UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, S.W.
ATLANTA, GEORGIA 30303

August 7, 2015

MEMORANDUM

TO: Evans Transportation Co Railcar Pit (GAD056229917) File

FROM: Donna K. Seadler
Remedial Project Manager
Superfund Site Evaluation and Remedial Branch

SUBJ: Site Reassessment and Decision Form under the name Pullman Yards

The attached Letter Report contains a Reassessment of the Pullman Yards site in Dekalb County, GA. At the time the report was submitted, EPA was unaware that the site was already in CERCLIS/SEMS under the name Evans Transportation Co Railcar Pit and had been assessed in 1990. Due to interest in redevelopment in the area, EPA was asked to evaluate the site.

As indicated by the attached Decision Form, the site does not score highly enough under the HRS to warrant further remedial evaluation, but a removal action may be warranted due to site-wide elevated soil lead levels.

11013553

REMEDIAL SITE ASSESSMENT DECISION – EPA Region 04

Site Name: EVANS TRANSPORTATION CO RAIL CAR PIT

Alias(es): EVANS TRANSPORTATION CO RAIL CAR PIT
FORMER PULLMAN YARD

City: ATLANTA **County or Parish:** DEKALB **State:** GA

Refer to Report Dated: **EPA ID:** GAD056229917

Report Developed By: START **State ID:**

Report Type: Site Reassessment (00X) #001 **Decision Date:** 10/01/2012

- [x] 1. **Further Remedial Site Assessment Under CERCLA (Superfund) is not required because:**
  NFRAP-Site does not qualify for the NPL based on existing information
- [ ] 2. **Further Assessment Needed Under CERCLA.**
- [ ] 3. **Remedial study/cleanup needed.**

Decision/Rationale:

The U.S. Environmental Protection Agency (EPA) has determined that no further remedial action by the Federal Superfund program is warranted at the referenced site, at this time. The basis for the no further remedial action planned (NFRAP) determination is provided in the attached document. A NFRAP designation means that no additional remedial steps under the Federal Superfund program will be taken at the site unless new information warranting further Superfund consideration or conditions not previously known to EPA regarding the site are disclosed. In accordance with EPA's decision regarding the tracking of NFRAP sites, the referenced site may be removed from the CERCLIS database and placed in a separate archival database as a historical record if no further Superfund interest is warranted. Archived sites may be returned to the CERCLIS site inventory if new information necessitating further Superfund consideration is discovered.

This site does not qualify for further REMEDIAL action, but at the time of the evaluation, asbestos-containing materials were present on the site, and a REMOVAL evaluation indicated elevated levels of lead in the soil throughout the site. The lead should be addressed before further use of the site.

Decision/Rationale (Continued):

Site Decision Made By: Donna K. Seadler

Signature:_____ **Decision Date:** 10/01/2012

OTIE
Oneida Total Integrated Enterprises

May 31, 2013

Ms. Donna Seadler
Remedial Project Manager
U.S. Environmental Protection Agency Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303

Subject: **Letter Report**
Former Pullman Yard
Atlanta, Fulton County, Georgia
Contract No. EP-W-05-053
Technical Direction Document (TDD) Nos.: TNA-05-003-0127 & TNA-05-003-0132

Dear Ms. Seadler:

Oneida Total Integrated Enterprises (OTIE), Superfund Technical Assessment Response Team (START) has prepared this Letter Report detailing the surface and subsurface soil sampling activities, field screening activities, and asbestos sampling activities conducted at the Former Pullman Yards (the site) in support of the U.S. Environmental Protection Agency (EPA). All activities and procedures described in this document were conducted in accordance with the EPA Region 4 Science and Ecosystems Support Division (SESD) *Field Branches Quality System and Technical Procedures* (FBQSTP).

In May and June 2011, START was tasked under EPA Contract Number (No.) EP-W-05-053, TDD Nos. TNA-05-003-0127 and TNA-05-003-0132, to screen on and off-site soil using an X-Ray Fluorescence (XRF) analyzer, and to collect surface and subsurface soil samples from the property for laboratory analysis. Approximately 121 locations were screened in situ with an XRF for lead and arsenic as part of the field investigation (see Appendix A). In May 2011, START submitted 11 soil samples to a private laboratory, Analytical Environmental Services, Inc. (AES), for analysis of metals, semivolatile organic compounds (SVOCs), and/or polychlorinated biphenyls (PCBs) (see Appendices B and C). START also submitted four samples to AES for asbestos content analysis using polarized light microscopy (PLM). In June 2011, one surface soil sample, PY-SS-074, was submitted to SGS North America, Inc. (SGS) for analysis of dioxin/furans and PCBs.

1220 Kennestone Circle, Suite 106 • Marietta, Georgia 30066 • 678-355-5550 • FAX 770-528-0167

Site Description and Background

Pullman Yards (the site) is located on a 29.7-acre tract of land at 225 Rogers Street in Atlanta, DeKalb County, Georgia, at the southeast quadrant of the intersection of College Avenue and Rogers Street. The property is currently unoccupied and has been improved with nine single to two-story office warehouse buildings. Built in the 1890's and formerly used as a train yard and sandblasting painting facility from approximately the 1890's to the 1960's. The remainder of the site is improved with dirt sand driveways, train tracks, and a wooded area. Former facility operations included the use of sand to remove paint from railcars, painting of railcars, and general maintenance of railcars. Facility operations ceased in the 1960's.

The site is surrounded on the east property line by residential properties, and on the west property line by residential and commercial properties. Fred A. Toomer Elementary School is located along the south property line.

In December 2006, GeoHydro Engineers, Inc. (GeoHydro) conducted a Phase II Environmental Site Investigation (ESI) at the site. Four borings were advanced for the collection of soil and or groundwater samples. Sandblasting sand stockpiles were observed in three locations including 1) a remote area on the southern portion of the property referred to as the "beach", 2) a steep hillside just south of Building 8, and 3) sand filled pit inside Building 8. Lead was detected at elevated levels in sandy materials from the above areas.

In February 2007, S&ME conducted additional investigations to determine whether the sand stockpile materials would be considered hazardous waste, and three of the four samples collected from the beach area failed the hazardous characteristic leach test for lead. A notification of release, dated February 27, 2007, was submitted to the Environmental Protection Division (EPD) reporting the release of lead [2,200 milligrams per kilogram (mg/kg)] and barium (1,050 mg/kg) to sand/soil above notification concentrations.

In August 2007, a modified Compliance Status Report detailing the Georgia Environmental Finance Authority (GEFA) and the Georgia Building Authority's (GBA) plan to remediate lead-impacted sand and soil was submitted to EPD. The plan proposed excavation and disposal of all sand and soil materials containing elevated lead levels. Materials that were TCLP hazardous were to be treated on site within a

lined cell in the beach area using phosphoric acid solution and granular trisodium phosphate to render the materials non-hazardous prior to disposal at a Subtitle D landfill. Treatment and removal actions were undertaken from July 2007 until December 2007, during which an additional sand pile was identified near the beach area. Sampling indicated that sand from this area was also impacted by lead. Consequently, the excavation in the beach area was expanded to include this area. A total of approximately 5,817 tons of treated and untreated lead-contaminated material were disposed in the Subtitle D landfill.

Site Geology and Hydrogeology

The property is located in the Piedmont Physiographic Province of the State of Georgia. Within this province, the geology is complex and consists of structurally deformed metamorphic and igneous rocks.

The surficial aquifer beneath the property consists of unconsolidated sediments and residuum including saprolite, stream alluvium, colluvium, and other surficial deposits. The thickness of the aquifer varies greatly and can range from 11 to 300 feet. At the property the surficial aquifer ranges from 23 to 32 feet thick and groundwater is located at least 20 feet below land surface. Groundwater beneath the property likely flows southeast toward the nearby creek. The surficial aquifer is generally unconfined allowing groundwater to infiltrate into the underlying bedrock aquifer.

The crystalline rock aquifer underlies the surficial aquifer and is composed of granite, gneiss, and quartzite. Groundwater within the aquifer is transmitted through secondary openings along fractures, foliation, joints, contacts, or other features in the crystalline bedrock. Water levels in both aquifers in the area typically follow a cyclic pattern of seasonal fluctuation. Rising water levels occur during winter and spring because of greater recharge from precipitation and less evapotranspiration and pumping; declining water levels occur during summer and fall because of less recharge and greater evapotranspiration and pumping.

Drinking water in the area is supplied by surface water intakes and no groundwater wells are present within 2 miles of the property.

Sampling Activities and Findings

The purpose of the limited site investigation was to screen on- and off-site soils in situ for lead and arsenic concentrations, collect a sub-set of soil samples for laboratory confirmation purposes, collect samples of suspect asbestos containing materials (ACM) and submit for laboratory analysis, and determine whether or not the levels identified through screening and or laboratory analysis pose a threat to human health and or the environment including the adjacent school.

Asbestos Containing Material

In May of 2011, as part of a limited site assessment of the Pullman Yard, four suspect ACM samples were collected by a certified asbestos inspector. The four noticeable materials were pipe insulation (PY-001-ACM), white powdery material found on top of a pallet of bricks suspected to have fallen from the ceiling (PY-002-ACM), roofing tar-paper (PY-003-ACM), and interior ceiling tile (PY-004-ACM).

Sample PY-001-ACM was found in a concrete-vault, utility crawl space, which runs on the western side of the brick structures. A steel access plate was missing, revealing the utility pipes. The pipe insulation appeared white without a steel jacket. Part of the insulation was crushed and friable. The analytical data reported that the insulation tested positive for asbestos, specifically it was 15% chrysotile.

Sample PY-002-ACM was found in the eastern building section, near the neighboring electrical substation. A white, friable material was seen on top of a pallet of bricks. It appeared as if the material had fallen from the interior roof. A sample was collected and sent for laboratory analysis. The analytical data reported asbestos was not detected.

Sample PY-003-ACM was found inside the building, located immediately south of the switching yard. The black tar-paper was part of the roofing system and was seen throughout the building. The analytical data supports that the material tested positive for asbestos, specifically 25% chrysotile. The material appeared to be non-friable; however, during any demolition of the building, the material would change its rating from a Category I, non-friable, ACM roofing material to a Regulated Asbestos Containing Material (RACM) that can become friable during a removal.

Sample PY-004-ACM was found in the same building as Sample PY-003-ACM. This material was part of the interior ceiling roofing system. It was white and seen scattered on the ground. The white friable material tested negative for asbestos.

All samples were sent to a NIST NVLAP certified laboratory for PLM bulk sample analysis. The survey was limited, thus a full estimate of the amount of asbestos present was not completed at this time.

Soil Screening

In May 2011, START screened on-site soils using an XRF. Seventy-four (74) locations were screened for lead and arsenic. In June 2011, START screened off-site soils at the adjacent school to the south of the site, Fred Armon Toomer Elementary School. Forty-six (46) locations were screened for lead and arsenic. For evaluation purposes, results were compared to the health based screening criteria, Removal Action Limits (RALs). The residential RAL is 400 parts per million (ppm) for lead and 38.9 ppm for arsenic. The industrial RAL is 1,200 ppm for lead and 177 ppm for arsenic.

Screening results indicated that lead is above the RAL for residential soil in 24 locations. Arsenic is above the RAL for residential soil in 10 locations. Screening results indicated that lead is above the RAL for industrial soil in 8 locations, with the highest on-site concentration at 4,067.03 ppm (PY-45). Arsenic is above the RAL for industrial soil in one location (PY-67) at 274.98 ppm.

All off-site XRF screening locations were below RALs with the exception of one at the adjacent elementary school including the play area soccer fields. Off-site contamination migration is not a concern to nearby individuals.

Soil Sampling

A total of 12 soil samples were collected and submitted to a private laboratory for analysis of metals, dioxins furans, SVOCs, and or PCBs. Surface soil samples were collected from 0 to 2 feet below ground surface (bgs); subsurface soil samples were collected from depths greater than 2 feet bgs (see Appendices A and B).

Eleven soil samples were submitted to AES for metals analysis. Arsenic was detected at concentrations above the residential RAL in two samples, PY-SS-003 (128 mg kg) and PY-SS-003-0.5-1 (75.8 mg kg). PY-SS-003-0.5-1 was collected from the 0.5-1 foot interval, whereas PY-SS-003 was the immediate surface sample. Lead was detected at concentrations above the residential RAL in four samples including PY-SS-001 (521 mg kg), PY-SS-002 (2,790 mg kg), PY-SS-003 (753 mg kg), and PY-SS-07 (992 mg kg). Only one of these locations was above the industrial RAL for lead (PY-SS-002).

One sample, PY-SS-007, was submitted for analysis of SVOCs. All compounds were below the reporting limit.

In May 2011, during limited site assessment investigation, a black mass, approximately 3 feet by 3 feet and 0.2 feet deep, was seen on the western half of the former switching yard. The material was weathered, and had the consistency of a thick, taffy-like roofing tar. There were no noticeable odors and no visible point-source to the black material. The switching yard was a concrete and steel structure built over open earth. It was used to move rail cars and locomotives from one warehouse bay to another. Also, a drain was visible inside the switching yard, approximately 20 feet from the black mass.

Based on the history of the site and the concern for poor house-keeping of locomotive engine oils and hydraulic fluids, a sample of the material was sent to AES laboratories be analyzed for PCBs. The analytical data reported below reportable limits for seven Aroclors. However, in reviewing the quality control surrogate standards, one of the internal surrogates was out of acceptable range due to matrix interference. As a result and concern for matrix interference masking the results another sample of the material was collected in June 2011 and sent to SGS North America, Inc. laboratories (SGS) for dioxin and furan analysis, Method 8290A.

The analytical data from SGS reported a total 2,3,7,8-Tetrachlorodibenzo-*p*-dioxin (TCDD) concentration of 0.0317 micrograms per kilogram (µg kg) compared to the federal residential soil level of 0.449 µg kg. The furan levels, specifically the total 2,3,7,8-Tetrachlorodibenzofuran (TCDF) was 0.417 µg kg compared to the federal removal action level of 3.73 µg kg for residential soil. It appears that these two groups of environmental pollutants are present in the switch yard but at levels of at least one order of magnitude below the federal removal action levels. In addition, all seven Aroclors were detected in the sample, the highest concentration being 12,000 µg kg of Aroclor 1242.

Conclusion

The former Pullman Yards property is currently in the Brownfields program and is for sale. Further investigation of the site will be determined by EPA and or potential buyers, as contamination of on-site soils still exists.

If you have any questions or comments regarding this letter report or require any additional information please feel free to contact me or Greg Kowalski, START Program Manager, at 678-355-5550.

Sincerely,

Allyson Warrington

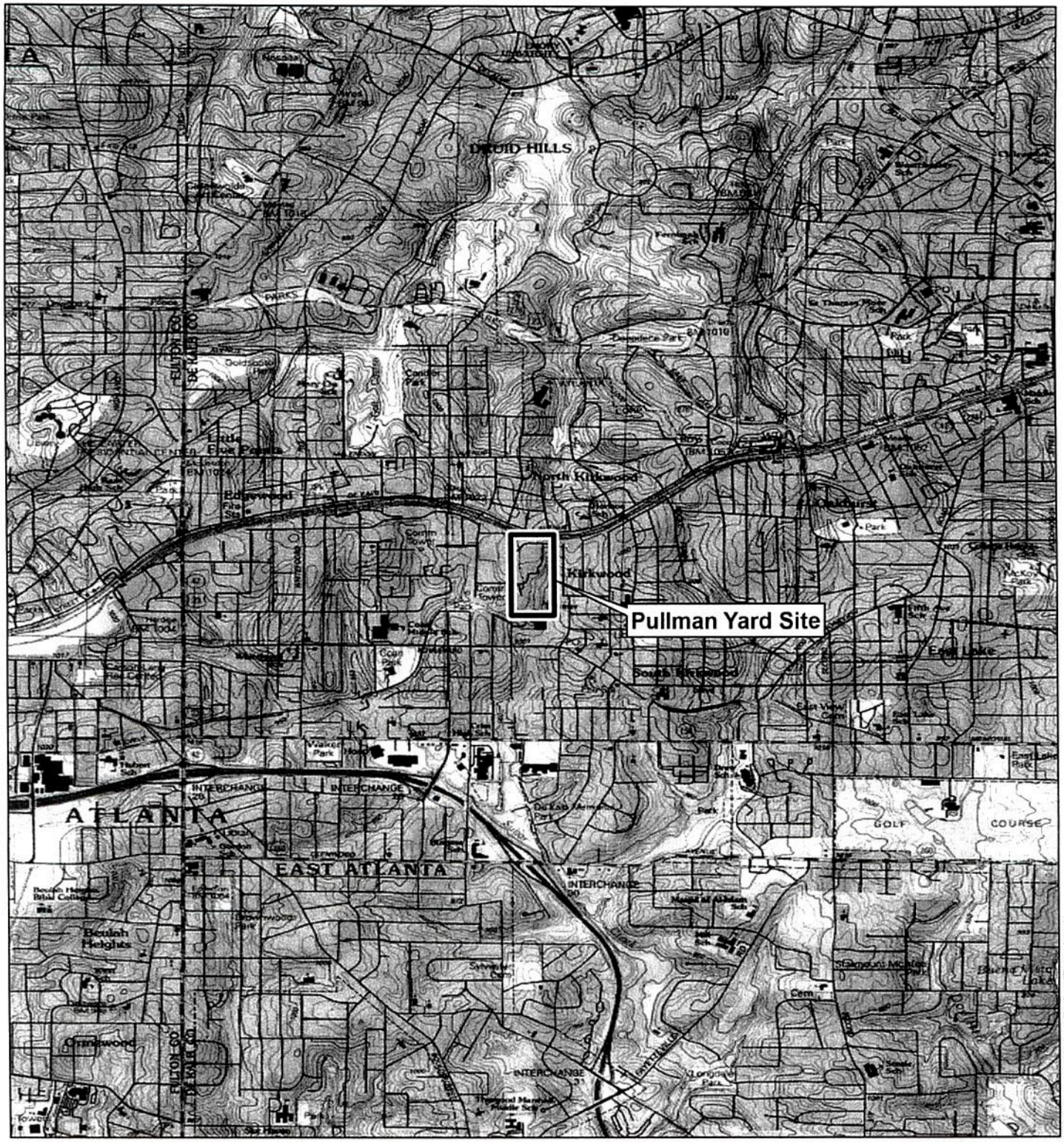
Allyson Warrington
START Project Manager
OTIE

cc:

Katrina Jones, EPA Project Officer
Darryl Walker, EPA Project Officer
OTIE START File

APPENDIX A

FIGURES



TOPOGRAPHIC SOURCE: ARCGIS ONLINE, USA TOPO MAPS DATA

Disclaimer: This map is intended for visual orientation use only. In no way is this map to be used for precise locational use.

