

July 19, 2017

Mr. Maurice Moore
NYSDEC Region 9
270 Michigan Avenue
Buffalo, New York 14203-2915

**Re: Remedial Excavation Report
Willowbrook Pond Operable Unit
Al Tech Specialty Steel Corporation
Willowbrook Avenue
Dunkirk, New York
NYSDEC Site Number 907022**

Dear Mr. Moore:

Please find the enclosed *Remedial Excavation Report* prepared by Groundwater and Environmental Services, Inc. (GES) for the New York State Department of Environmental Conservation (NYSDEC). This report details the excavation of contaminated soil from the Willowbrook Pond Operable Unit at the Al Tech Specialty Steel Corporation Site (Al Tech). Excavation and site restoration activities were completed from October 3 through November 1, 2016. Stockpiled soil removal and disposal activities were completed from January 9 through January 16, 2017.

Soil excavation and site restoration activities were conducted by TREC Environmental, Inc. (TREC) of Spencerport, New York. The excavation was conducted under supervision of GES personnel and in accordance with the NYSDEC Standby Contractor Authorization Form with Callout ID #127213.

A total of 1,950.33 tons of non-hazardous impacted soil were excavated and transported to the Chautauqua County Landfill in Jamestown, New York. A total of 451.96 tons of hazardous impacted soil were excavated and transported to Wayne Disposal, Inc. in Bellville, Michigan.

If you have any questions, please contact GES at (800) 287-7857 at your convenience.

Sincerely,

GROUNDWATER & ENVIRONMENTAL SERVICES, INC.

Eric D. Popken
Senior Project Manager

Enclosures



REMEDIAL EXCAVATION REPORT

WILLOWBROOK POND OPERABLE UNIT
AL TECH SPECIALTY STEEL CORPORATION
WILLOBROOK AVENUE
DUNKIRK, NEW YORK
NYSDEC SITE NUMBER 907022

Prepared for

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
REGION 9
270 MICHIGAN AVENUE
BUFFALO, NY 14203-2915


Report Date

July 19, 2017

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Nicole A. Lindner
Staff Hydrogeologist

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GROUNDWATER & ENVIRONMENTAL SERVICES, INC.

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REMEDIAL EXCAVATION REPORT

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I, Genevieve F. Bock, certify that I am currently a NYS registered Professional Engineer as defined in 6 NYCRR Part 375 and that this *Remedial Excavation Report* was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.





Genevieve F. Bock, P.E.
Regional Engineering Manager



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1.0 INTRODUCTION

Groundwater & Environmental Services, Inc. (GES) of Cheektowaga, New York provided oversight of the excavation activities completed in a portion of Willowbrook Pond, which is on the Former Al Tech Specialty Steel Site (Al Tech), located on Willowbrook Avenue in Dunkirk, New York (**Figure 1**). The excavation activities, detailed herein, were completed on behalf of the New York State Department of Environmental Conservation (NYSDEC). The pond excavation activities were completed in accordance with the NYSDEC Standby Contractor Authorization Form with Callout ID #127213.

Soil excavation and site restoration were conducted by TREC Environmental, Inc. (TREC) of Spencerport, New York. The excavation activities and restoration activities were completed from October 3 through November 1, 2016. The remedial excavation was completed per the NYSDEC Standby Contractor Authorization Form with Callout ID #127213 to address the primary contaminants (polychlorinated biphenyls [PCBs]) in the pond soil. A total of 2,402.29 tons of soil were excavated by TREC and segregated into hazardous and non-hazardous piles. Soil load out was completed by Todd Erection Corporation of Lockport, NY (ToddCo) from January 9 to January 16, 2017. A total of 451.96 tons of hazardous impacted soil were loaded out and transported to Wayne Disposal, Inc. (Wayne) in Bellville, Michigan. A total of 1,950.33 tons of non-hazardous impacted soil were loaded out and transported to the Chautauqua County Landfill (CCL) in Jamestown, New York. The extent of the excavation is illustrated on **Figure 2**.

