.31 UJ	R
	NAPHTHALENE	mg/kg	0.18 UJ	0.14 UJ	0.15 UJ	0.25 UJ	0.31 UJ	R
	PHENANTHRENE	mg/kg	0.14 J	0.14 UJ	0.15 UJ	0.25 UJ	0.31 UJ	R
SW8270C-SIM	2-METHYLNAPHTHALENE	mg/kg	R	R	R	R	R	R
	ACENAPHTHENE	mg/kg	R	R	R	R	R	R
	ANTHRACENE	mg/kg	R	R	R	R	R	R
	BENZO(A)ANTHRACENE	mg/kg	R	R	R	R	R	R
	BENZO(A)PYRENE	mg/kg	R	R	R	R	R	R
	BENZO(B)FLUORANTHENE	mg/kg	R	R	R	R	R	R
	BENZO(G,H,I)PERYLENE	mg/kg	R	R	R	R	R	R
	BENZO(K)FLUORANTHENE	mg/kg	R	R	R	R	R	R
	CHRYSENE	mg/kg	R	R	R	R	R	R
	DIBENZ(A,H)ANTHRACENE	mg/kg	R	R	R	R	R	R
	FLUORENE	mg/kg	R	R	R	R	R	R
	INDENO(1,2,3-C,D)PYRENE	mg/kg	R	R	R	R	R	R
	NAPHTHALENE	mg/kg	R	R	R	R	R	R
	PHENANTHRENE	mg/kg	R	R	R	R	R	R
SW9012	CYANIDE	mg/kg	0.53	0.84	0.91	1.0	0.94	0.55
SW9045C	PH	ph units	7.14	NS	NS	NS	NS	6.83

Notes:

mg/kg - milligrams per kilogram
U – Concentration was non-detect; Value presented represents laborato
J – Concentration is an estimated value
R - Rejected Result
NS – Analyte was not analyzed
Table includes only compounds where at least one detect was measured in a sample for the given matrix.

Created by: AN 07/14/17
Checked by: LM 08/04/17

Table 15
Detected Analytical Results Summary - Surface Water
Beck's Lake LaSalle Park Area
South Bend, IN