G:\GIS_Workspace\Pullman Yard\mxd\Figure 1.mxd

Legend

Pullman Yard Site

N

0 3,000 6,000 Feet

United States Environmental Protection Agency

PULLMAN YARD
ATLANTA, DEKALB COUNTY, GEORGIA
TDD No. TNA-05-003-0132

FIGURE 1
TOPOGRAPHICAL MAP

OTIE
Oneida Total Integrated Enterprises

Legend

- 378 XRF result and locations below 400 ppm for lead
- 789 XRF result and locations above 400 ppm for lead
- Soil Area Estimated to be Above 400 ppm

Notes

PY = Pullman Yards
ppm = parts per million
SS = surface soil
CY = cubic yards
XRF = x-ray fluorescence

0 50 100 200
Feet

N

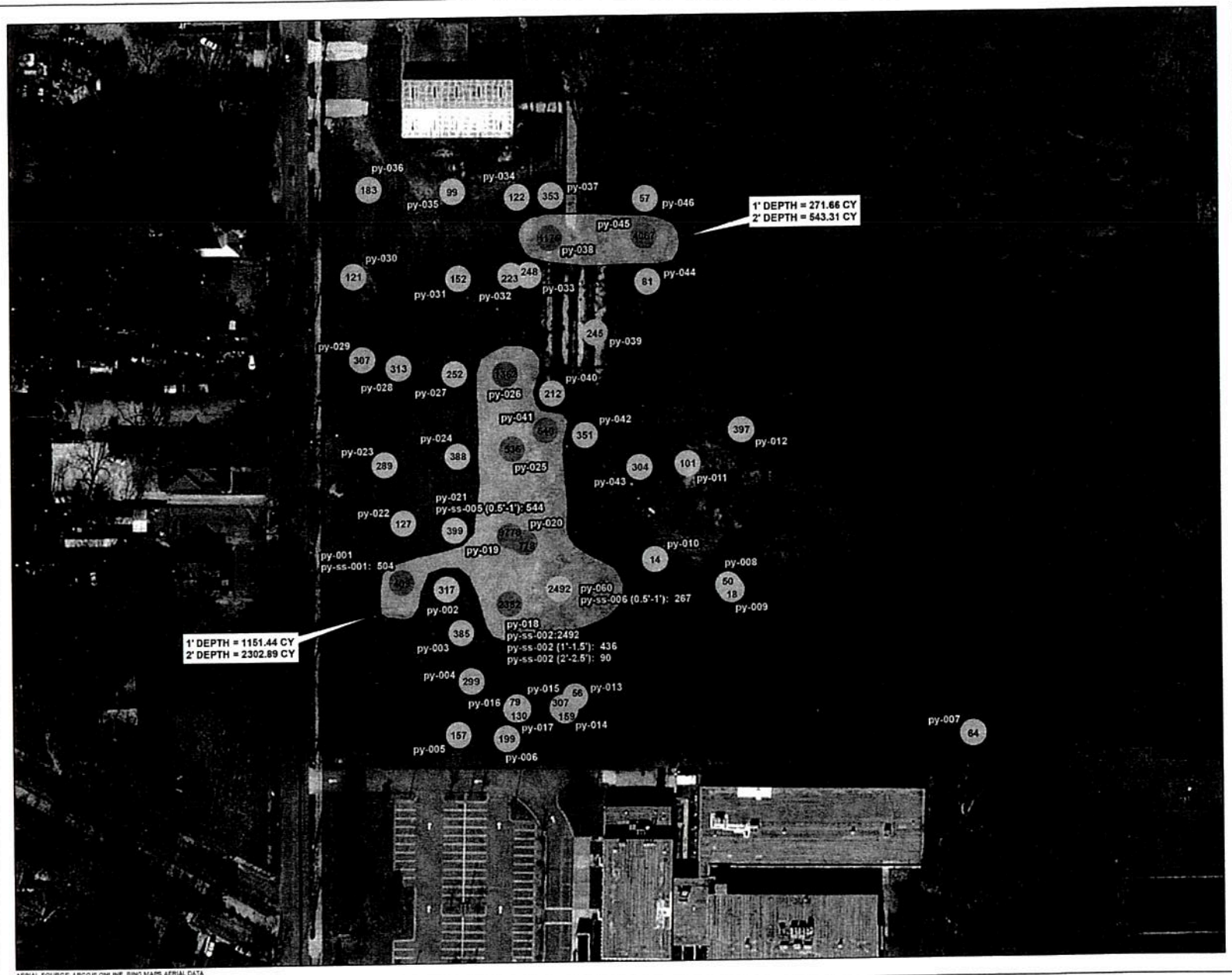
United States Environmental Protection Agency

PULLMAN YARD
ATLANTA, DEKALB COUNTY, GEORGIA
TDD No. TNA-05-003-0132

FIGURE 2
LEAD RESULTS IN SOIL
SITE SOUTH

OTIE
Oneida Total Integrated Enterprises

G:\GIS_Workspace\Pullman Yard\mxd\Figure 2.mxd



AERIAL SOURCE: ARCGIS ONLINE, BING MAPS AERIAL DATA

Legend

317 XRF result and locations below 400 ppm for lead

409 XRF result and locations above 400 ppm for lead

Soil Area Estimated to be Above 400 ppm

Notes

PY = Pullman Yards
ppm = parts per million
SS = surface soil
CY = cubic yards
XRF = x-ray fluorescence

0 50 100 200
Feet

N

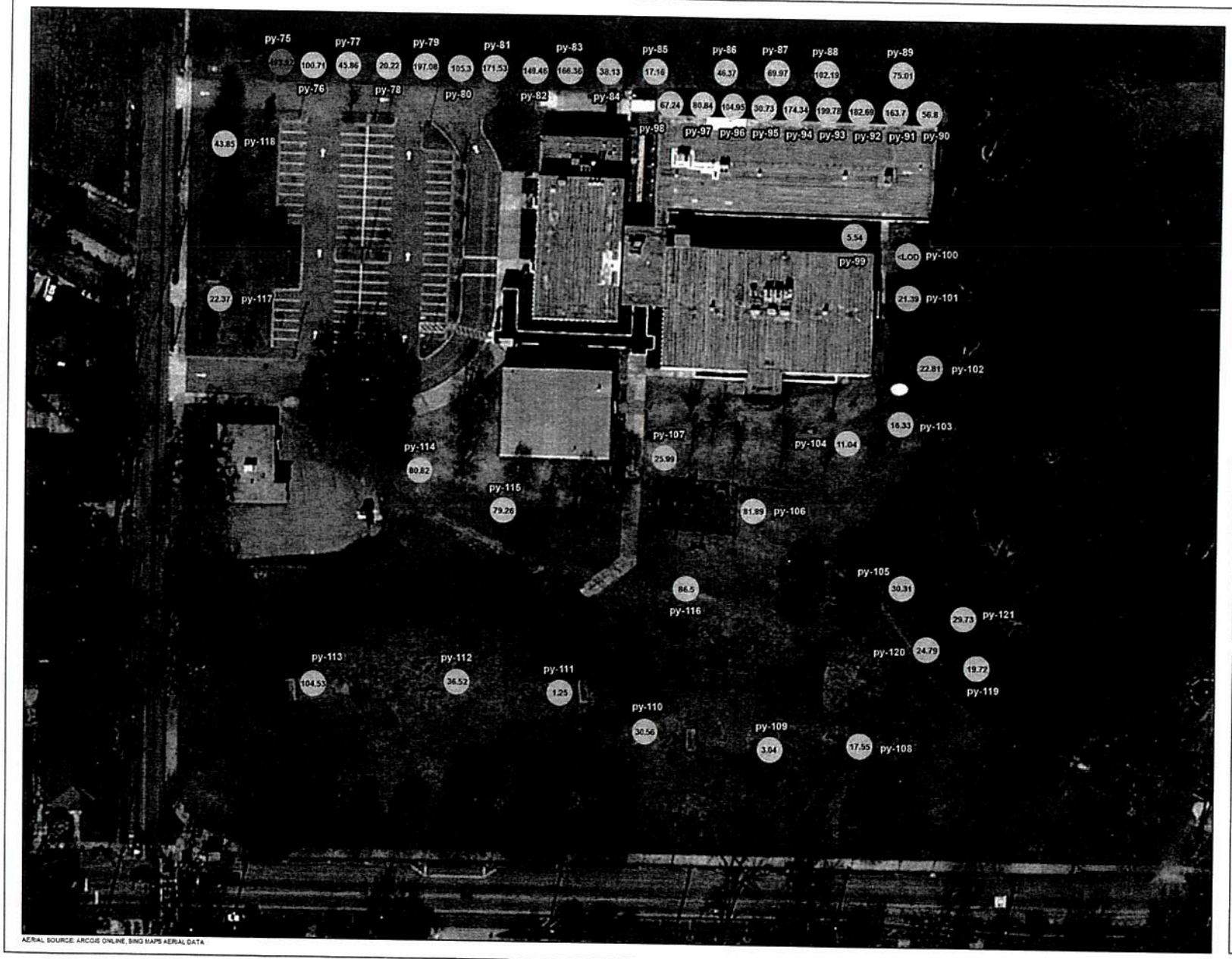
United States Environmental Protection Agency

PULLMAN YARD
ATLANTA, DEKALB COUNTY, GEORGIA
TDD No. TNA-05-003-0132

FIGURE 3
LEAD RESULTS IN SOIL
SITE SOUTH

OTIE
Oneida Total Integrated Enterprises

G:\GIS_Workspace\Pullman Yard\mxd\Figure 3.mxd



Legend

21.39 XRF result and locations below 400 ppm for lead

493.92 XRF result and locations above 400 ppm for lead

Notes

<LOD = Less than the limit of detection
PY = Pullman Yards
ppm = parts per million
SS = surface soil
CY = cubic yards
XRF = x-ray fluorescence

0 40 80 160
Feet

N

United States Environmental Protection Agency

PULLMAN YARD
ATLANTA, DEKALB COUNTY, GEORGIA
TDD No. TNA-05-003-0132

FIGURE 4
LEAD RESULTS IN SOIL
SCHOOL

OTIE
Oneida Total Integrated Enterprises

G:\GIS_Workspace\Pullman Yard\mxd\Figure 4.mxd

APPENDIX B

TABLES

TABLE 1
PULLMAN YARD
XRF SCREENING RESULTS

Screening Date	Screening Location ID	Lead Concentration (ppm)	Arsenic Concentration (ppm)
5/10/2011	PY-01	**409**	<LOD
5/10/2011	PY-02	317	**43.41**
5/10/2011	PY-03	384.5	**64.35**
5/10/2011	PY-04	298.9	17.15
5/10/2011	PY-05	157	14.44
5/10/2011	PY-06	199.2	<LOD
5/10/2011	PY-07	64.1	11.29
5/10/2011	PY-08	50.3	<LOD
5/10/2011	PY-09	18	1.38
5/10/2011	PY-10	14.2	8.95
5/10/2011	PY-11	101	28.89
5/10/2011	PY-12	397.1	<LOD
5/10/2011	PY-13	56.4	3.56
5/10/2011	PY-14	158.8	16.11
5/10/2011	PY-15	306.84	<LOD
5/10/2011	PY-16	79	0.53
5/10/2011	PY-17	130.3	21.93
5/10/2011	PY-18	**2382**	**86.07**
5/10/2011	PY-19	**977.8**	**66.96**
5/10/2011	PY-20	**778**	**76.96**
5/10/2011	PY-21	399	<LOD
5/10/2011	PY-22	127	1.54
5/10/2011	PY-23	289.4	16.79
5/10/2011	PY-24	388	<LOD
5/10/2011	PY-25	**537**	5
5/10/2011	PY-26	**1,362**	10.03
5/10/2011	PY-27	252	38.27
5/10/2011	PY-28	312.6	22.36
5/10/2011	PY-29	307.3	4.51
5/10/2011	PY-30	121.18	9.02
5/10/2011	PY-31	151.89	<LOD
5/10/2011	PY-32	223.13	<LOD
5/10/2011	PY-33	248.31	27.62
5/10/2011	PY-34	122.18	23.86
5/10/2011	PY-35	99.13	23.31
5/10/2011	PY-36	182.87	5.97
5/10/2011	PY-37	352.6	10.84
5/10/2011	PY-38	**1175.58**	**80.92**
5/10/2011	PY-39	245.38	48.4
5/10/2011	PY-40	212.26	<LOD
5/10/2011	PY-41	**539.95**	6.61
5/10/2011	PY-42	350.86	20.78
5/10/2011	PY-43	303.55	21.89

OTIE
Oneida Total Integrated Enterprises

TABLE 1
PULLMAN YARD
XRF SCREENING RESULTS

Screening Date	Screening Location ID	Lead Concentration (ppm)	Arsenic Concentration (ppm)
5/10/2011	PY-44	80.7	27.53
5/10/2011	PY-45	**4067.03**	<LOD
5/10/2011	PY-46	56.9	<LOD
5/10/2011	PY-47	**2679.4**	3.17
5/10/2011	PY-48	**1019.19**	<LOD
5/10/2011	PY-49	246.48	<LOD
5/10/2011	PY-50	**994.74**	<LOD
5/10/2011	PY-51	**1070.29**	**105.36**
5/10/2011	PY-52	**1399.09**	**136.34**
5/10/2011	PY-53	**467.23**	<LOD
5/10/2011	PY-54	**1559.78**	<LOD
5/10/2011	PY-55	**1470.52**	18.09
5/10/2011	PY-56	**1053.99**	25.01
5/10/2011	PY-57	**422.12**	<LOD
5/10/2011	PY-58	285.27	4.5
5/10/2011	PY-59	186.75	14.72
5/11/2011	PY-60	341.22	21.09
5/11/2011	PY-61	193.49	9.7
5/11/2011	PW-62	<LOD	**274.98**
5/11/2011	PW-63	378.19	14.58
5/11/2011	PW-64	**479.84**	**60.96**
5/11/2011	PW-65	**1305.2**	<LOD
5/11/2011	PW-66	79.3	16.25
5/11/2011	PW-67	117.81	15.11
5/11/2011	PW-68	**788.62**	23.29
5/11/2011	PW-69	241.71	8.75
5/11/2011	PW-70	80.23	<LOD
5/11/2011	PW-71	34.26	<LOD
5/11/2011	PW-72	276.14	<LOD
5/11/2011	PW-73	97.97	6.75
5/11/2011	PY-74	**676.66**	<LOD
6/17/2011	PY-75	**493.92**	<LOD
6/17/2011	PY-76	100.71	21.26
6/17/2011	PY-77	45.86	8.82
6/17/2011	PY-78	20.22	5.75
6/17/2011	PY-79	197.08	32.91
6/17/2011	PY-80	105.3	1.76
6/17/2011	PY-81	171.53	28.04
6/17/2011	PY-82	149.46	13.49
6/17/2011	PY-83	166.36	9.58
6/17/2011	PY-84	38.13	6.5
6/17/2011	PY-85	17.16	11.26
6/17/2011	PY-86	46.37	7.63

OTIE
Oneida Total Integrated Enterprises

TABLE 1
PULLMAN YARD
XRF SCREENING RESULTS

Screening Date	Screening Location ID	Lead Concentration (ppm)	Arsenic Concentration (ppm)
6/17/2011	PY-87	69.97	9.84
6/17/2011	PY-88	102.19	14.71
6/17/2011	PY-89	75.01	<LOD
6/17/2011	PY-90	56.8	2.84
6/17/2011	PY-91	163.7	9.33
6/17/2011	PY-92	182.69	<LOD
6/17/2011	PY-93	199.78	20.92
6/17/2011	PY-94	174.34	3.91
6/17/2011	PY-95	30.73	5.56
6/17/2011	PY-96	104.95	20.96
6/17/2011	PY-97	80.84	11.12
6/17/2011	PY-98	67.24	<LOD
6/17/2011	PY-99	5.54	7.96
6/17/2011	PY-100	<LOD	4.61
6/17/2011	PY-101	21.39	0.26
6/17/2011	PY-102	22.81	<LOD
6/17/2011	PY-103	16.33	<LOD
6/17/2011	PY-104	11.04	4.93
6/17/2011	PY-105	30.31	<LOD
6/17/2011	PY-106	81.89	7.75
6/17/2011	PY-107	25.99	<LOD
6/17/2011	PY-108	17.55	6.9
6/17/2011	PY-109	3.04	9.79
6/17/2011	PY-110	30.56	7.69
6/17/2011	PY-111	1.25	2.96
6/17/2011	PY-112	36.52	6.51
6/17/2011	PY-113	104.53	2.91
6/17/2011	PY-114	80.82	16.81
6/17/2011	PY-115	79.26	<LOD
6/17/2011	PY-116	86.5	<LOD
6/17/2011	PY-117	22.37	2.99
6/17/2011	PY-118	43.85	<LOD
6/21/2011	PY-119	19.72	10.33
6/21/2011	PY-120	24.79	3.99
6/21/2011	PY-121	29.73	<LOD

Notes:

Exceedances based on the Soil Removal Action Levels (RAL) for Lead and Arsenic.