1.1 Site Health and Safety

A site specific Health and Safety Plan (HASP) was completed for use on the site during the completion of the pond excavation activities. The HASP included a listing of all site tasks, potential hazards, and procedures to be followed to complete each task. Two (2) DustTrak II Model 8530 (DustTrak) particulate meters were used to monitor particulates as part of a community air monitoring program (CAMP) in accordance with *Appendix A* of NYSDEC Division of Remediation (DER-10) *Technical Guidance for Site Investigation and Remediation*. As part of the CAMP requirements, one (1) DustTrak was placed upwind and one (1) DustTrak was placed downwind of the work zone. No elevated downwind DustTrak readings were observed during the excavation activities. DustTrak monitoring logs and graphs are included in **Appendix A**.

1.2 Natural Gas Line

It should also be noted that prior to staging at the site for the excavation activities, a non-functioning underground gas well was identified on the site. The gas line is owned by Cotton Well Drilling of Sheridan, New York. The underground line connecting to the gas well was located within the excavation area. Therefore, with permission and assistance from Cotton Well Drilling the line was located, soft dug, taken out of service, and removed from the excavation. Additionally, the line was replaced during backfill of the excavation.

2.0 SOIL EXCAVATION

2.1 Willowbrook Pond Excavation Activities (October 2016 to January 2017)

From October 3 through October 5, 2016, trees, vegetation, and a chain link fence were removed from the edge of the pond to allow access for excavation activities. Between October 6 and October 31, 2016, excavation, backfilling, and site restoration activities were conducted by TREC under direction of GES. Photo documentation is included in **Appendix B**.

Throughout excavation activities, soil samples were collected and screened for organic vapors using a photoionization detector (PID) equipped with a 10.6 electron-volt (eV) lamp and calibrated with a 100 ppmv isobutylene standard. Headspace PID readings (via the sealed bag method) of excavated soils were also collected and are summarized in **Table 1**.

Documentation soil samples for laboratory analysis were collected from the side walls (21 samples) and from the base (16 samples) of the excavation at locations reviewed and approved by NYSDEC personnel onsite. The excavation extended to a depth of between 3.5 feet and 7.5 feet below ground surface (bgs). Limits of soil excavation and post excavation soil sample locations are shown in **Figure 2**.

Following receipt of laboratory data and approval from NYSDEC on the extent of the excavation, TREC completed restoration activities. These activities included backfilling the excavation with laboratory tested bank run gravel (supplied by Gernatt Asphalt Products Inc. [Gernatt] Countryside Sand and Gravel Facility in South Dayton, New York) from the bottom of the excavation to a depth of approximately six inches bgs. The bank run gravel was topped off with laboratory tested unscreened topsoil (supplied by Gernatt Hanover Facility in Irving, New York) from approximately six inches bgs to the ground surface. The topsoil was covered with hydro-seed on November 1, 2016. Additionally, Picket Fence & Exteriors (PF&E) of East Amherst, New York replaced the chain-link fence, which was removed at the beginning of the excavation activities. The backfill laboratory analytical data is included in **Appendix C**.

On October 7, 10, 13, 14, 17, 18 and 24, 2016 GES collected preliminary composite soil samples and analyzed the samples for PCBs to determine the level of contamination in the soil stockpiled onsite. A total of 2,402.29 tons of soil were excavated by TREC and segregated into hazardous and non-hazardous piles. Additionally, waste profile samples were collected on October 25 and 26, 2016 in order to establish a landfill disposal profile. Hazardous waste disposal samples were submitted for laboratory analysis of the Toxicity Characteristic Leaching Procedure (TCLP) for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and 8 Resource Conservation and Recovery Act (RCRA) metals; total PCBs; flashpoint; pH; and reactivity. On November 9, 2016, the laboratory analytical results were submitted to US Ecology, who operates the Wayne Disposal, Inc. Landfill (Wayne County Landfill) in Bellville, Michigan, for disposal profile approval and landfill assignment. On November 14, 2016 US Ecology provided approval to accept the hazardous soil waste for disposal. Non-hazardous disposal samples were submitted for laboratory analysis of the TCLP for VOCs, SVOCs, and 8 RCRA metals; total PCBs; and pH. On November 4, 2016, the laboratory analytical results were submitted to CCL for disposal



profile approval. On November 9, 2016 CCL provided approval to accept the non-hazardous soil waste for disposal.

