LABELLA Associates, D.P.C. | Engineering Architecture Environmental Planning

APPENDIX 1

2016 Stockpile Characterization Report

CHAUTAUQUA COUNTY DEPARTMENT OF PUBLIC FACILITIES

Vincent W. Horrigan
County Executive

George P. Spanos
Director of Public Facilities

March 24, 2016

Mr. David Szymanski
NYSDEC
270 Michigan Avenue
Buffalo, NY 14203

Re: Stockpile Characterization and Management
Former Roblin Steel Site (Site #B00173-9), Dunkirk, NY

Dear Mr. Szymanski:

As you are aware, approximately 17,500 cubic yards of soil and fill generated during the construction of the Millennium Parkway was placed on portions of the former Roblin Steel Site (#B00173-9) and neighboring Edgewood Warehouse Site (#E907032) in 2014. Chautauqua County had intended to utilize this material during the future redevelopment of the County-owned brownfield sites located along the Millennium Parkway, which include the aforementioned sites and the former Alumax Site (#V00589). Fill material will ultimately be needed on these sites to bring them up to grade for redevelopment, and the use of the stockpiled material for this purpose is both economically and environmentally beneficial given that it will:

- Reduce the volume of fill material that needs to be imported to these sites;
- Reuse suitable material generated during the previous highway project; and
- Minimize the volume of material that must be landfilled.

The presence of this uncharacterized material, however, was determined to conflict with the requirements of the Site Management Plan (SMP) for the former Roblin Steel Site and a Corrective Action Work Plan (CAWP) was prepared and approved by the New York State Department of Environmental Conservation (NYSDEC) to bring the site into compliance with the SMP. Pursuant to the CAWP and subsequent correspondence with the NYSDEC, the material within the stockpile was characterized in accordance with NYSDEC Division of Environmental Remediation Technical Guidance for Site Investigation and Remediation (DER-10).

The results of the characterization are presented in the attached letter report from LaBella Associates dated January 29, 2016, which indicates that concrete, brick, asphalt and railroad ties are interspersed with soil throughout the stockpile. In addition, the letter report indicates that several Semi-Volatile Organic Compounds (SVOCs) and metals were detected in the soil/fill material samples from throughout the stockpile at concentrations that exceed the Allowable Constituent Levels for Imported Fill or Soil as listed in Table A-1 of the Excavation Work Plan for the former Roblin Steel Site. However, with the exception of SVOCs detected in one location where asphalt-containing fill was present, parameter concentrations only slightly exceed the Allowable Constituent Levels and are generally below Part 375 Commercial Use Soil Cleanup Objectives.

The report concluded that, based on the urban nature of the site and surrounding area and in consideration of the institutional controls currently in place to restrict future use of the site to commercial or industrial purposes, the stockpiled material appears to be suitable for re-use during the redevelopment of the brownfield sites if placed under the prescribed cover system at the time of redevelopment. Therefore, Chautauqua County proposes to perform the following corrective measures relative to the stockpiled material:

1. Utilize a mobile screening plant to segregate and remove Construction & Demolition (C&D) debris from the soil present within the stockpile. The material will be screened to a 2-inch minus size.
2. C&D debris removed from the stockpile will be transported off-site for recycling or disposal at appropriately permitted facilities.
3. Screened soil will be temporarily relocated to the concrete slab on the Alumax site and placed in an interim stockpile that will be stabilized and seeded.
4. Erosion controls will be placed around the perimeter of the interim stockpile.
5. A change of use form addressing the interim stockpile will be submitted for the Alumax Site.
6. The area within the former stockpile footprint on the Roblin Steel Site will be surveyed to confirm the required cover system thickness. Areas that do not satisfy the required thickness will be supplemented with clean soil and turf will be re-established throughout the entire footprint area.
7. The interim stockpile will be periodically inspected in accordance with the Combined Institutional Control Plan and Operations and Maintenance Plan (CICP/OMP) for the Alumax site.

The interim stockpile will remain on the Alumax Site until redevelopment of these brownfield sites occurs, at which time the material will be utilized as fill material under the cover system associated with the new development. The cover systems that will be constructed above the material from the stockpile during the redevelopment of each site will be in accordance with their respective SMPs or, in the case of the former Alumax Site, the CICP/OMP.

Chautauqua County is prepared to implement the corrective measures outlined above within 60-days of receiving NYSDEC approval.

Please do not hesitate to contact me (716-661-8410; rodgersd@co.chautauqua.ny.us) should you have any questions concerning the plan outlined herein.

Sincerely,

Drew E. Rodgers, PE
Engineer III

Cc: George Spanos, PE – Director CCDPF
Rob Naperalski, C.P.G – Labella Associates
Kenneth Strell – Kheops Architecture, Engineering, and Survey, DPC

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January 29, 2016

Mr. George Spanos
Chautauqua County Department of Public Facilities
545 N. Works Street
Falconer, New York 14733

Re: Former Roblin Steel Site (NYSDEC Site No. B00173-9) - Stockpile Characterization
320 South Roberts Road, Dunkirk, New York
LaBella Project # 2160146

Dear Mr. Spanos:

LaBella Associates, D.P.C. ("LaBella") provided environmental field support services in connection with the implementation of corrective measures relative to the stockpile of off-site material placed on the former Roblin Steel Site "Site" during construction of the Millennium Parkway in Dunkirk, New York. The following sections summarize the field and laboratory characterization activities; present and discuss the corresponding results; and provide recommendations regarding the management of the stockpiled material.

Introduction

Approximately 17,500 cubic yards of soil and fill generated during the construction of the Millennium Parkway was placed on portions of the former Roblin Steel Site and neighboring Edgewood Warehouse Site (NYSDEC Site Code E907032) in 2014. During the 2014 Annual Periodic Review of the Site, the presence of this material was determined to conflict with the requirements of the Site Management Plan (SMP). A Corrective Action Work Plan (CAWP) was subsequently prepared and approved by the New York State Department of Environmental Conservation (NYSDEC) to bring the site into compliance with the SMP. In accordance with the CAWP, the stockpile was required to be characterized to determine management options. The characterization included the visual examination, field screening for total organic vapors (TOVs), and chemical analysis of the stockpiled material in accordance with NYSDEC Division of Environmental Remediation Technical Guidance for Site Investigation and Remediation (DER-10).

Field Investigation

On December 16 and 17, 2015 LaBella mobilized to the Site to characterize and screen the stockpile material, and to collect soil/fill material samples for laboratory analysis. Utilizing a track mounted excavator, operated by D&H Excavating, sixteen test pits were excavated across the stockpile, designated as TP1 through TP16. Test pits were excavated through the total depth of the stockpile to terminal depths of three feet (ft) to fourteen ft from the top of the stockpile. Test pit locations are depicted on Figure 1.

The soil/fill material observed throughout the stockpile generally consisted of a silty clay soil with varying amounts of concrete, brick, asphalt, sand, and railroad ties interspersed throughout. Screening

of the soil/fill material with a photoionization detector (PID) during the excavation of the test pits revealed TOV levels that slightly exceeded background levels [0.0 parts per million (ppm)] in only one test pit, TP4 at a depth of 0 ft- 4 ft, with the highest reading of 0.4 ppm. No grossly contaminated material or strong odors were observed during the excavation of the test pits. A slight petroleum odor was observed within the top two feet of TP-4. Black fill material that is likely representative of asphalt, was observed in five test pits, TP4, TP9, TP10, TP11, and TP12. Test pit logs containing the field observations and TOV measurements are provided in Attachment 1.

Pursuant to DER-10 requirements for sample frequency relative to material volume, a total of 41 grab samples and 19 composite samples were collected from the test pits. The grab samples were submitted for laboratory analysis for Target Compound List (TCL) volatile organic compounds (VOCs) via United States Environmental Protection Agency (USEPA) Test Method 8260 and the composite samples were submitted for analysis of TCL semi-volatile organic compounds (SVOCs) via USEPA Test Method 8270, polychlorinated biphenyls (PCBs) via USEPA Test Method 8082, pesticides via USEPA Test Method 8081, and Target Analyte List (TAL) metals via USEPA Test Method 6010C and 7471B. The samples were collected from each test pit at multiple horizons. Samples were submitted to ALS Environmental in Rochester, New York, under proper chain-of-custody procedures for laboratory analysis.

Laboratory Results

The laboratory analytical results for the grab samples are summarized in Table 1 and the results for the composite samples are summarized in Table 2. The laboratory reports and chain of custody records are included in Attachment 2. The laboratory results are discussed below:

Volatile Organic Compounds

With the exception of acetone in two samples [TP3 (1'-3') and TP11 (8'-10')], no VOCs were detected in the grab samples at concentrations exceeding the Allowable Constituent Levels for Imported Fill or Soil as listed in Table A-1 of the Excavation Work Plan for the Former Roblin Steel Site. The detected concentrations of acetone in these samples were only slightly above the Allowable Constituent Level and are well below the Part 375 Commercial Use Soil Cleanup Objective (SCO). Acetone is a common laboratory contaminant and these detections are not considered to represent concerns relative to the reuse of the stockpiled material.