Bold values exceed residential level RALs: Lead = 400 ppm, Arsenic = 38.9 ppm

Shaded areas exceed for Industrial level RALs: Lead = 1,200 ppm, Arsenic = 177 ppm

ppm = parts per million

<LOD = Less than the limit of detection

OTIE
Oneida Total Integrated Enterprises

TABLE 2
PULLMAN YARDS
SUMMARY OF SOIL SAMPLE RESULTS

OTIE Sample ID	PY-SS-001	PY-SS-002	PY-SS-002-1-1.5	PY-SS-002-2-2.5	PY-SS-003
Location	PY-001	PY-060	PY-060	PY-060	PY-052
Sample Date	5/11/2011	5/11/2011	5/11/2011	5/11/2011	5/11/2011
Depth	0-0.5 feet	0-0.5 feet	1-1.5 feet	2-2.5 feet	0-6 inches
Type	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
Metals, Total (mg/kg)					
Arsenic	11.1	25.3	5.18 J	1.78 J	128
Barium	217	826	151	70.7	1.18
Cadmium	2.19 J	4.47	0.532 J	0.0881 J	4.28
Chromium	50	66.6	23.1	23.7	122
Lead	521	2790	363	109	753
Selenium	BRL	BRL	BRL	BRL	BRL
Silver	0.0866 J	0.854 J	BRL	BRL	0.64 J
Mercury	0.258	0.381	0.272	0.117 J	0.0851 J
Dioxin and Furan (mg/kg)					
2,3,7,8-TCDD	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	NA	NA	NA	NA	NA
OCDD	NA	NA	NA	NA	NA
2,3,7,8-TCDF	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	NA	NA	NA	NA	NA
2,3,4,7,8-PeCDF	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	NA	NA	NA	NA	NA
OCDF	NA	NA	NA	NA	NA
Total TCDD	NA	NA	NA	NA	NA

TABLE 2
PULLMAN YARDS
SUMMARY OF SOIL SAMPLE RESULTS

OTIE Sample ID	PY-SS-001	PY-SS-002	PY-SS-002-1-1.5	PY-SS-002-2-2.5	PY-SS-003
Location	PY-001	PY-060	PY-060	PY-060	PY-052
Sample Date	5/11/2011	5/11/2011	5/11/2011	5/11/2011	5/11/2011
Depth	0-0.5 feet	0-0.5 feet	1-1.5 feet	2-2.5 feet	0-6 inches
Type	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
Total PeCDD	NA	NA	NA	NA	NA
Total HxCDD	NA	NA	NA	NA	NA
Total HpCDD	NA	NA	NA	NA	NA
Total TCDF	NA	NA	NA	NA	NA
Total PeCDF	NA	NA	NA	NA	NA
Total HxCDF	NA	NA	NA	NA	NA
Total HpCDF	NA	NA	NA	NA	NA
PCBs (ug/kg)					
Aroclor 1016	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA

Notes:

Blank - Constituent not analyzed in sample
BRL - Constituent analyzed for, not detected at Method Detection Limit (MDL)
J - Estimated value detected below Reporting Limit
mg/kg - Milligrams per kilogram
ug/kg - Micrograms per kilogram
EMPC - Estimated Maximum possible concentration due to ion ratio failure
SVOC - Semivolatile Organic Compounds
PCB - Polychlorinated Biphenyls
ND - None detected

TABLE 2
PULLMAN YARDS
SUMMARY OF SOIL SAMPLE RESULTS

OTIE Sample ID	PY-SS-003-0.5-1	PY-SS-004-1-1.5	PY-SS-004-2-2.5	PY-SS-005-0.5-1	PY-SS-006-0.5-1
Location	PY-052			PY-021	
Sample Date	5/11/2011	5/11/2011	5/11/2011	5/11/2011	5/11/2011
Depth	0.5-1 feet	1-1.5 feet	2-2.5 feet	0.5-1 feet	0.5-1 feet
Type	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
Metals, Total (mg/kg)					
Arsenic	75.8	24	2.47 J	5.69	9.59
Barium	95.5	58.6	26.4	127	381
Cadmium	3.9	0.565 J	BRL	0.782 J	5.01
Chromium	45.8	27.1	19.5	33.9	56
Lead	327	132	25.2	393	267
Selenium	BRL	BRL	BRL	BRL	BRL
Silver	0.12 J	BRL	BRL	0.0451 J	0.117 J
Mercury	0.124	0.085 J	0.0794 J	0.158	0.263
Dioxin and Furan (mg/kg)					
2,3,7,8-TCDD	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDD	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDD	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDD	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDD	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	NA	NA	NA	NA	NA
OCDD	NA	NA	NA	NA	NA
2,3,7,8-TCDF	NA	NA	NA	NA	NA
1,2,3,7,8-PeCDF	NA	NA	NA	NA	NA
2,3,4,7,8-PeCDF	NA	NA	NA	NA	NA
1,2,3,4,7,8-HxCDF	NA	NA	NA	NA	NA
1,2,3,6,7,8-HxCDF	NA	NA	NA	NA	NA
2,3,4,6,7,8-HxCDF	NA	NA	NA	NA	NA
1,2,3,7,8,9-HxCDF	NA	NA	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	NA	NA	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	NA	NA	NA	NA	NA
OCDF	NA	NA	NA	NA	NA
Total TCDD	NA	NA	NA	NA	NA

TABLE 2
PULLMAN YARDS
SUMMARY OF SOIL SAMPLE RESULTS

OTIE Sample ID	PY-SS-003-0.5-1	PY-SS-004-1-1.5	PY-SS-004-2-2.5	PY-SS-005-0.5-1	PY-SS-006-0.5-1
Location	PY-052			PY-021	
Sample Date	5/11/2011	5/11/2011	5/11/2011	5/11/2011	5/11/2011
Depth	0.5-1 feet	1-1.5 feet	2-2.5 feet	0.5-1 feet	0.5-1 feet
Type	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
Total PeCDD	NA	NA	NA	NA	NA
Total HxCDD	NA	NA	NA	NA	NA
Total HpCDD	NA	NA	NA	NA	NA
Total TCDF	NA	NA	NA	NA	NA
Total PeCDF	NA	NA	NA	NA	NA
Total HxCDF	NA	NA	NA	NA	NA
Total HpCDF	NA	NA	NA	NA	NA
PCBs (ug/kg)					
Aroclor 1016	NA	NA	NA	NA	NA
Aroclor 1221	NA	NA	NA	NA	NA
Aroclor 1232	NA	NA	NA	NA	NA
Aroclor 1242	NA	NA	NA	NA	NA
Aroclor 1248	NA	NA	NA	NA	NA
Aroclor 1254	NA	NA	NA	NA	NA
Aroclor 1260	NA	NA	NA	NA	NA

Notes:

Blank - Constituent not analyzed in sample
BRL - Constituent analyzed for, not detected at Method Detection Limit (MDL)
J - Estimated value detected below Reporting Limit
mg/kg - Milligrams per kilogram
ug/kg - Micrograms per kilogram
EMPC - Estimated Maximum possible concentration due to ion ratio failure
SVOC - Semivolatile Organic Compounds
PCB - Polychlorinated Biphenyls
ND - None detected

TABLE 2
PULLMAN YARDS
SUMMARY OF SOIL SAMPLE RESULTS

OTIE Sample ID	PY-SS-007	PY-SS-074
Location	PY-074	PY-074
Sample Date	5/11/2011	6/17/2011
Depth	0-0.5 feet	0-0.5 feet
Type	Field Sample	Field Sample
Metals, Total (mg/kg)		
Arsenic	18.2	NA
Barium	234	NA
Cadmium	3.07	NA
Chromium	68	NA
Lead	992	NA
Selenium	BRL	NA
Silver	0.485 J	NA
Mercury	0.0966 J	NA
Dioxin and Furan (mg/kg)		
2,3,7,8-TCDD	NA	5.94 EMPC
1,2,3,7,8-PeCDD	NA	17.9
1,2,3,4,7,8-HxCDD	NA	29.1 EMPC
1,2,3,6,7,8-HxCDD	NA	73.4
1,2,3,7,8,9-HxCDD	NA	57 EMPC
1,2,3,4,6,7,8-HpCDD	NA	2370
OCDD	NA	23400
2,3,7,8-TCDF	NA	6.28
1,2,3,7,8-PeCDF	NA	4.82 EMPC
2,3,4,7,8-PeCDF	NA	43.1
1,2,3,4,7,8-HxCDF	NA	24.4
1,2,3,6,7,8-HxCDF	NA	27.1
2,3,4,6,7,8-HxCDF	NA	63.2
1,2,3,7,8,9-HxCDF	NA	ND
1,2,3,4,6,7,8-HpCDF	NA	603
1,2,3,4,7,8,9-HpCDF	NA	31.1 EMPC
OCDF	NA	2060
Total TCDD	NA	31.7

TABLE 2
PULLMAN YARDS
SUMMARY OF SOIL SAMPLE RESULTS

OTIE Sample ID	PY-SS-007	PY-SS-074
Location	PY-074	PY-074
Sample Date	5/11/2011	6/17/2011
Depth	0-0.5 feet	0-0.5 feet
Type	Field Sample	Field Sample
Total PeCDD	NA	149
Total HxCDD	NA	969
Total HpCDD	NA	12000
Total TCDF	NA	41.7
Total PeCDF	NA	422
Total HxCDF	NA	706
Total HpCDF	NA	1900
PCBs (ug/kg)		
Aroclor 1016	BRL	31.7
Aroclor 1221	BRL	149
Aroclor 1232	BRL	969
Aroclor 1242	BRL	12000
Aroclor 1248	BRL	41.7
Aroclor 1254	BRL	422
Aroclor 1260	BRL	706

Notes:

Blank - Constituent not analyzed in sample
BRL - Constituent analyzed for, not detected at Method Detection Limit (MDL)
J - Estimated value detected below Reporting Limit
mg/kg - Milligrams per kilogram
ug/kg - Micrograms per kilogram
EMPC - Estimated Maximum possible concentration due to ion ratio failure
SVOC - Semivolatile Organic Compounds
PCB - Polychlorinated Biphenyls
ND - None detected

APPENDIX C

ANALYTICAL REPORTS

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

May 23, 2011

Lou Von Oldenburg
Oneida Total Integrated Enterprises
1220 Kennestone Circle Suite. D
Marietta GA 30066

TEL: (678) 355-5550
FAX: (414) 257-2492

RE: Pullman Yards

Dear Lou Von Oldenburg:

Order No: 1105D78

Analytical Environmental Services, Inc. received 11 samples on 5/16/2011 6:03:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/10-06/30/11.
-AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/11.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Alysse Kowalski

Alysse Kowalski
Project Manager

3785 PRESIDENTIAL PARKWAY • ATLANTA, GEORGIA 30340 • TEL: (770) 457-8177 • FAX: (770) 457-8188

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 105078

Date: 5/16/11 Page 1 of 1

COMPANY: OTIE

ADDRESS: 1220 Kennestone Cr. Suite 106 Marietta, GA 30066

PHONE: 678-538-5342

FAX: 770-528-0167

SAMPLED BY: Lou von Oldenburg

SIGNATURE:

ANALYSIS REQUESTED: Rush Metals + Hg; SVOCs - 8270D

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PRESERVATION (See codes) I	I	REMARKS	No # of Containers
1	PY-SS-001	5/11/11	0820	X		SO	X			1
2	PY-SS-002	5/11/11	0835	X		SO	X			1
3	PY-SS-002-1-1.5	5/11/11	0900	X		SO	X			1
4	PY-SS-002-2-2.5	5/11/11	0900	X		SO	X			1
5	PY-SS-003	5/11/11	0926	X		SO	X			1
6	PY-SS-003-0.5-1	5/11/11	0935	X		SO	X			1
7	PY-SS-004-1-1.5	5/11/11	1004	X		SO	X			1
8	PY-SS-005-0.5-1	5/11/11	1115	X		SO	X			1
9	PY-SS-004-2-2.5	5/11/11	0955	X		SO	X			1
10	PY-SS-006-0.5-1	5/11/11	1139	X		SO	X			1
11	PY-SS-007	5/11/11	1610	X		SO	X	X		2
12										
13										
14										

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1 [signature]	5-16-11 1803	1 [signature]	5-16-11 1803
2		2	
3		3	

PROJECT INFORMATION
PROJECT NAME: Pullman Yards
PROJECT #: 1322
SITE ADDRESS: 225 Rogers St. NE
SEND REPORT TO: Lou von Oldenburg
INVOICE TO (IF DIFFERENT FROM ABOVE):
QUOTE #: PO#:

RECEIPT
Total # of Containers: 12

Turnaround Time Requested
- (X) Standard 5 Business Days
- ( ) 2 Business Day Rush
- ( ) Next Business Day Rush
- ( ) Same Day Rush (auth req.)
- ( ) Other

STATE PROGRAM (if any):
E-mail? Y N, Fax? Y N
DATA PACKAGE I II III IV

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA
IN / / VIA
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.
SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S-M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Page 2 of 2

Analytical Environmental Services, Inc

Date: 23-May-11

Client: Oneida Total Integrated Enterprises
Project: Pullman Yards
Lab ID: 1105D78

Case Narrative

Semi-Volatile organics Analysis by Method 8270D:

Due to sample matrix, sample 1105D78-011B required dilution during analysis resulting in elevated reporting limits.

Metals Analysis by Method 6010B:

Due to sample matrix, samples 1105D78-001A thru -011A required dilution during analysis resulting in elevated reporting limits.

Analytical Environmental Services, Inc Date: 23-May-11

Client:	Oneida Total Integrated Enterprises	**Client Sample ID:**	PY-SS-001
Project Name:	Pullman Yards	**Collection Date:**	5 11 2011 8:20:00 AM
Lab ID:	1105D78-001	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TOTAL MERCURY SW7471B					**(SW7471B)**				
Mercury	0.258		0.0376	0.108	mg/Kg-dry	146595	1	05 19 2011 14:57	JR
METALS, TOTAL SW6010C					**(SW3050B)**				
Arsenic	11.1		0.565	5.31	mg/Kg-dry	146561	1	05 19 2011 19:08	MP
Barium	217		0.0811	5.31	mg/Kg-dry	146561	1	05 19 2011 19:08	MP
Cadmium	2.19	J	0.0617	2.65	mg/Kg-dry	146561	1	05 19 2011 19:08	MP
Chromium	50.0		0.0934	2.65	mg/Kg-dry	146561	1	05 19 2011 19:08	MP
Lead	521		2.91	53.1	mg/Kg-dry	146561	10	05 20 2011 11:49	MP
Selenium	BRL		4.10	53.1	mg/Kg-dry	146561	10	05 20 2011 11:49	MP
Silver	0.0866	J	0.0377	2.65	mg/Kg-dry	146561	1	05 19 2011 19:08	MP
PERCENT MOISTURE D2216									
Percent Moisture	8.56		0	0	wt%	R197505	1	05 20 2011 09:00	AS

Qualifiers:

* Value exceeds maximum contaminant level

BRL Not detected at MDL

H Holding times for preparation or analysis exceeded

M Analyte not NELAC certified

B Analyte detected in the associated method blank

ND Not detected

E Estimated value above quantitation range

S Spike Recovery outside limits due to matrix

J Estimated value detected below Reporting Limit

Greater than Result value

Less than Result value

Note: See case narrative

Analytical Environmental Services, Inc

Date: 23-May-11

Client:	Oneida Total Integrated Enterprises	**Client Sample ID:**	PY-SS-002
Project Name:	Pullman Yards	**Collection Date:**	5 11 2011 8:35:00 AM
Lab ID:	1105D78-002	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TOTAL MERCURY SW7471B					**(SW7471B)**				
Mercury	0.381		0.0359	0.103	mg Kg-dry	146595	1	05 19 2011 15:19	JR
METALS, TOTAL SW6010C					**(SW3050B)**				
Arsenic	25.3		0.542	5.09	mg Kg-dry	146561	1	05 19 2011 19:12	MP
Barium	826		0.0778	5.09	mg Kg-dry	146561	1	05 19 2011 19:12	MP
Cadmium	4.47		0.0591	2.54	mg Kg-dry	146561	1	05 19 2011 19:12	MP
Chromium	66.6		0.0896	2.54	mg Kg-dry	146561	1	05 19 2011 19:12	MP
Lead	2790		2.79	50.9	mg Kg-dry	146561	10	05 20 2011 10:54	MP
Selenium	BRL		3.93	50.9	mg Kg-dry	146561	10	05 20 2011 10:54	MP
Silver	0.854	J	0.0361	2.54	mg Kg-dry	146561	1	05 19 2011 19:12	MP
PERCENT MOISTURE D2216									
Percent Moisture	4.82		0	0	wt%	R197505	1	05 20 2011 09:00	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- Greater than Result value
- Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc Date: 23-May-11

Client:	Oneida Total Integrated Enterprises	**Client Sample ID:**	PY-SS-002-1-1.5
Project Name:	Pullman Yards	**Collection Date:**	5 11 2011 9:00:00 AM
Lab ID:	1105D78-003	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TOTAL MERCURY SW7471B					**(SW7471B)**				
Mercury	0.272		0.0400	0.115	mg/Kg-dry	146595	1	05/19/2011 15:21	JR
METALS, TOTAL SW6010C					**(SW3050B)**				
Arsenic	5.18	J	0.587	5.51	mg/Kg-dry	146561	1	05/19/2011 19:17	MP
Barium	151		0.0842	5.51	mg/Kg-dry	146561	1	05/19/2011 19:17	MP
Cadmium	0.532	J	0.0640	2.76	mg/Kg-dry	146561	1	05/19/2011 19:17	MP
Chromium	23.1		0.0970	2.76	mg/Kg-dry	146561	1	05/19/2011 19:17	MP
Lead	363		3.02	55.1	mg/Kg-dry	146561	10	05/20/2011 11:54	MP
Selenium	BRL		4.26	55.1	mg/Kg-dry	146561	10	05/20/2011 11:54	MP
Silver	BRL		0.0391	2.76	mg/Kg-dry	146561	1	05/19/2011 19:17	MP
PERCENT MOISTURE D2216									
Percent Moisture	15.9		0	0	wt%	R197505	1	05/20/2011 09:00	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- EPL Below Estimated Practical MDL
- H Holding time for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- ND Not detected
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- Greater than Result value
- Less than Result value
- Note See case narrative

