US EPA RECORDS CENTER REGION 5
494360

Haley & Aldrich, Inc.
6500 Rockside Road
Suite 200
Cleveland, OH 44131

Tel: 216.739.0555
Fax: 216.520.0712
HaleyAldrich.com

HALEY & ALDRICH

**Letter of Transmittal**

| | |
|---|---|
| Date | 22 November 2013 |
| File Number | 35183-066 |
| From | Lloyd S. Ross |

| | |
|---|---|
| To | Division of Emergency and Remedial Response<br>Ohio Environmental Protection Agency<br>Northeast District Office<br>2110 East Aurora Road<br>Twinsburg, Ohio 44087 |
| Attention | Teri Heer, Ohio EPA |
| Copy to | Teresa Jordan, Tierra Solutions, Inc.<br>Nathan Scott, Tierra Solutions, Inc.<br>Chris DeJarlais, Boulder Environmental Consulting (e-copy)<br>Mike Eberle, Ohio EPA (e-copy)<br>Tim Christman, Ohio EPA<br>Linda Martin, U.S. EPA, Region 5<br>Peter Ramanauskas, U.S. EPA, Region 5 |
| Subject | Former Diamond Shamrock Painesville Works Site, Operable Unit 12, Tanner Parcel PCB Results |

| Copies | Date | Description |
|---|---|---|
| 1 | Nov 2013 | Table 1, Summary of Soil PCB Analytical Results, Operable Unit 12-Tanner Parcel |
| 1 | Nov 2013 | Figure 1, Operable Unit 12 - Tanner Parcel, PCB Analytical Results |

Transmitted via ☐ First class mail ☒ Overnight express ☐ Hand delivery ☐ Other

Remarks

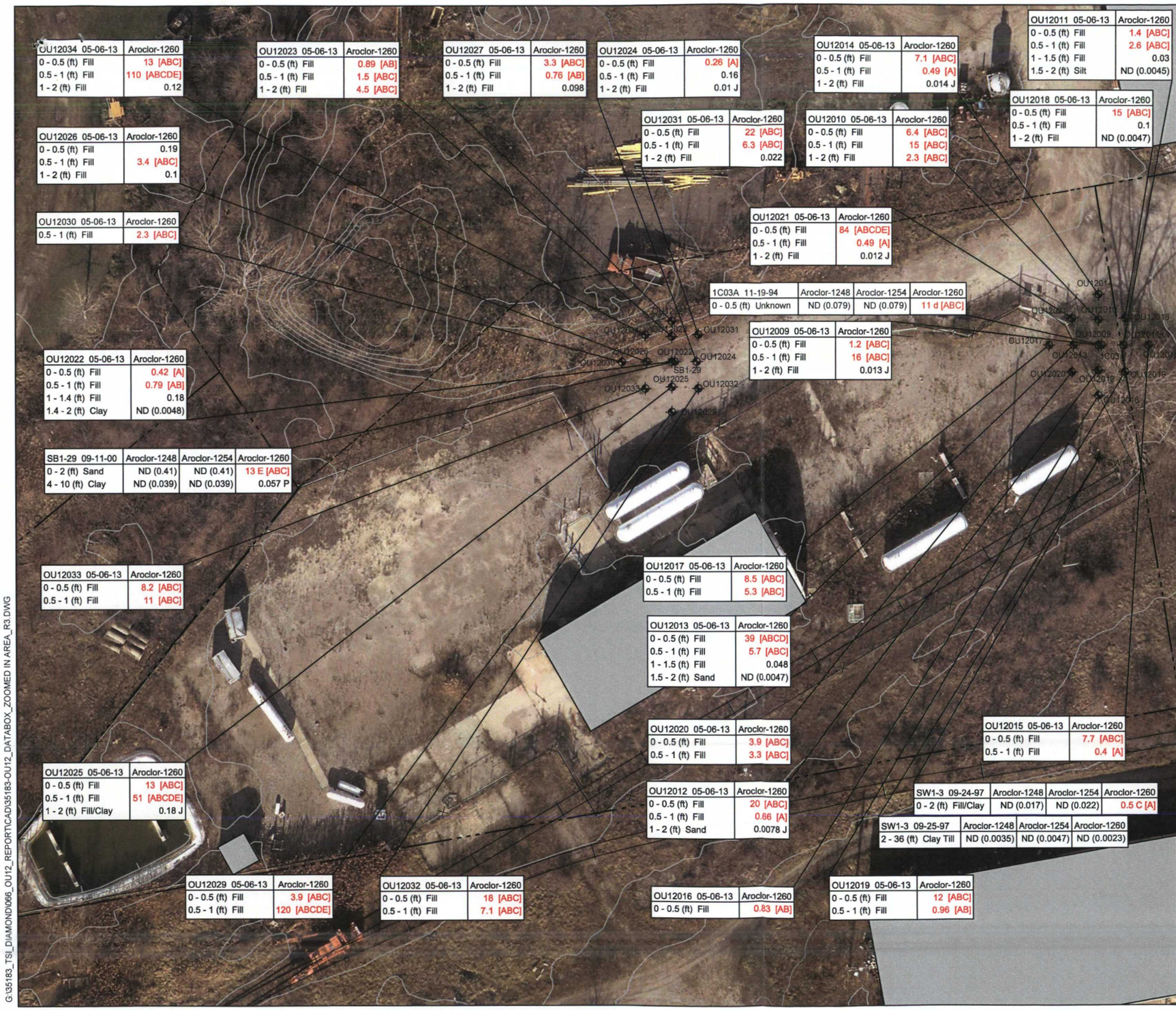
The attached table and figure are being provided to facilitate upcoming discussions concerning the PCB results from recent investigations on the Tanner Parcel of Operable Unit 12 of the Former Diamond Shamrock Painesville Works Site. These investigations were conducted pursuant to the 1995 Directors Final Findings and Orders for the former Diamond Shamrock Painesville Works Site. The investigation was described in the *Work Plan To Refine Feasibility Study Costs at Operable Unit 12 of the Former Diamond Shamrock Painesville Works Site* dated 23 July 2012. The work plan was approved by the Ohio EPA in a letter dated 22 August 2012.

