

## **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; <a href="rodgersd@co.chautauqua.ny.us">rodgersd@co.chautauqua.ny.us</a>) 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 stockpilled material, it does not appear that the temporary stockpilling 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:

- 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.

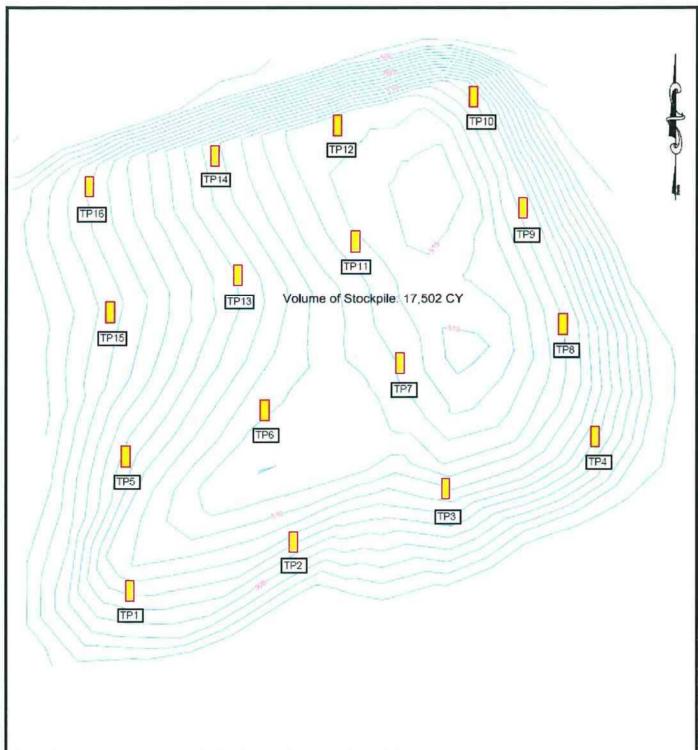
Respectfully submitted,

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



## FIGURE 1 Test Pit Location Map

Stockpile Characterization Former Roblin Steel Site Dunkirk, New York 14048

## MBELLA

PROJECT NO. 2160146



## **TABLE**

#### Table 1 Analytical Results for Grab Solf/Fill Material Samples

Former Roblin Steel Stockpile Characterization

		791 (1)-67	TP1 (81-77)	(0.01	f0 #2	192 (21-41)	T9245 <sup>©</sup> 71	TP3-(1-33)	193 (51.75	TP3 18'-E01	TP4 (0:47)	TH (0°-5)	TP4 (6°45)	7PS (01-1)	795 (41-62)	196 (17.30)	1866173	19685(11)	TP7 (25-4)	797 (614)	EP7 (10'-12')	TP8 (1"-51)	199 (5' 73	Allowable Constituent Levels	
folatile Organic Compositeds			-			20		-					-		-										
-Butanone (MEK)	L og/kg	3.5	7.7	11	8.5	I	2.01	1	1.01	1.41	Ī		2.4.1		1.0	131	4.07	6.5	1	1	4.0			120	500,000
Acetorie	L verse	13.	1 26	41	28		5.4		7.4	6.2		4.6	11		12	9.6	19	24		3.3	12	2.01		50	500,000
richloruethene [ICE]	1 ve/ke					1				1	1							0.951					1	470	200,000
hioromethane	1.46/48					1	1	1										111111111111111111111111111111111111111						NL.	NI,
delftyl Acetate	1 44/14	- 1		7		1	2.0.1	1												1				ML.	I NL
lenrene	I verse	- 1				1				1													1	60	44,000
erbon Disultide	100/54					1										1							1	N.	1 14.
thyltenzene	1 we/5e			6		1	Vi .				1.	0 2				1					1 2			1,000	390,000
deshylcycloherane :	we/sa				15	1111	1.									1							1	NI.	I No.
- Xylene	V6/56	- 4			1	1																		3,600	500,000
sopropulbergene (Cumene)	196/Ec					1																		NA.	I No.
,1,1 Trichloroethane (TCA)	ugike																							660	500,000
eral Solida	1.5	99.2	1 27.7 I	46.1	1 49.9	85.4	101		- 40	21.0	- 60		10.1	20.0		15.4	953		819	10.6	876	89.2	1 224	-	1 10

	TP8 (9"-013)	TP\$(1'-1)	TP9 (5'-117 #1	T99 (51413 42	TP33 (2°-3)	TR13 (51-27)	1910 (11-33	T#10 (5'-7')	TP10 (9'-11')	791.0145	T#11 (8°-10")	1931.025-145	TP14 (11/4)	1914 (719)	1932-03-35	1712 (5'-7')	7911 BY 113	TP15 (0'-1 5')	1915 (1.5'41)	TF16 (0°-2.57)	TP16/1.51/97	Cer	owacke stRueni evels	Part 375 Commercial SCI
									3													12.5		
ug/Kg			3.1	10 0	10	7.6					32	5.2	2.8	ī .	1 221	10	2.2.1	1		2.11	1 1	ī	120	500,000
ug/kg		4.9	1 15		54	1 33		i .			100	122	14	3.6	10	39	7.4	8.7	4.4	9.8		- 1	50	500,000
ug/Kg			10. 0			1	1						-	i i		1						1	470	200,000
ug/kg					0.60.1	1							-									(1-	Ni,	ML
ug/kg					6.6	1-			1.10	-								2.73				- 1	NI,	NL.
ug/Kg						0.23./	i			1		0.241	0.161			0.281						- 1	60	44,000
UE/KE				I	1	1		1	7		1.17	1						1	1	0.921	1	- 1	NI,	NL
ug/Kg						0.191			4							0.341			i				1,000	390,000
UE/KE			1	10.00		I .		1		10		Ī	0.621			2.37		1	1				Nt.	NL.
I ug/Ke						0.791							0.542			0.243					1 1		1,600	500,000
UE/KE												i				0.663			1				Nt.	ML.
ue/Ke						1												Ī		19			680	500,000
	_																							M
	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg	UE/KE	Ug/Kg   4.9   Ug/Kg   4.9   Ug/Kg   4.9   Ug/Kg   Ug	100 kg   3.1   125 kg   15   15   15   15   15   15   15   1	\( \psi_{\text{NE}} \)	Up/Kg   3.1   10   Up/Kg   4.5   15   14   Up/Kg   4.5   15   Up/Kg   4.5   Up/Kg   4.6   Up/Kg   4.6   Up/Kg   4.6   Up/Kg   4.6   Up/Kg   Up/Kg	up/kg	100   10   7.5   100   10   100	100 kg   2.1   20   7.5   100 kg   10	wife	wife	wife	wife	Unifies   1.1   1.0   7.5   1.2   5.2   2.6     Unifies   4.9   1.5   1.4   3.3   1.00   1.2   1.4     Unifies   0.60   1     Unifies   0.60   1     Unifies   0.50   1.1     Unifies   0.50   1.1	wife	100   100	100   100	100   100	100   100	100   100	10   10   10   10   10   10   10   10	10   12   12   13   15   15   15   15   15   15   15	May   May	March   Marc