Analytical Environmental Services, Inc

Date: 23-May-11

Client:	Oneida Total Integrated Enterprises	**Client Sample ID:**	PY-SS-002-2-2.5
Project Name:	Pullman Yards	**Collection Date:**	5 11 2011 9:00:00 AM
Lab ID:	1105D78-004	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TOTAL MERCURY SW7471B					**(SW7471B)**				
Mercury	0.117	J	0.0414	0.119	mg Kg-dry	146595	1	05 19 2011 15:23	JR
METALS, TOTAL SW6010C					**(SW3050B)**				
Arsenic	1.78	J	0.602	5.66	mg Kg-dry	146561	1	05 19 2011 19:21	MP
Barium	70.7		0.0864	5.66	mg Kg-dry	146561	1	05 19 2011 19:21	MP
Cadmium	0.0881	J	0.0657	2.83	mg Kg-dry	146561	1	05 19 2011 19:21	MP
Chromium	23.7		0.0995	2.83	mg Kg-dry	146561	1	05 19 2011 19:21	MP
Lead	109		3.10	56.6	mg Kg-dry	146561	10	05 20 2011 11:03	MP
Selenium	BRL		4.37	56.6	mg Kg-dry	146561	10	05 20 2011 11:03	MP
Silver	BRL		0.0402	2.83	mg Kg-dry	146561	1	05 19 2011 19:21	MP
PERCENT MOISTURE D2216									
Percent Moisture	17.5		0	0	wt%	R197505	1	05 20 2011 09:00	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- C Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- Greater than Result value
- Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc Date: 23-May-11

Client:	Oneida Total Integrated Enterprises	**Client Sample ID:**	PY-SS-003
Project Name:	Pullman Yards	**Collection Date:**	5 11 2011 9:20:00 AM
Lab ID:	1105D78-005	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TOTAL MERCURY SW7471B					**(SW7471B)**				
Mercury	0.0851	J	0.0345	0.0987	mg Kg-dry	146595	1	05 19 2011 15:25	JR
METALS, TOTAL SW6010C					**(SW3050B)**				
Arsenic	128		0.536	5.03	mg Kg-dry	146561	1	05 19 2011 18:31	MP
Barium	118		0.0769	5.03	mg Kg-dry	146561	1	05 19 2011 18:31	MP
Cadmium	4.28		0.0585	2.52	mg Kg-dry	146561	1	05 19 2011 18:31	MP
Chromium	122		0.0886	2.52	mg Kg-dry	146561	1	05 19 2011 18:31	MP
Lead	753		2.76	50.3	mg Kg-dry	146561	10	05 20 2011 10:19	MP
Selenium	BRL		3.89	50.3	mg Kg-dry	146561	10	05 20 2011 10:19	MP
Silver	0.640	J	0.0357	2.52	mg Kg-dry	146561	1	05 19 2011 18:31	MP
PERCENT MOISTURE D2216									
Percent Moisture	0.683		0	0	wt%	R197505	1	05 20 2011 09:00	AS

Qualifiers:

* Value exceeds maximum contaminant level

BRL Not detected at MDL

H Holding time for preparation or analysis exceeded

N Analyte not NELAC certified

B Analyte detected in the associated method blank

ND Not detected

E Estimated value above quantitation range

S Spike Recovery outside limits due to matrix

J Estimated value detected below Reporting Limit

Greater than Result value

Less than Result value

Barr Average variable

Analytical Environmental Services, Inc Date: 23-May-11

Client:	Oneida Total Integrated Enterprises	**Client Sample ID:**	PY-SS-003-0.5-1
Project Name:	Pullman Yards	**Collection Date:**	5 11 2011 9:35:00 AM
Lab ID:	1105D78-006	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TOTAL MERCURY SW7471B					**(SW7471B)**				
Mercury	0.124		0.0370	0.106	mg/Kg-dry	146595	1	05/19/2011 15:28	JR
METALS, TOTAL SW6010C					**(SW3050B)**				
Arsenic	75.8		0.532	5.00	mg/Kg-dry	146561	1	05/19/2011 19:25	MP
Barium	95.5		0.0764	5.00	mg/Kg-dry	146561	1	05/19/2011 19:25	MP
Cadmium	3.90		0.0581	2.50	mg/Kg-dry	146561	1	05/19/2011 19:25	MP
Chromium	45.8		0.0880	2.50	mg/Kg-dry	146561	1	05/19/2011 19:25	MP
Lead	327		2.74	50.0	mg/Kg-dry	146561	10	05/20/2011 11:59	MP
Selenium	BRL		3.86	50.0	mg/Kg-dry	146561	10	05/20/2011 11:59	MP
Silver	0.120	J	0.0355	2.50	mg/Kg-dry	146561	1	05/19/2011 19:25	MP
PERCENT MOISTURE D2216									
Percent Moisture	6.96		0	0	wt%	R197505	1	05/20/2011 09:00	AS

Qualifiers:

* Value exceeds maximum contaminant level.

BRL Not detected at MDL

H Holding time exceeded for preparation or analysis

N Analyte not NELAC certified

B Analyte detected in the associated method blank

ND Not detected

E Estimated value above calibration range

S Spike Recovery outside limits due to matrix

J Estimated value detected below Reporting Limit

Greater than Result value

Less than Result value

Note: See case narrative

Analytical Environmental Services, Inc

Date: 23-May-11

Client:	Oneida Total Integrated Enterprises	**Client Sample ID:**	PY-SS-004-1-1.5
Project Name:	Pullman Yards	**Collection Date:**	5 11 2011 10:04:00 AM
Lab ID:	1105D78-007	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TOTAL MERCURY SW7471B					**(SW7471B)**				
Mercury	0.0850	J	0.0416	0.119	mg Kg-dry	146595	1	05 19 2011 15:34	JR
METALS, TOTAL SW6010C					**(SW3050B)**				
Arsenic	24.0		0.644	6.04	mg Kg-dry	146561	1	05 19 2011 19:30	MP
Barium	58.6		0.0924	6.04	mg Kg-dry	146561	1	05 19 2011 19:30	MP
Cadmium	0.565	J	0.0702	3.02	mg Kg-dry	146561	1	05 19 2011 19:30	MP
Chromium	27.1		0.106	3.02	mg Kg-dry	146561	1	05 19 2011 19:30	MP
Lead	132		3.31	60.4	mg Kg-dry	146561	10	05 20 2011 11:13	MP
Selenium	BRL		4.67	60.4	mg Kg-dry	146561	10	05 20 2011 11:13	MP
Silver	BRL		0.0429	3.02	mg Kg-dry	146561	1	05 19 2011 19:30	MP
PERCENT MOISTURE D2216									
Percent Moisture	17.7		0	0	wt%	R197505	1	05 20 2011 09:00	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- C Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- Greater than Result value
- Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 23-May-11

Client:	Oneida Total Integrated Enterprises	**Client Sample ID:**	PY-SS-005-0.5-1
Project Name:	Pullman Yards	**Collection Date:**	5 11 2011 11:15:00 AM
Lab ID:	1105D78-008	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TOTAL MERCURY SW7471B					**(SW7471B)**				
Mercury	0.158		0.0364	0.104	mg Kg-dry	146595	1	05 19 2011 15:36	JR
METALS, TOTAL SW6010C					**(SW3050B)**				
Arsenic	5.69		0.525	4.93	mg Kg-dry	146561	1	05 19 2011 19:34	MP
Barium	127		0.0753	4.93	mg Kg-dry	146561	1	05 19 2011 19:34	MP
Cadmium	0.782	J	0.0573	2.47	mg Kg-dry	146561	1	05 19 2011 19:34	MP
Chromium	33.9		0.0868	2.47	mg Kg-dry	146561	1	05 19 2011 19:34	MP
Lead	393		1.35	24.7	mg Kg-dry	146561	5	05 20 2011 11:18	MP
Selenium	BRL		1.90	24.7	mg Kg-dry	146561	5	05 20 2011 11:18	MP
Silver	0.0451	J	0.0350	2.47	mg Kg-dry	146561	1	05 19 2011 19:34	MP
PERCENT MOISTURE D2216									
Percent Moisture	4.74		0	0	wt%	R197505	1	05 20 2011 09:00	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- E Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- Greater than Result value
- Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc

Date: 23-May-11

Client:	Oneida Total Integrated Enterprises	**Client Sample ID:**	PY-SS-004-2-2.5
Project Name:	Pullman Yards	**Collection Date:**	5 11 2011 9:55:00 AM
Lab ID:	1105D78-009	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TOTAL MERCURY SW7471B					**(SW7471B)**				
Mercury	0.0794	J	0.0437	0.125	mg/Kg-dry	146595	1	05/19/2011 15:39	JR
METALS, TOTAL SW6010C					**(SW3050B)**				
Arsenic	2.47	J	0.649	6.09	mg/Kg-dry	146561	1	05/19/2011 19:38	MP
Barium	26.4		0.0931	6.09	mg/Kg-dry	146561	1	05/19/2011 19:38	MP
Cadmium	BRL		0.0708	3.05	mg/Kg-dry	146561	1	05/19/2011 19:38	MP
Chromium	19.5		0.107	3.05	mg/Kg-dry	146561	1	05/19/2011 19:38	MP
Lead	25.2		0.668	12.2	mg/Kg-dry	146561	2	05/20/2011 12:04	MP
Selenium	BRL		2.35	30.5	mg/Kg-dry	146561	5	05/20/2011 11:23	MP
Silver	BRL		0.0432	3.05	mg/Kg-dry	146561	1	05/19/2011 19:38	MP
PERCENT MOISTURE D2216									
Percent Moisture	20.3		0	0	wt%	R197505	1	05/20/2011 09:00	AS

Qualifiers:

* Value exceeds maximum contaminant level

BRL Below Reporting Limit

H Holding time for preparation or analysis exceeded

H Analyte not NELAC certified

B Analyte detected in the associated method blank

ND Not detected

E Estimated value above quantitation range

2 Spike Recovery outside limits due to matrix

J Estimated value detected below Reporting Limit

Greater than Reportable

Less than Reportable

Note See case narrative

Analytical Environmental Services, Inc

Date: 23-May-11

Client:	Oneida Total Integrated Enterprises	**Client Sample ID:**	PY-SS-006-0.5-1
Project Name:	Pullman Yards	**Collection Date:**	5 11 2011 11:39:00 AM
Lab ID:	1105D78-010	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TOTAL MERCURY SW7471B					**(SW7471B)**				
Mercury	0.263		0.0380	0.109	mg Kg-dry	146595	1	05 19 2011 15:41	JR
METALS, TOTAL SW6010C					**(SW3050B)**				
Arsenic	9.59		0.580	5.45	mg Kg-dry	146561	1	05 19 2011 19:43	MP
Barium	381		0.0833	5.45	mg Kg-dry	146561	1	05 19 2011 19:43	MP
Cadmium	5.01		0.0633	2.72	mg Kg-dry	146561	1	05 19 2011 19:43	MP
Chromium	56.0		0.0959	2.72	mg Kg-dry	146561	1	05 19 2011 19:43	MP
Lead	267		1.49	27.2	mg Kg-dry	146561	5	05 20 2011 11:38	MP
Selenium	BRL		2.10	27.2	mg Kg-dry	146561	5	05 20 2011 11:38	MP
Silver	0.117	J	0.0387	2.72	mg Kg-dry	146561	1	05 19 2011 19:43	MP
PERCENT MOISTURE D2216									
Percent Moisture	8.61		0	0	wt%	R197505	1	05 20 2011 09:00	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- Greater than Result value
- Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc Date: 23-May-11

Client:	Oneida Total Integrated Enterprises	**Client Sample ID:**	PY-SS-007
Project Name:	Pullman Yards	**Collection Date:**	5 11 2011 4:10:00 PM
Lab ID:	1105D78-011	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TOTAL MERCURY SW7471B					**(SW7471B)**				
Mercury	0.0966	J	0.0358	0.103	mg/Kg-dry	146595	1	05/19/2011 15:43	JR
TCL-SEMIVOLATILE ORGANICS SW8270D					**(SW3550C)**				
1,1'-Biphenyl	BRL		150	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
2,4,5-Trichlorophenol	BRL		160	18000	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
2,4,6-Trichlorophenol	BRL		270	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
2,4-Dichlorophenol	BRL		250	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
2,4-Dimethylphenol	BRL		160	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
2,4-Dinitrophenol	BRL		160	18000	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
2,4-Dinitrotoluene	BRL		160	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
2,6-Dinitrotoluene	BRL		100	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
2-Chloronaphthalene	BRL		110	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
2-Chlorophenol	BRL		230	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
2-Methylnaphthalene	BRL		180	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
2-Methylphenol	BRL		240	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
2-Nitroaniline	BRL		120	18000	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
2-Nitrophenol	BRL		190	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
3,3'-Dichlorobenzidine	BRL		390	7000	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
3-Nitroaniline	BRL		320	18000	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
4,6-Dinitro-2-methylphenol	BRL		210	18000	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
4-Bromophenyl phenyl ether	BRL		160	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
4-Chloro-3-methylphenol	BRL		160	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
4-Chloroaniline	BRL		500	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
4-Chlorophenyl phenyl ether	BRL		180	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
4-Methylphenol	BRL		340	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
4-Nitroaniline	BRL		290	18000	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
4-Nitrophenol	BRL		280	18000	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Acenaphthene	BRL		180	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Acenaphthylene	BRL		160	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Acetophenone	BRL		200	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Anthracene	BRL		170	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Atrazine	BRL		990	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Benzo(a)anthracene	BRL		160	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Benzaldehyde	BRL		270	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Benzo(a)pyrene	BRL		240	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Benzo(b)fluoranthene	BRL		220	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Benzo(g,h,i)perylene	BRL		270	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Benzo(k)fluoranthene	BRL		290	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Bis(2-chloroethoxy)methane	BRL		180	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH

Qualifiers:

* Value exceeds maximum contaminant level

EFL Holding time for preparation or analysis exceeded

H Analyte not NELAC certified

E Analyte detected in the associated method blank

HO Holding time

E Estimated value above quantitation range

S Spike Recovery outside limits due to matrix

J Estimated value detected below Reporting Limit

Greater than Result value

Less than Result value

Hum See sample narrative

Analytical Environmental Services, Inc

Client:	Oneida Total Integrated Enterprises	**Date:**	23-May-11
Project Name:	Pullman Yards	**Client Sample ID:**	PY-SS-007
Lab ID:	1105D78-011	**Collection Date:**	5/11/2011 4:10:00 PM
		Matrix:	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL-SEMIVOLATILE ORGANICS SW8270D				**(SW3550C)**					
Bis(2-chloroethyl)ether	BRL		260	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Bis(2-chloroisopropyl)ether	BRL		270	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Bis(2-ethylhexyl)phthalate	BRL		220	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Butyl benzyl phthalate	BRL		190	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Caprolactam	BRL		270	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Carbazole	BRL		140	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Chrysene	BRL		230	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Di-n-butyl phthalate	BRL		150	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Di-n-octyl phthalate	BRL		250	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Dibenz(a,h)anthracene	BRL		270	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Dibenzofuran	BRL		160	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Diethyl phthalate	BRL		150	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Dimethyl phthalate	BRL		150	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Fluoranthene	BRL		110	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Fluorene	BRL		150	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Hexachlorobenzene	BRL		160	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Hexachlorobutadiene	BRL		220	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Hexachlorocyclopentadiene	BRL		180	6900	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Hexachloroethane	BRL		330	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Indeno(1,2,3-cd)pyrene	BRL		250	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Isophorone	BRL		130	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
N-Nitrosodi-n-propylamine	BRL		230	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
N-Nitrosodiphenylamine	BRL		170	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Naphthalene	BRL		190	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Nitrobenzene	BRL		180	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Pentachlorophenol	BRL		220	18000	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Phenanthrene	BRL		180	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Phenol	BRL		250	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Pyrene	BRL		200	3500	ug/Kg-dry	146456	5	05/18/2011 16:30	YH
Surr: 2,4,6-Tribromophenol	13.6	S	0	40.4-136	%REC	146456	5	05/18/2011 16:30	YH
Surr: 2-Fluorobiphenyl	14.4	S	0	48.5-120	%REC	146456	5	05/18/2011 16:30	YH
Surr: 2-Fluorophenol	11.7	S	0	36.5-120	%REC	146456	5	05/18/2011 16:30	YH
Surr: 4-Terphenyl-d14	16.4	S	0	51-125	%REC	146456	5	05/18/2011 16:30	YH
Surr: Nitrobenzene-d5	12.6	S	0	37.6-120	%REC	146456	5	05/18/2011 16:30	YH
Surr: Phenol-d5	11.8	S	0	40.1-120	%REC	146456	5	05/18/2011 16:30	YH
METALS, TOTAL SW6010C				**(SW3050B)**					
Arsenic	18.2		0.546	5.12	mg/Kg-dry	146561	1	05/19/2011 19:58	MP
Barium	234		0.0783	5.12	mg/Kg-dry	146561	1	05/19/2011 19:58	MP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below Reporting Limit
- H Holding time for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- ND Not detected
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- Greater than Result value
- Less than Result value
- Hold Sample hold time

Analytical Environmental Services, Inc

Date: 23-May-11

Client:	Oneida Total Integrated Enterprises	**Client Sample ID:**	PY-SS-007
Project Name:	Pullman Yards	**Collection Date:**	5 11 2011 4:10:00 PM
Lab ID:	1105D78-011	**Matrix:**	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
METALS, TOTAL SW6010C					**(SW3050B)**				
Cadmium	3.07		0.0595	2.56	mg Kg-dry	146561	1	05 19 2011 19:58	MP
Chromium	68.0		0.0902	2.56	mg Kg-dry	146561	1	05 19 2011 19:58	MP
Lead	992		5.62	102	mg Kg-dry	146561	20	05 20 2011 11:43	MP
Selenium	BRL		7.92	102	mg Kg-dry	146561	20	05 20 2011 11:43	MP
Silver	0.485	J	0.0364	2.56	mg Kg-dry	146561	1	05 19 2011 19:58	MP
PERCENT MOISTURE D2216									
Percent Moisture	4.64		0	0	wt%	R197505	1	05 20 2011 09:00	AS

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- E Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- Greater than Result value
- Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client OTIE

Work Order Number 1105D78

Checklist completed by MZ (Signature) 5/17/11 (Date)

