FPM group _____ Engineering and Environmental Science

FPM Group, Ltd.
FPM Engineering Group, P.C.
formerly Fanning, Phillips and Molnar

CORPORATE HEADQUARTERS
909 Marconi Avenue
Ronkonkoma, NY 11779
631/737-6200
Fax 631/737-2410

VIA FAX AND MAIL

July 26, 2006

Mr. Peter Schramel
Suffolk County Department of Health Services
15 Horseblock Place
Farmingville, NY 11738

Re: **Leaching Pool Remediation Results**
1735 Express Drive North
Hauppauge, New York
FPM File No. 894-06-01

Dear Peter:

FPM Group (FPM) has performed remediation of several leaching pools and one septic tank at the above-referenced property in accordance with the recommendations in our April 24, 2006 Investigation Results letter and our June 5, 2006 Sanitary Leaching Pool Results letter. The work was performed between June 28 and July 5, 2006 with oversight from the Suffolk County Department of Health Services (SCDHS). A site plan is attached showing the site features and sampling locations. The information provided in this report is a summary of the work conducted along with the summarized laboratory analytical results. FPM will provide a detailed report in the future that will include quantities of sediment removed, the complete laboratory reports, and copies of the waste manifests.

A Guzzler truck was utilized to remove visibly-impacted sediments from leaching pools LP-1, LP-3, LP-4, LP-5, LP-6, LP-7, LP-8, LP-9, LP-10, LP-19, and CP-2. Prior to removing the sediments, any standing liquid in the pools was pumped and properly disposed. In addition, all of the liquid and sediment present within septic tank CP-1 were removed and properly disposed.

Following the removal of impacted sediments, an endpoint sediment sample was collected from each leaching pool. Each sample to be analyzed was containerized and shipped under chain-of-custody procedures to a New York State Department of Health-approved laboratory for analysis of parameters that were previously detected in each pool at concentrations above the SCDHS Action Levels during the April 2006 investigation. The sampling depths and summarized laboratory analytical results are shown in Table 1. The results from the endpoint samples are compared to the SCDHS Cleanup Objectives.

Based on the analytical results, the following conditions and recommendations are noted:

- All of the targeted compounds at leaching pools LP-1, LP-3, LP-5, LP-6, and LP-7 were below the SCDHS Cleanup Objectives; therefore, no further work is recommended for these pools.

- All liquids and sediment contained in septic tank CP-1 were removed; therefore, no further work is necessary.

- At leaching pool LP-10, all of the targeted compounds were below the SCDHS Cleanup Objectives with the exception of chrysene, which was detected at a concentration of 410 micrograms per kilogram, or ug/kg. The detected chrysene concentration only slightly exceeds the SCDHS Cleanup Objective of 400 ug/kg. Based on this data, no further work is recommended for this pool.

- At leaching pool LP-4, several volatile organic compounds (VOCs) were detected at concentrations above the SCDHS Cleanup Objectives. Therefore, additional remediation is recommended for this structure. A Guzzler truck will be utilized to remove additional material from this structure and another endpoint sample will be subsequently collected and analyzed for VOCs.

- At leaching pool LP-8, chrysene was noted to exceed the SCDHS Cleanup Objective. Exceedances for several semi-volatile organic compounds (SVOCs) were also noted in leaching pool LP-9. A Guzzler truck will be utilized to remove additional material from these structures and an endpoint sample will be collected from each pool. The LP-8 sample will be analyzed for chrysene and the LP-9 sample will be analyzed for SVOCs.

- At leaching pool LP-19, one VOC (p-isopropyltoluene) was noted to exceed the SCDHS Cleanup Objective. During remediation on July 5, 2006, only a very limited amount of sediment was removed from the pool due to the poor and unsafe condition of the structure. The structure was noted to be canted, one of the cement rings was offset, and the interior surface of the cement rings were noted to be significantly degraded. Following endpoint sampling, a hand auger was utilized to retrieve soil samples from 0 to 2 feet below the sediment surface in order to evaluate the vertical extent of impacted sediment. The top three inches of the sediment were noted to be slightly stained. Sediments four inches below the surface and deeper consisted of brown sand and gravel; no staining was observed. Based on the condition of this leaching pool and the exceedance of only one VOC, FPM recommends no additional remediation for this pool. The structure should be abandoned by backfilling it with clean sand to grade. The piping entering this pool should be re-routed to other available overflow leaching pools.