		Location:	BLSW/SD-1	BLSW/SD-2	BLSW/SD-3	BLSW/SD-4	BLSW/SD-5	BLSW/SD-6		BLSW/SD-7	BLSW/SD-8	BLSW/SD-9	BLSW/SD-10	BLSW/SD-11	BLSW/SD-12
		Sample ID:	LPABL-SW-001 (00-01)-(20160726)	LPABL-SW-002 (00-01)-(20160726)	LPABL-SW-003 (00-01)-(20160726)	LPABL-SW-004 (00-01)-(20160726)	LPABL-SW-005 (00-01)-(20160727)	LPABL-SW-006 (00-01)-(20160727)	LPABL-SW-006 (00-01)- (20160727) DUP	LPABL-SW-007 (00-01)-(20160727)	LPABL-SW-008 (00-01)-(20160727)	LPABL-SW-009 (00-01)-(20160727)	LPABL-SW-010 (00-01) (20160728)	LPABL-SW-011 (00-01) (20160728)	LPABL-SW-012 (00-01) (20160728)
		Sample Date:	7/26/2016	7/26/2016	7/26/2016	7/26/2016	7/27/2016	7/27/2016	7/27/2016	7/27/2016	7/27/2016	7/27/2016	7/28/2016	7/28/2016	7/28/2016
		Sample Depth (ft bgs):	0-1 ft.	0-1 ft.	0-1 ft.	0-1 ft.	0-1 ft.	0-1 ft.	0-1 ft.	0-1 ft.	0-1 ft.	0-1 ft.	0-1 ft.	0-1 ft.	0-1 ft.
Method	**Analyte**	**Units**	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
SW6010B	ALUMINUM, DISSOLVED	ug/l	120	120	130	130	150	140	130	160	170	150	170	120	200
	ALUMINUM	ug/l	720	240	240	300	300	410	380	270	330	380	130	460	300
	CALCIUM, DISSOLVED	ug/l	20000	20000	19000	19000	20000	19000	20000	20000	20000	19000	20000	19000	20000
	CALCIUM	ug/l	22000	21000	22000	21000	21000	22000	22000	21000	21000	23000	21000	23000	20000
	IRON, DISSOLVED	ug/l	240	200 U	280	200 U	520	200 U	270	250	410	260	560	240	460
	IRON	ug/l	1900	1100	1100	1200	1300	1600	1500	1200	1400	1800	330	1700	1100
	POTASSIUM, DISSOLVED	ug/l	4100	4100	4100	4100	4200	4100	4100	4100	4200	4100	4300	4100	4100
	POTASSIUM	ug/l	3800	3600	3700	3700	3700	3700	3700	3600	3700	3700	3500	3900	3500
	SODIUM, DISSOLVED	ug/l	22000	23000	22000	22000	22000	22000	22000	22000	22000	23000	23000	22000	22000
	SODIUM	ug/l	21000	21000	22000	23000	21000	21000	22000	21000	22000	22000	22000	22000	21000
SW6020	ANTIMONY, DISSOLVED	ug/l	0.97 J	0.91 J	1 J	0.98 J	1 J	1 J	1 J	1 J	1 J	1.1 J	1.1 J	0.87 J	0.89 J
	ANTIMONY	ug/l	1.3	0.8 U	0.81	0.8 U	0.84	0.84	0.81	0.8 U	0.90	0.84	0.90	0.89	1.2
	ARSENIC, DISSOLVED	ug/l	1.7 J	1.6 J	1.8 J	1.7 J	1.8 J	1.7 J	1.7 J	1.7 J	1.8 J	1.8 J	1.7 J	1.6 J	1.8 J
	ARSENIC	ug/l	1.9	1.4	1.5	1.5	1.5	1.5	1.6	1.4	1.6	2.1	1.7	1.5	1.5
	CADMIUM, DISSOLVED	ug/l	0.04 UJ	0.04 UJ	0.04 UJ	0.04 UJ	0.04 UJ	0.04 UJ	0.04 UJ	0.04 UJ	0.04 UJ	0.04 UJ	0.04 UJ	0.04 UJ	0.04 UJ
	CADMIUM	ug/l	0.084	0.04 U	0.04 U	0.04 U	0.04 U	0.049	0.052	0.04 U	0.04 U	0.058 J	0.044	0.04 U	0.04 U
	CHROMIUM, TOTAL, DISSOLVED	ug/l	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
	CHROMIUM, TOTAL	ug/l	38	36	10 U	10 U	10 U	10 U	10 U	10 U	10 U	R	10 U	10 U	10 U
	COBALT, DISSOLVED	ug/l	1.6 UJ	1.6 UJ	1.6 UJ	1.6 UJ	1.6 UJ	1.6 UJ	1.6 UJ	1.6 UJ	1.6 UJ	1.6 UJ	1.6 UJ	1.6 UJ	1.6 UJ
	COBALT	ug/l	28	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
	COPPER, DISSOLVED	ug/l	4 UJ	4 UJ	4 UJ	4 UJ	4 UJ	4 UJ	4 UJ	4 UJ	4 UJ	4 UJ	4 UJ	4 UJ	4 UJ
	COPPER	ug/l	8.6	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
	LEAD, DISSOLVED	ug/l	3 UJ	3 UJ	3 U	3 UJ	3.1 J	3 UJ	3 UJ	3 UJ	3 UJ	3 UJ	3 UJ	3 UJ	3.1 J
	LEAD	ug/l	14	4.7	5.1	5.4	6.9	8.5	9.2	5.2	6.9	12	8.8	6.4	5.2
	MAGNESIUM, DISSOLVED	ug/l	10000 UJ	10000 UJ	5000 J	10000 UJ	10000 UJ	10000 UJ	10000 UJ	10000 UJ	10000 UJ	10000 UJ	10000 UJ	10000 UJ	10000 UJ
	MAGNESIUM	ug/l	6000	5600	5700	5700	5800	6000	6100	5600	5600	5900	5600	5900	5300
	MANGANESE	ug/l	200	130	170	190	180	180	180	160	180	180	220	190	150
	MANGANESE, DISSOLVED	ug/l	NS	NS	25 J	NS	NS	NS	NS	NS	NS	NS	NS	27	60 J
	NICKEL	ug/l	170	13	1.8	2.0	1.9	2.5	2.3	2.2	2.1	2.0	2.4	2.6	2.0
	NICKEL, DISSOLVED	ug/l	NS	NS	1.1 J	NS	NS	NS	NS	NS	NS	NS	NS	1.4	1.8 J
	SELENIUM, DISSOLVED	ug/l	0.87 UJ	0.87 UJ	0.93 J	0.87 UJ	0.87 UJ	0.87 UJ	0.87 UJ	0.87 UJ	0.87 UJ	0.87 UJ	0.87 UJ	0.87 UJ	0.87 UJ
	SELENIUM	ug/l	0.44 J	0.87 U	0.41 J	0.37 J	0.29 J	0.49 J	0.5 J	0.32 J	0.87 U	0.46 J	0.72 J	0.44 J	0.57 J
	VANADIUM, DISSOLVED	ug/l	2.2 J	2.1 J	2.7 J	2.7 J	2.6 J	2.3 J	2.5 J	2.3 J	2.7 J	2.6 J	2.1 J	2.3 J	3 J
	VANADIUM	ug/l	5.5	3.6	4.0	4.3	4.0	4.4	4.3	3.6	4.2	4.4	4.5	4.1	3.8
SW7470A	MERCURY, DISSOLVED	ug/l	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
	MERCURY	ug/l	0.12 U	0.063 J	0.12 U	0.049 J	0.058 J	0.047 J	0.042 J	0.045 J	0.12 U	0.045 J	0.12 U	0.051 J	0.049 J
SW8260B	ACETONE	ug/l	12	8.9 J	4.4 J	4.5 J	4.8 J	7.8 J	9.2 J	7.5 J	6.2 J	8.1 J	6.2 J	7.1 J	9.8 J
	METHYL ETHYL KETONE (2-BUTANONE)	ug/l	1.2 J	0.86 J	0.66 J	0.74 J	0.6 J	0.81 J	0.87 J	0.99 J	0.71 J	0.84 J	0.72 J	0.98 J	1.3 J
SW8270C	BIS(2-ETHYLHEXYL) PHTHALATE	ug/l	0.95 U	0.95 U	0.96 U	0.96 U	0.96 U	0.95 U	0.95 U	0.96 U	0.96 U	4.8	0.96 U	0.97 U	0.96 U
SM2340B-11	HARDNESS (AS CACO3)	mg/l	80	75	77	76	77	80	81	75	76	80	75	80	72

Notes:

ug/L - microgram per liter

U – Concentration was non-detect; Value presented represents laboratory reporting limit

J – Concentration is an estimated value

R - Rejected result

NS – Analyte was not analyzed

Table includes only compounds where at least one detect was measured in a sample for the given matrix.

Prepared by: AN 08/11/2017
Checked by: LM 8/11/17