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition?	Yes ✓	No __	Not Present __
Custody seals intact on shipping container/cooler?	Yes ✓	No __	Not Present __
Custody seals intact on sample bottles?	Yes __	No __	Not Present ✓
Container/Temp Blank temperature in compliance? (4°C±2)*	Yes ✓	No __	

Cooler #1 3.8°C Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present?	Yes ✓	No __
Chain of custody signed when relinquished and received?	Yes ✓	No __
Chain of custody agrees with sample labels?	Yes ✓	No __
Samples in proper container/bottle?	Yes ✓	No __
Sample containers intact?	Yes ✓	No __
Sufficient sample volume for indicated test?	Yes ✓	No __
All samples received within holding time?	Yes ✓	No __
Was TAT marked on the COC?	Yes ✓	No __
Proceed with Standard TAT as per project history?	Yes __	No __ Not Applicable ✓
Water - VOA vials have zero headspace?	No VOA vials submitted ✓	Yes __ No __
Water - pH acceptable upon receipt?	Yes __	No __ Not Applicable ✓

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\L\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklist

ANALYTICAL QC SUMMARY REPORT

Client: Oneida Total Integrated Enterprises
Project Name: Pullman Yards
Workorder: 1105D78

BatchID: 146456

Sample ID: **MB-146456** Client ID: Units: **ug/Kg** Prep Date: **05/17/2011** Run No: **197209**
SampleType: **MBLK** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D** BatchID: **146456** Analysis Date: **05/17/2011** Seq No: **4116187**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1 -Biphenyl	BRL	330	0	0	0	0	0	0	0	0	
2,4,5-Trichlorophenol	BRL	1700	0	0	0	0	0	0	0	0	
2,4,6-Trichlorophenol	BRL	330	0	0	0	0	0	0	0	0	
2,4-Dichlorophenol	BRL	330	0	0	0	0	0	0	0	0	
2,4-Dimethylphenol	BRL	330	0	0	0	0	0	0	0	0	
2,4-Dinitrophenol	BRL	1700	0	0	0	0	0	0	0	0	
2,4-Dinitrotoluene	BRL	330	0	0	0	0	0	0	0	0	
2,6-Dinitrotoluene	BRL	330	0	0	0	0	0	0	0	0	
2-Chloronaphthalene	BRL	330	0	0	0	0	0	0	0	0	
2-Chlorophenol	BRL	330	0	0	0	0	0	0	0	0	
2-Methylnaphthalene	BRL	330	0	0	0	0	0	0	0	0	
2-Methylphenol	BRL	330	0	0	0	0	0	0	0	0	
2-Nitroaniline	BRL	1700	0	0	0	0	0	0	0	0	
2-Nitrophenol	BRL	330	0	0	0	0	0	0	0	0	
3,3 -Dichlorobenzidine	BRL	670	0	0	0	0	0	0	0	0	
3-Nitroaniline	BRL	1700	0	0	0	0	0	0	0	0	
4,6-Dinitro-2-methylphenol	BRL	1700	0	0	0	0	0	0	0	0	
4-Bromophenyl phenyl ether	BRL	330	0	0	0	0	0	0	0	0	
4-Chloro-3-methylphenol	BRL	330	0	0	0	0	0	0	0	0	
4-Chloroaniline	BRL	330	0	0	0	0	0	0	0	0	
4-Chlorophenyl phenyl ether	BRL	330	0	0	0	0	0	0	0	0	
4-Methylphenol	BRL	330	0	0	0	0	0	0	0	0	
4-Nitroaniline	BRL	1700	0	0	0	0	0	0	0	0	
4-Nitrophenol	BRL	1700	0	0	0	0	0	0	0	0	
Acenaphthene	BRL	330	0	0	0	0	0	0	0	0	
Acenaphthylene	BRL	330	0	0	0	0	0	0	0	0	
Acetophenone	BRL	330	0	0	0	0	0	0	0	0	

Qualifiers:

Greater than Result value
BRL Below reporting limit
J Estimated value detected below Reporting Limit
Rpt Lim Reporting Limit

Less than Result value
E Estimated value above quantitation range
N Analyte not NELAC certified
S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank
H Holding times for preparation or analysis exceeded
R RPD outside limits due to matrix

Client: Oneida Total Integrated Enterprises
Project Name: Pullman Yards
Workorder: 1105D78

Date: 24-May-11

ANALYTICAL QC SUMMARY REPORT

BatchID: 146456

Sample ID: **MB-146456** Client ID:
SampleType: **MBLK** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D**
Units: **ug/Kg** BatchID: **146456**
Prep Date: **05/17/2011** Analysis Date: **05/17/2011**
Run No: **197209** Seq No: **4116187**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Anthracene	BRL	330	0	0	0	0	0	0	0	0	
Atrazine	BRL	330	0	0	0	0	0	0	0	0	
Benz(a)anthracene	BRL	330	0	0	0	0	0	0	0	0	
Benzaldehyde	BRL	330	0	0	0	0	0	0	0	0	
Benzo(a)pyrene	BRL	330	0	0	0	0	0	0	0	0	
Benzo(b)fluoranthene	BRL	330	0	0	0	0	0	0	0	0	
Benzo(g,h,i)perylene	BRL	330	0	0	0	0	0	0	0	0	
Benzo(k)fluoranthene	BRL	330	0	0	0	0	0	0	0	0	
Bis(2-chloroethoxy)methane	BRL	330	0	0	0	0	0	0	0	0	
Bis(2-chloroethyl)ether	BRL	330	0	0	0	0	0	0	0	0	
Bis(2-chloroisopropyl)ether	BRL	330	0	0	0	0	0	0	0	0	
Bis(2-ethylhexyl)phthalate	BRL	330	0	0	0	0	0	0	0	0	
Butyl benzyl phthalate	BRL	330	0	0	0	0	0	0	0	0	
Caprolactam	BRL	330	0	0	0	0	0	0	0	0	
Carbazole	BRL	330	0	0	0	0	0	0	0	0	
Chrysene	BRL	330	0	0	0	0	0	0	0	0	
Di-n-butyl phthalate	BRL	330	0	0	0	0	0	0	0	0	
Di-n-octyl phthalate	BRL	330	0	0	0	0	0	0	0	0	
Dibenz(a,h)anthracene	BRL	330	0	0	0	0	0	0	0	0	
Dibenzofuran	BRL	330	0	0	0	0	0	0	0	0	
Diethyl phthalate	BRL	330	0	0	0	0	0	0	0	0	
Dimethyl phthalate	BRL	330	0	0	0	0	0	0	0	0	
Fluoranthene	BRL	330	0	0	0	0	0	0	0	0	
Fluorene	BRL	330	0	0	0	0	0	0	0	0	
Hexachlorobenzene	BRL	330	0	0	0	0	0	0	0	0	
Hexachlorobutadiene	BRL	330	0	0	0	0	0	0	0	0	
Hexachlorocyclopentadiene	BRL	660	0	0	0	0	0	0	0	0	

Qualifiers:

Greater than Result value
BRL Below reporting limit
J Estimated value detected below Reporting Limit
Rpt Lim Reporting Limit

Less than Result value
E Estimated value above quantitation range
N Analyte not NELAC certified
S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank
H Holding times for preparation or analysis exceeded
R RPD outside limits due to matrix

ANALYTICAL QC SUMMARY REPORT

Client: Oneida Total Integrated Enterprises
Project Name: Pullman Yards
Workorder: 1105D78

BatchID: 146456

Sample ID: **MB-146456** Client ID:
SampleType: **MBLK** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D**
Units: **ug/Kg** BatchID: **146456**
Prep Date: **05/17/2011** Analysis Date: **05/17/2011**
Run No: **197209** Seq No: **4116187**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Hexachloroethane	BRL	330	0	0	0	0	0	0	0	0	
Indeno(1,2,3-cd)pyrene	BRL	330	0	0	0	0	0	0	0	0	
Isophorone	BRL	330	0	0	0	0	0	0	0	0	
N-Nitrosodi-n-propylamine	BRL	330	0	0	0	0	0	0	0	0	
N-Nitrosodiphenylamine	BRL	330	0	0	0	0	0	0	0	0	
Naphthalene	BRL	330	0	0	0	0	0	0	0	0	
Nitrobenzene	BRL	330	0	0	0	0	0	0	0	0	
Pentachlorophenol	BRL	1700	0	0	0	0	0	0	0	0	
Phenanthrene	BRL	330	0	0	0	0	0	0	0	0	
Phenol	BRL	330	0	0	0	0	0	0	0	0	
Pyrene	BRL	330	0	0	0	0	0	0	0	0	
Surr: 2,4,6-Tribromophenol	2802	0	3333	0	84.1	40.4	136	0	0	0	
Surr: 2-Fluorobiphenyl	1355	0	1667	0	81.3	48.5	120	0	0	0	
Surr: 2-Fluorophenol	2654	0	3333	0	79.6	36.5	120	0	0	0	
Surr: 4-Terphenyl-d14	1601	0	1667	0	96.1	51	125	0	0	0	
Surr: Nitrobenzene-d5	1246	0	1667	0	74.8	37.6	120	0	0	0	
Surr: Phenol-d5	2957	0	3333	0	88.7	40.1	120	0	0	0	

Sample ID: **LCS-146456** Client ID:
SampleType: **LCS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D**
Units: **ug/Kg** BatchID: **146456**
Prep Date: **05/17/2011** Analysis Date: **05/17/2011**
Run No: **197209** Seq No: **4116189**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	2488	330	3333	0	74.6	61.9	120	0	0	0	
2-Chlorophenol	2536	330	3333	0	76.1	57.7	120	0	0	0	
4-Chloro-3-methylphenol	2443	330	3333	0	73.3	59.5	120	0	0	0	
4-Nitrophenol	2132	1700	3333	0	64	43.8	120	0	0	0	
Acenaphthene	2897	330	3333	0	86.9	63.1	120	0	0	0	
N-Nitrosodi-n-propylamine	2942	330	3333	0	88.3	54.9	118	0	0	0	

Qualifiers:
- [illegible] Greater than Result value
- RL Reporting Limit
- J Estimated value detected below Reporting Limit
- Rpt Lim Reporting Limit
- [illegible] Less than Result value
- E Estimated value above quantitation range
- N Analyte not NELAC certified
- [illegible] Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
- H Holding time for preparation or analysis exceeded
- R RPD outside limits due to matrix

Client: Oneida Total Integrated Enterprises
Project Name: Pullman Yards
Workorder: 1105D78

Date: 24-May-11

ANALYTICAL QC SUMMARY REPORT

BatchID: 146456

Sample ID: **LCS-146456** Client ID:
SampleType: **LCS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D**
Units: **ug/Kg** BatchID: **146456**
Prep Date: **05/17/2011** Analysis Date: **05/17/2011**
Run No: **197209** Seq No: **4116189**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Pentachlorophenol	1912	1700	3333	0	57.4	42.5	132	0	0	0	
Phenol	2652	330	3333	0	79.6	50.9	120	0	0	0	
Pyrene	3316	330	3333	0	99.5	73	120	0	0	0	
Surr: 2,4,6-Tribromophenol	3004	0	3333	0	90.1	40.4	136	0	0	0	
Surr: 2-Fluorobiphenyl	1437	0	1667	0	86.2	48.5	120	0	0	0	
Surr: 2-Fluorophenol	2747	0	3333	0	82.4	36.5	120	0	0	0	
Surr: 4-Terphenyl-d14	1688	0	1667	0	101	51	125	0	0	0	
Surr: Nitrobenzene-d5	1371	0	1667	0	82.2	37.6	120	0	0	0	
Surr: Phenol-d5	3131	0	3333	0	93.9	40.1	120	0	0	0	

Sample ID: **1105D44-001CMS** Client ID:
SampleType: **MS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D**
Units: **ug/Kg-dry** BatchID: **146456**
Prep Date: **05/17/2011** Analysis Date: **05/17/2011**
Run No: **197209** Seq No: **4116193**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	3062	370	3781	0	81	37.1	120	0	0	0	
2-Chlorophenol	3020	370	3781	0	79.9	41.7	120	0	0	0	
4-Chloro-3-methylphenol	3005	370	3781	0	79.5	47	117	0	0	0	
4-Nitrophenol	2631	1900	3781	0	69.6	37.6	120	0	0	0	
Acenaphthene	3510	370	3781	0	92.9	52.4	120	0	0	0	
N-Nitrosodi-n-propylamine	3510	370	3781	0	92.8	45.5	120	0	0	0	
Pentachlorophenol	2765	1900	3781	0	73.1	30.7	126	0	0	0	
Phenol	3110	370	3781	0	82.3	37.7	120	0	0	0	
Pyrene	3768	370	3781	0	99.7	52.5	116	0	0	0	
Surr: 2,4,6-Tribromophenol	3765	0	3781	0	99.6	40.4	136	0	0	0	
Surr: 2-Fluorobiphenyl	1752	0	1890	0	92.7	48.5	120	0	0	0	
Surr: 2-Fluorophenol	3272	0	3781	0	86.6	36.5	120	0	0	0	
Surr: 4-Terphenyl-d14	1964	0	1890	0	104	51	125	0	0	0	
Surr: Nitrobenzene-d5	1685	0	1890	0	89.1	37.6	120	0	0	0	

Qualifiers:

Greater than Result value
BRL Below reporting limit
J Estimated value detected below Reporting Limit
Rpt Lim Reporting Limit

Less than Result value
E Estimated value above quantitation range
N Analyte not NELAC certified
S Spike Recovery outside limits due to matrix

E Analyte detected in the associated method blank
H Holding times for preparation or analysis exceeded
R RPD outside limits due to matrix

ANALYTICAL QC SUMMARY REPORT

Client: Oneida Total Integrated Enterprises
Project Name: Pullman Yards
Workorder: 1105D78

BatchID: 146456

Sample ID: **1105D44-001CMS** Client ID:
SampleType: **MS** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D**
Units: **ug/Kg-dry** Prep Date: **05/17/2011** Run No: **197209**
BatchID: **146456** Analysis Date: **05/17/2011** Seq No: **4116193**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Phenol-d5	3715	0	3781	0	98.3	40.1	120	0	0	0	

Sample ID: **1105D44-001CMSD** Client ID:
SampleType: **MSD** TestCode: **TCL-SEMIVOLATILE ORGANICS SW8270D**
Units: **ug/Kg-dry** Prep Date: **05/17/2011** Run No: **197209**
BatchID: **146456** Analysis Date: **05/17/2011** Seq No: **4116195**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
2,4-Dinitrotoluene	2934	370	3772	0	77.8	37.1	120	3062	4.25	18.1	
2-Chlorophenol	2980	370	3772	0	79	41.7	120	3020	1.34	21.2	
4-Chloro-3-methylphenol	2840	370	3772	0	75.3	47	117	3005	5.66	18	
4-Nitrophenol	2796	1900	3772	0	74.1	37.6	120	2631	6.09	17.6	
Acenaphthene	3341	370	3772	0	88.6	52.4	120	3510	4.94	17.4	
N-Nitrosodi-n-propylamine	3332	370	3772	0	88.4	45.5	120	3510	5.18	18.9	
Pentachlorophenol	2676	1900	3772	0	70.9	30.7	126	2765	3.27	16.9	
Phenol	3066	370	3772	0	81.3	37.7	120	3110	1.43	20.1	
Pyrene	3516	370	3772	0	93.2	52.5	116	3768	6.91	17.2	
Surr: 2,4,6-Tribromophenol	3661	0	3772	0	97.1	40.4	136	3765	0	0	
Surr: 2-Fluorobiphenyl	1684	0	1886	0	89.3	48.5	120	1752	0	0	
Surr: 2-Fluorophenol	3315	0	3772	0	87.9	36.5	120	3272	0	0	
Surr: 4-Terphenyl-d14	1815	0	1886	0	96.2	51	125	1964	0	0	
Surr: Nitrobenzene-d5	1661	0	1886	0	88.1	37.6	120	1685	0	0	
Surr: Phenol-d5	3688	0	3772	0	97.8	40.1	120	3715	0	0	

Qualifiers:
Greater than Result value
RL Below reporting limit
J Estimated value detected below Reporting Limit
Rpt Lim Reporting Limit
Less than Result value
E Estimated value above quantitation range
H Analyzed at NELAC recommended
S Spike Recovery outside limits due to matrix
E Analyte detected in the associated method blank
H Holding times for preparation or analysis exceeded
R RPD outside limits due to matrix

Client: Oneida Total Integrated Enterprises
Project Name: Pullman Yards
Workorder: 1105D78

Date: 24-May-11

ANALYTICAL QC SUMMARY REPORT

BatchID: 146561

Sample ID: **MB-146561** Client ID:
SampleType: **MBLK** TestCode: **METALS, TOTAL SW6010C**
Units: **mg/Kg** Prep Date: **05/19/2011** Run No: **197453**
BatchID: **146561** Analysis Date: **05/19/2011** Seq No: **4122111**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	BRL	5.00	0	0	0	0	0	0	0	0	
Barium	BRL	5.00	0	0	0	0	0	0	0	0	
Cadmium	BRL	2.50	0	0	0	0	0	0	0	0	
Chromium	BRL	2.50	0	0	0	0	0	0	0	0	
Lead	BRL	5.00	0	0	0	0	0	0	0	0	
Selenium	BRL	5.00	0	0	0	0	0	0	0	0	
Silver	BRL	2.50	0	0	0	0	0	0	0	0	

Sample ID: **LCS-146561** Client ID:
SampleType: **LCS** TestCode: **METALS, TOTAL SW6010C**
Units: **mg/Kg** Prep Date: **05/19/2011** Run No: **197453**
BatchID: **146561** Analysis Date: **05/19/2011** Seq No: **4122110**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	44.96	5.00	50	0	89.9	80	120	0	0	0	
Barium	47.08	5.00	50	0	94.2	80	120	0	0	0	
Cadmium	45.73	2.50	50	0	91.5	80	120	0	0	0	
Chromium	49.25	2.50	50	0	98.5	80	120	0	0	0	
Lead	45.19	5.00	50	0	90.4	80	120	0	0	0	
Selenium	44.06	5.00	50	0	88.1	80	120	0	0	0	
Silver	4.675	2.50	5	0	93.5	80	120	0	0	0	