**TABLE 1**
**SUMMARY OF SOIL PCB ANALYTICAL RESULTS**
**OPERABLE UNIT 12- TANNER PARCEL**
**FORMER DIAMOND SHAMROCK PAINESVILLE WORKS SITE**
**PAINESVILLE, OHIO**

| | | | | **Chemical:** | Aroclor-1016 | Aroclor-1221 | Aroclor-1232 | Aroclor-1242 | Aroclor-1248 | Aroclor-1254 | Aroclor-1260 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Units:** | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| | | | | ***Residential Soil RSL:*** | *0.39* | *0.14* | *0.14* | *0.22* | *0.22* | *0.11* | *0.22* |
| | | | | ***Industrial Soil RSL:*** | *3.7* | *0.54* | *0.54* | *0.74* | *0.74* | *0.74* | *0.74* |
| | | | | ***TSCA Unrestricted Use:*** | *1* | *1* | *1* | *1* | *1* | *1* | *1* |
| | | | | ***TSCA Low Occupancy:*** | *25* | *25* | *25* | *25* | *25* | *25* | *25* |
| | | | | ***TSCA Threshold:*** | *50* | *50* | *50* | *50* | *50* | *50* | *50* |
| **Location** | **Date** | **Type** | **Depth** | **Soil Type** | | | | | | | |
| 1C03A | 11/19/1994 | N | 0 - 0.5 (ft) | Unknown | ND (0.079) | ND (0.16) | ND (0.079) | ND (0.079) | ND (0.079) | ND (0.079) | **11 d** [ABC] |
| OU12009 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **1.2** [ABC] |
| OU12009 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **16** [ABC] |
| OU12009 | 5/6/2013 | N | 1 - 2 (ft) | Fill | - | - | - | - | - | - | **0.013 J** |
| OU12010 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **6.4** [ABC] |
| OU12010 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **15** [ABC] |
| OU12010 | 5/6/2013 | N | 1 - 2 (ft) | Fill | - | - | - | - | - | - | **2.3** [ABC] |
| OU12011 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **1.4** [ABC] |
| OU12011 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **2.6** [ABC] |
| OU12011 | 5/6/2013 | N | 1 - 1.5 (ft) | Fill | - | - | - | - | - | - | **0.03** |
| OU12011 | 5/6/2013 | N | 1.5 - 2 (ft) | Silt | - | - | - | - | - | - | ND (0.0045) |
| OU12012 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **20** [ABC] |
| OU12012 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **0.66** [A] |
| OU12012 | 5/6/2013 | FD | 1 - 2 (ft) | Sand | - | - | - | - | - | - | **0.0059 J** |
| OU12012 | 5/6/2013 | N | 1 - 2 (ft) | Sand | - | - | - | - | - | - | **0.0078 J** |
| OU12013 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **39** [ABCD] |
| OU12013 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **5.7** [ABC] |
| OU12013 | 5/6/2013 | N | 1 - 1.5 (ft) | Fill | - | - | - | - | - | - | **0.048** |
| OU12013 | 5/6/2013 | N | 1.5 - 2 (ft) | Sand | - | - | - | - | - | - | ND (0.0047) |
| OU12014 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **7.1** [ABC] |
| OU12014 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **0.49** [A] |
| OU12014 | 5/6/2013 | N | 1 - 2 (ft) | Fill | - | - | - | - | - | - | **0.014 J** |
| OU12015 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **7.7** [ABC] |
| OU12015 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **0.4** [A] |
| OU12016 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **0.83** [AB] |
| OU12017 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **8.5** [ABC] |
| OU12017 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **5.3** [ABC] |
| OU12018 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **15** [ABC] |
| OU12018 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **0.1** |
| OU12018 | 5/6/2013 | N | 1 - 2 (ft) | Fill | - | - | - | - | - | - | ND (0.0047) |
| OU12018 | 5/6/2013 | FD | 1 - 2 (ft) | Fill | - | - | - | - | - | - | **0.0081 J** |
| OU12019 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **12** [ABC] |
| OU12019 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **0.96** [AB] |