#### Table 2 Analytical Results for Composite Soil/Fill Material Samples

Former Roblin Steel Stockpile Characterization

		E			162	102	174	174	100	172	10000	280.5	1000	0.000	1000		0.00	The same	1	1	TROSO	ANUMBER	Part S75
		TP1	10000	TP2	Composite	Composite		Composite	Composite	Composite	176	TP7	TPR	199	1913	TP10	TF11	TF14	1912	TP15	TP16	Constituent	Commerci
	1	Composite	FD #2	Composite	0'-5"	\$'-10"	10-41	(4.8)	(0'-3')	13:61	Composite	Сотройт	Composite	Composite	Levels	500							
emi-Votetile Organic Compounds																							
Mathylnaphthalene	ug/Kg	140.	1307	3601			771		230.1		1801	64.1			230 J	1801	1201	85.1	640	3401	2101	NI,	NL.
I- and 4-Methylphenol Coelution	ue/ke																	_	200 /	_		330	NL.
Scenaphthene	UE/KE	82.1	767	2301			541		1101		59.7	_		4501	_	72.1	130 /	_	1301		1901	98,000	500,00
Voersaphthylene	ue/Ke	550	540	970	4,500	510	1,400	440	3501	150 )	290 J	1101	2201		790	200 J	130 /	1701	3201	1001	1401	107,000	500,00
Inthracene	ug/Kg	610	580	1,400	7.500	590	930	3201	830	1407	620	991	881	1,700	1.400	320)	570	270)	680	110 /	670	500,000	500,00
Berula)anthracene	ug/Kg	1,200	1,100	2,100	14,000	990	2,400	950	1,600	6507	1,700	3107	290 J	5,500	4,000	930	1,200	770	2,100	400	1,400	1,000	5,600
lerao(a)pwrene	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	5.00C	1,900	1,500	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(z,hUlperviene	ug/Kg	990	900	1,500	10,000	870	2.200	880	1,100	5507	1,200	3501	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	1901	290 J	9.200	2,200	500	450	430	1,200	2403	690	1.700	56,000
Siphenyl	mg/Kg	, -																	1101			NL.	Ni.
Bis(2-ethylhexy() Phthalate	we/Ke	200 BI	220 BJ	270 B1		290 BJ	210 BJ	370 SJ	290 81		220 6/	180 BJ	170 BJ		230 SJ	220 GJ	340 BJ	150 BI	380 B	94 BJ	320 BI	NL.	NL.
Cartragole	ug/Ke	92.1	100 /	220)	6301	1101	68,	77.	390:		130 /				3201	1301	2101	59.1	290 /		3001	NL.	N.
Chrysene	ue/Ke	1 100	1,200	2,200	14,000	1,000	2,600	1.000	1.800	700 J	1.700	360.1	300.1	6,700	4,000	1.000	1,30C	780	2.500	420	1.500	1.000	56,000
Di-n-buryl Phthalate	ug/Kg	170 /		130 J		2401	170 /	3301	1107		1307	937	170 J			210)	3301	140 J	2001		150 /	NL.	- NL
Dibera(a,h)anthracene	UR/KE	270 J	230 J	3501	2,7001	2401	610	210 /	290 /	130 /	300)	951	130.1	1,000 )	7201	210 /	170 /	140 J	3401	73.1	2001	560	560
Dibenzofuran	ug/Kg	1903	2401	870	1,000 J	3001	1007	- 3	2701		2201				4401	120 /	1907	1101	1901	100 J	2601	NI.	NL.
Diethyl Phthalate	ug/Kg						791	81)	1201							100)	83.1		91J		83.1	NI.	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	310.1	9,200	9,000	2,300	3,700	1,700	5,100	620	3,400	500,000	500,000
Fluorene	ue/Ke	250 J	330 J	1,200	1,900 J	450	120		510		290 )	1 1		5107	840	210 J	3807	170 J	2401		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	5201	1,300	340.1	570	3,800	3,300	860	630	570	1,500	2501	710	5,600	5,600
Maphthalone	ug/Kg	180 /	240.1	530	1,300 /	100 /	1801		3301	120.1	540				800	260.1	1307	180.1	400	210.1	350.1	12.000	500,000
Phenanthrene	ug/Kg	1.500	1.500	4,700	11.000	1,500	650	720	3,300	500.1	1,900	330.1	1301	7,100	5,300	1.400	3,700	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	2901	11,000	7,300	2,100	2,900 -	1,500	4,300	600	2,900	500,000	500,000
Metals	1		-		-	-			3,100	,											,	100,000	-
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	NI.	NL.
Artenic, 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	me/ke	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	321	400	400
Beryllium, Total	me/ke	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	3.46	47	590
Calcium, Total	me/ke	8.730	22,000	9,610	8.170	45.000	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	NI.	NL.
Cadmium, Total	me/kg	8,730	11,000	0.201	0.12	0.091	3,100	3,040	0.151	0.201	0.49 8.	0.35 &	0.40 BJ	0.4081	0.27 Bu	0.41 8.	0.418	0.40 84	0.50 BJ	0.85	0.62 B	7.5	9.3
Cobalt, Total	me/Kg	8.0	7.8	7.9	8.5	5.9	7.8	7.0	6.7	13	7.4	7.4	7.0	8.1	451	541	5.8	5.51	5.9	14.5	2.71	NI.	NL.
Olyomium, Total	mg/Kg	14.2	12.7	17.1	18.9	11.0	16.9	12.4	32.6	15.2	14.3	14.0	11.8	13.2	11.9	10.1	11.2	10.9	14.0	10.8	143	19	400
Copper, Total	mg/kg	64.8	63.7	64.4	44.8	49.1	46.9	97.3	92	40.9	109	54.5	37.5	72.7	48.5	52.8	38.7	52.8	85	125	60.5	270	270
ron, 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	73.000	45.600	17.800	NI.	NL NL
Potassium, Total		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, Fotel	mg/Kg mg/Kg	3,320	2,750	3,530	3.670	8,610	3.010	3,140	5,260	2,960	2,950	3,520	3,400	3,400	3,150	2,360	1,920	4,210	2,990	1,200	17,100	N.	NL NL
Manganese, Total	mg/Kg		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	351 680	600	740	520	870	630	530	700	180	790	510	820	860	1,000	660	390	780	890	250 B	840	2,000 NL	NI.
Nickel, Total	mg/kg	19.8	15.9	24.1	73.9	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
Nickel, Total		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
	mg/Kg				3,5,0		27.5			34.6				1.43		47.5							
Antimony, Total	mg/Kg	0.91	1.01	0.71		0.71		2.81	2.17	1.6	2.3 /	0.71	1.11		1.01	1.11	1.2.1	1.3 )	1.91	2.8.)	1.51	NL AC	NL 1 500
Selenium, Total	mg/Kg	0.81	16.3	0.91	45.3	1.5	1.4	120	16.6	1.6	16.7	15.3	112	14.9	0.8.1		18.7		15.7		4.0	4.0	1,500
Vanadium, Total	me/Kg	14.1	15.3	15.2	15.7	11.5	19.5	12.9		15.3	15.7		70.9	89.6	63.2	11.9		15.4		11.8	10.5	NL NL	NI.
line, Total	mg/Kg	106	95.3		124	75.5	81.9	88.7	114	129	138	93.9				72.3	81.7	82	115		233	2,480	10,000
Mercury, Total	mg/Kg	0.111	0.106	0.084	0.043	0.059	0.047	0.0%	0.129	0.045	0.048	0.08	0.071	580.0	0.06	0.051	0.164	0.112	0.134	0.116	0.141	0.73	2.8
PCBs	11/2			- 7															1				
brocfor 1248	ug/Kg		_									1									8.5	1.000	1.000
rodor 1254	ug/Kg			77																	93	1,000	1.000
brodor 1260	ug/Kg																				22 JP	1000	1.000
Pesticides			-			7 6						0					A 2						
Indosulfan Sulfate	ug/Kg		-		21	7.3 J																200.000	200,000
Indrin Ketone	ue/Kg		1			1		1)				2 3		21					9		1	NL	I NL
otal Solids	1 %	13.9	59.9	99.9	\$9.6	90.9	88.5	90	85.2	88	83.6	57.8	87.1	89.3	85.6	5.8	84.2	6.8	885	87.1	89	241	NI.