From January 9 to January 16, 2017, ToddCo loaded out hazardous soil directly into line dump trailers which were then transported to Wayne by Page Trucking, Inc. (Page) of Weedsport, New York, under contract with Capitol Environmental Services, Inc. (Capitol). From January 9 through January 16, 2017, ToddCo also loaded out non-hazardous soil directly into dump trucks which were then transported to CCL by Don Frame Trucking, Inc. of Fredonia, New York (Don Frame), under contract with EnSol, Inc. of Niagara Falls, New York (EnSol). A total of 451.96 tons of hazardous impacted soil were loaded out and transported to the Wayne County Landfill. A total of 1,950.33 tons of non-hazardous impacted soil were loaded out and transported to the CCL in Jamestown, New York. Soil disposal receipts are included in **Appendix D**.

2.2 Documentation and Confirmation Soil Sampling Results

Post excavation soil samples taken from the excavation sidewalls (S-1 through S-21) and the base of the excavation (B-1 through B-16) were submitted to TestAmerica Laboratory, Inc. (TestAmerica) of Amherst, New York for analyses of PCBs via USEPA Method 8082A.

The analytical results were compared to 6 New York State Code of Rules and Regulations (NYCRR) Part 375-6.8(b) commercial use soil cleanup objectives (SCOs). The following soil samples exhibited PCB-1248, and thus Total PCBs, above the commercial use SCOs:

- Sidewall samples S-6 (over-excavated via S-16), S-11 & S-12 (over-excavated via S-17, S-18 and S-19), and S-16 (over-excavated via S-20 and S-21);
- Bottom samples B-4 (over-excavated via B-13), B-5 (over-excavated via B-14), B-9 (over-excavated via B-16), B-12 (over-excavated by B-15), and B-16;
- With the exception of B-16, all samples which exhibited exceedances above the commercial use SCOs resulted in further digging and expansion of the excavation until endpoint samples below the SCOs were achieved as indicated above. The samples from the expanded locations were submitted to TestAmerica for the same analysis as previously listed;
- Bottom sample B-16 was left in place based on NYSDEC approval, due to its location near an above ground utility structure (electric pole) and its depth of approximately 3.5 feet bgs. The electric pole is illustrated on **Figure 1** and **Figure 2**, and documented in **Appendix B**; and,
- Other than the exceedances described above, there were no additional exceedances of commercial use SCOs.

Soil analytical results are presented in **Table 2**. The soil analytical data is illustrated on **Figure 2**. The analytical reports are included in **Appendix E**.



2.4 Data Usability Summary Report

A third party data validator (Vali-Data of WNY, LLC) was contracted to prepare a Data Usability Summary Report (DUSR) for the laboratory results in accordance with NYSDEC Division of Environmental Remediation (DER)-10 Technical Guidance for Site Investigation and Remediation (May 2010). The DUSR reports and associated validated laboratory analytical reports are provided in **Appendix E**. The DUSR did not indicate any issues that would invalidate the use of the laboratory data.

3.0 SUMMARY, BUDGET, AND DISCUSSION

3.1 Summary

GES provided oversight of the Willowbrook Pond excavation activities completed at the Al Tech Site, located on Willowbrook Avenue in Dunkirk, New York. Soil excavation and site restoration were conducted by TREC from October 3 through November 1, 2016. A total of 2,402.29 tons of soil were excavated by TREC and segregated into hazardous and non-hazardous piles. Soil load out was completed by ToddCo between January 9 and January 16, 2017. A total of 451.96 tons of hazardous impacted soil were loaded out and transported to Wayne in Bellville, Michigan. A total of 1,950.33 tons of non-hazardous impacted soil were loaded out and transported to the CCL in Jamestown, New York. The site was restored with bank run gravel from the bottom of the excavation to approximately six inches bgs followed by topsoil from six inches bgs to ground surface and the chain link fence was replaced. The topsoil was covered with hydroseed on November 1, 2016.

3.2 Excavation Cost Breakdown

A breakdown of the costs for the execution of this work is provided.

Component	Estimated Budget	Actual	Difference
Excavation Subcontractors – labor, equipment, & materials to excavate, backfill and loadout soil.	\$102,800	\$111,800	+\$9,000
Restoration – backfill (common fill & topsoil), hydroseed, fence restoration	\$56,100	\$46,300	-\$9,800
On-site oversight/documentation by GES	\$24,000	\$29,500	+\$5,500
Transportation & Disposal of Soil	\$132,000	\$146,000	+\$14,000
Reporting	\$2,400	\$3,200	+\$800
Total	\$317,300	\$336,800	+\$19,500



Costs exceeding the estimated budget for the project were primarily due to the necessity to excavate additional soil on-site beyond the initial scope, and additional volume of soil to load into trucks for disposal. This led to increased costs for on-site time for the excavation subcontractor and oversight by GES, as well as the transportation and disposal costs themselves.

3.3 Discussion of Lessons Learned

For the purpose of future planning (should additional excavation activities be warranted at this site) the following items should be taken into consideration during the planning and execution stages of remediation. The following items are based on challenges faced during the project.

Handling of Soil While On-site

During the planning stage of the project prior to mobilization, it was determined that the soil could not be pre-classified for disposal and live-loaded into trucks for transportation to the disposal facility. It was preferred to excavate and stage the soil, with preliminary composite soil samples collected and analyzed for PCBs to determine the volume of hazardous and non-hazardous soil to be disposed. A dump truck was utilized to transfer soil from the excavation to the soil staging area. It was determined during the work that two cycling trucks was more efficient during most stages of the excavation work and is recommended if similar work is performed in the future.

Privately-Owned Utility Records

At the beginning of the excavation work, a private utility mark-out (PUM) was performed in an effort to determine if any underground utilities were in conflict with the excavation area. While the PUM identified numerous underground utilities in and around the excavation area, a 6-inch diameter, coated private water service line was encountered bearing from Willowbrook Road, and bearing north through the excavation, eventually feeding Dunkirk Specialty Steel (DSS). While DSS does not currently own the Willowbrook Pond property, the properties in the past were all part of the larger pre-existing Al-Tech plant. This water line was a legacy utility that is still in operation today. It is encouraged that for future planning that requests are made with DSS (as well as any other entities operating on land formerly part of the Al-Tech plant complex) for any drawings or records of utilities that may be pertinent.

FIGURES



LEGEND

- MONITORING WELL
- UNDERGROUND GAS LINE

DRAFTED BY: W.G.S.	SITE MAP		
CHECKED BY:	NYSDEC FORMER AL TECH SPECIALTY STEEL CORP WILLOWBROOK POND OPERABLE UNIT DUNKIRK, NEW YORK		
REVIEWED BY:	Groundwater & Environmental Services, Inc. 495 AERO DRIVE, SUITE 3, CHEEKTOWAGA, NEW YORK 14225		
NORTH 	SCALE IN FEET	DATE	FIGURE
	0 APPROXIMATE 40	5-22-17	1



LEGEND

- MONITORING WELL
- UNDERGROUND GAS LINE
- SOIL SAMPLE
- PROGRESSION SAMPLE
- LIMITS OF EXCAVATION

Note: Progression Samples represent locations where preliminary confirmatory samples were collected, but exceeded SCOs. Excavation limits were subsequently extended and re-sampled, meeting SCOs.

DRAFTED BY:	W.G.S.		
CHECKED BY:	NYSDEC		
REVIEWED BY:	FORMER AL TECH SPECIALTY STEEL CORP WILLOWBROOK POND OPERABLE UNIT DUNKIRK, NEW YORK		
NORTH	Groundwater & Environmental Services, Inc. 495 AERO DRIVE, SUITE 3, CHEEKTOWAGA, NEW YORK 14225		
	SCALE IN FEET 0 APPROXIMATE 40	DATE 5-22-17	FIGURE 2

TABLES

Table 1**Photo-Ionization Detector Screening Results**

**Former Al Tech Specialty Steel Corporation
Willowbrook Avenue
Dunkirk, New York**

Soil Sample ID	Depth	Date	Time	PID Reading (ppmv)
S-1	2-7'	10/7/2016	12:15	0.1
S-2	2-7'	10/7/2016	12:35	0.0
S-3	2-7'	10/10/2016	10:20	0.5
S-4	2-7'	10/10/2016	14:50	0.0
S-5	4-7'	10/11/2016	14:05	0.0
S-6	2-3.5'	10/11/2016	14:20	0.0
S-7	1-3'	10/11/2016	14:30	0.0
S-8	1-3'	10/11/2016	14:40	0.1
S-9	2-3.5'	10/11/2016	14:45	0.3
S-10	2-3'	10/13/2016	14:35	0.0
S-11	1-2.5'	10/17/2016	15:25	1.9
S-12	1-2.5'	10/17/2016	15:30	1.5
S-13	1-3'	10/17/2016	15:40	1.3
S-14	1-2.5'	10/17/2016	15:45	2.1
S-15	1-3.5'	10/17/2016	15:55	1.7
S-16	1.5-4'	10/19/2016	14:45	0.0
S-17	1-2.5'	10/20/2016	14:30	0.8
S-18	1-2.5'	10/20/2016	14:40	0.6
S-19	1-2.5'	10/20/2016	14:50	1.0
S-20	3-3.5'	10/25/2016	14:40	0.0
S-21	3-3.5'	10/25/2016	14:45	0.0
B-1	7.5'	10/7/2016	12:30	0.0
B-2	7'	10/10/2016	15:05	0.2
B-3	3.5'	10/11/2016	14:55	0.1
B-4	3.5'	10/11/2016	15:05	0.2
B-5	3.5'	10/13/2016	14:30	0.0
B-6	3.5'	10/13/2016	14:40	0.0
B-7	3.5'	10/14/2016	13:15	0.6
B-8	3.5'	10/14/2016	13:30	0.9
B-9	1.5'	10/14/2016	13:40	0.5
B-10	3.5'	10/17/2016	14:45	1.9
B-11	3.5'	10/17/2016	14:55	2.7
B-12	3.5'	10/17/2016	15:05	3.2
B-13	4.5'	10/19/2016	14:55	0.2
B-14	4.5'	10/19/2016	15:45	0.1
B-15	4.5'	10/20/2016	14:15	0.0
B-16	3-3.5'	10/24/2016	14:15	0.0

NOTES:

All readings were collected using a MiniRAE 2000 Photo Ionization Detector (PID) with a 10.6 electron-volt (eV) bulb.

ppmv = parts per million by volume



Table 2

Soil Analytical Data
Soil Boring Samples
PCB Analysis
(October 2016)

Former Al Tech Specialty Steel Corporation
Willowbrook Avenue
Dunkirk, New York

Sample Point	**6 NYCRR Part 375-	S-1	S-2	S-3	S-4	S-5	S-6	S-7	S-8	S-9	S-10	S-11	S-12	S-13	S-14	S-15
Sample Type	6.8(b) Commercial	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Depth (ftbg)	Use Soil Cleanup	2-7'	2-7'	2-7'	2-7'	4-7'	2-3.5'	1-3'	1-3'	2-3.5'	2-3'	1-2.5'	1-2.5'	1-3'	1-2.5'	1-3.5'
Sample Date	Objectives	10/7/2016	10/7/2016	10/10/2016	10/10/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/11/2016	10/13/2016	10/17/2016	10/17/2016	10/17/2016

CAS #	Polychlorinated Biphenyls (mg/kg)																
12674-11-2	PCB-1016 (AROCLOR 1016)	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11104-28-2	PCB-1221 (AROCLOR 1221)	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11141-16-5	PCB-1232 (AROCLOR 1232)	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
53469-21-9	PCB-1242 (AROCLOR 1242)	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12672-29-6	PCB-1248 (AROCLOR 1248)	1	ND	ND	ND	ND	ND	2.4	ND	0.060	ND	0.35	14	4.6	0.25	ND	ND
11097-69-1	PCB-1254 (AROCLOR 1254)	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11096-82-5	PCB-1260 (AROCLOR 1260)	1	ND	ND	0.34	0.41	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total PCBs (mg/kg)		1	ND	ND	0.34	0.41	ND	2.4	ND	0.06	ND	0.35	14	4.6	0.25	ND	ND

Notes:

ND = Not detected, below laboratory detection limits

ftbg = feet below grade

mg/kg = milligrams per kilogram

Bold = Detectable concentration

Highlighted = concentration exceeded Soil Cleanup Objectives

CAS = Chemical Abstracts Services



Table 2

Soil Analytical Data
Soil Boring Samples
PCB Analysis
(October 2016)

Former Al Tech Specialty Steel Corporation
Willowbrook Avenue
Dunkirk, New York

Sample Point	**6 NYCRR Part 375-	S-16	S-17	S-18	S-19	S-20	S-21	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	B-9
Sample Type	6.8(b) Commercial	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Depth (ftbg)	Use Soil Cleanup Objectives	1.5-4'	1-2.5'	1-2.5'	1-2.5'	3-3.5'	3-3.5'	7.5'	7'	3.5'	3.5'	3.5'	3.5'	3.5'	3.5'	1.5
Sample Date		10/19/2016	10/20/2016	10/20/2016	10/20/2016	10/25/2016	10/25/2016	10/7/2016	10/10/2016	10/11/2016	10/11/2016	10/13/2016	10/13/2016	10/14/2016	10/14/2016	10/14/2016

CAS #	Polychlorinated Biphenyls (mg/kg)																
12674-11-2	PCB-1016 (AROCLOR 1016)	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11104-28-2	PCB-1221 (AROCLOR 1221)	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11141-16-5	PCB-1232 (AROCLOR 1232)	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
53469-21-9	PCB-1242 (AROCLOR 1242)	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12672-29-6	PCB-1248 (AROCLOR 1248)	1	18	0.78	0.95	0.18	ND	0.38	ND	ND	0.31	16	16	0.046	0.29	ND	44
11097-69-1	PCB-1254 (AROCLOR 1254)	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11096-82-5	PCB-1260 (AROCLOR 1260)	1	ND	ND	ND	ND	ND	ND	ND	0.097	ND	ND	ND	ND	ND	ND	ND
Total PCBs (mg/kg)		1	18	0.78	0.95	0.18	ND	0.38	ND	0.097	0.31	16	16	0.046	ND	ND	44

Notes:

ND = Not detected, below laboratory detection limits

ftbg = feet below grade

mg/kg = milligrams per kilogram

Bold = Detectable concentration

Highlighted = concentration exceeded Soil Cleanup Objectives

CAS = Chemical Abstracts Services



Table 2

Soil Analytical Data
Soil Boring Samples
PCB Analysis
(October 2016)

Former Al Tech Specialty Steel Corporation
Willowbrook Avenue
Dunkirk, New York

Sample Point	**6 NYCRR Part 375-	B-10	B-11	B-12	B-13	B-14	B-15	B-16
Sample Type	6.8(b) Commercial	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Depth (ftbg)	Use Soil Cleanup	3.5'	3.5'	3.5'	4.5'	4.5'	4.5'	3-3.5'
Sample Date	Objectives	10/17/2016	10/17/2016	10/17/2016	10/19/2016	10/19/2016	10/20/2016	10/24/2016
CAS #	Polychlorinated Biphenyls (mg/kg)							
12674-11-2	PCB-1016 (AROCLOR 1016)	1	ND	ND	ND	ND	ND	ND
11104-28-2	PCB-1221 (AROCLOR 1221)	1	ND	ND	ND	ND	ND	ND
11141-16-5	PCB-1232 (AROCLOR 1232)	1	ND	ND	ND	ND	ND	ND
53469-21-9	PCB-1242 (AROCLOR 1242)	1	ND	ND	ND	ND	ND	ND
12672-29-6	PCB-1248 (AROCLOR 1248)	1	ND	ND	7.5	0.96	ND	8.8
11097-69-1	PCB-1254 (AROCLOR 1254)	1	ND	ND	ND	ND	ND	ND
11096-82-5	PCB-1260 (AROCLOR 1260)	1	ND	ND	ND	ND	ND	ND
Total PCBs (mg/kg)		1	ND	ND	7.5	0.96	ND	8.8

Notes:

ND = Not detected, below laboratory detection limits

ftbg = feet below grade

mg/kg = milligrams per kilogram

Bold = Detectable concentration

Highlighted = concentration exceeded Soil Cleanup Objectives

CAS = Chemical Abstracts Services

APPENDIX A

DustTrak Monitoring Log