| OU12020 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **3.9** [ABC] |
| OU12020 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **3.3** [ABC] |
| OU12021 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **84** [ABCDE] |
| OU12021 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **0.49** [A] |
| OU12021 | 5/6/2013 | N | 1 - 2 (ft) | Fill | - | - | - | - | - | - | **0.012 J** |
| OU12022 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **0.42** [A] |
| OU12022 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **0.79** [AB] |
| OU12022 | 5/6/2013 | N | 1 - 1.4 (ft) | Fill | - | - | - | - | - | - | **0.18** |
| OU12022 | 5/6/2013 | N | 1.4 - 2 (ft) | Clay | - | - | - | - | - | - | ND (0.0048) |
| OU12023 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **0.89** [AB] |
| OU12023 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **1.5** [ABC] |
| OU12023 | 5/6/2013 | N | 1 - 2 (ft) | Fill | - | - | - | - | - | - | **4.5** [ABC] |
| OU12024 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **0.26** [A] |
| OU12024 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **0.16** |
| OU12024 | 5/6/2013 | N | 1 - 2 (ft) | Fill | - | - | - | - | - | - | **0.01 J** |
| OU12025 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **13** [ABC] |
| OU12025 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **51** [ABCDE] |
| OU12025 | 5/6/2013 | N | 1 - 2 (ft) | Fill/Clay | - | - | - | - | - | - | **0.18 J** |
| OU12025 | 5/6/2013 | FD | 1 - 2 (ft) | Fill/Clay | - | - | - | - | - | - | **0.72 J** [A] |
| OU12026 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **0.19** |
| OU12026 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **3.4** [ABC] |
| OU12026 | 5/6/2013 | N | 1 - 2 (ft) | Fill | - | - | - | - | - | - | **0.1** |
| OU12027 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **3.3** [ABC] |
| OU12027 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **0.76** [AB] |
| OU12027 | 5/6/2013 | N | 1 - 2 (ft) | Fill | - | - | - | - | - | - | **0.098** |
| OU12027 | 5/6/2013 | FD | 1 - 2 (ft) | Fill | - | - | - | - | - | - | **0.12** |
| OU12029 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **3.9** [ABC] |
| OU12029 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **120** [ABCDE] |
| OU12030 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **2.3** [ABC] |
| OU12031 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **22** [ABC] |
| OU12031 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **6.3** [ABC] |
| OU12031 | 5/6/2013 | N | 1 - 2 (ft) | Fill | - | - | - | - | - | - | **0.022** |
| OU12032 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **18** [ABC] |
| OU12032 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **7.1** [ABC] |
| OU12033 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **8.2** [ABC] |
| OU12033 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **11** [ABC] |
| OU12034 | 5/6/2013 | N | 0 - 0.5 (ft) | Fill | - | - | - | - | - | - | **13** [ABC] |
| OU12034 | 5/6/2013 | N | 0.5 - 1 (ft) | Fill | - | - | - | - | - | - | **110** [ABCDE] |
| OU12034 | 5/6/2013 | N | 1 - 2 (ft) | Fill | - | - | - | - | - | - | **0.12** |
| SB1-29 | 9/11/2000 | N | 0 - 2 (ft) | Sand | ND (0.41) | ND (0.83) | ND (0.41) | ND (0.41) | ND (0.41) | ND (0.41) | **13 E** [ABC] |
| SB1-29 | 9/11/2000 | N | 4 - 10 (ft) | Clay | ND (0.039) | ND (0.079) | ND (0.039) | ND (0.039) | ND (0.039) | ND (0.039) | **0.057 P** |
| SW1-3 | 9/24/1997 | N | 0 - 2 (ft) | Fill/Clay | ND (0.017) | ND (0.045) | ND (0.028) | ND (0.034) | ND (0.017) | ND (0.022) | **0.5 C** [A] |
| SW1-3 | 9/25/1997 | N | 2 - 36 (ft) | Clay Till | ND (0.0035) | ND (0.0094) | ND (0.0059) | ND (0.007) | ND (0.0035) | ND (0.0047) | ND (0.0023) |

**Notes and Abbreviations:**

1. Data shown in red exceed criteria:
   - [A]: Indicates result is greater than Residential Soil
   - [B]: Indicates result is greater than Industrial Soil
   - [C]: Indicates result is greater than TSCA Unrestricted Use
   - [D]: Indicates result is greater than TSCA Low Occupancy
   - [E]: Indicates result is greater than TSCA Threshold
2. Results shown in **bold** were detected.
3. Qualifiers described as follows:
   - ND - Compound not detected above shown reporting limit.
   - J: Est. value; conc. < quan. limit




## LEGEND:

- PROPERTY LINE
- BUILDING / STRUCTURE
- 605 GROUND SURFACE CONTOUR
- UNPAVED ROAD
- WATER FEATURE
- X FENCE
- MONITORING WELL LOCATION
- SOIL BORING LOCATION

## NOTES:

1. THE TOPOGRAPHIC CONTOURS AND GROUND FEATURES ARE BASED ON AN AERIAL SURVEY CONDUCTED ON 12 DECEMBER 2011 BY KUCERA INTERNATIONAL, INC.
2. THE SCALED-TO-GROUND COORDINATE SYSTEM UTILIZED FOR THIS PROJECT WAS DETERMINED BY DIVIDING THE PUBLISHED NAD83(1986) OHIO STATE PLANE (NORTH ZONE) COORDINATE VALUES OF ESTABLISHED MONUMENTS IN THE LAKE COUNTY GPS SURVEY OF 1991 BY A CONSTANT, COMBINED FACTOR OF 0.9999863004 IN ACCORDANCE WITH PROCEDURES SPECIFIED IN CHAPTER 303.52 OF THE OHIO DEPARTMENT OF TRANSPORTATION'S SURVEY MANUAL DATED MAY, 1995.
3. UNITS SHOWN IN MG/KG.
4. RESULTS IN RED EXCEED ONE OR MORE OF THE FOLLOWING:
   - [A] - MODIFIED RESIDENTIAL REGIONAL SCREENING LEVELS (RSLs)
   - [B] - MODIFIED INDUSTRIAL RSLs
   - [C] - TSCA UNRESTRICTED USE CRITERIA
   - [D] - TSCA LOW OCCUPANCY CRITERIA
   - [E] - TSCA THRESHOLD CRITERIA

| Analyte (mg/kg) | Residential Soil | Industrial Soil | TSCA Unrestricted Use | TSCA Low Occupancy | TSCA Threshold |
|---|---|---|---|---|---|
| Aroclor 1016 | 0.39 | 3.7 | 1 | 25 | 50 |
| Aroclor 1221 | 0.14 | 0.54 | 1 | 25 | 50 |
| Aroclor 1232 | 0.14 | 0.54 | 1 | 25 | 50 |
| Aroclor 1242 | 0.22 | 0.74 | 1 | 25 | 50 |
| Aroclor 1248 | 0.22 | 0.74 | 1 | 25 | 50 |
| Aroclor 1254 | 0.11 | 0.74 | 1 | 25 | 50 |
| Aroclor 1260 | 0.22 | 0.74 | 1 | 25 | 50 |

N
W E
S

0 40 80
SCALE IN FEET

HALEY & ALDRICH

FORMER DIAMOND SHAMROCK PAINESVILLE WORKS SITE
1897 FAIRPORT NURSERY ROAD
PAINESVILLE, OHIO 44077

OPERABLE UNIT 12 - TANNER PARCEL
PCB ANALYTICAL RESULTS

SCALE: AS SHOWN
NOVEMBER 2013

FIGURE 1

G:\35183_TSI_DIAMOND\066_OU12_REPORT\CAD\35183-OU12_DATABOX_ZOOMED IN AREA_R3.DWG