Sample ID: **1105D78-005AMS** Client ID: **PY-SS-003**
SampleType: **MS** TestCode: **METALS, TOTAL SW6010C**
Units: **mg/Kg-dry** Prep Date: **05/19/2011** Run No: **197453**
BatchID: **146561** Analysis Date: **05/19/2011** Seq No: **4122115**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	188.6	4.82	48.18	128.3	125	75	125	0	0	0	S
Barium	178.2	4.82	48.18	118.4	124	75	125	0	0	0	
Cadmium	48.46	2.41	48.18	4.283	91.7	75	125	0	0	0	
Chromium	181.4	2.41	48.18	121.7	124	75	125	0	0	0	

Qualifiers:

Greater than Result value
BRL Below reporting limit
J Estimated value detected below Reporting Limit
Rpt Lim Reporting Limit

Less than Result value
E Estimated value above quantitation range
N Analyte not NELAC certified
S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank
H Holding times for preparation or analysis exceeded
R RPD outside limits due to matrix

ANALYTICAL QC SUMMARY REPORT

Client: Oneida Total Integrated Enterprises
Project Name: Pullman Yards
Workorder: 1105D78

BatchID: 146561

Sample ID: **1105D78-005AMS** Client ID: **PY-SS-003** Units: **mg/Kg-dry** Prep Date: **05/19/2011** Run No: **197453**
SampleType: **MS** TestCode: **METALS, TOTAL SW6010C** BatchID: **146561** Analysis Date: **05/19/2011** Seq No: **4122115**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Lead	740.6	4.82	48.18	637.3	214	75	125	0	0	0	S
Silver	5.848	2.41	4.818	0.6399	108	75	125	0	0	0	

Sample ID: **1105D78-005AMS** Client ID: **PY-SS-003** Units: **mg/Kg-dry** Prep Date: **05/19/2011** Run No: **197453**
SampleType: **MS** TestCode: **METALS, TOTAL SW6010C** BatchID: **146561** Analysis Date: **05/20/2011** Seq No: **4122847**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Selenium	BRL	24.1	48.18	0	0	75	125	0	0	0	S

Sample ID: **1105D78-005AMSD** Client ID: **PY-SS-003** Units: **mg/Kg-dry** Prep Date: **05/19/2011** Run No: **197453**
SampleType: **MSD** TestCode: **METALS, TOTAL SW6010C** BatchID: **146561** Analysis Date: **05/19/2011** Seq No: **4122117**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	187.2	4.79	47.94	128.3	123	75	125	188.6	0.72	20	
Barium	160.3	4.79	47.94	118.4	87.4	75	125	178.2	10.5	20	
Cadmium	47.45	2.40	47.94	4.283	90.1	75	125	48.46	2.11	20	
Chromium	165.3	2.40	47.94	121.7	91	75	125	181.4	9.3	20	
Lead	664.0	4.79	47.94	637.3	55.6	75	125	740.6	10.9	20	S
Silver	5.040	2.40	4.794	0.6399	91.8	75	125	5.848	14.8	20	

Sample ID: **1105D78-005AMSD** Client ID: **PY-SS-003** Units: **mg/Kg-dry** Prep Date: **05/19/2011** Run No: **197453**
SampleType: **MSD** TestCode: **METALS, TOTAL SW6010C** BatchID: **146561** Analysis Date: **05/20/2011** Seq No: **4122849**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Selenium	BRL	24.0	47.94	0	0	75	125	0	0	20	S

Qualifiers:

	Greater than Result value		Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Oneida Total Integrated Enterprises
Project Name: Pullman Yards
Workorder: 1105D78

Date: 24-May-11

ANALYTICAL QC SUMMARY REPORT

BatchID: 146595

Sample ID: **MB-146595** Client ID:
SampleType: **MBLK** TestCode: **TOTAL MERCURY SW7471B**
Units: **mg/Kg** Prep Date: **05/19/2011** Run No: **197414**
BatchID: **146595** Analysis Date: **05/19/2011** Seq No: **4121213**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	BRL	0.100	0	0	0	0	0	0	0	0	

Sample ID: **LCS-146595** Client ID:
SampleType: **LCS** TestCode: **TOTAL MERCURY SW7471B**
Units: **mg/Kg** Prep Date: **05/19/2011** Run No: **197414**
BatchID: **146595** Analysis Date: **05/19/2011** Seq No: **4121215**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.4123	0.100	0.4	0	103	80	120	0	0	0	

Sample ID: **1105E94-001CMS** Client ID:
SampleType: **MS** TestCode: **TOTAL MERCURY SW7471B**
Units: **mg/Kg-dry** Prep Date: **05/19/2011** Run No: **197414**
BatchID: **146595** Analysis Date: **05/19/2011** Seq No: **4121220**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.5023	0.118	0.4716	0	107	70	130	0	0	0	

Sample ID: **1105E94-001CMSD** Client ID:
SampleType: **MSD** TestCode: **TOTAL MERCURY SW7471B**
Units: **mg/Kg** Prep Date: **05/19/2011** Run No: **197414**
BatchID: **146595** Analysis Date: **05/19/2011** Seq No: **4121223**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Mercury	0.4140	0.0990	0.396	0	105	70	130	0.4140	0	30	

Qualifiers:

	Greater than Result value		Less than Result value		
BRL	Below reporting limit	E	Estimated value above quantitation range	B	Analyte detected in the associated method blank
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	H	Holding times for preparation or analysis exceeded
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix	R	RPD outside limits due to matrix

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

June 03, 2011

Lou Von Oldenburg
Oneida Total Integrated Enterprises
1220 Kennestone Circle Suite. D
Marietta GA 30066

TEL: (678) 355-5550
FAX: (414) 257-2492

RE: Pullman Yards

Dear Lou Von Oldenburg:

Order No: 1106094

Analytical Environmental Services, Inc. received 1 samples on May 16, 2011 6:03 pm for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/10-06/30/11.
-AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/11.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Alysse Kowalski

Alysse Kowalski
Project Manager

3785 PRESIDENTIAL PARKWAY • ATLANTA, GEORGIA 30340 • TEL: (770) 457-8177 • FAX: (770) 457-8188

ANALYTICAL ENVIRONMENTAL SERVICES, INC
3785 Presidential Parkway, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1106094 @ 6/2/1 125078

Date: 5/16/11 Page 1 of 1

COMPANY: OTIE

ADDRESS: 1220 Kennestone Cr. Suite 106 Marietta, GA 30066

PHONE: 678-538-5342

FAX: 770-528-0167

SAMPLED BY: Lou Von Oldenburg

SIGNATURE:

ANALYSIS REQUESTED: RCRA Metals + Hg; SVOCs - 8270C

PRESERVATION (See codes): I I

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	RCRA Metals + Hg	SVOCs - 8270C	REMARKS	No # of Containers
1	PY-SS-001	5/11/11	0820	X		SO	X			1
2	PY-SS-002	5/11/11	0835	X		SO	X			1
3	PY-SS-002-1-1.5	5/11/11	0900	X		SO	X			1
4	PY-SS-002-2-2.5	5/11/11	0900	X		SO	X			1
5	PY-SS-003	5/11/11	0926	X		SO	X			1
6	PY-SS-003-0.5-1	5/11/11	0935	X		SO	X			1
7	PY-SS-004-1-1.5	5/11/11	1004	X		SO	X			1
8	PY-SS-005-0.5-1	5/11/11	1115	X		SO	X			1
9	PY-SS-004-2-2.5	5/11/11	0955	X		SO	X			1
10	PY-SS-006-0.5-1	5/11/11	1139	X		SO	X			1
11	PY-SS-007	5/11/11	1610	X		SO	X	X		1
12										2
13										
14										

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1 [signature]	5-16-11 1803	1 Mah L	5-16-11 1803
2		2	
3		3	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA
IN / / VIA
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER

PROJECT INFORMATION
PROJECT NAME: Pullman Yards
PROJECT #: 1322
SITE ADDRESS: 225 Rogers St. NE
SEND REPORT TO: Lou von Oldenburg
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: PO#:

RECEIPT
Total # of Containers: 12

Turnaround Time Request
- [x] Standard 5 Business Days
- [ ] 2 Business Day Rush
- [ ] Next Business Day Rush
- [ ] Same Day Rush (auth req.)
- [ ] Other

STATE PROGRAM (if any):
E-mail? Y / N; Fax? Y / N
DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 6-Jun-11

Client: Oneida Total Integrated Enterprises
Project: Pullman Yards
Lab ID: 1106094

Case Narrative

Per Lou Von Oldenburg on 6 2 11 via email, sample "PY-SS-007" was analyzed for PCBs at "same day rush" TAT.

PCB Analysis by Method 8082:

Due to an elevated baseline caused by the matrix of the sample, polychlorinated biphenyls could not be properly identifyed in the non-diluted analysis of sample 1106094-001A. The sample was reanalyzed and reported at a 5 fold dilution resulting in elevated reporting limits.

Analytical Environmental Services, Inc

Client:	Oneida Total Integrated Enterprises	**Date:**	6-Jun-11
Project Name:	Pullman Yards	**Client Sample ID:**	PY-SS-007
Lab ID:	1106094-001	**Collection Date:**	5/11/2011 4:10:00 PM
		Matrix:	Soil

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
POLYCHLORINATED BIPHENYLS SW8082A					**(SW3550C)**				
Aroclor 1016	BRL		21	170	ug/Kg-dry	147119	5	06/02/2011 14:56	KD
Aroclor 1221	BRL		90	170	ug/Kg-dry	147119	5	06/02/2011 14:56	KD
Aroclor 1232	BRL		32	170	ug/Kg-dry	147119	5	06/02/2011 14:56	KD
Aroclor 1242	BRL		33	170	ug/Kg-dry	147119	5	06/02/2011 14:56	KD
Aroclor 1248	BRL		43	170	ug/Kg-dry	147119	5	06/02/2011 14:56	KD
Aroclor 1254	BRL		22	170	ug/Kg-dry	147119	5	06/02/2011 14:56	KD
Aroclor 1260	BRL		15	170	ug/Kg-dry	147119	5	06/02/2011 14:56	KD
Surr: Decachlorobiphenyl	0	S	0	37.8-138	%REC	147119	5	06/02/2011 14:56	KD
Surr: Tetrachloro-m-xylene	50.4		0	27.2-138	%REC	147119	5	06/02/2011 14:56	KD
PERCENT MOISTURE D2216									
Percent Moisture	4.64		0	0	wt%	R198245	1	06/02/2011 09:30	AS

Qualifiers:

- * Value exceeds maximum contaminant level.
- EPL Not detected at PQL
- H Holding time for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- ND Not detected
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
  - Greater than Result value
  - Less than Result value
- Non Non-accreditation

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client OTIE

Work Order Number ~~1105D78~~ 1106094 AP 6/2/11

Checklist completed by MZ 5/17/11
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes ✓ No __ Not Present __

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ✓ No __

Cooler #1 3.86 Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted ✓ Yes __ No __

Water - pH acceptable upon receipt? Yes __ No __ Not Applicable ✓

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\A\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklist

Client: Oneida Total Integrated Enterprises
Project Name: Pullman Yards
Workorder: 1106094

Date: 6-Jun-11

ANALYTICAL QC SUMMARY REPORT

BatchID: 147119

Sample ID: **MB-147119** Client ID:
SampleType: **MBLK** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A**
Units: **ug/Kg** Prep Date: **06/02/2011** Run No: **198248**
BatchID: **147119** Analysis Date: **06/02/2011** Seq No: **4139424**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	BRL	33	0	0	0	0	0	0	0	0	
Aroclor 1221	BRL	33	0	0	0	0	0	0	0	0	
Aroclor 1232	BRL	33	0	0	0	0	0	0	0	0	
Aroclor 1242	BRL	33	0	0	0	0	0	0	0	0	
Aroclor 1248	BRL	33	0	0	0	0	0	0	0	0	
Aroclor 1254	BRL	33	0	0	0	0	0	0	0	0	
Aroclor 1260	BRL	33	0	0	0	0	0	0	0	0	
Surr: Decachlorobiphenyl	19.88	0	16.67	0	119	37.8	138	0	0	0	
Surr: Tetrachloro-m-xylene	17.23	0	16.67	0	103	27.2	138	0	0	0	

Sample ID: **LCS-147119** Client ID:
SampleType: **LCS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A**
Units: **ug/Kg** Prep Date: **06/02/2011** Run No: **198248**
BatchID: **147119** Analysis Date: **06/02/2011** Seq No: **4139426**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	197.6	33	166.7	0	119	50.8	126	0	0	0	
Aroclor 1260	206.9	33	166.7	0	124	53.5	138	0	0	0	
Surr: Decachlorobiphenyl	19.94	0	16.67	0	120	37.8	138	0	0	0	
Surr: Tetrachloro-m-xylene	17.84	0	16.67	0	107	27.2	138	0	0	0	

Sample ID: **1105P07-021AMS** Client ID:
SampleType: **MS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A**
Units: **ug/Kg** Prep Date: **06/02/2011** Run No: **198356**
BatchID: **147119** Analysis Date: **06/03/2011** Seq No: **4142706**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	145.8	33	166.3	0	87.7	35.8	146	0	0	0	
Surr: Decachlorobiphenyl	12.36	0	16.64	0	74.3	37.8	138	0	0	0	
Surr: Tetrachloro-m-xylene	13.79	0	16.64	0	82.9	27.2	138	0	0	0	

Qualifiers:

Greater than Result value
BRL Below reporting limit
J Estimated value detected below Reporting Limit
Rpt Lim Reporting Limit

Less than Result value
E Estimated value above quantitation range
N Analyte not NELAC certified
S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank
H Holding times for preparation or analysis exceeded
R RPD outside limits due to matrix

Client: Oneida Total Integrated Enterprises
Project Name: Pullman Yards
Workorder: 1106094

ANALYTICAL QC SUMMARY REPORT

BatchID: 147119

Sample ID: **1105P07-021AMS** Client ID: Units: **ug/Kg** Prep Date: **06/02/2011** Run No: **198421**
SampleType: **MS** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **147119** Analysis Date: **06/03/2011** Seq No: **4143385**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1260	785.8	170	100.3	537.2	149	37.9	146	0	0	0	S

Sample ID: **1105P07-021AMSD** Client ID: Units: **ug/Kg** Prep Date: **06/02/2011** Run No: **198356**
SampleType: **MSD** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **147119** Analysis Date: **06/03/2011** Seq No: **4142707**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1016	153.4	33	100.3	0	92.2	35.8	146	145.8	5.05	27.7	
Surr: Decachlorobiphenyl	12.87	0	10.03	0	77.4	37.8	138	12.36	0	0	
Surr: Tetrachloro-m-xylene	14.13	0	10.03	0	85	27.2	138	13.79	0	0	

Sample ID: **1105P07-021AMSD** Client ID: Units: **ug/Kg** Prep Date: **06/02/2011** Run No: **198421**
SampleType: **MSD** TestCode: **POLYCHLORINATED BIPHENYLS SW8082A** BatchID: **147119** Analysis Date: **06/03/2011** Seq No: **4143389**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Aroclor 1260	610.0	170	100.3	537.2	43.8	37.9	146	785.8	25.2	23.1	R

Qualifiers:

	Greater than Result value		Less than Result value	E	Analyte detected in the associated Method Blank
BRL	Below reporting limit	E	Estimated value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD exceeds limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

3785 Presidential Pkwy., Atlanta, GA 30340-3704
(770) 457-8177 / Toll Free (800) 972-4889 / Fax (770) 457-8188

1105E30

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name: OTIE
Phone: (678) 355-5550
Address: 1220 Kennestone Cr. Suite 104
Fax: (770) 528-0167
City, State, Zip: Marietta, GA, 30066
Project Name: Pullman Yards
Contact: Lou Von Oldenburg
Project Number: 2005148-1322
Sampler's Name: Lou Von Oldenburg
Sampling Date: 5/11/11

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time	Comments	For AES Use Only
1	PY-ACM-001	Pipe crawl space	PCM	Normal		
2	PY-ACM-002	top of brick flats				
3	PY-ACM-003	tar paper (roof material)				
4	PY-ACM-004	ceiling tile				
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

Relinquished by: 5-16-11 Date/Time: 5-16-11 18:03
Received by: Date/Time:
Relinquished by: Date/Time:
Received by: Date/Time:

FOR LAB USE ONLY

Lab Recipient: Mark K Date/Time: 5-16-11 1803 Method of Shipment: client

Email Results to: LvonOldenburg@otie.com & awarrington@otie.com

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

AES

NVLAP

Lab ID# 102082-0

23-May-11

Client Name:	**Oneida Total Integrated Enterprises**	AES Job Number:	**1105E30**
Project Name:	**PULLMAN YARDS**	Project Number:	**2005148-1322**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
PY-ACM-001 Layer: 1	1105E30-001A	Pipe Crawl Space	ND	ND	ND	ND	ND	ND	
PY-ACM-001 Layer: 2	1105E30-001A	Pipe Crawl Space	15	ND	ND	ND	ND	ND	
PY-ACM-002 Layer: 1	1105E30-002A	Top Of Brick Flats	ND	ND	ND	ND	ND	ND	
PY-ACM-002 Layer: 2	1105E30-002A	Top Of Brick Flats	ND	ND	ND	ND	ND	ND	
PY-ACM-003 Layer: 1	1105E30-003A	Tar Paper (Roof Material)	25	ND	ND	ND	ND	ND	
PY-ACM-004 Layer: 1	1105E30-004A	Ceiling Tile	ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials. Quantitative TEM is currently the only method that can be used to determine the conclusive asbestos content.

It is certified by the signatures below that the laboratory identified is accredited by the National Institute of Standards and Technology for Polarized Light Microscopy (PLM) analysis under the EPA Interim Asbestos Bulk Sample Quality Assurance Program, Laboratory ID 102082-0. All percentages given are by visually estimated volume. All analyses are performed in accordance with the EPA "Method for the Determination of Asbestos in Bulk Building Materials, EPA/600/R-93/116, July 1993." This report must not be reproduced except in full without the approval of Analytical Environmental Service, Inc. These test results apply only to the samples actually tested.

Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

SGS

Laboratory Report of Analysis

To: Lou Von Oldenburg
Oneida Total Integrated Enterprises (OTIE)
1220 Kennestone Circle
Suite 106
Marietta, GA 30066

PRELIMINARY REPORT

Report Number: **31101621**

Client Project: **Pullman**

Dear Lou Von Oldenburg,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Amy J. Boehm at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America Inc.

Amy J. Boehm
Project Manager
amy.boehm@sgs.com

Date

SGS

Laboratory Qualifiers

Report Definitions

DL	Method, Instrument, or Estimated Detection Limit per Analytical Method
CL	Control Limits for the recovery result of a parameter
LOQ	Reporting Limit
DF	Dilution Factor
RPD	Relative Percent Difference
LCS(D)	Laboratory Control Spike (Duplicate)
MS(D)	Matrix Spike (Duplicate)
MB	Method Blank

Qualifier Definitions

*	Recovery or RPD outside of control limits
B	Analyte was detected in the Lab Method Blank at a level above the LOQ
U	Undetected (Reported as ND or < LOD)
V	Recovery is below quality control limit. The data has been validated based on a favorable signal-to-noise and detection limit
A	Amount detected is less than the Lower Method Calibration Limit
J	Amount detected is between the Method Detection Limit and the Lower Calibration Limit
O	The recovery of this analyte in the OPR is above the Method QC Limits and the reported concentration in the sample may be biased high
E	Amount detected is greater than the Upper Calibration Limit
S	The amount of analyte present has saturated the detector. This situation results in an underestimation of the affected analyte(s)
Q	Indicates the presence of a quantitative interference. This situation may result in an underestimation of the affected analyte(s)
I	Indicates the presence of a qualitative interference that could cause a false positive or an overestimation of the affected analyte(s)
DPE	Indicates the presence of a peak in the polychlorinated diphenylether channel that could cause a false positive or an overestimation of the affected analyte(s)
TIC	Tentatively Identified Compound
EMC	Estimated Maximum possible Concentration due to ion ratio failure
ND	Not Detected
K	Result is estimated due to ion ratio failure in High Resolution PCB Analysis
P	RPD > 40% between results of dual columns
D	Spike or surrogate was diluted out in order to achieve a parameter result within instrument calibration range
M1	Mis-identified peak
M2	Software did not integrate peak
M3	Incorrect baseline construction (i.e. not all of peak included; two peaks integrated as one)
M4	Pattern integration required (i.e. DRO, GRO, PCB, Toxaphene and Technical Chlordane)
M5	Other - Explained in case narrative

Note Results pages that include a value for "Solids (%)" have been adjusted for moisture content.

SGS

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
PY-SS 074	31101621001	06/17/2011 08:45	06/22/2011 10:00	Soil-Solid as re

SGS North America Inc.
5500 Business Drive, Wilmington, NC 28405
t 910.350.1903 f 910.350.1557 www.us.sgs.com

SGS

Case Narrative

LMB for HBN 7462 [HXX/1163]

PeCDD ion ratio out due to PCB interference; no adverse impact to data - HL 7/22/11

OPR for HBN 7462 [HXX/1163]

PeCDD ion ratio out due to PCB interference; no adverse impact to data - HL 7/22/11

OPRD for HBN 7462 [HXX/1163]

PeCDD ion ratio out due to PCB interference; no adverse impact to data - HL 7/22/11

PY-SS 074

Re-extracted sample for matrix effects; still had low extraction standard recoveries but greater than 10 times S/N. Isotope dilution precludes any erroneous quantitations for target analytes, and matrix effects indicate that additional re-extraction will not be of benefit. - KAS 7/22/2011

SGS

Results of **PY-SS 074**

Client Sample ID: **PY-SS 074**
Client Project ID: **Pullman**
Lab Sample ID: 31101621001
Lab Project ID: 31101621

Collection Date: 06/17/2011 08:45
Received Date: 06/22/2011 10:00
Matrix: Soil-Solid as received
Solids (%): --

Results by **SW-846 8290A**

Parameter	Result	EMPC	Qual	DL	LOQ/CL	Units	RT	Ratio
2,3,7,8-TCDD		5.94		2.37		pg/g	31.42	0.58*
1,2,3,7,8-PeCDD	**17.9**			4.36		pg/g	34.27	1.74
1,2,3,4,7,8-HxCDD		29.1		7.58		pg/g	36.92	1.43*
1,2,3,6,7,8-HxCDD	**73.4**			7.20		pg/g	37.00	1.21
1,2,3,7,8,9-HxCDD		57.0		7.71		pg/g	37.24	1.44*
1,2,3,4,6,7,8-HpCDD	**2370**			31.0		pg/g	40.40	1.03
OCDD	**23400**			85.2		pg/g	44.81	0.91
2,3,7,8-TCDF	6.40			3.37		pg/g	30.78	0.62
2,3,7,8-TCDF [confirm]	**6.28**			1.75		pg/g	17.07	0.87
1,2,3,7,8-PeCDF		4.82		2.05		pg/g	33.44	2.23*
2,3,4,7,8-PeCDF	**43.1**			2.04		pg/g	34.07	1.56
1,2,3,4,7,8-HxCDF	**24.4**			5.56		pg/g	36.19	1.31
1,2,3,6,7,8-HxCDF	**27.1**			5.06		pg/g	36.29	1.07
2,3,4,6,7,8-HxCDF		63.2		5.43		pg/g	36.79	1.46*
1,2,3,7,8,9-HxCDF	ND		U	6.07		pg/g		
1,2,3,4,6,7,8-HpCDF	**603**			12.6		pg/g	39.12	1.04
1,2,3,4,7,8,9-HpCDF		31.1		15.8		pg/g	41.08	0.78*
OCDF	**2060**			38.2		pg/g	45.12	0.97
Total TCDD	**31.7**	58.7		2.76		pg/g		
Total PeCDD	**149**	207		5.74		pg/g		
Total HxCDD	**969**	1060		7.71		pg/g		
Total HpCDD	**12000**			45.1		pg/g		
Total TCDF	**41.7**	120		3.37		pg/g		
Total PeCDF	**422**	431		211		pg/g		
Total HxCDF	**706**	775		6.07		pg/g		
Total HpCDF	**1900**	1930		16.5		pg/g		

World Health Organization Summary

	Units	ND=0	ND=½	ND=DL
WHO-2005 TEQ	pg/g	81.3	83.9	86.6
WHO-2005 TEQ w/EMPC	pg/g	103	103	103

Print Date: 07/25/2011

N.C. Certification # 481

SGS North America Inc. | 5500 Business Drive, Wilmington, NC 28405
t 910.350.1903 f 910.350.1557 www.us.sgs.com

Member of SGS Group

SGS

Results of **PY-SS 074**

Client Sample ID: **PY-SS 074**
Client Project ID: **Pullman**
Lab Sample ID: 31101621001
Lab Project ID: 31101621

Collection Date: 06/17/2011 08:45
Received Date: 06/22/2011 10:00
Matrix: Soil-Solid as received
Solids (%): 0

Results by **SW-846 8290A**

Parameter	Result	EMPC	Qual	DL	LOQ/CL	Units	RT	Ratio
Labeled Standards								
13C-2378-TCDD	46.0				40.0-135	%		
13C-12378-PeCDD	35.0*				40.0-135	%		
13C-123678-HxCDD	26.0*				40.0-135	%		
13C-1234678-HpCDD	23.0*				40.0-135	%		
13C-OCDD	12.0*				40.0-135	%		
13C-2378-TCDF	50.0				40.0-135	%		
13C-12378-PeCDF	33.0*				40.0-135	%		
13C-123678-HxCDF	23.0*				40.0-135	%		
13C-1234678-HpCDF	22.0*				40.0-135	%		
37Cl-2378-TCDD	88.0				40.0-135	%		
13C-23478-PeCDF	85.0				40.0-135	%		
13C-123478-HxCDD	92.0				40.0-135	%		
13C-123478-HxCDF	93.0				40.0-135	%		
13C-1234789-HpCDF	96.0				40.0-135	%		

Batch Information

Analytical Batch: **HRD1230**
Analytical Method: **SW-846 8290A**
Instrument: **HRMS3**
Analyst: **JWP**
Analytical Date/Time: **07/20/2011 01:31**
Dilution: 1

Prep Batch: **HXX1163**
Prep Method: **SW-846 3540C/HRMS**
Prep Date/Time: **07/07/2011 17:00**
Prep Initial Wt./Vol.: **5.36 g**
Prep Extract Vol: **20 uL**

Analytical Batch: **HRD1233**
Analytical Method: **SW-846 8290A**
Instrument: **HRMS3**
Analyst: **JHL**
Analytical Date/Time: **07/21/2011 14:36**
Dilution: 1

Prep Batch: **HXX1163**
Prep Method: **SW-846 3540C/HRMS**
Prep Date/Time: **07/07/2011 17:00**
Prep Initial Wt./Vol.: **5.36 g**
Prep Extract Vol: **20 uL**

SGS North America Inc.
5500 Business Drive, Wilmington, NC 28405
t 910.350.1903 f 910.350.1557 www.us.sgs.com

Member of SGS Group

SGS

CHAIN OF CUSTODY RECORD
SGS North America Inc.

Locations Nationwide
- Alaska
- New Jersey
- North Carolina
- Maryland
- New York
- Ohio

www.us.sgs.com

103722

(1)

CLIENT: OTIE

CONTACT: L. VON OLDENBURG PHONE NO.(678 355 5550

PROJECT: PULLMAN. SITE/PWSID# :

REPORTS TO: LVONOLDENBURG@OTIE.COM

FAX NO.:( )

INVOICE TO: QUOTE #: TT060911

P.O. NUMBER: 1322

SGS Reference: 31101621

PAGE 1 OF 1

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE C= COMP G= GRAB	(3) Preservatives Used / Analysis Required: 8296	1668B								REMARKS
1	PY-SS 074	6-17-11	8:45	SO	2	G	X	X								
~~2~~	~~PY-SS~~ (D)															

(5)

Collected/Relinquished By:(1)	Date	Time	Received By:
[signature]	6/21/11	15:00	
Relinquished By:(2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received By:
	6/22/11	10:00	[signature]

(4)

Shipping Carrier: FEDEX

Shipping Ticket No: 7472 28711408

Samples Received Cold? (Circle) YES NO

Temperature°C: 0.5

Special Deliverable Requirements:

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Special Instructions:

Requested Turnaround Time:

☐ RUSH _____ Date Needed ☒ STD

❑ 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
❑ 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

White - Retained by Lab
Pink - Retained by Client

SGS North America Inc.

Sample Receipt Checklist (SRC)

Client: **Oneida** Work Order No.: **31101621**

1. X Shipped
   ___ Hand Delivered

2. X COC Present on Receipt
   ___ No COC
   ___ Additional Transmittal Forms

3. X Custody Tape on Container
   ___ No Custody Tape

4. X Samples Intact
   ___ Samples Broken / Leaking

5. X Chilled on Receipt Actual Temp.(s) in °C: 0.5
   ___ Ambient on Receipt
   ___ Walk-in on Ice; Coming down to temp.
   ___ Received Outside of Temperature Specifications

6. X Sufficient Sample Submitted
   ___ Insufficient Sample Submitted

7. ___ Chlorine absent
   ___ HNO3 < 2
   ___ HCL < 2
   ___ Additional Preservatives verified (see notes)

8. X Received Within Holding Time
   ___ Not Received Within Holding Time

9. X No Discrepancies Noted
   ___ Discrepancies Noted

10. ___ No Headspace present in VOC vials
    ___ Headspace present in VOC vials >6mm

Notes:

Comments:

Inspected and Logged in by: JJ

Date: Wed-6/22/11 00:00

APPENDIX D

LOGBOOK

"Rite in the Rain"®

ALL-WEATHER

ENVIRONMENTAL

No. 550F

PULLMAN

PHASE 1322

Rite in the Rain

ALL-WEATHER WRITING PAPER

ALL-WEATHER

ENVIRONMENTAL FIELD BOOK

Page Pattern

Cover Options

CONTENTS

PAGE	REFERENCE	DATE

Pullman Yards

Atlanta, GA

Reference Page Index

[illegible] Container types
[illegible] Liquids
[illegible] Solids
[illegible] Water Monitoring [illegible]
151 PVC Pipe casing tables
[illegible] Specification
[illegible] Specification
154 Conversions (Length, Weight, Volume, Temperature)
[illegible] Conversions (Concentration, Length, Flow or Time, Velocity, Acceleration)
156 Maximum Concentration of Contaminants for the Toxicity Characteristic

Tues, May 10 2011
67°F Mostly sunny
High 90°F low 67°F

EPA - Jeff Crowley
Margaret Olsen
Bob Rosen
Donna Seadler
Tonya Whitsett
Neomat Atashi
JTIE START - Allyson Warrington
Lou von Oldenberg

0800 Meet at Radial for meeting
0900 Meet at site
0925 site walk
1031 PY-001 → 409 ppm
1034 PY-002 → 317 ppm
1039 PY-003 → 385 ppm
1042 redo PY-002 → (217 ppm)
1044 PY-004 → 299 ppm

1046 - PY-005 → 157 ppm
1051 - PY-006 → 199 ppm
1101 - PY-007 → 64 ppm creek
1107 - PY-008 → 50 ppm red soil
1109 - PY-009 → < 21 ppm ND red soil

1112 - PY-010 → < 21 ppm ND red soil
1117 - PY-011 → 101 ppm
1121 - PY-012 → 397 ppm organ c[illegible] non rail tiles
1126 - PY-013 → 56 ppm
1128 - PY-014 → 159 ppm
1131 - PY-015 → 307 ppm
1134 - PY-016 → 79 ppm
1138 - PY-017 → 130 ppm tree
1312 - PY-018 → 2382 ppm
1317 - PY-019 → 978 ppm
1320 - PY-020 → 778 ppm
1322 - PY-021 → 399 ppm
1326 - PY-022 → 127 ppm
1328 - PY-023 → 289 ppm
1332 - PY-024 → 388 ppm
1336 - PW-025 → 536 ppm
1339 - PW-026 → 1362 ppm
1342 - PW-027 → 252 ppm

5/4/11

[illegible]	[illegible]	→ 313 ppm
-49	PW-029	→ 307 ppm
[illegible]	[illegible]	→ [illegible] ppm
[illegible]	[illegible]	→ 152 ppm
1397 -	PW-032	→ 22[illegible] ppm
[illegible] -	PW-[illegible]	→ 2[illegible]5 ppm
1403 -	PW-[illegible]	→ 122 ppm
1407 -	PW-035	→ [illegible] ppm
1409 -	PW-036	→ 18[illegible] ppm
1413	PW-037	→ 353 ppm
-32	PW-038	→ 1176 ppm
[illegible]	PW-[illegible]	→ 245 ppm
[illegible]	PW-[illegible]	→ 2[illegible]2 ppm
[illegible]	PW-[illegible]	→ [illegible] ppm
[illegible]	PW-042	→ 35[illegible] ppm
[illegible]	PW-[illegible]	→ 3[illegible]4 ppm
[illegible]	PW-[illegible]	→ 51 ppm
[illegible]	PW-045	→ 4[illegible]67 ppm
[illegible]	PW-046	→ [illegible] ppm
[illegible]	PW-047	→ 2[illegible] ppm
[illegible]	PW-048	→ 1019 ppm
[illegible]	PW-049	→ 246 ppm
[illegible]	PW-050	→ 995 ppm

1520	PW-051	- 1[illegible]70 ppm
1525 -	PW-052	- 1399 ppm
1527 -	PW-053	- 423 ppm
1531 -	PW-054	1560 ppm
1536 -	PW-055	- 1471 ppm
1540	PW-056	- 1054 ppm
1542 -	PW-057	- 422 ppm
1601	PW-058	285 ppm
1604	PW-059	187 ppm

- Attempt to collect background, however location appeared to be suited for air deposition
- 1636 - Demlobe from site
- 730 - Arrives in office

[illegible]

Wed May 11 2011

0700 Make to site

0810 Arrive on site
69°F High 92°F low 67°F
Mostly sunny
START Lou von Odenberg
Allyson Warrington

0816 Calibrate XRF

0820 Collect sample in jar for
Py-001 location → (409 ppm initial)
Py-SS-001
XRF → 509 ppm

0835 Sample Py-SS-02
a- location Py-018 (2384 ppm)
XRF → 2492 ppm
Lou - augering from surface
to 1.5 feet
put 1-1.5 ft. in ziploc →
XRF = 436 ppm

0900 Lou augering from 2-2.5 ft.
XRF - 90 ppm (red clay)
pack samples for lab
Py-SS-02-1-1.5 &
Py-SS-02-2-2.5

0918 Move to 3rd location

0926 Collect sample at surface
for Py-SS-003 at
location Py-052 (1399 ppm)
XRF = 792 ppm
Lou augering to 1 foot

0935 collect sample at 0.5 to
1 foot (Py-SS-003-0.5-1)
XRF = 431 ppm

0940 Lou move over location
since SS 03 location was
difficult to auger (10 feet
NW)
Auger to 2-2.5 ft.

0955 Sample Py-SS-004-2-2.5
XRF = 26 ppm

1004 Auger to 1-1.5 ft at
Py-SS 04
collect Py-SS-004-1-1.5
XRF = 146 ppm

1015 Go back to collect GPS points
around back field &
creek area

5/11/11

[illegible] [illegible]
1115 Collect PY-SS-005-0.5-1
XRF = 544 ppm
[illegible] [illegible] PY-[illegible] XRF = 34[illegible] ppm
[illegible] [illegible] PY-[illegible] XRF = [illegible] ppm
1139 Sample PY-SS-006-0.5-1
XRF = 187 (PY-060)
1300 Screen bkgd at PY-062 1758
Grade ~~[illegible]~~ Ave XRF = 30 ppm
1320 Collected PY-ACM-001
from pipe crawl space
1328 Collected PY-ACM-002
from [illegible] brick [illegible]
[illegible] from roof
[illegible] Collected PY-ACM-003
from roofing material
in deteriorated building
tar paper
[illegible] Collected PY-ACM-004
from [illegible] tile
1355 PY-063 XRF = 378 ppm
1358 PY-064 XRF = 480 ppm
[illegible] PY-065 XRF = 1305 ppm

5/11/11

1404 PY-066 XRF = 79 ppm
1408 PY-067 XRF = 118 ppm
1410 PY-068 XRF = 789 ppm
1420 PY-069 XRF = 242 ppm
1422 PY-070 XRF = 80 ppm
1425 PY-071 XRF = 34 ppm
1427 PY-072 XRF = 276 ppm
1432 PY-~~03~~ 073 XRF = 98 ppm
1449 Low collecting sample(s)
from liquid waste in
jugs outside building
[illegible] GA Tower
1451 [illegible] (see attached
sheet) → (base/neutral)
1516 Chlor-n-soil on stained
soil - smelled like diesel
let settle
1541 Prep for PY-SS-007
1610 Sample PY-SS-007 (PY-074)
1612 Finish chlor-n-soil kit
colorless to yellow → over
50 ppm RCBs
1616 PY-074 XRF = 677 ppm

APPENDIX E

HRS SCORESHEETS

****** CONFIDENTIAL ******
******PRE-DECISIONAL DOCUMENT ******
****** SUMMARY SCORESHEET ******
****** FOR COMPUTING PROJECTED HRS SCORE ******

****** Do Not Cite or Quote ******

Site Name: Former Pullman Yard

Region: Region 4

Scenario Name: 2011 Sampling

City, County, State: Atlanta, Dekalb County, Georgia

Evaluator: Alexis McKinnon

EPA ID#:

Date: 06/03/2013

Lat/Long: 0:0:0,0:0:0

Congressional District:

This Scoresheet is for: PSA

Scenario Name: 2011 Sampling

Description: Worst-case scenario: Source assumed to be entire site. Includes assumed observed releases for groundwater, surface water and soil. Air was not calculated due to lack of air sampling.