| Telephrophic | No. | 14.9 | 19.9 | 19.0 | 19.6 | 19.0 | 18.5 | 19.5 | 18.5 | 19.5 | 18.5 | 19.5 | 18.5 | 19.5 | 18.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 |

.



## **ATTACHMENT 1**

**Field Logs** 

LVE	BEL	L
	Associ	atea PC

TEST PIT: TP -

JOB: 2160148

CHKD BY: CK

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

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

TEST PIT LOCATION:

START DATE

DATUM:

NA .

TYPE OF EQUIPMENT:

БЕРТН (FEET)	SAMPLE NO	SAMPLE STRATA CHANGE (FEET)			VISUAL CLASSI	FICATION	PID FIELD SCREEN (PPM)	REMARKS
2			Fill	6144 (1) C	consister Debas - b	rick contrete	6	2
4					\ \		0	4
6					. 1		10	6
8								8
10								10
12								12
14			TOI	to 7'				14
16			171	10 /				16
				DEPTH (FT)		NOTES:		
	WATER	LEVEL DATA	воттом оғ	воттом оғ	GROUNDWATER	ND = Non Detect		
DATE	TIME	ELAPSED TIME	CASING	TEST PIT	ENCOUNTERED	BGS = Below the Ground Surface		
NA	NA	NA.	MA			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 OF TO

samples 10:15 TPI 221'
TPI 5-7'

-FO#2 (1 VX Kit, 1 com

(note on car surple 5)

7

Δ	B	E	L	4	1
		Ass	ccia	bes, F	C.

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

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

CONTRACTOR: D&H Excavting LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION: GROUND SURFACE ELEVATION START DATE:

DATUM

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO.	SAMPLE STRATA CHANGE (FEET)			VISUAL CLASS	IFICATION	PID FIELD SCREEN (PPM)	REMARKS
$\overline{}$	AND DEPTH	(FEE1)	-					
0			Fill	(Brick	chaging c	consistency)	O	o
<sup>2</sup>					\ (	,	0	2
6				\			0	4
							0	6
8								8
10								10
12								12
14					A			14
40			- 100x	pitto	5			
16			7,	DEPTH (FT)		NOTES		16
	WATER	LEVEL DATA	BOTTOM OF	BOTTOM OF	GROUNDWATER	Control of the Contro		
DATE	TIME	ELAPSED TIME	CASING	TEST PIT		BGS = Below the Ground Surface		
NA	NA	NA NA	NA	100,711	- CONTENED	NA = Not Applicable		
					4	A		

#### 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 -

Client is KHEOPS! (note on cae samples)

LA	B	E	L	L
		ARR	ocies	PR.PC

TEST PIT: TP -

JOB: 2160148 CHKD BY: CK

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

CONTRACTOR: D&H Excavting

LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:

GROUND SURFACE ELEVATION
START DATE: 2-16-15

DATUM N

TYPE OF EQUIPMENT:

ОЕРТН (FEET)		SAMPLE		e e			PID FIELD	
DEPTH	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)			VISUAL CLASS		SCREEN (PPM)	REMARKS
0			(5 Fin-C	iltyrcke inclubi	jey consi	stercy) fries Lity brill , consete sa	Oth	0
2 - <del>1</del>					//		0	2
6					( )		0	4
					\ \		0	6
8					\ \		0	18
10								10
12								12
14				1 1	1 12			14
16			-10		to 10'	Localis .		16
	WATER	EVEL DATA	DOTTOMOS	DEPTH FT)	DOO! WOULD TO	NOTES:		
ATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER	BGS = Below the Ground Surface		
VA.	NA NA	NA NA	NA	TEST PIT	ENCOUNTERED	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 -

20 who go w

-3 (Kits)

TP3-5-7

TP3 Camp -- 5'-10

MB	EL	IA
	Associ	stes, P.C.

TEST PIT: TP -SHEET

**ЈОВ:** 2160148 CHKD BY: CK

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

CONTRACTOR: D&H Excavting LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:

GROUND SURFACE ELEVATION START DATE

TYPE OF EQUIPMENT:

(FEET)	8	SAMPLE		PID FIELD	
DEPTH (FEET)	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	SCREEN (PPM)	REMARKS
0			(Ckycy Sitty cosstany)	0,4	Shight petrokur
4				().]	how
6			CX.	0	4 carried of phali
0				0	o intri
8					a love
10					8 Hack
12					12
14					14
16			-Testoit to 8		16
	WATER	EVEL DATA	BOTTOM OF BOTTOM OF GROUNDWATER IND = Non Detect		
DATE	TIME	ELAPSED TIME	BOTTOM OF BOTTOM OF GROUNDWATER ND = Non Detect  CASING TEST PIT ENCOUNTERED BGS = Below the Ground Surface		
NA	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

IAB	F	IΙΛ
_ \_	Asso	ciates, P.C.

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

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

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

TEST PIT LOCATION:

GROUND SURFACE ELEVATION NA-

DATUM:

NA

TYPE OF EQUIPMENT:

L								
ОЕРТН (FEET)	SAMPLE						PID FIELD	
DEPTH	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	/		VISUAL CLASSII	nat, little concrete toky tile	SCREEN (PPM)	REMARKS
0			Ckye	4, Sitry	Lansistance	4)		0
			rili		1	1)11	Tr.	
			1-11	-most	ly CISOV	nat, little concrete	0	
2					7	t (kg. +10		2
				11		9111	~	
4							0	
7					\\			4
							()	
6								
0								6
8								8
								1
10								10
12								12
14								14
			-					
10				Stat.	56			
16				DEPTH(FT)	100	NOTES		16
	WATER	LEVEL DATA	BOTTOM OF	1	GROUNDWATER	N-187619-1676		
DATE	TIME	ELAPSED TIME	CASING	TEST PIT		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

14:20 24.75 )

TPS- 1-3'
TPS- 4-6'

TPS Composite (0-3)
TPS Composite (3-6)

MB	E	LLA

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

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

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

TEST PIT LOCATION:

GROUND SURFACE ELEVATION START DATE:

DATUM:

NA

TYPE OF EQUIPMENT:

					tion .			
ОЕРТН (FEET)	SAMPLE NO	SAMPLE STRATA CHANGE (FEET)			VISUAL CLASSI	<b>\</b>	PID FIELD SCREEN (PPM)	REMARKS
0			Gilty Fill &	, clayer	1 corsiste	alt, concrete, brick	0	0
<sup>2</sup>					× 1	,	0	2
6							0	6
8							0	8
10					``		0	10
12					\ -		0	
								12
14			-To-	st pit t	מ וו'			14
16			150			F		16
	WATER	LEVEL DATA	воттом оғ	DEPTH (FT) BOTTOM OF	GROUNDWATER	NOTES:		
DATE	TIME	ELAPSED TIME	CASING	TEST PIT		BGS = Below the Ground Surface		
NA	NA NA	NA NA	NA	IESI PII		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

sample Julian

TP6-1-3 TP6-5-7

TPG Corposite

INF	BEI	IA
	Associa	tes.PC.

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANTS Former Roblin Steel Stockpile Characterization Test Pits 320 South Roberts Road, Dunkirk, NY TEST PIT: TPSHEET 1 OF
JOB: 2160148
CHKD BY: CK

ENVIRONMENTAL	ENGINEERING	CONSULTANT					
CONTRACTOR F							

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

TEST PIT LOCATION:

GROUND SURFACE ELEVATION

START DATE: 12

DATUM:

TYPE OF EQUIPMENT:

БЕРТН (FEET)	SAMPLE SAMPLE		CTRATA CHANGE			PID FIELD SCREEN		
DEP	SAMPLE NO. AND DEPTH	(FEET)	-		VISUAL CLASSI	IFICATION	(PPM)	REMARKS
0			Eilte Fill	chique Cach de	consist bix - cs	phalticoncrete	-0	0
4				1,			0	2
6				~ (				4
O				\ \			0	6
8				\			0	8
10				\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				10
12							0	12
14					1			14
16			1	est pit	10 13			16
				DEPTH (FT)	1	NOTES:		10
	WATER	LEVEL DATA	воттом оғ	воттом оғ	GROUNDWATER	ND = Non Detect		
DATE	TIME	ELAPSED TIME	CASING	TEST PIT	ENCOUNTERED	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 .

4200

TP7-24 TP7-6-8 TP7-10-12

TP7 composite

LVE	BEI	LLA
	Assoc	ciates PC

TEST PIT:	TP - C
SHEET	1_OF
<b>ЈОВ: 216</b>	0148
CHKD BY: CK	

300 PEARL STREET, BUFFALO, NY

ENVIRONMENTAL ENGINEERING CONSULTANTS

CONTRACTOR: D&H Excavting LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:

GROUND SURFACE ELEVATION START DATE: 21

TYPE OF EQUIPMENT:

			20.				01	
ОЕРТН (FEET)	SAMPLE NO STRATA CHANGE				VISUAL CLASSII	FICATION	PID FIELD SCREEN (PPM)	REMARKS
	AND DEPTH	(FEET)	7.10		7111	A CONTRACTOR OF THE CONTRACTOR		1 (200 (1997) (1997) (200 (200 (1997))
0			Fill (t	el deba	ansistena S-aspha	4 It, concrete, brick	0	0
2					Ci		0	2
Ч					11		0	4.
6			-					6
					1 (		0	
8							0	8
10								10
12					ν ν		0	12
12								12
14								14
16			-Test	r pl4 t	V 11'	Lungan		16
_	MATER	EVEL DATA	POTTOMOS	DEPTH (FT)		NOTES:		
DATE	TIME	LEVEL DATA	BOTTOM OF	BOTTOM OF TEST PIT	GROUNDWATER			
NA	NA NA	ELAPSED TIME NA	CASING	TEST PIT		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-

7/8 composite



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

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

CONTRACTOR: D&H Excavting

LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:

GROUND SURFACE ELEVATION START DATE:

TYPE OF EQUIPMENT:

OPERATOR:

ОЕРТН (FEET)	SAMPLE				
DEPT	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	SCREEN (PPM)	REMARKS
0			Fill cod clebris - brick asphalt, can not	0	Stanny 2 from asphalt
<sup>2</sup>			\ \	0	asphalt
				0	4
6				0	6
8				0	8
10	-			0	10
12					12
14			Test pit toll		14
16			1011 1011		16
			DEPTH (FT) NOTES		
		LEVEL DATA	BOTTOM OF BOTTOM OF GROUNDWATER ND = Non Detect		
DATE	TIME	ELAPSED TIME	CASING TEST PIT ENCOUNTERED 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 -



LAB	EL	L
10,000	A8800	iates, 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-SHEET **JOB:** 2160148 CHKD BY: CK

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

TEST PIT LOCATION: GROUND SURFACE ELEVATION START DATE:

DATUM

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE		SAMPLE			PID FIELD		
DEPTH	SAMPLE NO AND DEPTH	STRATA CHANGE (FEET)			VISUAL CLASSI		SCREEN (PPM)	REMARKS
0			Silty-	COD DO	consister ns-cuspl	altibrick, concrete	0	Black Staining Flam asphall
<sup>2</sup>					((		$\circ$	asphall
6					\ \		0	2-8
					\ (		0	6
8					0	8		
10					( (		0	10
12					(	L		12
14			Tost	Pitto	11'			14
16				11.10	1,			16
	1414755	I SUST DATA	DOTTOM OF	DEPTH (FT)	000000000000000000000000000000000000000	NOTES:		
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF TEST PIT	GROUNDWATER	BGS = Below the Ground Surface		
MA	NA	NA NA	MA	1000000		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

LAB	EL	L
	Давос	letes, RC.

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

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

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

TEST PIT LOCATION:
GROUND SURFACE ELEVATION
START DATE:

DATUM

NA

TYPE OF EQUIPMENT:

ОЕРТН (РЕЕТ)		SAMPLE					PID FIELD SCREEN	
DEPTI	SAMPLE NO	STRATA CHANGE (FEET)			VISUAL CLASSI		(PPM)	REMARKS
0			Silty-C	tapy co	onsistence	1 (1 telephone pole)	×	· Plack
			FW C	· O ber	on's asph	y (telephone pole) with, brick, concrete	0	Staning
2	<b>—</b>			0.2	1			2 fran /
					(		6	orphalt
4								1 2/281
					[ 1		0	
6								6
					()		_	
8					C V			la.
,					( )		-	
							0	
10					1		236	10
							0	
12								12
					( )			
14								14
			Tak	11 tol-	11			
16			1EST	77 701				16
				DEPTH (FT)	Laws on turns a street	NOTES:		
_		LEVEL DATA	BOTTOM OF	воттом оғ	GROUNDWATER			
DATE	TIME	ELAPSED TIME	CASING	TEST PIT	ENCOUNTERED	BGS = Below the Ground Surface		
NA	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.

Sargled 10:50 TP11-3-5 TP11-8-10

TP11-00/2-14

MB	EL	L
	Associ	stes FC.

TEST PIT: TP - SHEET 1 OF

JOB: 2160148 CHKD BY CK

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

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

TEST PIT LOCATION:

GROUND SURFACE ELEVATION NA

DATUM:

11 NA

TYPE OF EQUIPMENT:

							×0	
DEPTH (FEET)	SAMPLE NO.	SAMPLE STRATA CHANGE (FEET)			VISUAL CLASSII		PID FIELD SCREEN (PPM)	REMARKS
0			Sity.	Cop (	debits (	crobalt, consiste,	0	·Black Staining
² Ч					(, (	•	0	appell
6					( (		0	full tost
0					1		6	16b 1+(0-11)
8					\		6	8
10					le .		0	10
12								12
14			toxx	oit t	×11			14
16			1001					16
				DEPTH (FT)		NOTES:		
DATE	TIME	ELAPSED TIME	BOTTOM OF CASING	BOTTOM OF	GROUNDWATER ENCOUNTERED	ND = Non Detect BGS = Below the Ground Surface		
NA.	NA	NA NA	NA	ICATEI		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: TI

λ

TP12-1-3 TP12-5-7 TP12-9-11

Surpled U20

B	E	LI	Λ
	Ass	ociete	s, P.C.

TEST PIT: TP -**ЈОВ**: 2160148 CHKD BY: CK

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

OPERATOR:

CONTRACTOR: D&H Excavting LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION;

GROUND SURFACE ELEVATION START DATE

DATUM:

TYPE OF EQUIPMENT:

_								
ОЕРТН (FEET)		SAMPLE					PID FIELD SCREEN	
DEPT	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)			VISUAL CLASSI		(PPM)	REMARKS
O			Silty ( Fill -C	t Dokl	censiste	rig temply sin	5)0	0
<sup>2</sup>					) (		Ó	2
6					, (		0	4
					~ \		0	6
8								8
10								10
12								12
14								14
16			120	st pit	80			16
	Service of the same	Non-Control State (CASA)		DEPTH(FT)	Par and they have a	NOTES:		
DATE	1	LEVEL DATA	BOTTOM OF	BOTTOM OF	GROUNDWATER	45		
DATE	TIME NA	ELAPSED TIME NA	CASING	TEST PIT	ENCOUNTERED	BGS = Below the Ground Surface		
IVA	IVA	INA	INA		1	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 -

- Soughed

-TAB composite

IADI		
RIDI	Associat	

300 PEARL STREET, BUFFALO, NY

Former Roblin Steel Stockpile Characterization Test Pits 320 South Roberts Road, Dunkirk, NY TEST PIT: TP. SHEET 1 OF JOB: 2160148

CHKD BY: CK

ENVIRONMENTAL ENGINEERING CONSULTANTS

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

TEST PIT LOCATION:

GROUND SURFACE ELEVATION NA START DATE: (2-1)-(5 DATUM:

TYPE OF EQUIPMENT:

FEET)		SAMPLE					PID FIELD	
ОЕРТН (FEET)	SAMPLE NO.	STRATA CHANGE (FEET)			VISUAL CLASSI	FICATION	SCREEN (PPM)	REMARKS
0			Chip Cill-1	4-5.Hg	consist ons Error	ency with, concrete, brick	9	0
<sup>2</sup>					(1		0	2
6					` '		0	4
0					\ \		0	6
8					( )		Ŏ	8
10								10
12								12
14		-						14
16				est 0	ttole	)		16
	WATER	LEVEL DATA	воттом оғ	BOTTOM OF	GROUNDWATER	NOTES:		
DATE	TIME	ELAPSED TIME	CASING	TEST PIT		BGS = Below the Ground Surface		
NA	NA	NA NA	NA	1201111		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

2010/5g

TP14-3-5

- TPKI composite



TEST	PIT:	TP -	
SHEET		1	OF
SHEET JOB:	216	0148	3
CHKD	BY: CK		-

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

CONTRACTOR: D&H Excavting OPERATOR:

LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:

GROUND SURFACE ELEVATION START DATE:

DATUM 2:45

TYPE OF EQUIPMENT:

ОЕРТН (FEET)		SAMPLE					PID FIELD SCREEN	
DEPTI	SAMPLE NO AND DEPTH	STRATA CHANGE (FEET)			VISUAL CLASSII	FICATION	(PPM)	REMARKS
0			Sitter-	CED de	bas (bas	ry fundry send	0	o
2				(	1		0	2
4								4
6								6
8								8
10								10
12							-	12
14			-	0.1	1 01			14
16			10	DEPTH (FT)	to 3'	NOTES		16
-	WATER	LEVEL DATA	воттом оғ	BOTTOM OF	GROUNDWATER	1.72		
DATE	TIME	ELAPSED TIME	CASING	TEST PIT	Name of the Contract of the Co	BGS = Below the Ground Surface		
NA	NA	NA NA	NA	1231111		CONT. 11.30 CONT. 13.4		
NA.	I NA I	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

- Sampled



TEST	PIT:	TP -	16
SHEET		1	OF
JOB:	216	014	8
CHKD	BY: CK		

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

CONTRACTOR: D&H Excavting LABELLA REPRESENTATIVE: Chris Kibler

TEST PIT LOCATION:

GROUND SURFACE ELEVATION START DATE:

DATUM:

TYPE OF EQUIPMENT:

DEPTH (FEET)	SAMPLE NO	SAMPLE STRATA CHANGE			VISUAL CLASS	IFICATION	PID FIELD SCREEN (PPM)	REMARKS
8	AND DEPTH	(FEET)						KEWAKKS
			Cky.	CED DO	y consi	sterey tunings in	Ø	o
2	-				\ 1		0	2
4								4
6								6
8								
8								В
10								10
12								12
14								14
46			Te	A AT	-to 3			
16				DEPTH (FT)		NOTES:		16
	WATER	LEVEL DATA	воттом ог	BOTTOM OF	GROUNDWATER	Colorado.		
DATE	TIME	ELAPSED TIME	CASING	TEST PIT	and the stage of the same of the	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 -

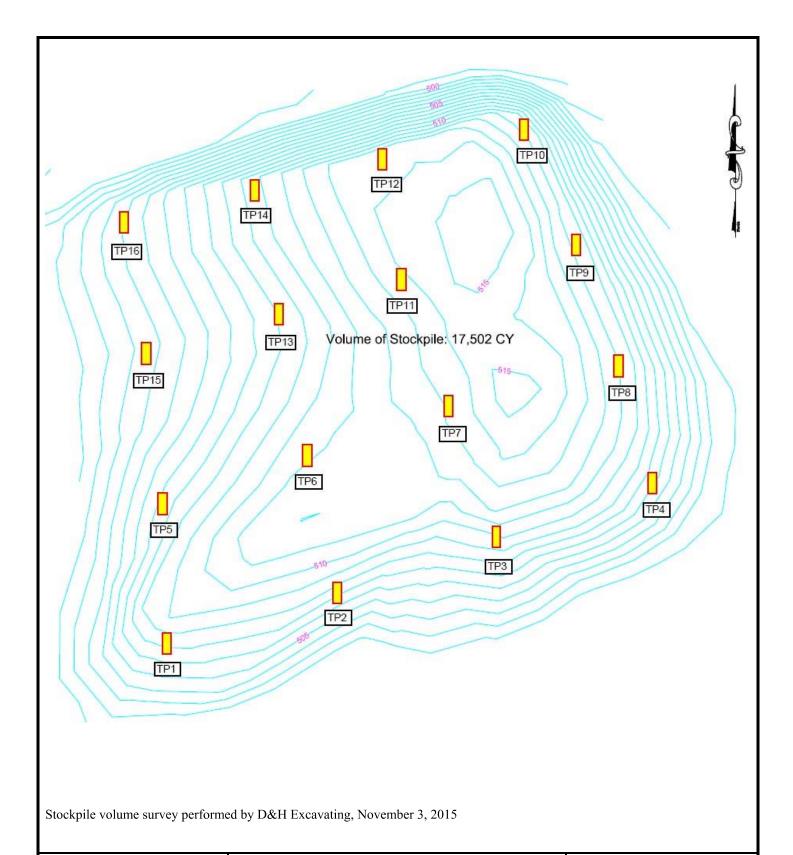


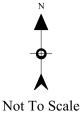


## **ATTACHMENT 2**

**Laboratory Analytical Report** 







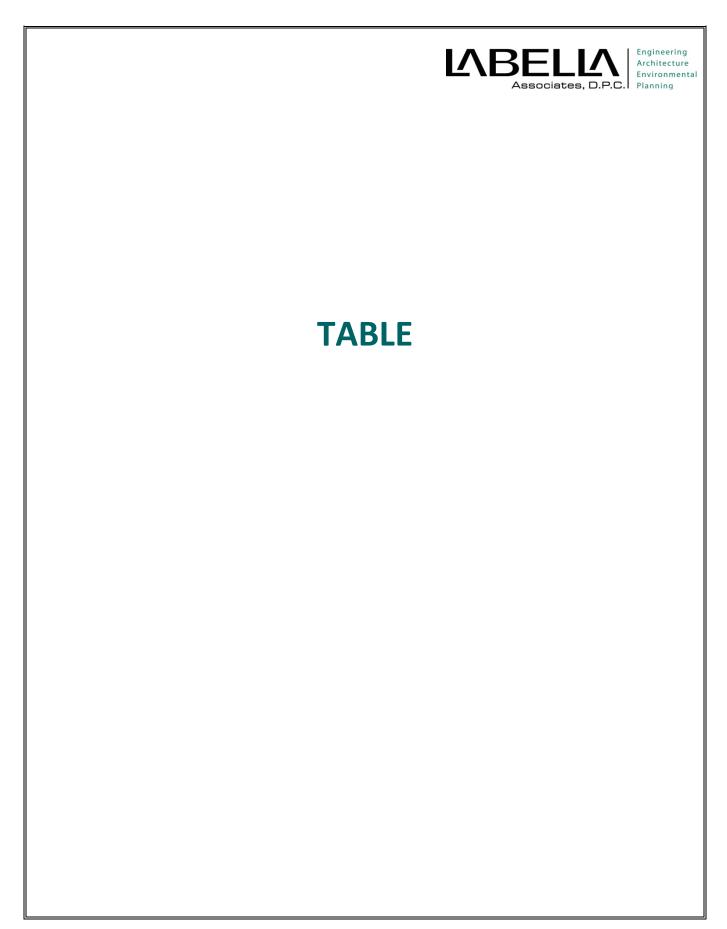
## FIGURE 1 Test Pit Location Map

Stockpile Characterization Former Roblin Steel Site Dunkirk, New York 14048

## **LABELLA**

PROJECT NO.

2160146



# Table 1 Analytical Results for Grab Soil/Fill Material Samples

Former Roblin Steel Stockpile Characterization

Total Solids		1,1,1-Trichloroethane (TCA)	Isopropylbenzene (Cumene)	o-Xylene	Methylcyclohexane	Ethylbenzene	Carbon Disulfide	Benzene	Methyl Acetate	Chloromethane	Trichloroethene (TCE)	Acetone	2-Butanone (MEK)	<b>Volatile Organic Compouinds</b>			Total Solids	1,1,1-Trichloroethane (TCA)	Isopropylbenzene (Cumene)	o-Xylene	Methylcyclohexane	Ethylbenzene	Carbon Disulfide	Benzene	Methyl Acetate	Chloromethane	Trichloroethene (TCE)	Acetone	2-Butanone (MEK)	<b>Volatile Organic Compouinds</b>		
		TCA)	ene)											ouinds				TCA)	ene)											ouinds		
%	4	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg		TF		%	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg			4
84.3	-														TP8 (9'-11')		89.2											13	3.5		TP1 (2'-4')	
89.1												4.9			TP9 (1'-3') 1		87.3											26	7.7		TP1 (5'-7')	
86.5												15	3.1		P9 (5'-11') #1		89.1											41	11		FD #1	
88.4															TP9 (5'-11') #1 TP9 (5'-11') #2		89.9											28	8.5		FD #2	
89.9									6.6	0.60 J		54	10		TP13 (1'-3')		85.4				1.1 J										TP2 (2'-4')	
88.6				0.79 J		0.19 J		0.23 J				33	7.6		TP13 (5'-7')		89.5								2.0 J			8.4	2.0 J		TP2 (5'-7')	
86.8															TP10 (1'-3')		92.4														TP3 (1'-3')	
90.8															TP10 (5'-7')		90											7.4	1.8 J		TP3 (5'-7')	
90.1									1.11						TP10 (9'-11')		91.9											6.2	1.4 J		TP3 (8'-10')	
86.9															TP11 (3'-5')		89														TP4 (0'-2')	
82.9							1.11					100	32		TP11 (8'-10')		83.5											4.6			TP4 (3'-5')	
86.5								0.24 J				22	5.2		TP11 (12'-14')		89.2											11	2.4 J		TP4 (6'-8')	
90.6				0.54 J	0.62 J			0.16 J				14	2.8		TP14 (3'-5')		90.9														TP5 (1'-3')	
90.3												3.6			TP14 (7'-9')		87.2											12	3.0		TP5 (4'-6')	
86.3												10	2.2 J		TP12 (1'-3')		85.4											9.6	2.3 J		TP6 (1'-3')	
88.9			0.66 J	0.24 J	2.3 J	0.34 J		0.28 J				39	10		TP12 (5'-7')		90.2											19	4.0 J		TP6 (5'-7')	
87.3	_											7.4	2.2 J		TP12 (1'-3') TP12 (5'-7') TP12 (9'-11') TP15 (0'-1.5')		87.6										0.95 J	24	6.5		TP6 (9'-11')	
83.9									2.7 J			8.7			TP15 (0'-1.5')		81.9														TP7 (2'-4')	
84.7												4.4			TP15 (1.5'-3') TP16 (0'-1.5') TP16 (1.5'-3')		88.6											3.3			TP7 (6'-8')	
88.8		19					0.92 J					9.8	2.1 J		TP16 (0'-1.5')	_	87.6											15	4.0		TP7 (10'-12')	
86.1															TP16 (1.5'-3')		89.2											2.0 J			TP8 (1'-3')	
																	87.4														TP8 (5'-7')	
NL		680	N	1,600	N.	1,000	N.	60	N.	N	470	50	120			Constituent	NL	680	N.	1,600	N	1,000	N.	60	N.	NF	470	50	120		Constituent	Allamabla
NL		500,000	NL	500,000	NL	390,000	NL	44,000	NL	NL	200,000	500,000	500,000		Commercial SCO	Part 375	NL	500,000	NL	500,000	NF	390,000	NF	44,000	N.	NF	200,000	500,000	500,000		Part 375 Commercial SCO	

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 holdin Steal Site INTSIGE Cent 275 Commercial Use Said Cleanup Department, 1864 375 (AS) (I) December 2000)

Parameters sending 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

otal Solids	ndrin Ketone	ndosulfan Sulfate	Pesticides	Aroclor 1260	Aroclor 1254	Aroclor 1248	PCBs	Aercury Total	Zinc, Total	Vanadium Total	Selenium, Total	Intimony, Total	Lead, Total	Nickel, Total	Sodium, Total	Manganese, Total	Magnesium, Total	Potassium, Total	ron, Total	Copper, Total	Chromium, Total	Cobalt, Total	Cadmium, Total	Calcium, Total	Beryllium, Total	Barium, Total	Arsenic Total	Metals	Pyrene	Phenanthrene	Naphthalene	indeno(1,2,3-cd)pyrene	Fluoranthene	Diethyl Phthalate	Dibenzofuran	Dibenz(a,h)anthracene	Di-n-butyl Phthalate	Chrysene	arbazole	Bis(2-ethylhexyl) Phthalate	Benzo(K)Tiuorantnene	Benzo(g,h,i)perylene	Benzo(b)fluoranthene	Benzo(a)pyrene	Benz(a)anthracene	Anthracene	Acenaphthylene	3- and 4-Methylphenol Coelution	2-Methylnaphthalene	Semi-Volatile Organic Compounds	
%	ug/kg	ug/Kg		ug/Kg	ue/Ke	ug/Kg	971,79	mø/Kø	mg/Kg	ma/Ka	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg		ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	_	4	
88.9			-				H	1	106	Ť		L 6.0			680		Н	Н			1	8.0		T	T	Ť	10	1	2,300	1,500	180 J	1,000	250 1	2 700	190 J	270 J	170 J	1,300	92 J	200 BI	830	990	2,400	1,800		1	550	t	140 J	1	
89.9	-						0.100	0.106	95.3	15.3		1.01	83.1	15.9	600	342	2,750	830	22,900	63.7	12.7	7.8		22,000	0.49	62.8	11.5	4 5 40	2,100	1,500	240 J	910	3301	3	240 J	230 J		1,200	100 J	220 BI	/80	900	2,200	1,600	1,100	580	540	76	130 J		
89.9					77		0.000	0.084	117	15.2	0.9 J	0.7 J	112	24.1	740	478	3,630	1,060	24,600	64.4	17.1	7.9	0.20 J	9,610	0.61	94.6	0,000	000	4,400	4,700	530	1,400	5,300	3	870	350 J	130 J	2,200	220 J	270 BI	1,100	1,500	3,200	2,300	2,100	1.400	970	220 -	360 J		
89.6	-	21					0.0.0	0.043	124	15.7			33.0	23.9	520	721	3,870	1,010	26,200	44.8	18.9	8.8	0.12 J	8,170	0.52	91.3	113	9 700	24,000	11,000	1,300 J	11,000	1 900 1	3000	1,000 J	2,700 J		14,000	630 J		/,000	10,000	21,000	17,000	14,000	7.500	4 500				
90.9	F	7.3 J					0.000	0.059	75.6	11.5	1.5	0.7 J	41.8	15.6	870		8,810	Н		49.1	11.0	5.9	0.09 J	46,000	1.45	109	7 9	17 700	H	H	-	+	2,000	H	╁	240 J	4		110 5	290 BI		870		H	990	+	$\dagger$			•	
88.5	-						0.04	0.047	81.9	195	1.4		27.6	20.4	630		H	910		46.9	16.9	7.8	_	3,560	0.44	80.7	9.8	-	H	H	180 J	2,500	3,100	79 J	100 J	610	170 J	2,600	+	210 BI	1,/UU	2,200		4,000	2,400	930	1 400	64	77 J		
90	F						0.000	960.0	88.7	12 9		2.8 J	64.6	18.9	530	368	3,140	760	23,300	87.3	12.4	7.0		5,840	0.4	53.1	81	1 4 4 0	1,600	720		900	1,800	81 J		210 J	330 J	1,000	77 J	370 BI	050	880	1,900	1,400	950	320 J	440				
85.2							0.220	0.129	114	16.6	1.7	2.1 J	112	20.7	700	1,160	5,260	1,110	23,300	98	32.8	6.7	0.15 J	28,400	1.07	105	11 3	10 900	3,400	3,300	330 J	1,200	4,200	120 J	270 J	290 J	110 J	1,800	390 J	290 BI	890	1,100	2,600	1,800	1,600	830	3501	1101	230 J		
88	-						0.010	0.045	129	15.3	1.6		34.6	30.3	180	312	2,960	1,070	28,300	40.9	15.2	13	0.20 J	2,950	0.65	83.3	13.9	0.27	1,100	500 J	120 J	520 J	1,000			130 J		700 J			180	550 J	1,000	760	650 J	140 J	150				
88.6							0.010	0.048	138	15.7		2.3 J	58.9	23.0	790	382	2,950	1,160	27,900	109	14.3	7.4	0.49 BJ	7,200	0.55	101	12.7	9 100	3,500	1,900	540	1,300	4,000		220 J	300 J	130 J	1,700	130 J	220 BI	/90	1,200	2,300	1,800	1,700	620	2901	60 -	180 J		
87.8	-						0.00	0.08	93.9	15.3	0.7 J	1.11	58.9	20.7	510	306	3,620	1,020	26,900	54.5	14.0	7.4	0.38 BJ	15,400	0.49	77.5	14.7	0 000	490	330 J		340 J	540	1		95 J	93 J	360 J	200.00	180 BI	r 06T	350 J	530	430	310 J	99 .	1101		64 J		
87.1							0.07.2	0.071	70.9	143		1.11	39.8	18.1	820	402	3,400	910	21,800	37.5	11.8	7.0	0.40 BJ	24,300	0.41	78.7	10.1	0000	290 J	130 J		570	3101	200		130 J	170 J	300 J	27.0	170 BI	r 067	570	890	710	290 J	88.	220				
89.3	17	2					0.000	0.088	89.6	149	0.8J	1.4 J	8.09	20.7	860	526	3,400	940	27,100	72.7	13.2	8.1	0.40 BJ	18,200	0.57	97.2	111	0 110	11,000	7,100		3,800	9,200	200		1,000 J		6,700			2,200	3,800	6,500	5,600	5,500	1.700	4505	450			
85.6							0.00	90.0	63.2	16.3	0.8 J	1.0 J	37.2	13.4	1,000	1,120	3,150	710	19,900	48.6	11.9	4.8 J	0.27 BJ	19,100	0.85	70.6	5.6	1 100	7,300	5,300	800	3,300	9,000	200	440 J	720 J		4,000	320 J	230 BI	2,200	2,700	6,100	4,300	4,000	1.400	790		230 J		
88							0.001	0.051	72.3	11 9		1.11	47.9	15.8	660	364	2,360	700	21,300	52.8	10.1	5.4 J	0.41 BJ	7,200	0.44	57.5	9.1	5000	2,100	1,400	260 J	860	2,300	100 J	120 J	210 J	210 J	1,000	130 J	220 BI	500	870	1,400	1,100	930	320 J	200 1	73	180 J		
84.2							0.20	0.164	81.7	18 7		1.2 J	82.1	15.6	390	270	1,920	820	20,700	38.7	13.2	6.8	0.41 BJ	3,590	0.48	97.6	11	0 400	2,900	3,200	130 J	630	3,/00	83 J	190 J	170 J	330 J	1,300	210 J	340 BI	450	590	1,400	1,000	1,200	570	1301	1301	120 J	•	
88							0.111	0.112	82	15.4		1.3 J	58.6	16.4	780	410	4,210	720	20,300	52.8	10.9	5.5 J	0.40 BJ	15,000	0.49	62.8	9.5	9000	1,500	1,100	180 J	570	1,700	100	110 J	140 J	140 J	780	99 J	150 BI	430	600	1,100	850	770	270 J	170		85 J		
88.5							0.20	0.134	115	15.7		1.9 J	113	18.2	890	399	2,990	820	23,000	85	14.0	5.9	0.50 BJ	15,400	0.67	87.7	10.6	1000	4,300	3,000	400	1,500	5,100	91 J	190 J	340 J	200 J	2,500	290 J	380 B	1,200	1,400	3,600	2,500	2,100	680	3201	1301	640		
87.1							0.110	0.116	159	11.8	2.3	2.8 J	140	38.8	250 B	539	1,200	590	45,600	125	10.8	14.5	0.85	3,670	1.29	70.7	3,990	7 000	600	480	210 J	250 J	079	20	100 J	73 J		420	0.00	94 BI	240 J	200 J	620	380 J	400	110 J	100		340 J		
89				22 JP	93	88	0.244	0 141	233	10.5	4.0	1.5 J	92.4	24.7	840	3,740	17,100	1,500	17,800	60.5	34.3	2.7 J	0.62 B	121,000	3.45	321	17.7	2000	2,900	2,900	350 J	710	3,400	83 J	260 J	200 J	150 J	1,500	300 J	320 BI	069	620	1,900	1,300	1,400	670	1401	100	210 J		
NL	N.	200,000		1000	1.000	1,000	0.7.0	0.73	2,480	Z ;	4.0	NL	450	130	NL	2,000	NL	NL	N	270	19	NL	7.5	2	47	400	16 NE		500,000	500,000	12,000	5,600	500,000	Z N	N.	560	N.	1,000	2	2 2	1,700	500,000	1,700	1,000	1,000	500,000	107 000	330	Z Z		
N.	2	20	1	1,000	1.000	1,000	0:4	2.8	10,000	2	1.500	NL	1,000	310	NL	10,000	NL	NL	Z.	270	400	NL	9.3	NF.	590	400	16 NE		Н	Ħ	7	1	500,000	t	t		7	56,000	N S	2 2	56,000	500,000	5,600	1,000	5,600	500.000	500,000	SOO OO	N.		

WYSDE Part 375 Commercial live soil Ceanup Objectives, Table 375-6 (8)) (Benember 2006)
Fearmeters exerting the Allowable Constituent Levels are indicated with shaded cells
Fearmeters executing the Allowable Constituent Levels are indicated with shaded cells
Fearmeters executing the Part 375 Commercial live Soil Ceanup Objectives are indicated with Bodi text
Only detected parameters are included
John detected parameters are included
John Constituent while death constitutions to between the MBL and the MBL
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 9 270 Michigan Avenue, Buffalo, NY 14203-2915 P: (716) 851-7220 I F: (716) 851-7226 www.dec.ny.gov

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) Chautaugua 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.



George P. Spanos P.E. April 27, 2016 Page 2

> 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

David Locey – NYSDEC Efrat Forgette - NYSDEC Matt Forcucci - NYSDOH

Drew E. Rodgers - Chautauqua County Dept. of Public Facilities

Rob Napieralski – LaBella Associates, D.P.C.

Kenneth J. Strell - KHEOPS