Semi-Volatile Organic Compounds

One or more SVOCs were detected at concentration exceeding the Allowable Constituent Levels in fourteen of the nineteen samples analyzed. Parameters exceeding the Allowable Constituent Levels were limited to polycyclic aromatic hydrocarbons (PAHs), including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene. With the exception of the SVOC levels detected in TP3 (0'-5'), the SVOC concentrations only slightly exceed the Allowable Constituent Levels.

Metals

Metals parameters exceeding the Allowable Constituent Levels were limited to arsenic in TP2, chromium in TP5 (0'-3'), arsenic in TP15, and arsenic, chromium, and manganese in TP16. With the exception of arsenic in TP2, TP15, and TP16, the detected metal concentrations were below the Part 375 Commercial Use SCOs.

Pesticides and PCBs

No PCBs or pesticides were detected above the Allowable Constituent Levels in any of the test pits.

Conclusions

Visual characterization of the stockpile material has indicated that concrete, brick, asphalt, and railroad ties are interspersed with soil throughout the stockpile. As indicated in the CAWP, all materials classified as solid waste should be removed from the stockpile prior to re-use. Additionally, the NYSDEC has previously indicated that all material that encroaches on the neighboring Edgewood Warehouse Site, which includes the northwest portion of the stockpile, is required to be removed. Furthemore, in order for the Site to be in compliance with the SMP, a 50 ft buffer must be established between the Roblin Site boundary and any stockpiled material as specified in the Master Erosion Control Plan, Attachment A-1 of the Excavation Work Plan for the Former Roblin Steel Site.

Several SVOCs and metals were detected in soil/fill material samples from throughout the stockpile at concentrations exceeding the Allowable Constituent Levels for Imported Fill or Soil as listed in Table A-1 of the Excavation Work Plan for the Former Roblin Steel Site. However, with the exception of SVOCs detected in one test pit (TP3), parameter concentrations only slightly exceed the Allowable Constituent Levels and the metals concentrations are generally below Part 375 Commercial Use SCOs. The SVOCs detected at concentrations exceeding the Allowable Constituent Levels were limited to PAHs. PAHs form from the incomplete combustion of fossil fuels, are also found in asphalt and are commonly detected in soils in urban environments. Based on the urban nature of the Site and the surrounding area, and in consideration of the institutional controls currently in place to restrict future use of the Site to commercial or industrial uses, the stockpiled material appears to be suitable for re-use during the redevelopment of the Site if placed under the prescribed cover system at the time of redevelopment.

Based on the characteristics of the stockpiled material, it does not appear that the temporary stockpiling of the material on the Roblin Site will adversely affect the underlying cover system or the Site if properly covered and monitored. Therefore, the following approach appears suitable for the interim management of this material until the time it is utilized as fill material during redevelopment of the site:

1. Segregate, remove and properly dispose of solid waste that is present within the stockpile;
2. Relocate the stockpile entirely onto the Roblin Site and maintain the prescribed 50 ft setback from the Site boundary; and
3. Cover the stockpile and implement appropriate erosion control, stormwater pollution prevention measures and periodic inspection procedures in accordance with the SMP.

Under this scenario, solid waste would be removed from the stockpile and the remaining soil material would be stockpiled on the Roblin Site until redevelopment of the site occurs, at which time it would be utilized as fill under the cover system associated with the new development. It is also recommended that a survey of the existing soil cover system be performed within the footprint of the stockpile once the stockpile is removed to confirm the required cover thickness, and that reestablishment of the vegetative cover occur within this area.

These recommendations are subject to NYSDEC review within the context of the CAWP, and LaBella advises that no action should be taken relative to the stockpile until NYSDEC concurrence with this approach is obtained.

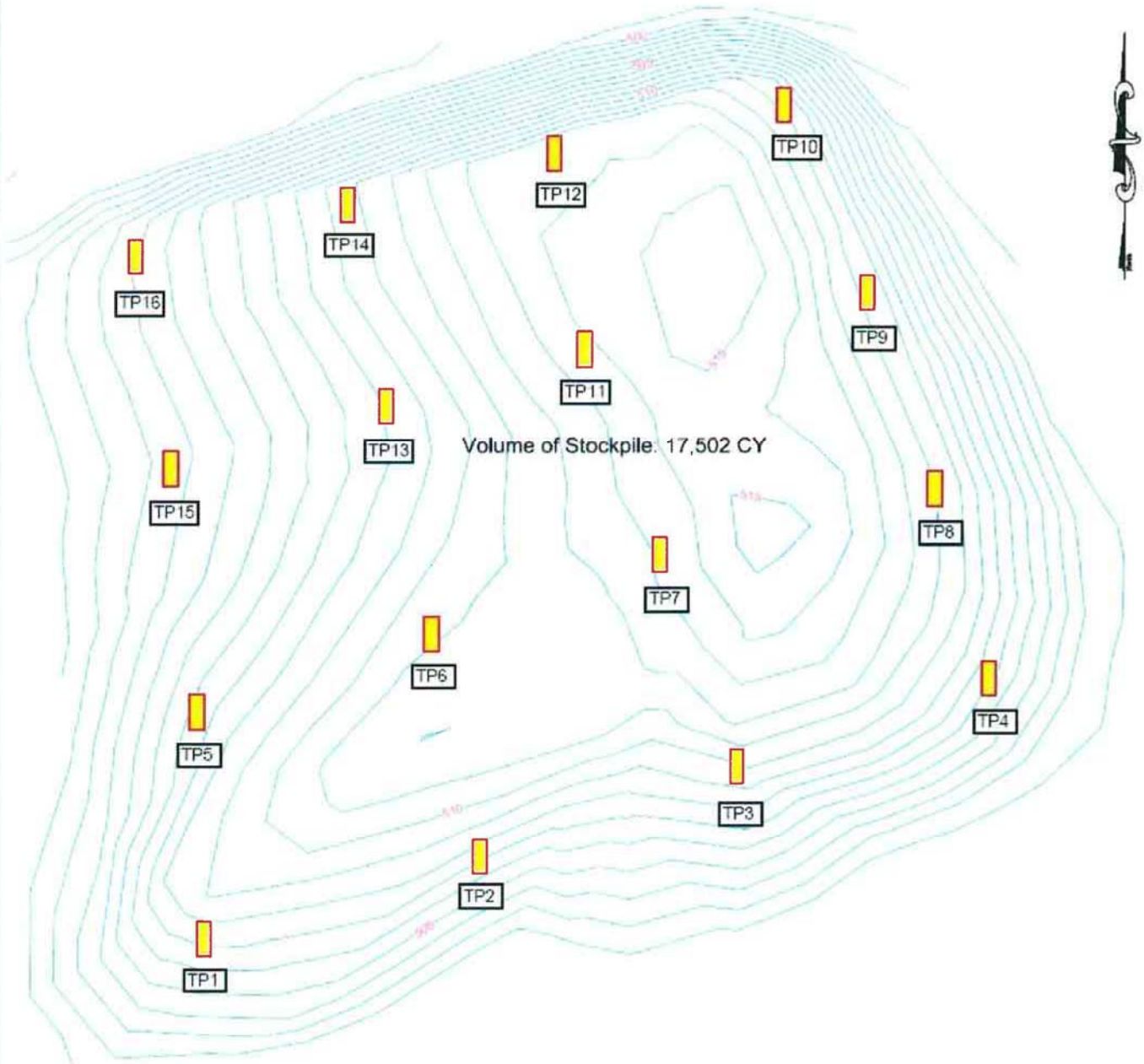
Respectfully submitted,

LABELLA ASSOCIATES, D.P.C.

Rob Napieralski, CPG
Regional Manager

Andrew Benkleman
Environmental Engineer

FIGURE



Stockpile volume survey performed by D&H Excavating, November 3, 2015

N

Not To Scale

FIGURE 1
Test Pit Location Map

Stockpile Characterization
Former Roblin Steel Site
Dunkirk, New York 14048

LABELLA

PROJECT NO.

2160146

TABLE

Table 1
Analytical Results for Grab Soil/Fill Material Samples

Former Roblin Steel Stockpile Characterization

		TP1 (1'-4')	TP1 (5'-7')	FD #1	FD #2	TP2 (1'-4')	TP2 (5'-7')	TP3 (1'-3')	TP3 (5'-7')	TP3 (8'-10')	TP4 (0'-2')	TP4 (3'-5')	TP4 (6'-8')	TP5 (1'-3')	TP5 (4'-6')	TP6 (1'-3')	TP6 (5'-7')	TP6 (9'-11')	TP7 (2'-4')	TP7 (6'-8')	TP7 (10'-12')	TP8 (1'-3')	TP8 (5'-7')	Allowable Constituent Levels	Part 375 Commercial SCO
Volatile Organic Compounds																									
2-Butanone (MEK)	ug/Kg	3.5	7.7	11	8.5		2.0 J		1.8 J	1.4 J			1.4 J		3.5	2.3 J	4.0 J	6.5			4.0			120	500,000
Acetone	ug/Kg	13	26	41	28		8.4		7.4	6.2		4.6	11		12	9.6	19	24		3.3	13	2.0 J		50	500,000
Trichloroethene (TCE)	ug/Kg																	0.95 J						470	200,000
Chloromethane	ug/Kg																							NL	NL
Methyl Acetate	ug/Kg						2.0 J																	NL	NL
Benzene	ug/Kg																							60	44,000
Carbon Disulfide	ug/Kg																							NL	NL
Ethylbenzene	ug/Kg																							1,000	390,000
Methylcyclohexane	ug/Kg					1.1 J																		NL	NL
o-Xylene	ug/Kg																							1,600	500,000
Isopropylbenzene (Cumene)	ug/Kg																							NL	NL
1,1,1-Trichloroethane (TCA)	ug/Kg																							680	500,000
Total Solids	%	89.1	87.3	89.1	89.9	85.4	89.5	92.4	90	91.9	89	83.5	89.2	90.9	87.2	85.4	90.2	87.6	81.9	88.6	87.6	89.2	87.4	NL	NL

		TP8 (9'-11')	TP9 (1'-3')	TP9 (3'-11') #1	TP9 (5'-11') #2	TP13 (1'-3')	TP11 (5'-7')	TP10 (1'-3')	TP10 (3'-7')	TP10 (9'-11')	TP11 (3'-5')	TP11 (8'-10')	TP31 (12'-14')	TP14 (3'-5')	TP14 (7'-9')	TP32 (1'-3')	TP12 (5'-7')	TP12 (9'-11')	TP15 (0'-1.5')	TP15 (1.5'-3')	TP16 (0'-1.5')	TP16 (1.5'-3')		Allowable Constituent Levels	Part 375 Commercial SCO
Volatile Organic Compounds																									
2-Butanone (MEK)	ug/Kg			3.1		10	7.6					32	5.2	7.8		2.2 J	10	2.2 J			2.1 J			120	500,000
Acetone	ug/Kg		4.9	15		54	33					100	22	14	3.6	10	39	7.4	8.7	4.4	9.8			50	500,000
Trichloroethene (TCE)	ug/Kg																							470	200,000
Chloromethane	ug/Kg					0.60 J																		NL	NL
Methyl Acetate	ug/Kg					6.6				1.1 J									2.7 J					NL	NL
Benzene	ug/Kg						0.23 J						0.24 J	0.16 J			0.28 J							60	44,000
Carbon Disulfide	ug/Kg											1.1 J									0.92 J			NL	NL
Ethylbenzene	ug/Kg						0.18 J										0.34 J							1,000	390,000
Methylcyclohexane	ug/Kg													0.62 J			2.2 J							NL	NL
o-Xylene	ug/Kg						0.79 J							0.14 J			0.24 J							1,600	500,000
Isopropylbenzene (Cumene)	ug/Kg																0.66 J							NL	NL
1,1,1-Trichloroethane (TCA)	ug/Kg																				19			680	500,000
Total Solids	%	84.3	89.1	86.5	88.4	89.9	88.5	91.8	90.8	90.1	86.9	82.9	86.5	90.6	90.3	86.3	88.9	87.3	83.9	84.7	88.8	86.1		NL	NL

Allowable Constituent Levels are from Table 4.1: Allowable Constituent Levels for Imported Fill or Soil, of the Excavation Work Plan included in the Site Management Plan for the former Roblin Steel Site

NYSDEC Part 375 Commercial Use Soil Cleanup Objectives, Table 375-6.8(b) (December 2006)

Parameters exceeding the Allowable Constituent Levels are indicated with shaded cells

Only detected parameters are included

J = Estimate value due the concentration between the MDL and the MDL

Table 2
Analytical Results for Composite Soil/Fill Material Samples

Former Roblin Steel Stockpile Characterization

		TP1 Composite	FD #2	TP2 Composite	TP3 Composite 0'-5'	TP3 Composite 5'-10'	TP4 Composite [0'-4']	TP4 Composite [4'-8']	TP5 Composite [0'-3']	TP5 Composite [3'-6']	TP6 Composite	TP7 Composite	TP8 Composite	TP9 Composite	TP11 Composite	TP10 Composite	TP11 Composite	TP14 Composite	TP12 Composite	TP15 Composite	TP16 Composite	Allowable Constituent Levels	Part 375 Commercial SCO
Semi-Volatile Organic Compounds																							
2-Methylnaphthalene	ug/Kg	140 J	130 J	360 J			77 J		230 J		180 J	64 J			230 J	180 J	120 J	85 J	640	340 J	210 J	NL	NL
(- and 4-Methylphenol Coelution	ug/Kg																		200 J			330	NL
Acenaphthene	ug/Kg	82 J	76 J	230 J			54 J		110 J		69 J			450 J		72 J	130 J		130 J		190 J	98,000	500,000
Acenaphthylene	ug/Kg	550	540	970	4,500	510	1,400	440	350 J	150 J	290 J	110 J	220 J		790	200 J	130 J	170 J	320 J	100 J	140 J	107,000	500,000
Anthracene	ug/Kg	610	580	1,400	7,500	530	930	320 J	830	340 J	620	99 J	88 J	1,700	1,400	320 J	570	270 J	680	110 J	670	500,000	500,000
Benzo[a]anthracene	ug/Kg	1,200	1,100	2,100	**14,000**	990	2,400	950	1,600	650 J	1,700	310 J	290 J	5,500	4,000	930	1,200	770	2,100	400	1,400	1,000	5,600
Benzo[a]pyrene	ug/Kg	**1,800**	**1,600**	**2,300**	**17,000**	**1,300**	**4,000**	**1,400**	**1,800**	760	**1,800**	430	710	**5,600**	**4,300**	**1,100**	1,000	850	**2,500**	360 J	**1,300**	1,000	1,000
Benzo[b]fluoranthene	ug/Kg	2,400	2,200	3,200	**21,000**	1,600	5,000	1,900	1,900	1,000	2,300	530	890	**6,500**	**6,100**	1,400	1,400	1,100	3,600	620	1,900	1,700	5,600
Benzo[g,h,i]perylene	ug/Kg	990	900	1,500	10,000	870	2,200	880	1,100	550 J	1,200	350 J	570	3,800	2,700	670	590	600	1,400	200 J	620	500,000	500,000
Benzo[k]fluoranthene	ug/Kg	810	780	1,100	7,000	590	1,700	610	890	280 J	790	190 J	290 J	2,200	2,200	520	450	430	1,200	240 J	690	1,700	56,000
Biphenyl	ug/Kg																		110 J			NL	NL
bis(2-ethylhexyl) Phthalate	ug/Kg	200 BJ	220 BJ	270 BJ		290 BJ	210 BJ	370 BJ	290 BJ		220 BJ	180 BJ	170 BJ		230 BJ	220 BJ	340 BJ	150 BJ	180 B	94 BJ	320 BJ	NL	NL
Carbazole	ug/Kg	92 J	100 J	220 J	630 J	110 J	68 J	77 J	390 J		130 J				320 J	130 J	210 J	99 J	290 J		300 J	NL	NL
Chrysene	ug/Kg	1,100	1,000	2,000	14,000	1,000	2,600	1,000	1,800	700 J	1,700	360 J	370 J	5,700	4,000	1,000	1,300	780	2,500	420	1,500	1,000	56,000
Di-n-butyl Phthalate	ug/Kg	170 J		130 J		240 J	170 J	330 J	110 J		130 J	93 J	170 J			210 J	330 J	140 J	200 J		150 J	NL	NL
Dibenz[a,h]anthracene	ug/Kg	270 J	230 J	350 J	**2,700 J**	240 J	**610**	210 J	290 J	130 J	300 J	95 J	130 J	**1,000 J**	**720 J**	210 J	170 J	140 J	340 J	73 J	200 J	560	560
Dibenzofuran	ug/Kg	190 J	240 J	470	1,000 J	300 J	100 J		270 J		220 J				440 J	120 J	190 J	110 J	190 J	100 J	260 J	NR	NL
Diethyl Phthalate	ug/Kg						79 J	81 J	120 J							100 J	83 J		91 J		83 J	NL	NL
Fluoranthene	ug/Kg	2,700	2,500	5,300	28,000	2,000	5,100	1,800	4,200	1,000	4,000	540	310 J	9,200	9,000	2,300	3,700	1,700	5,100	620	3,400	500,000	500,000
Fluorene	ug/Kg	250 J	330 J	1,200	1,900 J	450	320 J		510		290 J			510 J	840	210 J	380 J	170 J	240 J		400	386,000	500,000
Indeno(1,2,3-cd)pyrene	ug/Kg	1,000	910	1,400	**11,000**	930	2,500	900	1,200	520 J	1,300	340 J	370	3,800	3,300	860	630	570	1,500	250 J	710	5,600	5,600
Naphthalene	ug/Kg	180 J	240 J	510	1,300 J	160 J	180 J		330 J	120 J	540				560	260 J	120 J	180 J	400	210 J	350 J	12,000	500,000
Phenanthrene	ug/Kg	1,500	1,500	4,700	31,000	1,500	650	720	3,300	500 J	1,900	330 J	130 J	7,300	5,300	1,400	2,700	1,300	3,000	480	2,900	500,000	500,000
Pyrene	ug/Kg	2,300	2,100	4,400	24,000	1,600	3,700	1,600	3,400	1,100	3,500	490	290 J	11,000	7,300	2,100	2,900	1,500	4,300	600	2,900	500,000	500,000
Metals																							
Aluminum, Total	mg/Kg	7,010	7,540	8,330	8,700	12,300	8,650	7,440	10,800	9,770	8,190	8,420	8,050	8,110	11,100	6,940	9,180	8,800	7,900	5,990	25,300	NL	NL
Arsenic, Total	mg/Kg	10	11.5	**29**	11.3	7.9	9.8	8.1	11.3	13.9	12.2	14.2	10.1	11.1	9.5	9.1	11	9.5	10.6	**43.1**	**17.7**	16	16
Barium, Total	mg/Kg	58.9	62.8	94.6	91.3	109	80.7	53.1	105	83.3	101	77.5	78.7	97.2	70.6	57.5	97.6	62.8	87.7	70.7	323	400	450
Beryllium, Total	mg/Kg	0.42	0.49	0.61	0.52	1.45	0.44	0.4	1.07	0.65	0.55	0.49	0.41	0.57	0.85	0.44	0.48	0.49	0.67	1.29	3.45	47	590
Calcium, Total	mg/Kg	8,730	22,000	9,610	8,170	46,000	3,560	5,840	28,400	2,950	7,200	15,400	24,300	18,200	19,100	7,200	8,590	15,000	15,400	3,670	121,000	NL	NL
Cadmium, Total	mg/Kg			0.20 J	0.12 J	0.09 J			0.15 J	0.20 J	0.49 BJ	0.38 BJ	0.40 BJ	0.40 BJ	0.27 BJ	0.41 BJ	0.41 BJ	0.40 BJ	0.50 BJ	0.85	0.62 B	7.5	9.3
Cobalt, Total	mg/Kg	8.0	7.8	7.9	8.8	5.9	7.8	7.0	6.7	13	7.4	7.4	7.0	8.1	4.8 J	5.4 J	6.8	5.5 J	5.9	14.5	2.7 J	NR	NL
Chromium, Total	mg/Kg	14.2	12.7	17.1	18.9	11.0	16.9	12.4	**32.8**	15.2	14.1	14.0	11.8	13.2	11.9	10.1	13.2	10.9	14.0	10.8	**34.3**	19	400
Copper, Total	mg/Kg	64.8	63.7	64.4	44.8	49.1	46.9	87.3	94	40.8	109	54.5	37.5	72.7	48.6	52.8	38.7	52.8	85	125	60.5	270	270
Iron, Total	mg/Kg	21,400	22,900	24,600	26,200	18,900	24,100	23,300	23,300	28,300	27,900	26,900	21,800	27,100	19,900	21,300	20,700	20,300	23,000	45,600	17,800	NL	NL
Potassium, Total	mg/Kg	780	830	1,060	1,010	980	910	760	1,130	1,000	1,140	1,000	910	940	710	700	870	730	820	590	1,500	NL	NL
Magnesium, Total	mg/Kg	3,390	2,750	3,530	3,670	8,810	3,010	3,140	5,260	2,960	2,950	3,620	3,400	3,400	3,350	2,360	1,920	4,210	2,990	1,200	12,300	NL	NL
Manganese, Total	mg/Kg	351	342	478	721	1,350	775	368	1,160	312	382	306	402	526	1,120	364	270	410	399	519	1,740	2,000	10,000
Sodium, Total	mg/Kg	680	600	740	520	870	630	530	700	180	790	510	820	860	1,000	660	390	780	890	250 B	840	NR	NL
Nickel, Total	mg/Kg	19.8	19.9	24.1	23.9	19.6	20.4	18.9	20.7	30.3	23.0	20.7	18.1	20.7	13.4	15.8	15.6	16.4	18.2	38.8	24.7	130	330
Lead, Total	mg/Kg	66.0	83.1	117	33.0	41.8	27.6	64.6	112	34.6	58.9	58.9	39.8	60.8	37.2	47.9	82.1	58.6	113	140	92.4	450	1,000
Antimony, Total	mg/Kg	0.9 J	1.0 J	0.7 J		0.7 J		2.8 J	2.1 J		2.3 J	1.1 J	1.1 J	1.4 J	1.0 J	1.1 J	1.2 J	1.3 J	1.9 J	2.8 J	1.5 J	NL	NL
Selenium, Total	mg/Kg	0.8 J		0.9 J		1.5	1.4		1.7	1.6		0.7 J		0.8 J	0.8 J					2.3	4.0	4.0	1,500
Vanadium, Total	mg/Kg	14.1	15.3	15.2	15.7	11.5	19.5	12.9	16.6	15.3	15.7	15.3	14.3	14.9	16.3	11.9	18.7	15.4	15.7	11.8	10.5	NL	NR
Zinc, Total	mg/Kg	106	95.3	117	124	75.8	81.9	88.7	114	129	138	93.9	70.9	89.6	63.2	72.3	81.7	82	115	159	233	2,480	10,000
Mercury, Total	mg/Kg	0.111	0.106	0.084	0.043	0.059	0.047	0.096	0.129	0.043	0.048	0.08	0.071	0.088	0.06	0.051	0.164	0.112	0.134	0.116	0.141	0.73	2.8
PCBs																							
Aroclor 1248	ug/Kg																				83	1,000	1,000
Aroclor 1254	ug/Kg			77																	93	1,000	1,000
Aroclor 1260	ug/Kg																				22 JP	1000	1,000
Pesticides																							
Endosulfan Sulfate	ug/Kg				21	7.3 J																200,000	200,000
Endrin Ketone	ug/Kg													21								NL	NL
Total Solids	%	84.9	89.9	89.9	89.6	90.9	88.5	90	85.2	88	83.6	87.8	87.1	89.3	85.6	93	84.2	93	88.5	87.1	89	NL	NL

Allowable Constituent Levels are from Table A-1: Allowable Constituent Levels for Imported Fill or Soil, of the Excavation Work Plan included in the Site Management Plan for the former Roblin Steel Site

NYSDEC Part 375 Commercial Use Soil Cleanup Objectives, Table 375-6.8(b) (December 2006)

Parameters exceeding the Allowable Constituent Levels are indicated with shaded cells

Parameters exceeding the Part 375 Commercial Use Soil Cleanup Objectives are indicated with Bold text

Only detected parameters are included

J = Estimate value due the concentration between the MRL and the MDL.

B = Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result

LABELLA Associates, D.P.C. | Engineering Architecture Environmental Planning

ATTACHMENT 1

Field Logs

LABELLA Associates, P.C.
300 PEARL STREET, BUFFALO, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 1
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-16-15

DATUM: NA
10.00 am

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Fill (silty consistency) C&D Debris - brick, concrete, asphalt,	0	
2			"	0	
4			"	0	
6			"	0	
8					
10					
12					
14					
16			TP1 to 7'		

7' —

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect BGS = Below the Ground Surface NA = Not Applicable
NA	NA	NA	NA			

GENERAL NOTES
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

TEST PIT: TP - 1

samples 10:15 am
TP1 2-4' - FD #1 (1 VOC Kit) composite
TP1 5-7' - FD #2 (1 VOC Kit, 1 comp 8oz jar)
TP1 comp. - Client is KHEOPS! (note on COC samples)

LABELLA Associates, PC.

300 PEARL STREET, BUFFALO, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile
Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 2
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR:
OPERATOR: D&H Excavting
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-16-15

DATUM NA
10:45am

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Fill (silty, clayey, sandy) (brick, asphalt, concrete - coal debris)	0	0
2			"	0	2
4			"	0	4
6			"	0	6
8					8
10					10
12					12
14					14
16			- Test pit to 8'		16

WATER LEVEL DATA			DEPTH (FT)			NOTES
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect BGS = Below the Ground Surface NA = Not Applicable
NA	NA	NA	NA			

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

TEST PIT: TP - 2

Sample @ 11:00
TP2 - 2'-4'
TP2 - 5'-7' ——— MS/MSD (DUC Kits, 1 comp. 80z bottle)
- Client is KHEOPS! (note on COC samples)

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300 PEARL STREET, BUFFALO, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 3
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-16-15

DATUM NA
1200

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			(Silty, clayey consistency) rr ties - foundry-type sand Fill - C&D debris - asphalt, brick, concrete	0	0
2			"	0	2
4			"	0	4
6			"	0	6
8			"	0	8
10					10
12					12
14					14
16			- Test pit to 10'		16

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect
NA	NA	NA	NA			BGS = Below the Ground Surface
						NA = Not Applicable

GENERAL NOTES
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

TEST PIT: TP - 3

Sample @ 12:20pm
- 3 (bits)
- 2 (comp's)

TP3 - 1-3
TP3 - 5-7
TP3 - 8-10

TP3 Comp - 0'-5'
TP3 Comp - 5'-10'

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300 PEARL STREET, BUFFALO, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 4
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE 12-16-15

DATUM NA

TYPE OF EQUIPMENT: 1300

DEPTH (FEET)	SAMPLE NO AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Fill - asphalt, brick, concrete (clayey, silty, sand, trace gravel)	0.4	- slight petroleum odor - heavy amount of asphalt in first 4 feet
2			"	0.1	
4			"	0	
6			"	0	
8					- black staining 0-2' & 6-8'
10					
12					
14					
16			- Test pit to 8'		

WATER LEVEL DATA			DEPTH (FT)			NOTES
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect BGS = Below the Ground Surface NA = Not Applicable
NA	NA	NA	NA			

GENERAL NOTES
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

TEST PIT: TP 4

Sample @ 1320
- 3 (kit)
- 2 (comps)
TP4 - 0'-2'
TP4 - 3'-5'
TP4 - 6'-8'
TP4 Comp - 0'-4'
TP4 comp - 4'-8'

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ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 5
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK
(146)

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-16-15

DATUM: NA

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			(Clayey, silty consistency) Fill - mostly asphalt, little concrete + clay tile	0	0
2			"	0	2
4			"	0	4
6					6
8					8
10					10
12					12
14					14
16			Test pit to 6'		16

WATER LEVEL DATA			DEPTH (FT)			NOTES
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect BGS = Below the Ground Surface
NA	NA	NA	NA			NA = Not Applicable

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

TEST PIT: TP - 5

- Sampled @ 14:20 (24 hrs 2 comp's)
- TP5 - 1-3'
- TP5 - 4-6'
- TP5 Composite (0-3')
- TP5 Composite (3'-6')

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ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 6
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-17-15

DATUM: NA

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			(Silty, Clayey consistency) Fill (rod debris-asphalt, concrete, brick)	0	0
2				0	2
4				0	4
6				0	6
8				0	8
10				0	10
11'					
12					12
14					14
16			-Test pit to 11'		16

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect
NA	NA	NA	NA			BGS = Below the Ground Surface
						NA = Not Applicable

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

TEST PIT: TP - 6

sample @ 1:45pm

TP6-1-3
TP6-5-7
TP6-9-11

TP6 Composite

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ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile
Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 7
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-17-15

DATUM: NA

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Silty clayey (consistency) Fill and debris - asphalt, concrete, brick	0	0
2			"	0	2
4			"	0	4
6			"	0	6
8			"	0	8
10			"	0	10
12			"	0	12
13					
14					14
16			Test pit to 13'		16

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect
NA	NA	NA	NA			BGS = Below the Ground Surface
						NA = Not Applicable

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

TEST PIT: TP - 7

Sampled @ 830

TP7 - 2-4
TP7 - 6-8
TP7 - 10-12

TP7 Composite

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ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile
Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 8
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler
TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-7-15
DATUM NA

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Silty-clayey consistency Fill ctd debris - asphalt, concrete, brick	0	0
2			"	0	2
4			"	0	4
6			"	0	6
8			"	0	8
10			"	0	10
11'					
12					12
14					14
16			- Test pit to 11'		16

WATER LEVEL DATA			DEPTH (FT)			NOTES
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect BGS = Below the Ground Surface NA = Not Applicable
NA	NA	NA	NA			

GENERAL NOTES
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

TEST PIT: TP - 8

sampled @ 9:10

TP8 - 1-3
TP8 - 5-7
TP8 - 9-11

TP8 composite

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300 PEARL STREET, BUFFALO, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile
Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 9
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-17-15

DATUM: NA

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Silty-clayey consistency Fill and debris - brick, asphalt, concrete	0	Black staining from asphalt 0'-6'
2			"	0	
4			"	0	
6			"	0	
8			"	0	
10			"	0	
12					
14					
16			Test pit full		

11'

WATER LEVEL DATA			DEPTH (FT)			NOTES
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect
						BGS = Below the Ground Surface
NA	NA	NA	NA			NA = Not Applicable

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

TEST PIT: TP - 9

- sample @ 930

TP9 - 1-3
TP9 - 5-7
TP9 - 9-11

TP9 Composite

LABELLA Associates, P.C.

300 PEARL STREET, BUFFALO, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 10
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION: NA
START DATE: 12-17-15

DATUM: NA

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Silty-clayey consistency (fine to coarse sands) Fill - C&D debris - asphalt, brick, concrete	0	Black staining from asphalt 2'-8'
2			"	0	
4			"	0	
6			"	0	
8			"	0	
10			"	0	
12			"	0	
14			Test Pit to 11'		
16					

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect BGS = Below the Ground Surface
NA	NA	NA	NA			NA = Not Applicable

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

TEST PIT: TP 10

Sampled @ KK

TP10 - 1-3
TP10 - 5-7
TP10 - 9-11

-TP10 Composite

LABELLA Associates, P.C.

300 PEARL STREET, BUFFALO, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile
Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 11
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-17-14

DATUM: NA
10:30

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Silty-clayey consistency (1 telephone pole) Fill GD Debris asphalt, brick, concrete	0	0 Black staining from asphalt 2-8'
2			"	0	2
4			"	0	4
6			"	0	6
8			"	0	8
10			"	0	10
12			"	0	12
14			Test pit to 14'		14
16					16

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect BGS = Below the Ground Surface
NA	NA	NA	NA			NA = Not Applicable

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

TEST PIT: TP - 11

Sampled @ 10:50

TP11 - 3-5
TP11 - 8-10
TP11 - 12-14

- TP11 Composite

LABELLA Associates, P.C.
300 PEARL STREET, BUFFALO, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 12
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-D-15

DATUM: NA 11:20

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Silty-clayey Consistency brick Fill C&D debris (asphalt, concrete,	0	0 Black Staining from asphalt throughout full test pit (0'-11')
2			"	0	2
4			"	0	4
6			"	0	6
8			"	0	8
10			"	0	10
12					12
14					14
16			Test pit to 11'		16

11'

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect
NA	NA	NA	NA			BGS = Below the Ground Surface
						NA = Not Applicable

GENERAL NOTES
1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

TEST PIT: TP - 12

- Sampled @ 11:20
- TP12-1-3
- TP12-5-7
- TP12-9-11
- TP12 composite

LABELLA Associates, P.C.
300 PEARL STREET, BUFFALO, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 13
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-12-15

DATUM: NA 11:45

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Silty & Clayey consistency tandy sands/ Fill - C&D debris (brick, concrete, asphalt,	0	0
2			"	0	2
4			"	0	4
6			"	0	6
8					8
10					10
12					12
14					14
16			Test pit to 8'		16

WATER LEVEL DATA			DEPTH (FT)			NOTES:
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect BGS = Below the Ground Surface NA = Not Applicable
NA	NA	NA	NA			

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

TEST PIT: TP - 13

- Sampled @ 12:45pm

TP13-1-3
TP13-5-7'

= TP13 composite

LABELLA Associates, P.C.
300 PEARL STREET, BUFFALO, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 14
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler
TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-17-15
DATUM: NA

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Clay type silty consistency Fill - C&D debris (asphalt, concrete, brick)	0	0
2			"	0	2
4			"	0	4
6			"	0	6
8			"	0	8
10					10
12					12
14					14
16			Test pit to 10'		16

WATER LEVEL DATA			DEPTH (FT)			NOTES
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect
NA	NA	NA	NA			BGS = Below the Ground Surface
						NA = Not Applicable

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

TEST PIT: TP - 14

Sampled @ 12:20pm

TP14-3-5
TP14-7-9

- TP14 Composite

LABELLA Associates, P.C.

300 PEARL STREET, BUFFALO, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 15
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE: 12-07-15

DATUM: NA
12:45

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			Silty-clayey (consistency foundry sand) Fill - C&D debris (brick, asphalt, concrete	0	0
2			(1	0	2
4					4
6					6
8					8
10					10
12					12
14					14
16			Test Pit to 3'		16

3'

WATER LEVEL DATA			DEPTH (FT)			NOTES
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect
NA	NA	NA	NA			BGS = Below the Ground Surface
						NA = Not Applicable

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

TEST PIT: TP 15

- Sampled @ 13:00

TP15 - 0 - 1.5
TP15 - 1.5 - 3

- TP15 composite

LABELLA Associates, P.C.

300 PEARL STREET, BUFFALO, NY
ENVIRONMENTAL ENGINEERING CONSULTANTS

Former Roblin Steel Stockpile Characterization Test Pits
320 South Roberts Road, Dunkirk, NY

TEST PIT: TP - 16
SHEET 1 OF 1
JOB: 2160148
CHKD BY: CK

CONTRACTOR: D&H Excavting
OPERATOR:
LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:
GROUND SURFACE ELEVATION NA
START DATE 12-17-15

DATUM: NA

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0			clayey silty consistency tan/gray/red Fill - CeD Debris - brick, concrete, asphalt	0	0
2			"	0	2
4					4
6					6
8					8
10					10
12					12
14					14
16			Test pit to 3'		16

3'

WATER LEVEL DATA			DEPTH (FT)			NOTES
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER ENCOUNTERED	ND = Non Detect
NA	NA	NA	NA			BGS = Below the Ground Surface
						NA = Not Applicable

GENERAL NOTES

1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

TEST PIT: TP - 16

Sampled @ 13:20

TP16 - 0 - 1.5'
TP16 - 1.5 - 3'

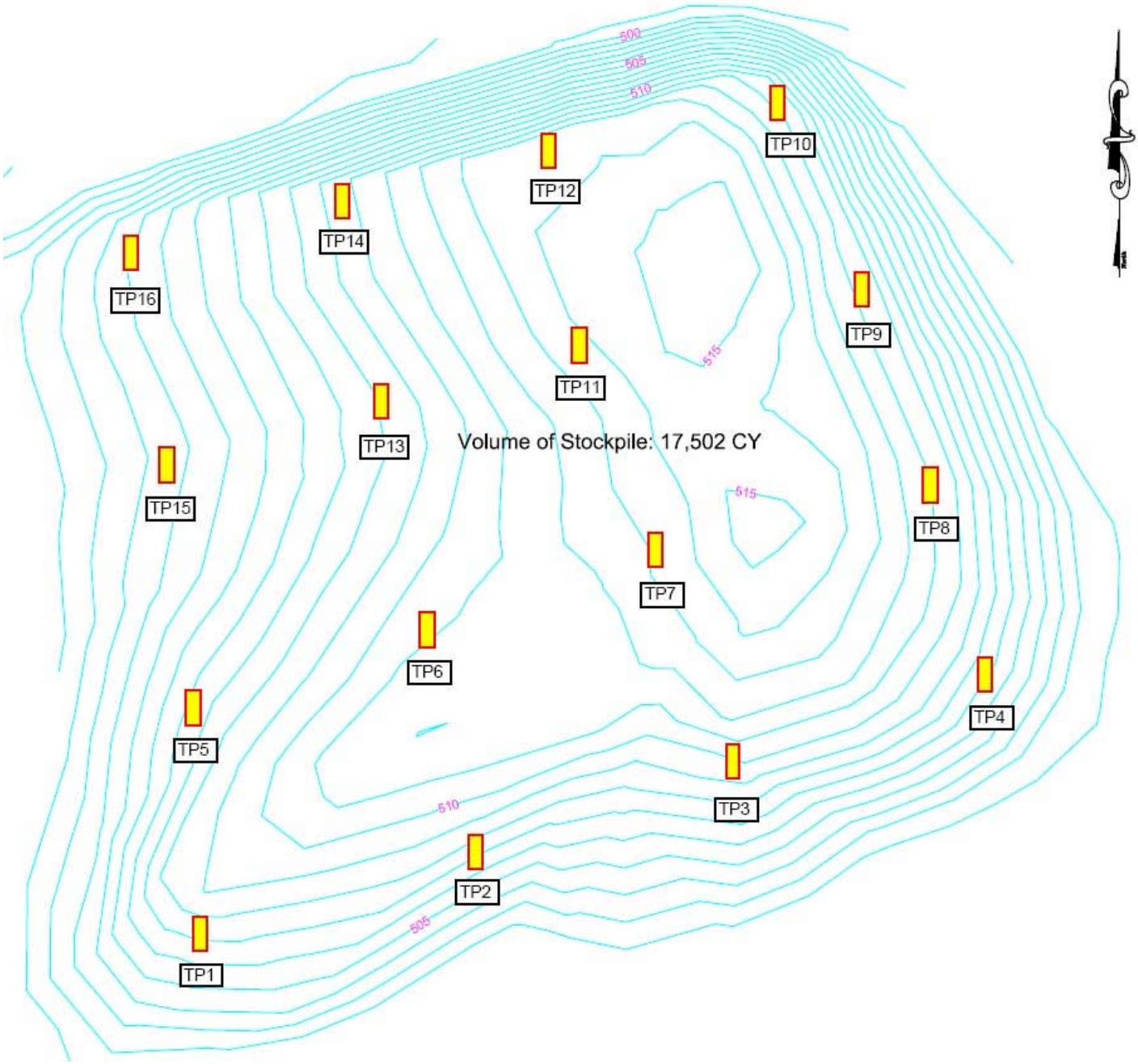
- TP16 composite

LABELLA Associates, D.P.C. | Engineering Architecture Environmental Planning

ATTACHMENT 2

Laboratory Analytical Report

FIGURE



Stockpile volume survey performed by D&H Excavating, November 3, 2015

N

Not To Scale

FIGURE 1
Test Pit Location Map

Stockpile Characterization
Former Roblin Steel Site
Dunkirk, New York 14048

LABELLA

PROJECT NO.

2160146

TABLE

Table 1
Analytical Results for Grab Soil/Fill Material Samples

Former Roblin Steel Stockpile Characterization

		TP1 (2'-4')	TP1 (5'-7')	FD #1	FD #2	TP2 (2'-4')	TP2 (5'-7')	TP3 (1'-3')	TP3 (5'-7')	TP3 (8'-10')	TP4 (0'-2')	TP4 (3'-5')	TP4 (6'-8')	TP5 (1'-3')	TP5 (4'-6')	TP6 (1'-3')	TP6 (5'-7')	TP6 (9'-11')	TP7 (2'-4')	TP7 (6'-8')	TP7 (10'-12')	TP8 (1'-3')	TP8 (5'-7')	Allowable Constituent Levels	Part 375 Commercial SCO
Volatile Organic Compouinds																									
2-Butanone (MEK)	ug/Kg	3.5	7.7	11	8.5		2.0 J		1.8 J	1.4 J			2.4 J		3.0	2.3 J	4.0 J	6.5			4.0			120	500,000
Acetone	ug/Kg	13	26	41	28		8.4		7.4	6.2		4.6	11		12	9.6	19	24		3.3	15	2.0 J		50	500,000
Trichloroethene (TCE)	ug/Kg																	0.95 J						470	200,000
Chloromethane	ug/Kg																							NL	NL
Methyl Acetate	ug/Kg						2.0 J																	NL	NL
Benzene	ug/Kg																							60	44,000
Carbon Disulfide	ug/Kg																							NL	NL
Ethylbenzene	ug/Kg																							1,000	390,000
Methylcyclohexane	ug/Kg					1.1 J																		NL	NL
o-Xylene	ug/Kg																							1,600	500,000
Isopropylbenzene (Cumene)	ug/Kg																							NL	NL
1,1,1-Trichloroethane (TCA)	ug/Kg																							680	500,000
Total Solids	%	89.2	87.3	89.1	89.9	85.4	89.5	92.4	90	91.9	89	83.5	89.2	90.9	87.2	85.4	90.2	87.6	81.9	88.6	87.6	89.2	87.4	NL	NL

		TP8 (9'-11')	TP9 (1'-3')	TP9 (5'-11') #1	TP9 (5'-11') #2	TP13 (1'-3')	TP13 (5'-7')	TP10 (1'-3')	TP10 (5'-7')	TP10 (9'-11')	TP11 (3'-5')	TP11 (8'-10')	TP11 (12'-14')	TP14 (3'-5')	TP14 (7'-9')	TP12 (1'-3')	TP12 (5'-7')	TP12 (9'-11')	TP15 (0'-1.5')	TP15 (1.5'-3')	TP16 (0'-1.5')	TP16 (1.5'-3')		Allowable Constituent Levels	Part 375 Commercial SCO
Volatile Organic Compouinds																									
2-Butanone (MEK)	ug/Kg			3.1		10	7.6					32	5.2	2.8		2.2 J	10	2.2 J			2.1 J			120	500,000
Acetone	ug/Kg		4.9	15		54	33					100	22	14	3.6	10	39	7.4	8.7	4.4	9.8			50	500,000
Trichloroethene (TCE)	ug/Kg																							470	200,000
Chloromethane	ug/Kg					0.60 J																		NL	NL
Methyl Acetate	ug/Kg					6.6				1.1 J									2.7 J					NL	NL
Benzene	ug/Kg						0.23 J						0.24 J	0.16 J			0.28 J							60	44,000
Carbon Disulfide	ug/Kg											1.1 J									0.92 J			NL	NL
Ethylbenzene	ug/Kg						0.19 J										0.34 J							1,000	390,000
Methylcyclohexane	ug/Kg													0.62 J			2.3 J							NL	NL
o-Xylene	ug/Kg						0.79 J							0.54 J			0.24 J							1,600	500,000
Isopropylbenzene (Cumene)	ug/Kg																0.66 J							NL	NL
1,1,1-Trichloroethane (TCA)	ug/Kg																				19			680	500,000
Total Solids	%	84.3	89.1	86.5	88.4	89.9	88.6	86.8	90.8	90.1	86.9	82.9	86.5	90.6	90.3	86.3	88.9	87.3	83.9	84.7	88.8	86.1		NL	NL

Allowable Constituent Levels are from Table A-1: Allowable Constituent Levels for Imported Fill or Soil, of the Excavation Work Plan included in the Site Management Plan for the former Roblin Steel Site

NYSDEC Part 375 Commercial Use Soil Cleanup Objectives, Table 375-6.8(b) (December 2006)

Parameters exeeding the Allowable Constituent Levels are indicated with shaded cells

Only detected parameters are included

J = Estimate value due the concentration between the MRL and the MDL.

Table 2
Analytical Results for Composite Soil/Fill Material Samples

Former Roblin Steel Stockpile Characterization

		TP1 Composite	FD #2	TP2 Composite	TP3 Composite-0'-5'	TP3 Composite 5'-10'	TP4 Composite (0'-4')	TP4 Composite (4'-8')	TP5 Composite (0'-3')	TP5 Composite (3'-6')	TP6 Composite	TP7 Composite	TP8 Composite	TP9 Composite	TP13 Composite	TP10 Composite	TP11 Composite	TP14 Composite	TP12 Composite	TP15 Composite	TP16 Composite	Allowable Constituent Levels	Part 375 Commercial SCO
Semi-Volatile Organic Compounds																							
2-Methylnaphthalene	ug/Kg	140 J	130 J	360 J			77 J		230 J		180 J	64 J			230 J	180 J	120 J	85 J	640	340 J	210 J	NL	NL
3- and 4-Methylphenol Coelution	ug/Kg																		200 J			330	NL
Acenaphthene	ug/Kg	82 J	76 J	230 J			64 J		110 J		69 J			450 J		72 J	130 J		130 J		190 J	98,000	500,000
Acenaphthylene	ug/Kg	550	540	970	4,500	510	1,400	440	350 J	150 J	290 J	110 J	220 J		790	200 J	130 J	170 J	320 J	100 J	140 J	107,000	500,000
Anthracene	ug/Kg	610	580	1,400	7,500	530	930	320 J	830	140 J	620	99 J	88 J	1,700	1,400	320 J	570	270 J	680	110 J	670	500,000	500,000
Benz(a)anthracene	ug/Kg	1,200	1,100	2,100	**14,000**	990	2,400	950	1,600	650 J	1,700	310 J	290 J	5,500	4,000	930	1,200	770	2,100	400	1,400	1,000	5,600
Benzo(a)pyrene	ug/Kg	**1,800**	**1,600**	**2,300**	**17,000**	**1,300**	**4,000**	**1,400**	**1,800**	760	**1,800**	430	710	**5,600**	**4,300**	**1,100**	1,000	850	**2,500**	380 J	**1,300**	1,000	1,000
Benzo(b)fluoranthene	ug/Kg	2,400	2,200	3,200	**21,000**	1,600	5,000	1,900	2,600	1,000	2,300	530	890	**6,500**	**6,100**	1,400	1,400	1,100	3,600	620	1,900	1,700	5,600
Benzo(g,h,i)perylene	ug/Kg	990	900	1,500	10,000	870	2,200	880	1,100	550 J	1,200	350 J	570	3,800	2,700	870	590	600	1,400	200 J	620	500,000	500,000
Benzo(k)fluoranthene	ug/Kg	830	780	1,100	7,000	590	1,700	650	890	280 J	790	190 J	290 J	2,200	2,200	500	450	430	1,200	240 J	690	1,700	56,000
Biphenyl	ug/Kg																		110 J			NL	NL
Bis(2-ethylhexyl) Phthalate	ug/Kg	200 BJ	220 BJ	270 BJ		290 BJ	210 BJ	370 BJ	290 BJ		220 BJ	180 BJ	170 BJ		230 BJ	220 BJ	340 BJ	150 BJ	380 B	94 BJ	320 BJ	NL	NL
Carbazole	ug/Kg	92 J	100 J	220 J	630 J	110 J	68 J	77 J	390 J		130 J				320 J	130 J	210 J	99 J	290 J		300 J	NL	NL
Chrysene	ug/Kg	1,300	1,200	2,200	14,000	1,000	2,600	1,000	1,800	700 J	1,700	360 J	300 J	6,700	4,000	1,000	1,300	780	2,500	420	1,500	1,000	56,000
Di-n-butyl Phthalate	ug/Kg	170 J		130 J		240 J	170 J	330 J	110 J		130 J	93 J	170 J			210 J	330 J	140 J	200 J		150 J	NL	NL
Dibenz(a,h)anthracene	ug/Kg	270 J	230 J	350 J	**2,700 J**	240 J	**610**	210 J	290 J	130 J	300 J	95 J	130 J	**1,000 J**	**720 J**	210 J	170 J	140 J	340 J	73 J	200 J	560	560
Dibenzofuran	ug/Kg	190 J	240 J	870	1,000 J	300 J	100 J		270 J		220 J				440 J	120 J	190 J	110 J	190 J	100 J	260 J	NL	NL
Diethyl Phthalate	ug/Kg						79 J	81 J	120 J							100 J	83 J		91 J		83 J	NL	NL
Fluoranthene	ug/Kg	2,700	2,500	5,300	28,000	2,000	3,100	1,800	4,200	1,000	4,000	540	310 J	9,200	9,000	2,300	3,700	1,700	5,100	620	3,400	500,000	500,000
Fluorene	ug/Kg	250 J	330 J	1,200	1,900 J	450	120 J		510		290 J			510 J	840	210 J	380 J	170 J	240 J		400	386,000	500,000
Indeno(1,2,3-cd)pyrene	ug/Kg	1,000	910	1,400	**11,000**	930	2,500	900	1,200	520 J	1,300	340 J	570	3,800	3,300	860	630	570	1,500	250 J	710	5,600	5,600
Naphthalene	ug/Kg	180 J	240 J	530	1,300 J	100 J	180 J		330 J	120 J	540				800	260 J	130 J	180 J	400	210 J	350 J	12,000	500,000
Phenanthrene	ug/Kg	1,500	1,500	4,700	11,000	1,500	650	720	3,300	500 J	1,900	330 J	130 J	7,100	5,300	1,400	3,200	1,100	3,000	480	2,900	500,000	500,000
Pyrene	ug/Kg	2,300	2,100	4,400	24,000	1,600	3,200	1,600	3,400	1,100	3,500	490	290 J	11,000	7,300	2,100	2,900	1,500	4,300	600	2,900	500,000	500,000
Metals																							
Aluminum, Total	mg/Kg	7,010	7,540	8,330	8,700	12,200	8,650	7,440	10,800	9,770	8,190	8,420	8,050	8,110	11,100	6,940	9,180	8,800	7,900	5,990	25,300	NL	NL
Arsenic, Total	mg/Kg	10	11.5	**29**	11.3	7.9	9.8	8.1	11.3	13.9	12.2	14.2	10.1	11.1	9.5	9.1	11	9.5	10.6	**43.1**	**17.7**	16	16
Barium, Total	mg/Kg	68.9	62.8	94.6	91.3	109	80.7	53.1	105	83.3	101	77.5	78.7	97.2	70.6	57.5	97.6	62.8	87.7	70.7	321	400	400
Beryllium, Total	mg/Kg	0.42	0.49	0.61	0.52	1.45	0.44	0.4	1.07	0.65	0.55	0.49	0.41	0.57	0.85	0.44	0.48	0.49	0.67	1.29	3.45	47	590
Calcium, Total	mg/Kg	8,730	22,000	9,610	8,170	46,000	3,560	5,840	28,400	2,950	7,200	15,400	24,300	18,200	19,100	7,200	3,590	15,000	15,400	3,670	121,000	NL	NL
Cadmium, Total	mg/Kg			0.20 J	0.12 J	0.09 J			0.15 J	0.20 J	0.49 BJ	0.38 BJ	0.40 BJ	0.40 BJ	0.27 BJ	0.41 BJ	0.41 BJ	0.40 BJ	0.50 BJ	0.85	0.62 B	7.5	9.3
Cobalt, Total	mg/Kg	8.0	7.8	7.9	8.8	5.9	7.8	7.0	6.7	13	7.4	7.4	7.0	8.1	4.8 J	5.4 J	6.8	5.5 J	5.9	14.5	2.7 J	NL	NL
Chromium, Total	mg/Kg	14.2	12.7	17.1	18.9	11.0	16.9	12.4	32.8	15.2	14.3	14.0	11.8	13.2	11.9	10.1	13.2	10.9	14.0	10.8	34.3	19	400
Copper, Total	mg/Kg	64.8	63.7	64.4	44.8	49.1	46.9	87.3	98	40.9	109	54.5	37.5	72.7	48.6	52.8	38.7	52.8	85	125	60.5	270	270
Iron, Total	mg/Kg	21,400	22,900	24,600	26,200	18,900	24,100	23,300	23,300	28,300	27,900	26,900	21,800	27,100	19,900	21,300	20,700	20,300	23,000	45,600	17,800	NL	NL
Potassium, Total	mg/Kg	780	830	1,060	1,010	980	910	760	1,110	1,070	1,160	1,020	910	940	710	700	820	720	820	590	1,500	NL	NL
Magnesium, Total	mg/Kg	3,390	2,750	3,630	3,870	8,810	3,010	3,140	5,260	2,960	2,950	3,620	3,400	3,400	3,150	2,360	1,920	4,210	2,990	1,200	17,100	NL	NL
Manganese, Total	mg/Kg	351	342	478	721	1,350	775	368	1,160	312	382	306	402	526	1,120	364	270	410	399	539	3,740	2,000	10,000
Sodium, Total	mg/Kg	680	600	740	520	870	630	530	700	180	790	510	820	860	1,000	660	390	780	890	250 B	840	NL	NL
Nickel, Total	mg/Kg	19.8	15.9	24.1	23.9	15.6	20.4	18.9	20.7	30.3	23.0	20.7	18.1	20.7	13.4	15.8	15.6	16.4	18.2	38.8	24.7	130	310
Lead, Total	mg/Kg	66.0	83.1	112	33.0	41.8	27.6	64.6	112	34.6	58.9	58.9	39.8	60.8	37.2	47.9	82.1	58.6	113	140	92.4	450	1,000
Antimony, Total	mg/Kg	0.9 J	1.0 J	0.7 J		0.7 J		2.8 J	2.1 J		2.3 J	1.1 J	1.1 J	1.4 J	1.0 J	1.1 J	1.2 J	1.3 J	1.9 J	2.8 J	1.5 J	NL	NL
Selenium, Total	mg/Kg	0.8 J		0.9 J		1.5	1.4		1.7	1.6		0.7 J		0.8 J	0.8 J					2.3	4.0	4.0	1,500
Vanadium, Total	mg/Kg	14.1	15.3	15.2	15.7	11.5	19.5	12.9	16.6	15.3	15.7	15.3	14.3	14.9	16.3	11.9	18.7	15.4	15.7	11.8	10.5	NL	NL
Zinc, Total	mg/Kg	106	95.3	117	124	75.6	81.9	88.7	114	129	138	93.9	70.9	89.6	63.2	72.3	81.7	82	115	159	233	2,480	10,000
Mercury, Total	mg/Kg	0.111	0.106	0.084	0.043	0.059	0.047	0.096	0.129	0.045	0.048	0.08	0.071	0.088	0.06	0.051	0.164	0.112	0.134	0.116	0.141	0.73	2.8
PCBs																							
Aroclor 1248	ug/Kg																				88	1,000	1,000
Aroclor 1254	ug/Kg			77																	93	1,000	1,000
Aroclor 1260	ug/Kg																				22 JP	1000	1,000
Pesticides																							
Endosulfan Sulfate	ug/Kg				21	7.3 J																200,000	200,000
Endrin Ketone	ug/Kg													21								NL	NL
Total Solids	%	88.9	89.9	89.9	89.6	90.9	88.5	90	85.2	88	88.6	87.8	87.1	89.3	85.6	88	84.2	88	88.5	87.1	89	NL	NL

Allowable Constituent Levels are from Table A-1: Allowable Constituent Levels for Imported Fill or Soil, of the Excavation Work Plan included in the Site Management Plan for the former Roblin Steel Site

NYSDEC Part 375 Commercial Use Soil Cleanup Objectives, Table 375-6.8(b) (December 2006)

Parameters exeeding the Allowable Constituent Levels are indicated with shaded cells

Parameters exeeding the Part 375 Commercial Use Soil Cleanup Objectives are indicated with Bold text

Only detected parameters are included

J = Estimate value due the concentration between the MRL and the MDL.

B = Analyte was also detected in the associated nethod blank at a concentration that may have contributed to the sample result

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 9
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April 27, 2016

George P. Spanos P.E.
Director of Chautauqua County DPF
454 N. Work Street
Falconer, NY 14733

Dear Mr. Spanos:

Corrective Action Work Plan
Former Roblin Steel Site (Dunkirk), Dunkirk(C)
Chautauqua County, Site #B00173

This letter is being written to confirm our telephone discussion on April 25, 2016, regarding the County's letter of March 24, 2016 for the proposed screening and relocation of the stockpile of materials currently located on the Former Roblin Steel Site (Roblin) and partially on the adjacent Edgewood Warehouse Site (Edgewood)(Site #: E907032). Your proposal included relocation to the adjacent Closed Alumax Extrusions, Inc. Facility (Alumax) (Site #: V00589.)

The Department approved the Revised Corrective Action Work Plan (CAWP) (*KHEOPS for Chautauqua County; April 3, 2015*) submitted in April 2015. The current letter proposal has changed the CAWP approach wherein all unsuitable material would be removed from the noted Sites. The proposal to screen material larger than 2" in size for off-site disposal, and the relocation to the adjacent Alumax Site for the remainder, is unacceptable due to analytical data provided in your submittal. The data indicates that the majority of samples (13 of 18) exceed Commercial Use Site Cleanup Objectives (SCOs) for certain contaminants, which is not in compliance with either the Roblin Site's Final Engineering Report, Appendix A: Site Management Plan (SMP) (*TVGA Consultants for Chautauqua County; November 2010*) or the Alumax Site's Combined Institutional Control Plan/ Operations and Maintenance Plan (O&M Plan)(*URS Corp for Alcoa, Inc.; 2004.*)

The following items are required to address the proper management of the stockpile:

- The approved CAWP shall be implemented by June 30, 2016. Please present the Department with a schedule for work activity prior to commencement.
- All unsuitable material shall be removed from the Edgewood Warehouse Site and the Roblin Steel Site. Relocation to the Alumax Site is not acceptable.
- The stockpile is to be appropriately covered, and proper dust and erosion controls are to be maintained until the stockpile has been removed.
- Screening of Solid Waste (>2" screen) from the stockpile for disposal is acceptable, provided that the removal is implemented in compliance with the approved CAWP and the Roblin SMP.

- Remaining screened material (<2" screen) shall be relocated to an acceptable off-Site location for reuse only with the explicit approval of the NYSDEC Division of Materials Management.

If you have any questions or comments, please contact me at 716-851-7220 or e-mail: david.szymanski@dec.ny.gov .

Sincerely,

David Szymanski
Environmental Program Specialist -1
NYSDEC Region 9 – Div. of Environmental Remediation

DS/tm

ec: Chad Staniszewski – NYSDEC
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Rob Napieralski – LaBella Associates, D.P.C.
Kenneth J. Strell - KHEOPS