	S pathway	S^2 pathway
Ground Water Migration Pathway Score (S_{gw})	0.0	0.0
Surface Water Migration Pathway Score (S_{sw})	0.0	0.0
Soil Exposure Pathway Score (S_s)	1.32	1.74
Air Migration Score (S_a)	0.0	0.0
$S^2_{gw} + S^2_{sw} + S^2_s + S^2_a$		1.74
$(S^2_{gw} + S^2_{sw} + S^2_s + S^2_a)/4$		0.44
$/ (S^2_{gw} + S^2_{sw} + S^2_s + S^2_a)/4$		0.66

Pathways not assigned a score (explain):

TABLE 3-1 --GROUND WATER MIGRATION PATHWAY SCORESHEET

Factor categories and factors	Maximum Value	Value Assigned	
Aquifer Evaluated: Bedrock Aquifer			
Likelihood of Release to an Aquifer:			
1. Observed Release	550	550.0	
2. Potential to Release:			
2a. Containment	10	0.0	
2b. Net Precipitation	10	0.0	
2c. Depth to Aquifer	5	1.0	
2d. Travel Time	35	1.0	
2e. Potential to Release [lines 2a(2b + 2c + 2d)]	500	0.0	
3. Likelihood of Release (higher of lines 1 and 2e)	550		550.0
Waste Characteristics:			
4. Toxicity/Mobility	(a)	10000.0	
5. Hazardous Waste Quantity	(a)	10.0	
6. Waste Characteristics	100		18.0
Targets:			
7. Nearest Well	(b)	0.0	
8. Population:			
8a. Level I Concentrations	(b)	0.0	
8b. Level II Concentrations	(b)	0.0	
8c. Potential Contamination	(b)	0.0	
8d. Population (lines 8a + 8b + 8c)	(b)	0.0	
9. Resources	5	0.0	
10. Wellhead Protection Area	20	0.0	
11. Targets (lines 7 + 8d + 9 + 10)	(b)		0.0
Ground Water Migration Score for an Aquifer:			
12. Aquifer Score [(lines 3 x 6 x 11)/82,5000]	100		0.0
Ground Water Migration Pathway Score:			
13. Pathway Score (S_{gw}), (highest value from line 12 for all aquifers evaluated)	100		0.0

(a) Maximum value applies to waste characteristics category
(b) Maximum value not applicable
Do not round to nearest integer

TABLE 4-1 --SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET

Factor categories and factors	Maximum Value	Value Assigned	
Watershed Evaluated: Sugar Creek Watershed			
Drinking Water Threat			
Likelihood of Release:			
1. Observed Release	550	550.0	
2. Potential to Release by Overland Flow:			
2a. Containment	10	0.0	
2b. Runoff	10	0.0	
2c. Distance to Surface Water	5	3.0	
2d. Potential to Release by Overland Flow [lines 2a(2b + 2c)]	35	0.0	
3. Potential to Release by Flood:			
3a. Containment (Flood)	10	0.0	
3b. Flood Frequency	50	0.0	
3c. Potential to Release by Flood (lines 3a x 3b)	500	0.0	
4. Potential to Release (lines 2d + 3c, subject to a maximum of 500)	500	0.0	
5. Likelihood of Release (higher of lines 1 and 4)	550		550.0
Waste Characteristics:			
6. Toxicity/Persistence	(a)	10000.0	
7. Hazardous Waste Quantity	(a)	10.0	
8. Waste Characteristics	100		18.0
Targets:			
9. Nearest Intake	50	0.0	
10. Population:			
10a. Level I Concentrations	(b)	0.0	
10b. Level II Concentrations	(b)	0.0	
10c. Potential Contamination	(b)	0.0	
10d. Population (lines 10a + 10b + 10c)	(b)	0.0	
11. Resources	5	0.0	
12. Targets (lines 9 + 10d + 11)	(b)		0.0
Drinking Water Threat Score:			
13. Drinking Water Threat Score [(lines 5x8x12)/82,500, subject to a max of 100]	100		0.0
Human Food Chain Threat			
Likelihood of Release:			
14. Likelihood of Release (same value as line 5)	550		550.0
Waste Characteristics:			
15. Toxicity/Persistence/Bioaccumulation	(a)	50000.0	
16. Hazardous Waste Quantity	(a)	10.0	
17. Waste Characteristics	1000		18.0
Targets:			
18. Food Chain Individual	50	0.0	
19. Population			
19a. Level I Concentration	(b)	0.0	
19b. Level II Concentration	(b)	0.0	
19c. Potential Human Food Chain Contamination	(b)	0.0	
19d. Population (lines 19a + 19b + 19c)	(b)	0.0	
20. Targets (lines 18 + 19d)	(b)		0.0
Human Food Chain Threat Score:			
21. Human Food Chain Threat Score [(lines 14x17x20)/82500, subject to max of 100]	100		0.0
Environmental Threat			
Likelihood of Release:			
22. Likelihood of Release (same value as line 5)	550		550.0
Waste Characteristics:			
23. Ecosystem Toxicity/Persistence/Bioaccumulation	(a)	0.0	
24. Hazardous Waste Quantity	(a)	10.0	
25. Waste Characteristics	1000		0.0

Targets:			
26. Sensitive Environments			
26a. Level I Concentrations	(b)	0.0	
26b. Level II Concentrations	(b)	0.0	
26c. Potential Contamination	(b)	0.0	
26d. Sensitive Environments (lines 26a + 26b + 26c)	(b)	0.0	
27. Targets (value from line 26d)	(b)		0.0
Environmental Threat Score:			
28. Environmental Threat Score [(lines 22x25x27)/82,500 subject to a max of 60]	60		0.0
Surface Water Overland/Flood Migration Component Score for a Watershed			
29. Watershed Score[c] (lines 13+21+28, subject to a max of 100}	100		0.00
Surface Water Overland/Flood Migration Component Score			
30. Component Score (S_{sw})[c] (highest score from line 29 for all watersheds evaluated)	100		0

[a] Maximum value applies to waste characteristics category
[b] Maximum value not applicable
[c] Do not round to nearest integer

TABLE 4-25 –GROUND WATER TO SURFACE WATER MIGRATION COMPONENT SCORESHEET

Factor categories and factors	Maximum Value	Value Assigned	
Watershed Evaluated: Sugar Creek Watershed			
Drinking Water Threat			
Likelihood of Release to an Aquifer:			
1. Observed Release	550	0.0	
2. Potential to Release:			
2a. Containment	10	0.0	
2b. Net Precipitation	10	0.0	
2c. Depth to Aquifer	5	0.0	
2d. Travel Time	35	0.0	
2e. Potential to Release [lines 2a(2b + 2c + 2d)]	500	0.0	
3. Likelihood of Release (higher of lines 1 and 2e)	550		0.0
Waste Characteristics:			
4. Toxicity/Mobility	(a)	0.0	
5. Hazardous Waste Quantity	(a)	0.0	
6. Waste Characteristics	100		0.0
Targets:			
7. Nearest Well	(b)	0.0	
8. Population:			
8a. Level I Concentrations	(b)	0.0	
8b. Level II Concentrations	(b)	0.0	
8c. Potential Contamination	(b)	0.0	
8d. Population (lines 8a + 8b + 8c)	(b)	0.0	
9. Resources	5	0.0	
10. Targets (lines 7 + 8d + 9)	(b)		0.0
Drinking Water Threat Score:			
11. Drinking Water Threat Score ([lines 3 x 6 x 10]/82,500, subject to max of 100)	100		0.0
Human Food Chain Threat			
Likelihood of Release:			
12. Likelihood of Release (same value as line 3)	550	0.0	
Waste Characteristics:			
13. Toxicity/Mobility/Persistence/Bioaccumulation	(a)	0.0	
14. Hazardous Waste Quantity	(a)	0.0	
15. Waste Characteristics	1000		0.0
Targets:			
16. Food Chain Individual	50	0.0	
17. Population			
17a. Level I Concentration	(b)	0.0	
17b. Level II Concentration	(b)	0.0	
17c. Potential Human Food Chain Contamination	(b)	0.0	
17d. Population (lines 17a + 17b + 17c)	(b)	0.0	
18. Targets (lines 16 + 17d)	(b)		0.0
Human Food Chain Threat Score:			
19. Human Food Chain Threat Score [(lines 12x15x18)/82,500,suject to max of 100]	100		0.0
Environmental Threat			
Likelihood of Release:			
20. Likelihood of Release (same value as line 3)	550		0.0
Waste Characteristics:			
21. Ecosystem Toxicity/Persistence/Bioaccumulation	(a)	0.0	
22. Hazardous Waste Quantity	(a)	0.0	
23. Waste Characteristics	1000		0.0
Targets:			
24. Sensitive Environments			
24a. Level I Concentrations	(b)	0.0	
24b. Level II Concentrations	(b)	0.0	

24c. Potential Contamination	(b)	0.0	
24d. Sensitive Environments (lines 24a + 24b + 24c)	(b)	0.0	
25. Targets (value from line 24d)	(b)		0.0
Environmental Threat Score:			
26. Environmental Threat Score [(lines 20x23x25)/82,500 subject to a max of 60]	60		0.0
Ground Water to Surface Water Migration Component Score for a Watershed			
27. Watershed Score[c] (lines 11 + 19 + 28, subject to a max of 100)	100		0.0
28. Component Score (S_{gw})[c] (highest score from line 27 for all watersheds evaluated, subject to a max of 100)	100		0.0

[a] Maximum value applies to waste characteristics category
[b] Maximum value not applicable
[c] Do not round to nearest integer

TABLE 5-1 --SOIL EXPOSURE PATHWAY SCORESHEET

Factor categories and factors	Maximum Value	Value Assigned	
Likelihood of Exposure:			
1. Likelihood of Exposure	550		550.0
Waste Characteristics:			
2. Toxicity	(a)	10000.0	
3. Hazardous Waste Quantity	(a)	10.0	
4. Waste Characteristics	100		18.0
Targets:			
5. Resident Individual	50		
6. Resident Population:			
6a. Level I Concentrations	(b)	0	
6b. Level II Concentrations	(b)		
6c. Population (lines 6a + 6b)	(b)		
7. Workers	15	0.0	
8. Resources	5		
9. Terrestrial Sensitive Environments	(c)		
10. Targets (lines 5 + 6c + 7 + 8 + 9)	(b)		0.0
Resident Population Threat Score			
11. Resident Population Threat Score (lines 1 x 4 x 10)	(b)		0.0
Nearby Population Threat			
Likelihood of Exposure:			
12. Attractiveness/Accessibility	100	75.0	
13. Area of Contamination	100	100.0	
14. Likelihood of Exposure	500		500.0
Waste Characteristics:			
15. Toxicity	(a)	10000.0	
16. Hazardous Waste Quantity	(a)	10.0	
17. Waste Characteristics	100		18.0
Targets:			
18. Nearby Individual	1	1.0	
19. Population Within 1 Mile	(b)	11.100000000000001	
20. Targets (lines 18 + 19)	(b)		12.1
Nearby Population Threat Score			
21. Nearby Population Threat (lines 14 x 17 x 20)	(b)		108900.0
Soil Exposure Pathway Score:			
22. Pathway Score[d] (S_s), [lines (11+21)/82,500, subject to max of 100]	100		1.32

[a] Maximum value applies to waste characteristics category
[b] Maximum value not applicable
[c] No specific maximum value applies to factor. However, pathway score based solely on terrestrial sensitive environments is limited to a maximum of 60
[d] Do not round to nearest integer

TABLE 6-1 --AIR MIGRATION PATHWAY SCORESHEET

Factor categories and factors	Maximum Value	Value Assigned	
Likelihood of Release:			
1. Observed Release	550	0.0	
2. Potential to Release:			
2a. Gas Potential to Release	500		
2b. Particulate Potential to Release	500		
2c. Potential to Release (higher of lines 2a and 2b)	500		
3. Likelihood of Release (higher of lines 1 and 2c)	550		0.0
Waste Characteristics:			
4. Toxicity/Mobility	(a)	200.0	
5. Hazardous Waste Quantity	(a)	10.0	
6. Waste Characteristics	100		6.0
Targets:			
7. Nearest Individual	50	20.0	
8. Population:			
8a. Level I Concentrations	(b)	0.0	
8b. Level II Concentrations	(b)	0.0	
8c. Potential Contamination	(c)	0.0	
8d. Population (lines 8a + 8b + 8c)	(b)	0.0	
9. Resources	5	0.0	
10. Sensitive Environments:			
10a. Actual Contamination	(c)	0.0	
10b. Potential Contamination	(c)	0.0	
10c. Sensitive Environments (lines 10a + 10b)	(c)	0.0	
11. Targets (lines 7 + 8d + 9 + 10c)	(b)		20.0
Air Migration Pathway Score:			
12. Pathway Score (S_a) [(lines 3 x 6 x 11)/82,500][-1]	100		0.0

[a] Maximum value applies to waste characteristics category
[b] Maximum value not applicable
[c] No specific maximum value applies to factor. However, pathway score based solely on sensitive environments is limited to a maximum of 60.
[-1] Do not round to nearest integer

SCRATCH PAD NOTES:

PATHWAY/SOURCES: AIR

Scoresheet Line#:
Notes: Population within 4 mile TDL is as follows: 0-0.25: 514, 0.25-0.5: 3,429; 0.5-1: 9,301; 1-2: 39049; 2-3: 120,038; 3-4: 39865
Documentation:

PATHWAY/SOURCES: AREA OF CONTAMINATION (AOC) INFORMATION

PATHWAY/SOURCES: GROUND WATER

Scoresheet Line#:
Notes: For the worst-case scenario, it was assumed that an observed release to the surficial/bedrock aquifer had occurred. However, no groundwater samples have been collected. There are no drinking water or resource targets within the 4-mile radius. Therefore, the target value remains at 0.
Documentation:

PATHWAY/SOURCES: GROUND WATER TO SURFACE WATER – DRINKING WATER

PATHWAY/SOURCES: GROUND WATER TO SURFACE WATER – ENVIRONMENTAL

PATHWAY/SOURCES: GROUND WATER TO SURFACE WATER – HUMAN FOOD CHAIN

PATHWAY/SOURCES: SOIL EXPOSURE – RESIDENTIAL POPULATION THREAT

Scoresheet Line#:
Notes: Off-site sampling did not reveal any lead or arsenic concentrations at greater than RAL values. Therefore, there was no resident population.
Documentation:

PATHWAY/SOURCES: SOIL EXPOSURE – NEARBY POPULATION THREAT

Scoresheet Line#:
Notes: The population within 1 mile is as follows: 0-0.25 mile: 514 persons; 0.25-0.5 mile: 3,429 persons; 0.5-1 mile: 9,301 persons
Documentation:

PATHWAY/SOURCES: SITE SCENARIO INFORMATION

PATHWAY/SOURCES: SOURCES

Scoresheet Line#:
Notes: As a worst-case scenario, it was assumed that the entire 29.7 acre property was contaminated with constituents detected on site: arsenic, lead, 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD), 2,3,7,8-Tetrachlorodibenzofuran (TCDF), and polychlorinated biphenyls (PCBs).
Documentation:

PATHWAY/SOURCES: SURFACE WATER OVERLAND

The nearest surface water, an unnamed tributary of Sugar Creek, is located approximately 5,500 feet east of the facility (PPE #1). Overland flow via Dekalb Ave or following topographic relief allows the overland flow from the Site to reach this tributary. The unnamed tributary to Sugar Creek flows south and southeast for 1.74 miles until it reaches Sugar Creek. Sugar Creek flows in a south-southeasterly direction for 4.83 miles until it reaches the South River. The 15-mile TDL is completed 6.57 miles downstream in the South River.

PATHWAY/SOURCES: SURFACE WATER OVERLAND - DRINKING WATER

PATHWAY/SOURCES: SURFACE WATER OVERLAND – ENVIRONMENTAL

PATHWAY/SOURCES: SURFACE WATER OVERLAND - HUMAN FOOD CHAIN

Scoresheet Line#:

Notes: Food chain individual: no BAP greater than 500. The South River is fished and within the 15-mile TDL, the potential HFC contamination is based on an assumed production value of 0-100
Documentation: