

Tables

EnSol, Inc. *Environmental Solutions*

professional engineering - business consulting

TABLE 1
RI SOIL ANALYTICAL DATA SUMMARY
Former Donovan Building
125 Main Street Site
Buffalo, New York

PARAMETER ¹	Unrestricted (ppm) ²	Restricted - Commercial (ppm) ²	Sample Locations																											
			SVI SAMPLING WITHIN THE BUILDING (PARCEL D1)			PARCEL D1 IRM AREA			PARCEL D2	PARCEL D3			PARCEL D1 IRM AREA			PARCEL D3			PARCEL D2	PARCEL D1 NON-IRM AREA	PARCEL D1 IRM AREA			PARCEL D1 NON-IRM AREA	PARCEL D1 IRM AREA		NOTE 4	PARCEL D1 IRM AREA		
SB-1 (1-2)	SB-2 (1-2)	SB-3 (0-1)	SB-7 (15-17)	BH-20 (R) (13-17)	BH-20 (R) (17-20)	BH-20 R (E) (17-19)	TP-1 (15-17)	TP-2 (4-6)	TP-3 (4-8)	TP-3 (15-17)	TP-4 (3-7)	TP-5 (15-17)	TP-6 (3-5)	TP-8 (10-12)	BCP MW-1 (4-6)	BCP MW-2 (5-7)	BCP MW-3 (2-4)	BCP MW-3 (12-14)	BCP MW-4 (14-16)	BCP MW-4 (8-10)	BCP MW-5 (4-5)	BCP MW-6 (6-8)	BCP MW-7 (4-5)	MW-2 (R) (2-4)	MW-2 (R) (14-16)	SS-1 ⁴	Waste Char 1 (5-11) ⁵	Waste Char 2 (1-5) ⁵	Waste Char 3 (1-3) ⁵	Waste Char 4 (3-7) ⁵
Volatile Organic Compounds (VOCs) - mg/Kg³																														
1,2-Dichlorobenzene	1.1	500	ND	ND	ND	--	ND	ND	ND	--	ND	ND	0.0017 J	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--		
1,2,4-Trimethylbenzene	3.6	190	0.0035 J	0.0057 J	0.0022 J	--	ND	ND	0.13 J	ND	ND	--	ND	ND	0.016	--	ND	ND	--	ND	ND	ND	--	--	--	--	--			
1,3,5-Trichlorobenzene	8.4	190	0.0021 J	ND	ND	--	ND	ND	ND	--	ND	ND	0.01 J	--	ND	ND	--	ND	ND	ND	ND	ND	--	--	--	--	--			
1,4-Diethylbenzene	--	--	ND	ND	ND	--	ND	ND	ND	--	ND	ND	0.0017 J	ND	0.016	--	ND	ND	--	ND	ND	ND	--	--	--	--	--			
1,2,4,5-Tetramethylbenzene	--	--	ND	0.00058 J	ND	--	ND	ND	0.28 J	ND	ND	--	ND	ND	0.0017 J	ND	0.012	--	ND	ND	--	ND	ND	--	--	--	--			
2-Butanone	--	--	ND	ND	ND	--	ND	ND	ND	--	ND	ND	0.011 J	--	ND	ND	--	ND	ND	--	ND	ND	--	--	--	--	--			
4-Ethyltoluene	--	--	0.0017 J	ND	0.00087 J	--	ND	ND	ND	--	ND	ND	0.0029 J	--	ND	ND	--	ND	ND	--	ND	ND	--	--	--	--	--			
Acetone	0.05	500	ND	ND	ND	--	0.091	0.06	ND	ND	ND	--	ND	ND	0.058	--	ND	ND	--	ND	0.025 J	ND	ND	--	--	--	--			
Carbon disulfide	--	--	0.0074 J	0.01 J	0.0057 J	--	ND	ND	ND	--	ND	ND	0.002 J	--	ND	ND	--	ND	0.0031 J	0.0038 J	0.0054 J	ND	--	ND	--	--	--			
Methylene Chloride	0.05	500	0.0047 J	0.0044 J	0.0044 J	--	ND	ND	0.37 J	ND	ND	--	ND	ND	ND	--	ND	ND	0.0034 J	ND	ND	--	--	--	--	--	--			
p-Isopropylbenzene	--	--	ND	ND	ND	--	ND	ND	ND	--	ND	ND	0.0017 J	--	ND	ND	--	ND	ND	ND	ND	ND	--	--	--	--	--			
sec-Butylbenzene	11	500	0.0028	ND	ND	--	ND	ND	ND	--	ND	ND	ND	--	ND	ND	--	ND	ND	ND	ND	ND	--	--	--	--	--			
Toluene	0.7	500	ND	ND	ND	--	ND	ND	ND	--	ND	ND	ND	--	ND	ND	--	ND	0.0028 J	ND	0.0022 J	ND	--	ND	--	--	--			
Xylene, Total	0.26	500	ND	ND	ND	--	ND	ND	ND	--	ND	ND	0.0018 J	--	ND	ND	--	ND	ND	ND	ND	ND	--	--	--	--	--			
Semi-Volatile Organic Compounds (SVOCs) - mg/Kg³																														
Acenaphthene	20	500	ND	ND	ND	0.11 J	ND	--	0.71	ND	2.5	--	ND	ND	ND	--	0.2 J	ND	--	ND	ND	ND	ND	--	0.11 J	--	--	--		
Acenaphthylene	100	500	ND	ND	ND	0.12 J	ND	--	ND	ND	1.3 J	--	ND	ND	ND	--	ND	ND	--	ND	ND	ND	ND	--	ND	--	--	--		
Anthracene	100	500	ND	ND	0.082 J	0.29 J	ND	--	2.3	1.7	6.5	--	0.076 J	ND	ND	--	0.35 J	0.3 J	--	ND	ND	ND	ND	--	0.31	--	--	--		
Benzo (a) anthracene	1	5.6	ND	0.082 J	0.18	ND	0.41	ND	5.1	3.7	11	--	0.25	ND	0.047 J	ND	ND	0.56	1.3	--	ND	ND	ND	ND	--	1.4	--	--	--	
Benzo (b) fluoranthene	1	5.6	ND	0.088 J	0.1 J	ND	0.43 J	ND	--	5.7	3.3	6.1	--	0.17 J	ND	ND	--	0.6	1.8	--	ND	ND	ND	ND	--	2	--	--	--	
Benzo (k) fluoranthene	0.8	56	ND	0.033 J	0.15	ND	0.17	ND	--	2.4	2.8	8.3	--	0.23	ND	ND	--	0.25 J	0.6	--	ND	ND	ND	ND	--	1	--	--	--	
Benzo (a) pyrene	1	1	ND	0.054 J	0.13 J	ND	0.34 J	ND	--	4.3	3.3	8.6	--	0.24 J	ND	ND	--	0.47 J	1.1	--	ND	ND	ND	ND	--	1.5	--	--	--	
Benzo (g,h,i) perylene	100	500	ND	ND	0.081 J	0.19 J	ND	--	2.7	2.3	4.2	--	0.14 J	ND	ND	--	0.22 J	1	--	ND	ND	ND	ND	--	1.2	--	--	--		
Bis(2 - ethylhexyl) phthalate	--	--	0.43	0.24 J	0.042 J	ND	0.08 J	ND	--	ND	ND	ND	--	ND	ND	--	ND	ND	--	ND	ND	ND	--	0.14 J	--	--	--			
Carbazole	--	--	ND	ND	ND	0.16 J	ND	--	1	0.96 J	2.1	--	ND	ND	ND	--	0.2 J	0.14 J	--	ND	ND	ND	ND	--	0.32	--	--	--		
Chrysene	1	56	ND	0.1 J	0.19	ND	0.44	ND	--	4.8	3.7	10	--	0.25	ND	0.052 J	ND	ND	0.57	1.6	--	ND	ND	ND	ND	--	1.8	--	--	--
Dibenzo (a,h) anthracene	0.33	0.56	ND	ND	ND	ND	ND	--	0.67	0.83 J	1.8	--	ND	ND	ND	--	ND	0.22 J	--	ND	ND	ND	ND	--	0.28	--	--	--		

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Buffalo, New York

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SB-1 (1-2)	SB-2 (1-2)	SB-3 (0-1)	SB-7 (15-17)	BH-20 (R) (13-17)	BH-20 (R) (17-20)	BH-20 R (E) (17-19)	TP-1 (15-17)	TP-2 (4-6)	TP-3 (4-8)	TP-3 (15-17)	TP-4 (3-7)	TP-5 (15-17)	TP-6 (3-5)	TP-8 (10-12)	BCP MW-1 (4-6)	BCP MW-2 (5-7)	BCP MW-3 (2-4)	BCP MW-3 (12-14)	BCP MW-2 (5-7)	BCP MW-3 (2-4)	BCP MW-3 (14-16)	BCP MW-4 (8-10)	BCP MW-5 (4-5)	BCP MW-6 (6-8)	BCP MW-7 (4-5)	BCP MW-7 (8-10)	MW-2 (R) (2-4)	MW-2 (R) (14-16)	SS-1 ⁴	Waste Char 1 (5-11) ⁵	Waste Char 2 (1-5) ⁵	Waste Char 3 (1-3) ⁵	Waste Char 4 (3-7) ⁵		
Total Metals - mg/Kg																																			
Aluminum	--	--	33000	25000	32000	8000	8600	5600	--	12000	15000	3700	--	14000	10000	5400	4000	13000	NA	4300	16000	NA	7000	30000	32000	12000	34000	NA	10000	--	--	--	--		
Antimony	--	--	0.56 J	1 J	0.56 J	1.3 J	4.1 J	13	--	2.7 J	2.5 J	4.4 J	--	0.89 J	0.95 J	ND	1.3 J	1.7 J	NA	0.98 J	0.87 J	NA	1.2 J	--	4.2 J	2.8 J	ND	NA	1.5 J	--	--	--	--		
Arsenic	13	16	1.4	2.5	2	3.4	5.9	6.3	--	6.9	10	12	--	3	5.6	1.3	1.7	6	NA	3.2	2.6	NA	3.8	1.7	5.5	9.8	1.3	NA	5.4	--	--	--	--		
Barium	350	400	250	170	330	94	67	110	--	350	360	99	--	95	48	40	27	95	NA	29	160	NA	53	250	400	62	290	NA	65	--	--	--	--		
Beryllium	7.2	590	4.9	3.4	4.1	0.81	0.34 J	0.32 J	--	0.82	1	0.5	--	2.1	1.1	0.55	0.2 J	0.59	NA	0.22 J	2.2	NA	0.5	4.3	4	0.57	4.6	NA	0.45	--	--	--	--		
Cadmium	2.5	9.3	0.09	0.09 J	0.08 J	0.35 J	0.1 J	0.36 J	--	0.66 J	0.68 J	0.56 J	--	0.18 J	0.32 J	0.13 J	0.13 J	0.28 J	NA	0.17 J	0.16 J	NA	0.13 J	0.03 J	0.22 J	0.61 J	0.07 J	NA	0.48 J	--	--	--	--		
Calcium	--	--	220000	210000	190000	39000	280000	33000	--	140000	72000	110000	--	86000	73000	89000	23000	110000	NA	54000	100000	NA	60000	190000	190000	13000	200000	NA	7600	--	--	--	--		
Chromium	30	1500	14	11	11	9	11	7.3	--	14	20	8.8	--	8.1	9.2	4.1	5.2	15	NA	6.4	6.9	NA	8	7.5	40	17	5.2	NA	34	--	--	--	--		
Cobalt	--	--	0.68	1.2	0.7 J	2.7	3.2 J	4.1	--	4	6.9	9.1	--	2	5.1	1.5 J	2.8	4.2	NA	2.7	1.3 J	NA	2.9	0.22 J	4	14	0.36 J	NA	5.2	--	--	--	--		
Copper	50	270	5.2	8.2	15	44	24	79	--	17	37	150	--	28	30	9.1	9.8	34	NA	15	10	NA	14	2.3	14	40	1.1	NA	30	--	--	--	--		
Iron	--	--	4000	79000	4200	8500	8100	11000	--	9300	21000	40000	--	7200	13000	5000	7000	13000	NA	7800	6500	NA	9200	5400	51000	28000	4500	NA	15000	--	--	--	--		
Lead	63	1000	29	96	32	170	97	510	--	690	380	210	--	45	34	6.3	30	80	NA	41	41	NA	89	5.4	4.7	16	26	NA	120	--	--	--	--		
Magnesium	--	--	37000	29000	23000	10000	11000	5600	--	12000	7000	8200	--	20000	10000	28000	13000	12000	NA	16000	13000	NA	10000	29000	12000	6400	12000	NA	3200	--	--	--	--		
Manganese	1600	10000	3100	2300	2900	810	300	360	--	270	180	190	--	1500	780	570	120	300	NA	240	1700	NA	450	2200	4500	530	2000	NA	520	--	--	--	--		
Mercury	0.18	2.8	<0.02	<0.02	0.46	0.64	2.5	1.1	--	0.05 J	0.09	0.92	--	0.3	0.24	ND	0.7	0.16	NA	0.66	0.06 J	NA	0.69	ND	0.03 J	ND	NA	0.07 J	--	--	--	--			
Nickel	30	310	1.8	4	2.2	9.5	9.7	11	--	10	15	18	--	5.1	19	3.6	6.4	12	NA	7.4	3.3	NA	7.2	0.69 J	6.7	49	0.65 J	NA	13	--	--	--	--		
Potassium	--	--	3600	3600	3500	1100	1800	1200	--	1800	2200	530	--	1600	1200	790	720	1400	NA	680	1400	NA	1200	2900	3100	1900	2400	NA	860	--	--	--	--		
Selenium	3.9	1500	4.6	3.1	4.8	1.3 J	0.87 J	0.74 J	--	0.37 J	0.42 J	0.26 J	--	0.37 J	0.42 J	ND	ND	ND	NA	ND	ND	NA	ND	2	NA	ND	4.4	4	ND	3.2	NA	0.95 J	--	--	--
Silver	2	1500	0.48	0.32 J	0.43	0.24 J	0.26 J	0.77 J	--	0.3 J	0.25 J	0.27 J	--	0.19 J	0.16 J	ND	ND	ND	NA	ND	ND	NA	ND	0.08 J	0.52 J	ND	ND	NA	0.16 J	--	--	--	--		
Sodium	--	--	1600	1400	1300	1400	1100	2200	--	1500	2300	1100	--	1100	720	480	730	2400	NA	390	870	NA	910	14											

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
125 Main Street Site
Buffalo, New York

PARAMETER	GWQS/ GW ^a	BCP-MW-01 ^b	BCP-MW-02 ^b	BCP-MW-02 ^b	BCP-MW-02 ^b	BCP-MW-03 ^b	BCP-MW-03 ^b	BCP-MW-04 ^b	BCP-MW-05 ^b	BCP-MW-06 ^b	BCP-MW-06 ^b	BCP-MW-07 ^b	BCP-MW-07 ^b	MW-1 ^b	MW-1R ^b	MW-1R ^b	MW-2R ^b	
Volatile Organic Compounds (VOCs) - ug/L																		
Acetone	ND	ND	5.2	ND	-	ND	ND	3.3	5	3.3 J	ND	-	12	ND	ND	-	ND	
Benzene	1	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	0.79	ND	ND	-	ND	
Carbon disulfide	ND	ND	ND	ND	-	ND	ND	1.3 J	1.3 J	ND	ND	-	1.7 J	ND	ND	-	ND	
1,1-Dichloroethane	0.6	ND	1.1	ND	-	ND	ND	ND	ND	ND	ND	-	1.6 J	ND	ND	-	ND	
2-Butalone	-	ND	ND	ND	-	ND	ND	ND	ND	1.4 J	1.1 J	ND	-	2.1 J	ND	ND	-	ND
2-Hexanone	50	ND	ND	ND	-	ND	ND	ND	ND	4.1 J	3.4 J	ND	-	11.7 J	ND	ND	-	ND
Toluene	5	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	1.7 J	ND	ND	-	ND	
1,2,4-Trimethylbenzene	5	1.1 J	ND	ND	-	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	-	ND	
Semi-Volatile Organic Compounds (SVOCs) - ug/L																		
2-Methoxyethane	5	ND	0.07 J	ND	-	ND	ND	ND	0.46	0.25	ND	-	0.18 J	ND	ND	-	0.07 J	
Acetophenone	ND	ND	ND	-	ND	ND	ND	1.9 J	1.1 J	ND	ND	-	ND	ND	-	ND	ND	
Chloroform	50	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	-	ND	
Benzocycloheptene	0.002	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	0.34 J	ND	ND	-	ND	
Benzocycloheptene	0.002	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	0.62 J	ND	ND	-	ND	
Benzocycloheptene	0.002	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	0.56 J	ND	ND	-	ND	
Benzocycloheptene	0.002	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	0.54 J	ND	ND	-	ND	
Benzoic Acid	ND	ND	ND	-	ND	-	ND	ND	-	ND	ND							
Bis(2-ethylhexyl) phthalate	5	ND	0.74	-	ND	1	ND	ND	ND	ND	ND	-	7.5 J	ND	ND	-	3 J	
Chloroform	0.002	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	ND	ND	-	ND	ND	
Di-n-butyl phthalate	5	ND	ND	ND	-	ND	0.48	-	ND	ND	ND	-	ND	ND	-	ND	ND	
Di-n-octyl phthalate	--	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	ND	ND	-	ND	ND	
Dibenzofuran	--	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	ND	ND	-	ND	ND	
Dieldrin	--	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	ND	ND	-	ND	ND	
Fluoranthene	50	ND	ND	ND	-	ND	ND	ND	0.05	0.09 J	0.08	ND	-	0.06 J	0.06	0.06 J	0.06 J	
Fluorene	50	ND	ND	ND	-	ND	ND	ND	0.11 J	0.31	ND	-	0.25	ND	-	0.13 J	ND	
Indeno[1,2,3-c]phenanthrene	0.002	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	0.46 J	ND	ND	-	ND	
Isooctene	--	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	ND	ND	-	ND	ND	
Pyrene	50	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	ND	ND	-	ND	ND	
Total VOCs	0.09	ND	ND	-	ND	-	ND	ND	-	ND	ND							
Pesticides and Herbicides - ug/L																		
Hepachlor	0.04	ND	0.003 J	-	+	ND	ND	0.01 J	ND	ND	ND	-	ND	ND	-	ND	ND	
Heptachlor epoxide	0.03	ND	0.002 JP	-	+	ND	ND	0.003 JP	0.007 JP	0.007 JP	ND	-	ND	ND	-	ND	ND	
Ethilen	ND	0.017 J	0.046	-	+	0.022 J	ND	0.03 JP	0.156 P	0.16 P	ND	-	0.045 P	ND	-	0.044 P	ND	
4-ECP	0.2	ND	ND	-	+	ND	ND	0.023 JP	0.015 JP	0.007 JP	ND	-	ND	ND	-	ND	ND	
Total Metals - ug/L																		
Aluminum	-	-	-	7900	462	-	-	-	-	-	-	178000	2400	-	-	41200	975	
Anium	310	-	-	7.5	1.1 J	11.1	3.1	1.1	1.1	1.1	1.1	-	1.1	1.1	-	1.1	1.1	
Arsenic	25	-	-	4.2	4	-	29.2	2.9 U	-	-	-	79.2	2.9 U	-	-	67.4	5.1	
Boron	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Boron	3	-	-	-	-	0.20 B	0.25 U	-	1.9 B	0.25 U	-	-	8.9	0.20 U	-	4.4	0.25 U	
Cadmium	5	-	-	-	-	0.50 B	0.50 U	-	1.7 B	0.50 U	-	-	10.3	0.50 U	-	3.2 B	0.50 U	
Copper	14000	-	-	-	-	-	-	22000	20000	-	-	-	30000	20000	-	100000	100000	
Chromium	50	-	-	-	-	12	1.4 U	-	59.4 J	1.7 B	-	-	349	5.2 B	-	164	4.0 B	
Cobalt	200	-	-	-	-	4.3 B	0.40 U	-	33.0 B	0.40 U	-	-	145	0.80 B	-	413.9 B	0.90 B	
Copper	200	-	-	-	-	4.3 B	0.70 U	-	7.1 B	0.70 U	-	-	252	1.0 B	-	533	1.1 B	
Iron	300	-	-	-	11700	675	-	94100	944	-	-	-	315000	3480	-	79000	1230	
Lead	25	-	-	-	1.7	1.1 J	1.1 B	-	1.1 B	1.1 B	-	-	17	1.1 B	-	21.1	1.2 B	
Magnesium	35000	-	-	-	15000	8330	-	71200	14200	-	-	-	109000	63000	-	79500	18300	
Manganese	300	-	-	-	663	501	-	1350	21.8	-	-	-	5360	39.9	-	1660	44.6	
Manganese	0.3	-	-	-	1.5 J	1.5 B	-	0.23	0.02 J	1.5 B	-	-	2.3	0.02 J	-	2.5	0.02 J	
Nickel	100	-	-	-	11.1 B	1.5 B	-	63.7	0.95 B	-	-	-	252	3.5 B	-	142	5.6 B	
Potassium	-	-	-	-	1.1 B	1.1 B	-	42000	20000	-	-	-	40000	20000	-	50000	20000	
Sodium	10	-	-	-	4.8 U	4.8 U	-	4.8 U	12.8	-	-	-	14.4 B	36.4	-	21.5	48 U	
Silver	50	-	-	-	1.0 U	1.0 U	-	1.0 U	1.0 U	-	-	-	2.0 U	1.0 U	-	2.7 B	1.0 U	
Sulfur	20000	-	-	-	16000	16000	-	32000	32000	-	-	-	30000	25000	-	100000	25000	
Thallium	0.5	-	-	-	1.9 U	1.9 U	-	1.9 U	1.9 U	-	-	-	3.7 U	1.9 U	-	1.9 U	1.9 U	
Vanadium	-	-	-	-	18.2	2.8 U	-	95.1	3.2 B	-	-	-	158	5.4 B	-	164	8.5 B	
Zinc	2000	-	-	-	26	7.3	-	101.5	101.5	-	-	-	32000	47.2	-	110	42.4	
Dissolved Metals - ug/L																		
Aluminum	1300	2200	40 U	40 U	37.0	40 U	2000	270	250	60 U	40 U	12500	165	4.0 U	40 U	1150		
Anium	330	3.3	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	ND	3.2	4.1 B	4.1 B	ND		
Arsenic	25	4.1	3.4	2.9 U	3.5 B	7.5	2.9 U	3.1 J	ND	2.9 U	5	ND	2.9 U	2.9 U	ND	ND		
Boron	1000	10.7	7.5	7.5	7.5	10.7	25.2	20.6	21.7	20.6	20.6	ND	22.3	22.3	ND	10.7		
Boron	3	ND	0.2 J	-	0.25 U	0.25 U	ND	0.25 U	ND	ND	ND	0.25 U	0.25 U	0.25 U	ND	0.25 U		
Cadmium	5	0.2 J	0.5 J	-	0.50 U	0.50 U	0.5 J	0.50 U	0.50 U	0.7 J	0.7 J	ND	1.2 B	0.50 U	0.50 U	ND		
Copper	14000	200	200	200	200	200	20000	15000	20000	20000	20000	ND	30000	20000	20000	20000		
Chromium	50	3.7	4.8	1.4 U	1.4 U	7.1 J	1.4 U	1.4 U	ND	1.4 U	14.7	ND	1.4 U	1.4 U	3.7 J	ND		
Copper	14	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	ND	4.9	4.9	4.9	ND		
Copper	200	8.3	17.2	7.5 U	7.0 U	39.5	7.0 U	81.6	4.7 J	2.8 J	7.0 U	5.2	14.4	7.0 U	7.0 U	7.4 J		
Iron	300	6490	10200	20 U	20 U	21500	70.8 B	20 U	5930	3850	9720	20 U	79.8 B	8930	468 J	218.8	2330	
Lod	25	3.1	3.1	1.7 J	1.7 J	4.2 J	1.7 J	1.7 J	ND	5.2	2.7 J	1.7 J	5.2	1.7 J	1.7 J	ND	ND	
Magnesium	35000	44700	43800	8820	8070	66200	32000	13100	61800	51600	35300	74900	60000	66500	42300	17400	38600	
Manganese	0.5	328.4	947.9	512	495	773.7	296	18.3	1474	1848	1543	1690	111.8	2132	1114	146	951.2	
Manganese	0.3	152	152	0.7 U	0.7 U	0.7 U	ND	ND	ND	ND	ND							
Nickel	100	3.1	7.9	3.9 B	1.0 B	10.2	1.6 B	0.57 U	14.6	37.8	16.4	ND	12.9	5.3	2.6 B	3.6 B	6.1	
Potassium	74000	120000	120000	120000	120000	120000	120000	120000	120000	120000	120000	120000	120000	120000	120000	120000	120000	
Selenium	10	ND	1.1	-	4.8 U	4.8 U	11.3	ND	4	6.1	23.6	8.4	4.2	8.1 B	8.2 B	ND		
Silver	50	ND	ND	ND	1.0 U	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U					



TABLE 3
SUMMARY OF POST-EXCAVATION SOIL ANALYTICAL RESULTS (BEHIND STEEL SHEETING)
125 MAIN STREET SITE
BUFFALO, NEW YORK

Parameter ¹	Residential SCOs ²	Commercial SCOs ²	Sample Locations							
			Post Exc 1	Post Exc 2	Post Exc 3	Post Exc 4	Post Exc 5	Post Exc 6	Post Exc 7	Post Exc 8
			9/5/2012	9/5/2012	9/5/2012	9/5/2012	9/5/2012	9/5/2012	9/5/2012	9/5/2012
Semi-Volatile Organic Compounds (SVOCs) - mg/Kg										
2-Chloronaphthalene	--	--	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	--	--	ND	ND	0.94 J	ND	ND	ND	ND	ND
Acenaphthene	100	500	ND	ND	1.9	0.29 J	ND	ND	ND	ND
Acenaphthylene	100	500	ND	11	ND	0.32 J	1.2	ND	ND	ND
Anthracene	100	500	0.45 J	6.3	4.4	0.79	3.8	0.82 J	ND	0.26 J
Benzo(a)anthracene	1	5.6	1.7	14	6.2	2	6	2.1	0.038 J	0.9
Benzo(a)pyrene	1	1	1.7	15	5.3	1.8	4.7	2	ND	0.91
Benzo(b)fluoranthene	1	5.6	2.5	27	6.8	2.5	6.2	3	0.064 J	1.3
Benzo(k)fluoranthene	1	56	0.93	9.1	2.7	0.94	2.8	1 J	ND	0.47 J
Chrysene	1	56	1.9	19	5.8	2.1	5.8	2.2	0.044 J	1
Indeno(1,2,3-cd)pyrene	0.5	5.6	1.3	12	3.2	1.2	2.7	1.5	ND	0.68 J
Dibenz(a,h)anthracene	0.33	0.56	0.26 J	2.6	0.85 J	0.28 J	ND	ND	ND	ND
Benzo(g,h,i)perylene	100	500	1.2	11	2.6	1.1	2.3	1.3 J	ND	0.61 J
Fluoranthene	100	500	4.6	31	14	4.5	15	5.8	0.085 J	2.3
Fluorene	100	500	ND	ND	2.3	0.34 J	1.5	0.37 J	ND	ND
Naphthalene	100	500	ND	1.5 J	1.6 J	ND	ND	ND	ND	ND
Phenanthrene	100	500	2.3	7.1	15	3.1	14	3.6	ND	1.1
Pyrene	100	500	3.6	27	12	3.8	12	4.5	0.071 J	1.8
Total SVOCs	--	--	22.44	193.6	85.59	25.06	78	28.19	0.302	11.33
Total Metals - mg/Kg										
Arsenic	16	16	4.4	2.8	10	10	4.7	4.8	1.3	3.8
Barium	350	400	85	290	230	140	120	160	17	110
Cadmium	2.5	9.3	0.49	0.3 J	1.6 J	0.8	0.43	0.81	0.24 J	0.49
Chromium	36	6800	13	11	23	15	11	19	4.2	13
Lead	400	1000	73	70	460	640	120	82	9.3	61
Mercury	0.81	2.8	0.27	0.1	0.06 J	2.8	0.67	0.27	ND	0.18
Selenium	36	1500	1	3.6	0.76 J	0.98	1.2	1.6	0.28 J	1.3
Silver	36	1500	0.1 J	0.2 J	0.3 J	0.44 J	0.17 J	0.16 J	ND	ND

Notes:

- Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
- Values per GNYCRR Part 375 Soil Cleanup Objectives
- Sample results were reported by the laboratory in ug/kg and converted to mg/kg for comparison to SCOs.

Definitions:

ND = Parameter not detected above laboratory detection limit.

J = Estimated value; result is less than the sample quantitation limit but greater than zero.

Exceeds Residential SCO

Exceeds Commercial SCO

TABLE 4
SUMMARY OF POST-EXCAVATION LABORATORY ANALYTICAL DATA (NORTH WALL)

2012-2013 INTERIM REMEDIAL MEASURES

125 MAIN STREET SITE
BUFFALO, NY

Site ID: 125 Main Street Site, Buffalo NY		NYSDEC PART 375 UNRESTRICTED USE SCOs	NYSDEC PART 375 RESTRICTED COMMERCIAL USE SCOs	North Wall - 1	North Wall - 2	North Wall - 3	North Wall - 4	North Wall - 5	North Wall - 6		
Lab ID: 130222				SOIL / FILL							
Date Sample Collected: 1/14/13				1/14/13	1/14/13	1/14/13	1/14/13	1/14/13	1/14/13		
Parameter											
	Units	mg/Kg	mg/Kg	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration		
Semi Volatile Organics											
Acenaphthene	mg/Kg	20	500	< 0.320	< 0.320	< 0.320	< 0.330	< 0.340	< 0.330		
Acenaphthylene	mg/Kg	100	500	< 0.320	< 0.320	< 0.320	< 0.330	< 0.340	< 0.330		
Anthracene	mg/Kg	100	500	< 0.320	< 0.320	0.180 J	< 0.330	< 0.340	0.280 J		
Benz (a) anthracene	mg/Kg	1	5.6	0.180 J	< 0.320	0.390	< 0.330	< 0.340	0.650		
Benao (a) pyrene	mg/Kg	1	1	0.210 J	< 0.320	0.330	< 0.330	< 0.340	0.550		
Benzo (b) fluoranthene	mg/Kg	1	5.6	0.190 J	< 0.320	0.320 J	< 0.330	< 0.340	0.500		
Benzo (g,h,i) perylene	mg/Kg	100	500	0.160 J	< 0.320	0.210 J	< 0.330	< 0.340	0.330		
Benzo (k) fluoranthene	mg/Kg	0.8	56	< 0.320	< 0.320	0.240 J	< 0.330	< 0.340	0.440		
Chrysene	mg/Kg	1	56	0.200 J	< 0.320	0.410	< 0.330	< 0.340	0.670		
Dibenzo (a,h) anthracene	mg/Kg	0.33	0.56	< 0.320	< 0.320	< 0.320	< 0.330	< 0.340	< 0.330		
Fluoranthene	mg/Kg	100	500	0.360	< 0.320	0.830	< 0.330	0.220 J	1.3		
Fluorene	mg/Kg	30	500	< 0.320	< 0.320	< 0.320	< 0.330	< 0.340	< 0.330		
Indeno (1,2,3 - cd) pyrene	mg/Kg	0.5	5.6	< 0.320	< 0.320	0.280 J	< 0.330	< 0.340	0.420		
Naphthalene	mg/Kg	12	500	< 0.320	< 0.320	< 0.320	< 0.330	< 0.340	< 0.330		
Phenanthrene	mg/Kg	100	500	0.250 J	< 0.320	0.820	< 0.330	< 0.340	1.0		
Pyrene	mg/Kg	100	500	0.340	< 0.320	0.730	< 0.330	0.180 J	1.2		
TAL Metals											
Arsenic	mg/Kg	13	16	4.0	5.3	4.8	5.7	4.8	8.8		
Barium	mg/Kg	350	400	28	27	29	24	23	120 D		
Cadmium	mg/Kg	2.5	9.3	< 0.59	0.39	0.44	0.43	0.44	1.4 D		
Chromium	mg/Kg	30	1,500	7.1	12	10	11	12	13		
Lead	mg/Kg	63	1,000	86	26	8.6	10	23	340		
Mercury	mg/Kg	0.18	2.8	0.40	0.38	0.026	0.021	0.0048	0.0068		
Selenium	mg/Kg	3.9	1,500	< 1.2	< 1.2	< 1.0	< 1.2	< 1.1	< 1.1		
Silver	mg/Kg	2	1,500	< 1.2	< 1.2	< 1.0	< 1.2	< 1.1	< 1.1		

Notes:

Exceedence of NYSDEC Part 375 UNRESTRICTED USE soil cleanup objective

Exceedence of NYSDEC Part 375 RESTRICTED COMMERCIAL USE soil cleanup objective

J estimated value

D Duplicate results outside QC limits. May indicate non-homogeneous matrix.

mg/Kg Milligrams/Kilogram (parts per million)

ENSOL, INC.

X:\AAA\B\Benderson Development\12-0069 125 Main St. Buffalo, NY\Task 2 - Waste Char. & Post-Ex Lab. (Analytical)\Post-Ex Sampling Analytical Results\EnSol Post Excavation Soil Tables

May 2013

TABLE 5
SUMMARY OF POST-EXCAVATION LABORATORY ANALYTICAL DATA (NORTH FLOOR)

2012-2013 INTERIM REMEDIAL MEASURES (IRM)
CONFIRMATORY SAMPLES

125 MAIN STREET
BUFFALO, NY

Site ID: 125 Main Street, Buffalo NY		NYSDEC PART 375 UNRESTRICTED USE SCOs	NYSDEC PART 375 RESTRICTED COMMERCIAL USE SCOs	North Floor - 1	North Floor - 2	North Floor - 3	North Floor - 3A	North Floor - 4	North Floor - 5	North Floor - 6	North Floor - 6A	North Floor - 7	North Floor - 8	North Floor - 8A	North Floor - 9	North Floor - 10	North Floor - 11	North Floor - 12	North Floor - 13		
Lab ID: 130222/130888				SOIL / FILL	SOIL / FILL	SOIL / FILL	SOIL / FILL	SOIL / FILL	SOIL / FILL	SOIL / FILL	SOIL / FILL	SOIL / FILL	SOIL / FILL	SOIL / FILL	SOIL / FILL	SOIL / FILL	SOIL / FILL	SOIL / FILL	SOIL / FILL		
Date Sample Collected: Various				1/15/13	1/15/13	1/15/13	3/12/13	1/15/13	1/15/13	1/15/13	3/12/13	1/15/13	1/15/13	3/12/13	1/15/13	1/15/13	1/15/13	1/15/13	1/15/13		
Sample Depth: Excavation Floor																					
Parameter	Units	mg/Kg	mg/Kg	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration		
Semi Volatile Organics																					
Acenaphthene	mg/Kg	20	500	< 0.4	0.770	0.190 J	-	< 0.340	0.590	0.540	-	< 0.360	19	1	0.420	1.1 J	< 0.340	< 0.350	< 0.330		
Acenaphthylene	mg/Kg	100	500	< 0.4	0.270 J	0.250 J	-	< 0.340	< 0.350	< 0.340	-	< 0.360	< 17	0.50 J	< 0.360	< 1.7	< 0.340	< 0.350	< 0.330		
Anthracene	mg/Kg	100	500	< 0.4	1.8	0.540	-	< 0.340	0.920	0.920	-	< 0.360	49	2.6	0.790	2.4	< 0.340	0.250 J	0.170 J		
Benzo (a) anthracene	mg/Kg	1	5.6	0.210 J	2.9	1.7	-	0.210 J	1.4	1.6	-	< 0.360	78	3.8	1.6	4.9	0.250 J	0.700	0.630		
Benzo (a) pyrene	mg/Kg	1	1	< 0.4	2.3	1.6	-	< 0.340	1.1	1.4	-	< 0.360	58	3.1	1.3	3.9	0.230 J	0.640	0.650		
Benzo (b) fluoranthene	mg/Kg	1	5.6	< 0.4	2.2	1.8	-	< 0.340	0.980	1.3	-	< 0.360	55	2.7	1.2	4.1	0.240 J	0.730	0.740		
Benzo (g,h,i) perylene	mg/Kg	100	500	< 0.4	1.4	1.3	-	< 0.340	0.670	0.870	-	< 0.360	32	1.7	0.760	2.5	0.180 J	0.460	0.490		
Benzo (k) fluoranthene	mg/Kg	0.8	56	< 0.4	1.7	1.3	-	< 0.340	0.850	0.960	-	< 0.360	38	2.2	0.980	2.7	0.210 J	0.430	0.460		
Chrysene	mg/Kg	1	56	0.220 J	2.9	1.8	-	0.240 J	1.3	1.7	-	< 0.360	77	3.8	1.7	4.8	0.260 J	0.770	0.720		
Dibenzo (a,h) anthracene	mg/Kg	0.33	0.56	< 0.4	0.360 J	0.250 J	-	< 0.340	< 0.350	< 0.340	-	< 0.360	< 17	0.50 J	< 0.360	< 1.7	< 0.340	< 0.350	< 0.330		
Fluoranthene	mg/Kg	100	500	0.420	5.9	2.9	-	0.420	2.9	3.4	-	< 0.360	170	8.4	3.5	11.0	0.390	1.7	1.4		
Fluorene	mg/Kg	30	500	< 0.4	0.720	0.190 J	-	< 0.340	0.570	0.470	-	< 0.360	34	1.1	0.350 J	1.2 J	< 0.340	< 0.350	< 0.330		
Indeno (1,2,3 - cd) pyrene	mg/Kg	0.5	5.6	< 0.4	1.7	1.8	-	< 0.340	0.980	1.1	-	< 0.360	44	2.0	1.0	3.5	0.250 J	0.640	0.730		
Naphthalene	mg/Kg	12	500	< 0.4	0.500	< 0.360	-	< 0.340	0.510	0.540	-	< 0.360	28	0.99	< 0.360	2.1	< 0.340	< 0.350	< 0.330		
Phenanthrene	mg/Kg	100	500	0.460	6.1	2.1	-	0.380	3.6	3.5	-	< 0.360	210	9.4	3.3	9.7	0.220 J	1.0	0.770		
Pyrene	mg/Kg	100	500	0.360 J	5.2	2.5	-	0.350	2.6	3.0	-	< 0.360	140	7.2	3.2	9.4	0.350	1.4	1.2		
TAL Metals																					
Arsenic	mg/Kg	13	16	20	120	100	18	4.5	6.0	18	8	6.4	16	13	11	8.7	8.5	5.4	4.5		
Barium	mg/Kg	350	400	92	130	1900	130	66	200	210	260	81	350	290	140	270	250	150	110		
Cadmium	mg/Kg	2.5	9.3	0.84	19	16	<0.77	0.47 J	1.1	2.4	0.7	2.6	2.9	2.5	4.2	1.6	0.66	0.69	0.52		
Chromium	mg/Kg	30	1,500	15	19	38	18	15	11	12	17	17	15	23	9.4	8.9	19	13	12		
Lead	mg/Kg	63	1,000	290	530	70,000	180	110	140	1,600	540	26	2,400	4,500	510	900	180	350	79		
Mercury	mg/Kg	0.18	2.8	3.2	0.0091	5.7	0.21	1.5	< 0.0099	< 0.0092	< 0.19	0.039	< 0.010	< 0.17	0.87	< 0.0087	< 0.010	< 0.0098	< 0.0092		
Selenium	mg/Kg	3.9	1,500	1.2 J	< 1.5	14	< 1.5	< 1.2	< 1.1	< 1.3	2.8	< 1.3	3.0	3.7	2.6	1.2	< 1.2	< 1.2	< 1.0		
Silver	mg/Kg	2	1,500	< 1.4	1.6	2.9	< 1.5	< 1.2	1.0 J	3.8	2.6	< 1.3	0.85 J	3.1	0.72 J	< 1.2	1.4	0.60 J	< 1.0		

Notes:

Exceedence of NYSDEC Part 375 UNRESTRICTED USE soil cleanup objective

Exceedence of NYSDEC Part 375 RESTRICTED COMMERCIAL USE soil cleanup objective

J estimated value

mg/Kg Milligrams/Kilogram (parts per million)

"A" Samples were collected once overexcavation of the floor (approximately 6"-8") was complete. "A" samples were only analyzed for those parameters that significantly exceeded the Commercial Use SCO's during initial analysis.

TABLE 6
SUMMARY OF POST-EXCAVATION LABORATORY ANALYTICAL DATA (EAST FLOOR)

2012-2013 INTERIM REMEDIAL MEASURES (IRM)
CONFIRMATORY SAMPLES

125 MAIN STREET
BUFFALO, NY

Site ID: 125 Main Street, Buffalo NY		NYSDEC PART 375 UNRESTRICTED USE SCOs	NYSDEC PART 375 RESTRICTED COMMERCIAL USE SCOs	East Floor - 1	East Floor - 2	East Floor - 2A	East Floor - 3	East Floor - 4	East Floor - 5	East Floor - 6	East Floor - 7		
				SOIL / FILL	SOIL / FILL	SOIL / FILL	SOIL / FILL	SOIL / FILL	SOIL / FILL	SOIL / FILL	Crushed Stone		
				1/18/13	1/18/13	3/12/13	1/18/13	1/18/13	1/18/13	1/18/13	1/18/13		
Parameter	Units	mg/Kg	mg/Kg	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration		
Semi Volatile Organics													
Acenaphthene	mg/Kg	20	500	0.29 J,M	24	<0.35	0.23 J	1	<0.34	0.45	0.17 J		
Acenaphthylene	mg/Kg	100	500	0.29 J	<8.1	<0.35	0.20 J	<0.67	<0.34	<0.31	<0.31		
Anthracene	mg/Kg	100	500	0.90	33	0.28 J	0.6	2.3	<0.34	1.1	0.46		
Benzo (a) anthracene	mg/Kg	1	5.6	2.20	38	0.71	1.3	4.2	0.36	1.9	0.67		
Benzo (a) pyrene	mg/Kg	1	1	2.00	25	0.58	1.1	3.1	0.33 J	1.6	0.54		
Benzo (b) fluoranthene	mg/Kg	1	5.6	1.80	24	0.52	1.1	2.9	0.33 J	1.6	0.60		
Benzo (g,h,i) perylene	mg/Kg	100	500	1.30	11	0.31 J	0.8	1.7	0.22 J	1.0	0.35		
Benzo (k) fluoranthene	mg/Kg	0.8	56	1.50	17	0.50	0.8	2.4	0.23 J	1.2	0.35		
Chrysene	mg/Kg	1	56	2.20	36	0.74	1.3	4.1	0.36	1.9	0.73		
Dibenzo (a,h) anthracene	mg/Kg	0.33	0.56	0.29 J	<8.1	<0.35	<0.33	0.48 J	<0.34	0.23 J	<0.31		
Fluoranthene	mg/Kg	100	500	4.20	87	1.50	2.6	7.9	0.94	4.3	1.6		
Fluorene	mg/Kg	30	500	0.36	22	<0.35	0.27 J	0.97	<0.34	0.52	0.19 J		
Indeno (1,2,3 - cd) pyrene	mg/Kg	0.5	5.6	1.80	18	0.56	0.9	2.3	0.32 J	1.4	0.45		
Naphthalene	mg/Kg	12	500	<3.4	17	<0.35	<0.33	0.50 J	<0.34	0.34	0.18 J		
Phenanthrene	mg/Kg	100	500	3.40	120	1.20	2.2	7.8	0.71	4.1	1.5		
Pyrene	mg/Kg	100	500	3.7 M	73	1.30	2.3	6.8	0.78	3.6	1.3		
TAL Metals													
Arsenic	mg/Kg	13	16	24 D	19	29	7	11	1 J	4.6	2.3		
Barium	mg/Kg	350	400	290 D	100	110	260	150	330	73	16		
Cadmium	mg/Kg	2.5	9.3	3.1 D	2.3	1.1	0.49 J	1.50	<0.55	0.4	<0.58		
Chromium	mg/Kg	30	1,500	20 D	11	12	9	13	17	7	<1.2		
Lead	mg/Kg	63	1,000	920 D,M	1100	610	220	540	4	60	23		
Mercury	mg/Kg	0.18	2.8	< 0.0095 M	1.3	13	<0.0098	< 0.0097	< 0.0092	< 0.0085	< 0.0090		
Selenium	mg/Kg	3.9	1,500	4.2	2.2	1.2	<1.1	<1.2	<1.1	<1.2	<1.2		
Silver	mg/Kg	2	1,500	1.2	1.1	1.7	0.58 J	0.80 J	1.8	<1.2	0.66 J		
Volatile Organics													
1,2,4-Trimethylbenzene	mg/Kg	3.6	190	NA	NA	NA	NA	NA	NA	NA	<0.003		
1,3,5-Trimethylbenzene	mg/Kg	8.4	190	NA	NA	NA	NA	NA	NA	NA	<0.003		
Benzene	mg/Kg	0.06	44	NA	NA	NA	NA	NA	NA	NA	<0.003		
Ethylbenzene	mg/Kg	1	390	NA	NA	NA	NA	NA	NA	NA	<0.003		
Isopropylbenzene	mg/Kg	-	-	NA	NA	NA	NA	NA	NA	NA	<0.003		
m,p-Xylene	mg/Kg	0.26	500	NA	NA	NA	NA	NA	NA	NA	<0.003		
MTBE	mg/Kg	0.93	500	NA	NA	NA	NA	NA	NA	NA	<0.003		
Naphthalene	mg/Kg	-	-	NA	NA	NA	NA	NA	NA	NA	<0.0074		
n-Propylbenzene	mg/Kg	3.9	500	NA	NA	NA	NA	NA	NA	NA	<0.003		
n-Butylbenzene	mg/Kg	12	-	NA	NA	NA	NA	NA	NA	NA	<0.003		
o-Xylene	mg/Kg	0.26	500	NA	NA	NA	NA	NA	NA	NA	<0.003		
p-Isopropyltoluene	mg/Kg	-	500	NA	NA	NA	NA	NA	NA	NA	<0.003		
sec-Butylbenzene	mg/Kg	11	500	NA	NA	NA	NA	NA	NA	NA	<0.003		
tert-Butylbenzene	mg/Kg	5.9	500	NA	NA	NA	NA	NA	NA	NA	<0.003		
Toluene	mg/Kg	0.7	500	NA	NA	NA	NA	NA	NA	NA	0.0021		

Notes:

Exceedence of NYSDEC Part 375 UNRESTRICTED USE soil cleanup objective
Exceedence of NYSDEC Part 375 RESTRICTED COMMERCIAL USE soil cleanup objective

J estimated value

D Duplicate results outside QC limits. May indicate non-homogeneous matrix.

M Matrix spike recoveries outside QC limits. May indicate non-homogeneous matrix

mg/Kg Milligrams/Kilogram (parts per million)

NA Parameter not analyzed

(-) No SCO available for this parameter

Sample location East Floor-7 represents the former 30,000 gallon fuel UST area. Remediation of this area was completed in December 2008.

"A" Samples were collected once overexcavation of the floor (approximately 6"-8") was complete. "A" samples were only analyzed for those parameters that significantly exceeded the Commercial Use SCO's during initial analysis.

TABLE 6
SUMMARY OF POST-EXCAVATION LABORATORY ANALYTICAL DATA (EAST FLOOR)

2012-2013 INTERIM REMEDIAL MEASURES (IRM)
CONFIRMATORY SAMPLES

125 MAIN STREET
BUFFALO, NY

Site ID: 125 Main Street, Buffalo NY		NYSDEC PART 375 UNRESTRICTED USE SCOs	NYSDEC PART 375 RESTRICTED COMMERCIAL USE SCOs	East Floor - 8	East Floor - 9	East Floor - 10	East Floor - 11	East Floor - 12	East Floor - 13	East Floor - 14	East Floor - 15
Lab ID:	SOIL / FILL			SOIL / FILL	SOIL / FILL	SOIL / FILL	SOIL / FILL	SOIL / FILL	SOIL / FILL	SOIL / FILL	Soil/Fill
Date Sample Collected: 5/15/13	5/15/13			5/15/13	5/15/13	5/15/13	5/15/13	5/15/13	5/15/13	5/15/13	5/15/13
Sample Depth: Excavation Floor											
Parameter											
	Units	mg/Kg	mg/Kg	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration
Semi Volatile Organics											
Acenaphthene	mg/Kg	20	500	<0.317	<0.310	<0.317	<0.314	<0.298	0.163 J	<0.333	<0.317
Acenaphthylene	mg/Kg	100	500	<0.317	<0.310	<0.317	<0.314	<0.298	0.245 J	<0.333	<0.317
Anthracene	mg/Kg	100	500	<0.317	<0.310	<0.317	0.246 J	<0.298	0.618	0.206 J	0.331
Benzo (a) anthracene	mg/Kg	1	5.6	<0.317	0.306 J	<0.317	0.777	<0.298	1.800	0.563	0.850
Benzo (a) pyrene	mg/Kg	1	1	<0.317	0.247 J	<0.317	0.710	<0.298	1.480	0.492	0.708
Benzo (b) fluoranthene	mg/Kg	1	5.6	<0.317	0.233 J	<0.317	1.350	<0.298	1.290	0.499	0.679
Benzo (g,h,i) perylene	mg/Kg	100	500	<0.317	<0.310	<0.317	0.514	<0.298	0.743	0.302 J	0.458
Benzo (k) fluoranthene	mg/Kg	0.8	56	<0.317	0.190 J	<0.317	1.240	<0.298	1.110	0.347	0.570
Chrysene	mg/Kg	1	56	<0.317	0.307 J	<0.317	0.927	<0.298	1.800	0.584	0.910
Dibenz (a,h) anthracene	mg/Kg	0.33	0.56	<0.317	<0.310	<0.317	<0.314	<0.298	0.218 J	<0.333	<0.317
Fluoranthene	mg/Kg	100	500	<0.317	0.589	<0.317	2.030	<0.298	3.180	1.070	1.770
Fluorene	mg/Kg	30	500	<0.317	<0.310	<0.317	<0.314	<0.298	<0.326	<0.333	<0.317
Indeno (1,2,3 - cd) pyrene	mg/Kg	0.5	5.6	<0.317	0.426	<0.317	0.674	<0.298	0.960	0.552	0.706
Naphthalene	mg/Kg	12	500	<0.317	<0.310	<0.317	<0.314	<0.298	<0.326	<0.333	<0.317
Phenanthrene	mg/Kg	100	500	<0.317	0.530	<0.317	1.260	<0.298	2.360	0.845	1.340
Pyrene	mg/Kg	100	500	<0.317	0.578	<0.317	1.810	<0.298	3.100	1.020	1.680
TAL Metals											
Arsenic	mg/Kg	13	16	3.01	4.97	0.551 J	2.43	1.73	5.26	13.3	3.51 D
Barium	mg/Kg	350	400	19.2	71.8	208	42.1	15.9	74.5	80.7	76.6
Cadmium	mg/Kg	2.5	9.3	0.277 J	0.302 J	<0.510	0.273 J	<0.511	0.426 J	0.376 J	0.269 J
Chromium	mg/Kg	30	1,500	9.29	9.54	12.7	10.3	3.59	8.84	10.4	8.69 D
Lead	mg/Kg	63	1,000	7.34	197	7.98	64.6	9.79	282	185	88.6 D
Mercury	mg/Kg	0.18	2.8	0.00967 J	1.21	<0.0162	0.297	0.0749	0.395	1.36	0.327 D
Selenium	mg/Kg	3.9	1,500	<1.10	0.548 J	0.594 J	0.582 J	<1.02	0.651 J	<1.16	<1.03
Silver	mg/Kg	2	1,500	0.846 J	0.972 J	1.6	1.14	<1.02	0.886 J	0.840 J	1.115

Notes:

Exceedence of NYSDEC Part 375 UNRESTRICTED USE soil cleanup objective

Exceedence of NYSDEC Part 375 RESTRICTED COMMERCIAL USE soil cleanup objective

J estimated value

D Duplicate results outside QC limits. May indicate non-homogeneous matrix.

M Matrix spike recoveries outside QC limits. May indicate non-homogeneous matrix

mg/Kg Milligrams/Kilogram (parts per million)

NA Parameter not analyzed

(-) No SCO available for this parameter

TABLE 7
SUMMARY OF POST-EXCAVATION LABORATORY ANALYTICAL DATA (EAST WALL)

2012-2013 INTERIM REMEDIAL MEASURES

**125 MAIN STREET SITE
BUFFALO, NY**

Site ID: 125 Main Street Site, Buffalo NY		NYSDEC PART 375 UNRESTRICTED USE SCOs	NYSDEC PART 375 RESTRICTED COMMERCIAL USE SCOs	East Wall - 1	East Wall - 2	East Wall - 3	East Wall - 4		
Lab ID: 130995				SOIL / FILL	SOIL / FILL	SOIL / FILL	SOIL / FILL		
Date Sample Collected: 3/21/13				3/21/13	3/21/13	3/21/13	3/21/13		
Sample Depth: Excavation Wall									
Parameter	Units	mg/Kg	mg/Kg	Concentration	Concentration	Concentration	Concentration		
Semi Volatile Organics									
Acenaphthene	mg/Kg	20	500	<0.29	0.18 J	<0.34	<0.31		
Acenaphthylene	mg/Kg	100	500	<0.29	<0.32	<0.34	<0.31		
Anthracene	mg/Kg	100	500	<0.29	0.41	0.20 J	0.19 J		
Benzo (a) anthracene	mg/Kg	1	5.6	<0.29	1.10	0.78	1.10		
Benzo (a) pyrene	mg/Kg	1	1	<0.29	1.10	0.72	0.91		
Benzo (b) fluoranthene	mg/Kg	1	5.6	<0.29	1.00	0.67	0.82		
Benzo (g,h,i) perylene	mg/Kg	100	500	<0.29	0.74	0.46	0.51		
Benzo (k) fluoranthene	mg/Kg	0.8	56	<0.29	0.88	0.59	0.83		
Chrysene	mg/Kg	1	56	<0.29	1.30	0.84	1.00		
Dibenzo (a,h) anthracene	mg/Kg	0.33	0.56	<0.29	<0.32	<0.34	<0.31		
Fluoranthene	mg/Kg	100	500	<0.29	2.50	1.60	1.60		
Fluorene	mg/Kg	30	500	<0.29	0.20 J	<0.34	<0.31		
Indeno (1,2,3 - cd) pyrene	mg/Kg	0.5	5.6	<0.29	0.83	0.60	0.70		
Naphthalene	mg/Kg	12	500	<0.29	0.25 J	<0.34	<0.31		
Phenanthrene	mg/Kg	100	500	<0.29	1.70	0.85	0.43		
Pyrene	mg/Kg	100	500	<0.29	2.10	1.40	1.40		
TAL Metals									
Arsenic	mg/Kg	13	16	2.8	3.8	23.0	4.4		
Barium	mg/Kg	350	400	44	66	120	33		
Cadmium	mg/Kg	2.5	9.3	0.34 J	0.45 J	0.59 J	0.36 J		
Chromium	mg/Kg	30	1,500	8.2	15.0	12.0	7.3		
Lead	mg/Kg	63	1,000	140	120	200	54		
Mercury	mg/Kg	0.18	2.8	0.60	0.27	0.39	0.25		
Selenium	mg/Kg	3.9	1,500	<1.0	<1.1	<1.2	<1.1		
Silver	mg/Kg	2	1,500	0.67 J	1.10	0.65 J	1.0 J		

Notes:

Exceedence of NYSDEC Part 375 UNRESTRICTED USE soil cleanup objective

Exceedence of NYSDEC Part 375 RESTRICTED COMMERCIAL USE soil cleanup objective

J estimated value

D Duplicate results outside QC limits. May indicate non-homogeneous matrix.

mg/Kg Milligrams/Kilogram (parts per million)

TABLE 8
COST ESTIMATE
TRACK 4 RESTRICTED USE ALTERNATIVE
125 MAIN ST. SITE
BUFFALO, NY

ITEM	QUANTITY	UNITS	\$/UNIT	COST
Site Remediation				
Engineering / Design	1	ea	\$ 50,000	\$ 50,000
Sheet Pile Shoring	31,545	sft	\$ 47	\$ 1,482,615
Excavation	11,875	cyd	\$ 5	\$ 59,375
Transportation and Disposal	19,000	ton	\$ 27.20	\$ 516,800
Oversight and Environmental Monitoring	130	day	\$ 600	\$ 78,000
Sampling and Analysis (Waste Char)	20	ea	\$ 1,000	\$ 20,000
Sampling and Analysis (Post-Ex)	37	ea	\$ 150	\$ 5,550
SUBTOTAL:				\$ 2,212,340
Site Cover System				
Geotextile	55,793	sft	\$ 0.16	\$ 8,927
ROC	2,111	tons	\$ 16	\$ 33,776
Concrete	435	cyd	\$ 200	\$ 87,000
Sand	96	tons	\$ 20	\$ 1,920
Pavers (Concrete)	20,188	sft	\$ 5	\$ 100,940
Backfill Soil	-	tons	\$ 12	\$ -
Material Sampling and Analysis	2	ea	\$ 250	\$ 500
SUBTOTAL:				\$ 233,063
Institutional Controls				
Site Management Plan (SMP) Prep.	1	ea	\$ 13,000	\$ 13,000
SUBTOTAL:				\$ 13,000
CAPITAL COSTS SUBTOTAL:				\$ 2,458,403
Mob/Demob (5% of capital costs subtotal)	1	ea	\$ 122,920	\$ 122,920
Health and Safety (2% of capital costs subtotal)	1	ea	\$ 49,168	\$ 49,168
Contingency (10% of capital costs subtotal)	1	ea	\$ 245,840	\$ 245,840
TOTAL CAPITAL COSTS				\$ 5,334,734
Annual Operation Maintenance & Monitoring (OMM)				
Site Maintenance	2	year	\$ 5,000	\$ 10,000
Annual Certification	1	year	\$ 2,000	\$ 2,000
Total Annual OMM Cost				\$ 12,000
Number of Years				30
Interest Rate				5%
OMM Present Worth (PW)				\$ 184,469
TOTAL PRESENT WORTH (CAPITAL COST + OMM PW)				\$ 5,519,204

Notes:

- 1 - Under Track 4, the Site would remain in its current state (post-IRM construction) and a Site Management Plan (SMP) would be developed, implemented, and maintained. The SMP would include an IC/EC Plan, Excavation Work Plan, Site Monitoring Plan, and an Environmental Easement.

TABLE 9
 COST ESTIMATE
TRACK 2 RESTRICTED USE ALTERNATIVE
 125 MAIN ST. SITE
 BUFFALO, NY

ITEM	QUANTITY	UNITS	\$/UNIT	COST
Site Remediation				
Engineering / Geo Tech Investigation / Design	1	ea	\$ 150,000	\$ 150,000
Sheet Pile Shoring	31,545	sft	\$ 47	\$ 1,482,615
Building Slab and Foundation Shoring	15,755	sft	\$ 125	\$ 1,969,375
Excavation	24,123	cyd	\$ 10	\$ 241,235
Transportation and Disposal	38,598	ton	\$ 27.20	\$ 1,049,854
Oversight and Environmental Monitoring	180	day	\$ 600	\$ 108,000
Sampling and Analysis (Waste Char)	40	ea	\$ 1,000	\$ 40,000
Sampling and Analysis (Post-Ex)	25	ea	\$ 150	\$ 3,750
SUBTOTAL:				\$ 5,044,829
Site Cover System				
Geotextile	55,793	sft	\$ 0.16	\$ 8,927
ROC	2,111	tons	\$ 16	\$ 33,776
Concrete	197	cyd	\$ 200	\$ 39,400
Sand	96	tons	\$ 20	\$ 1,920
Pavers (Concrete)	20,188	sft	\$ 5	\$ 100,940
Backfill Soil	38,598	tons	\$ 12	\$ 463,171
Material Sampling and Analysis	5	ea	\$ 250	\$ 1,250
SUBTOTAL:				\$ 649,384
Institutional Controls				
Site Management Plan (SMP) Prep.	1	ea	\$ 13,000	\$ 13,000
SUBTOTAL:				\$ 13,000
CAPITAL COSTS SUBTOTAL:				\$ 5,707,212
Mob/Demob (5% of capital costs subtotal)	1	ea	\$ 285,361	\$ 285,361
Health and Safety (2% of capital costs subtotal)	1	ea	\$ 114,144	\$ 114,144
Contingency (10% of capital costs subtotal)	1	ea	\$ 570,721	\$ 570,721
TOTAL CAPITAL COSTS				\$ 12,384,651
Annual Operation Maintenance & Monitoring (OMM)				
Site Maintenance	2	year	\$ 5,000	\$ 10,000
Annual Certification	1	year	\$ 2,000	\$ 2,000
Total Annual OMM Cost				\$ 12,000
Number of Years				30
Interest Rate				5%
OMM Present Worth (PW)				\$ 184,469
TOTAL PRESENT WORTH (CAPITAL COST + OMM PW)				\$ 12,569,120

Notes:

- 1 - A Track 2 cleanup alternative would require excavation of additional impacted soil/fill material to a depth of at least 15 feet below grade (fbg). Soil/fill material at depths below 15 fbg with contaminants of potential concern (COPCs) above Commercial soil cleanup objectives (SCOs) would be left in place and managed pursuant to a Site Management Plan (SMP).

TABLE 10
 COST ESTIMATE
TRACK 1 UNRESTRICTED USE ALTERNATIVE
 125 MAIN ST. SITE
 BUFFALO, NY

ITEM	QUANTITY	UNITS	\$/UNIT	COST
Site Remediation				
Engineering / Geo Tech Investigation / Design	1	ea	\$ 150,000	\$ 150,000
Sheet Pile Shoring	40,060	sft	\$ 47	\$ 1,882,820
Building Slab and Foundation Shoring	15,755	sft	\$ 150	\$ 2,363,250
Excavation	35,937	cyd	\$ 15	\$ 539,054
Transportation and Disposal	57,499	ton	\$ 27.20	\$ 1,563,977
Oversight and Environmental Monitoring	300	day	\$ 600	\$ 180,000
Sampling and Analysis (Waste Char)	59	ea	\$ 1,000	\$ 59,000
Sampling and Analysis (Post-Ex)	30	ea	\$ 150	\$ 4,500
SUBTOTAL:				\$ 6,742,601
Site Cover System				
Geotextile	55,793	sft	\$ 0.16	\$ 8,927
ROC	2,310	tons	\$ 16	\$ 36,960
Concrete	523	cyd	\$ 200	\$ 104,600
Sand	96	tons	\$ 20	\$ 1,920
Pavers (Concrete)	20,188	sft	\$ 5	\$ 100,940
Backfill Soil	57,499	tons	\$ 12	\$ 689,990
Material Sampling and Analysis	8	ea	\$ 250	\$ 2,000
SUBTOTAL:				\$ 945,337
Institutional Controls				
Site Management Plan (SMP) Prep.	1	ea	\$ 13,000	\$ 13,000
SUBTOTAL:				\$ 13,000
CAPITAL COSTS SUBTOTAL:				\$ 7,700,938
Mob/Demob (5% of capital costs subtotal)	1	ea	\$ 385,047	\$ 385,047
Health and Safety (2% of capital costs subtotal)	1	ea	\$ 154,019	\$ 154,019
Contingency (10% of capital costs subtotal)	1	ea	\$ 770,094	\$ 770,094
TOTAL CAPITAL COSTS				\$ 16,711,035
Annual Operation Maintenance & Monitoring (OMM)				
Site Maintenance	2	year	\$ -	-
Annual Certification	1	year	\$ -	-
Total Annual OMM Cost				\$ -
Number of Years				30
Interest Rate				5%
OMM Present Worth (PW)				\$ -
TOTAL PRESENT WORTH (CAPITAL COST + OMM PW)				\$ 16,711,035

Notes:

- 1 - A Track 1 Unrestricted Use alternative would include the excavation and off-Site disposal of all impacted soil/fill material. Unrestricted Use alternatives cannot be supplemented by institutional controls.