Please confirm that the SCDHS concurs with the above-described recommendations or provide your comments. If you have any questions, please contact me at 737-6200, ext. 228.

Very truly yours,

Stephanie O. Davis
Senior Hydrogeologist
Department Manager

SOD:tac
Attachments

cc: James Maggio
James Ray, Esq.

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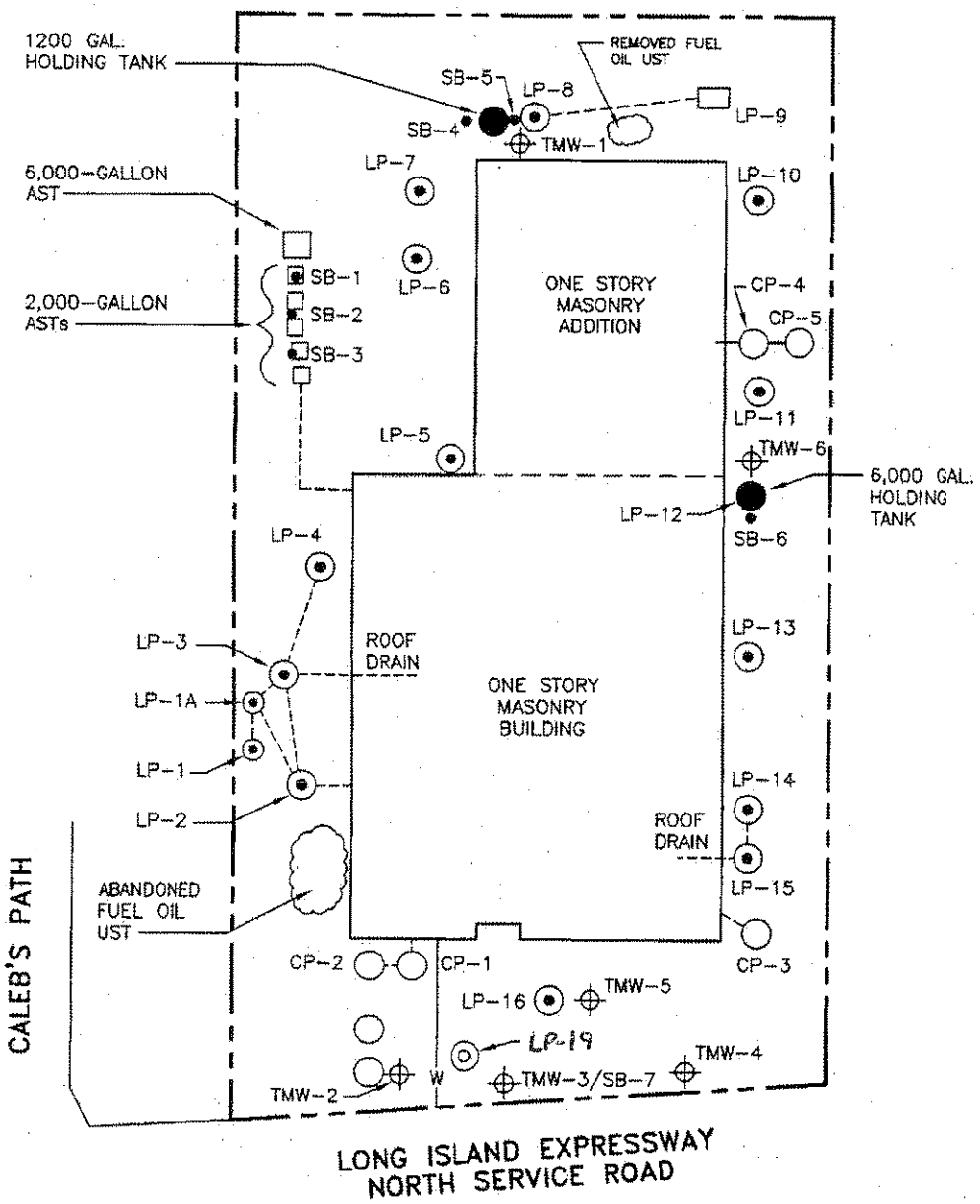
FPM



LEGEND:

- • = SOIL BORING
- ⊕ = TEMPORARY GROUNDWATER MONITORING WELL
- ○ = CESSPOOL/SEPTIC TANK
- ⊙ = STORMWATER LEACHING POOL
- □ = SOLID-BOTTOM CATCH BASIN
- ● = FORMER USTs
- —W— = WATER SERVICE CONNECTION

NOT TO SCALE

FPM GROUP

FIGURE 1

SITE PLAN

1735 EXPRESSWAY DRIVE NORTH
HAUPPAUGE, NEW YORK

Drawn By: HC, JDS | Checked By: SOD | Date: 4/17/06

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TABLE 1
DRAINPOOL SEDIMENT CHEMICAL ANALYTICAL RESULTS
1735 EXPRESS DRIVE NORTH
HAUPPAUGE, NEW YORK

Sample Location	LP-1			LP-1A		LP-2		LP-3			LP-4			LP-5			LP-6		LP-7		SCDHS Action Levels	SCDHS Cleanup Objectives
Depth to Liquids (feet)	-			2.5		2.5		9.5			6			4			16.5		-			
Depth to Sediment (feet)	1.5		8	12		13		12.5		16	14		16.5	4.5		9	19	21	16.5	19		
Sample Date	4/5/06		6/28/06	4/5/06		4/5/06		4/5/06		7/5/2006	4/5/06		7/5/06	4/5/06		6/28/06	4/6/06	6/27/06	4/6/06	6/28/06		
Sample Depth (feet below sediment surface)	2-3	8-9	0-2	0-2	6-7	0-1	6-7	3-4	16-18	0-2	0-3	13-15	0-2	0-2	9-10	0-2	0-2	0-2	0-2	0-2		
Volatile Organic Compounds in micrograms per kilogram																						
1,1,1-Trichloroethane	120	ND	NA	ND	11	26	ND	ND	ND	NA	**130,000**	ND	**250,000**	ND	ND	NA	ND	NA	ND	NA	1,600	800
1,1,2-Trichloroethane	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	**87,000**	ND	ND	NA	ND	NA	ND	NA	600	300
1,2,4-Trimethylbenzene	ND	ND	NA	ND	ND	ND	ND	1,300	ND	NA	**51,000**	290	**190,000**	ND	41	NA	ND	NA	ND	NA	4,800	2,400
1,2-Dichlorobenzene	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	33	NA	ND	NA	ND	NA	15,000	8,000
1,3,5-Trimethylbenzene	ND	ND	NA	ND	ND	ND	ND	1,000	ND	NA	ND	ND	**70,000**	ND	82	NA	ND	NA	ND	NA	5,200	2,600
1,4-Dichlorobenzene	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	NA	ND	NA	ND	NA	15,000	8,000
1,1-Dichloroethene	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	**17,000**	ND	ND	NA	ND	NA	ND	NA	800	400
cis-1,2- Dichloroethene	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	**58,000**	ND	25	NA	ND	NA	ND	NA	600	300
Ethylbenzene	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	**66,000**	ND	ND	NA	ND	NA	ND	NA	11,000	5,500
Isopropylbenzene	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	**15,000**	ND	ND	NA	ND	NA	ND	NA	5,200	2,600
Methyl isobutyl ketone	ND	ND	NA	ND	ND	ND	ND	**11,000**	ND	660	**140,000**	850	ND	ND	88	NA	ND	NA	ND	NA	2,000	1,000
Naphthalene	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	**45,000**	360	**210,000**	ND	26	NA	ND	NA	ND	NA	15,000	10,000
n-Butylbenzene	ND	ND	NA	ND	ND	ND	ND	1,400	ND	NA	ND	ND	**28,000**	ND	ND	NA	ND	NA	ND	NA	6,800	3,400
p-Isopropyltoluene	ND	ND	NA	ND	ND	ND	ND	920	ND	NA	ND	ND	**53,000**	ND	ND	NA	ND	NA	ND	NA	7,800	3,900
sec-Butylbenzene	ND	ND	NA	ND	ND	ND	ND	590	ND	NA	ND	ND	**19,000**	ND	ND	NA	ND	NA	ND	NA	10,000	5,000
n-Propylbenzene	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	**37,000**	ND	ND	NA	ND	NA	ND	NA	5,000	2,500
Tetrachloroethene	15	ND	NA	ND	ND	63	ND	ND	12	NA	**1,400,000**	260	**150,000**	**3,500**	**2,800**	ND	ND	NA	ND	NA	2,800	1,400
Toluene	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	**14,000**	ND	ND	NA	ND	NA	ND	NA	3,000	1,500
Trichloroethene	ND	ND	NA	ND	ND	ND	ND	ND	11	NA	ND	ND	**29,000**	ND	290	NA	ND	NA	ND	NA	1,400	700
Xylenes (total)	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	**140,000**	210	**310,000**	ND	33	NA	ND	NA	ND	NA	2,400	1,200
Semivolatile Organic Compounds in micrograms per kilogram																						
Anthracene	490	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	NA	ND	NA	ND	ND	75,000	50,000
Benzo(a)anthracene	1,800	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	270	ND	NA	590	NA	**6,300**	ND	6,000	3,000
Benzo(a)pyrene	1,900	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	310	190	NA	800	NA	8,700	400	22,000	11,000
Benzo(b)fluoranthene	1,700	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	400	230	NA	950	NA	**8,400**	570	2,200	1,100
Benzo(g,h,i)perylene	1,000	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	240	ND	NA	ND	NA	4,700	ND	75,000	50,000
Benzo(k)fluoranthene	1,700	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	300	210	NA	920	NA	**8,800**	760	2,200	1,100
Chrysene	**2,200**	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	350	230	NA	**1,100**	ND	**11,000**	380	800	400
Dibenz(a,h)anthracene	550	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	NA	ND	NA	ND	ND	75,000	50,000
Fluoranthene	3,700	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	710	ND	NA	1,700	NA	19,000	780	75,000	50,000
Fluorene	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	NA	ND	NA	ND	ND	75,000	50,000
Indeno(1,2,3-cd)pyrene	1,100	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	250	ND	NA	ND	NA	5,100	ND	6,400	3,200
Phenanthrene	1,900	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	290	180	NA	810	NA	7,900	ND	75,000	50,000
Pyrene	3,000	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	510	ND	NA	1,200	NA	14,000	600	75,000	50,000
Metals in milligrams per kilogram																						
Arsenic	3.73	1.48	NA	1.98	1.28	2.20	2.45	1.52	1.27	NA	2.84	1.56	NA	0.86	2.08	NA	1.15	NA	1.87	NA	25.0	7.5
Cadmium	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	NA	ND	NA	ND	NA	10.0	1.0
Chromium	13.7	3.97	NA	7.42	4.35	7.72	10.4	5.51	4.92	NA	7.62	5.62	NA	4.28	6.85	NA	6.05	NA	24.2	NA	100.0	10.0
Copper	18.8	5.45	NA	9.75	7.46	9.48	11.1	61.2	7.18	NA	46.2	6.78	NA	7.54	9.19	NA	9.35	NA	24.3	NA	500.0	25.0
Lead	26.8	5.14	NA	6.53	4.94	9.20	6.96	12.9	3.87	NA	8.97	4.38	NA	9.08	5.12	NA	15.9	NA	42.3	NA	400.0	100.0
Nickel	8.21	2.99	NA	7.54	4.14	6.14	10.3	2.35	4.56	NA	5.18	6.03	NA	3.63	5.29	NA	4.72	NA	9.63	NA	1,000.0	13.0
Mercury	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	NA	ND	NA	ND	NA	2.0	0.1
Silver	4.24	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	NA	ND	NA	2.51	NA	100.0	5.0

Notes:

Only detected compounds are reported on this table. See laboratory report for a complete list of analytes.
ND = Not Detected
NA = Not Analyzed

SCDHS = Suffolk County Department of Health Services
Bold shaded values exceed SCDHS Action Levels (pre-remediation samples) or SCDHS Cleanup Objectives.
- = Not Established.

FPM

TABLE 1 (CONTINUED)
DRAINPOOL SEDIMENT CHEMICAL ANALYTICAL RESULTS
1735 EXPRESS DRIVE NORTH
HAUPPAUGE, NEW YORK

Sample Location	LP-8		LP-9	LP-10		LP-11		LP-13		LP-14	LP-15		LP-16	CP-2		LP-17	LP-18	LP-19		CP-3		CP-5	SCDHS Action Levels	SCDHS Cleanup Objectives
Depth to Liquids (feet)	14.5		-	17		11		11		12	4		12.5	4		12	12	12.5	5	6		12		
Depth to Sediment (feet)	20	22	4	20	21.5	14.5		12.5		12.5	12.5		18	16	18	18	18	26	27	13		16		
Sample Date	4/6/06	7/5/06	6/27/06	4/6/06	7/5/06	4/5/06		4/6/06		4/6/06	4/6/06		4/6/06	4/6/06	6/28/06	5/17/06	5/17/06	5/17/06	7/5/06	4/6/06		4/6/06		
Sample Depth (feet below sediment surface)	0-2	0-2	0-2	0-2	0-2	1-3	8-10	0-2	6-7.5	2-4	0-2	8-10	0-2	0-2	0-2	0-2	0-2	0-2	0-1	0-2	5-7	0-2		
Volatile Organic Compounds in micrograms per kilogram																								
1,1,1-Trichloroethane	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	1,600	800
1,2,4-Trimethylbenzene	ND	NA	ND	120	NA	ND	ND	ND	ND	ND	ND	ND	ND	**23,000**	ND	840	1,200	1,700	NA	ND	ND	ND	4,800	2,400
1,2-Dichlorobenzene	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	7,200	ND	ND	ND	ND	NA	ND	ND	ND	15,000	8,000
1,3,5-Trimethylbenzene	ND	NA	ND	44	NA	ND	ND	ND	ND	ND	ND	ND	ND	**12,000**	ND	ND	570	ND	NA	ND	ND	ND	5,200	2,600
1,4-Dichlorobenzene	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	6,500	ND	ND	900	2,300	NA	140	ND	46	15,000	8,000
Acetone	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	200	ND	ND	ND	NA	ND	ND	ND	-	-
cis-1,2- Dichloroethene	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	600	300
Methyl isobutyl ketone	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	2,000	1,000
Naphthalene	ND	NA	ND	140	NA	ND	ND	ND	ND	ND	ND	ND	ND	4,200	ND	600	ND	ND	NA	ND	ND	ND	15,000	10,000
n-Butylbenzene	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	**7,800**	ND	ND	650	ND	NA	ND	ND	ND	6,800	3,400
p-Isopropyltoluene	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	**97,000**	15	1,200	2,500	**8,500**	**17,000**	ND	ND	ND	7,800	3,900
sec-Butylbenzene	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	3,000	ND	ND	ND	ND	NA	ND	ND	ND	10,000	5,000
Tetrachloroethene	66	NA	ND	ND	NA	ND	ND	65	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	2,800	1,400
Toluene	ND	NA	ND	150	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	3,000	1,500
Trichloroethene	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	1,400	700
Xylenes (total)	ND	NA	ND	42	NA	ND	ND	ND	ND	ND	ND	ND	ND	**5,200**	ND	ND	ND	ND	NA	ND	ND	ND	2,400	1,200
Semivolatile Organic Compounds in micrograms per kilogram																								
Anthracene	ND	NA	ND	5,100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	75,000	50,000
Benzo(a)anthracene	ND	NA	**3,200**	**20,000**	230	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	210	6,000	3,000
Benzo(a)pyrene	ND	NA	2,900	22,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	270	22,000	11,000
Benzo(b)fluoranthene	ND	NA	**3,500**	**34,000**	290	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	460	2,200	1,100
Benzo(g,h,i)perylene	ND	NA	1,000	5,500	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	75,000	50,000
Benzo(k)fluoranthene	ND	NA	**2,700**	**35,000**	280	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	380	2,200	1,100
Chrysene	**1,000**	**17,000**	**4,500**	**28,000**	**410**	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	280	800	400
Dibenz(a,h)anthracene	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	75,000	50,000
Fluoranthene	1,700	NA	7,300	52,000	740	ND	ND	1,400	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	490	75,000	50,000
Fluorene	ND	NA	ND	6,600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	75,000	50,000
Indeno(1,2,3-cd)pyrene	ND	NA	1,300	6,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	6,400	3,200
Phenanthrene	ND	NA	3,800	35,000	360	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	75,000	50,000
Pyrene	1,200	NA	5,600	37,000	520	ND	ND	1,100	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	370	75,000	50,000
Metals in milligrams per kilogram																								
Arsenic	1.71	NA	1.06	3.90	NA	2.60	1.53	1.60	2.03	2.69	2.57	2.60	4.44	3.99	NA	1.22	4.31	3.00	NA	3.39	2.19	ND	25.0	7.5
Cadmium	ND	NA	ND	0.69	NA	ND	ND	ND	ND	ND	ND	ND	ND	2.61	NA	ND	ND	ND	NA	ND	ND	ND	10.0	1.0
Chromium	14.1	NA	4.91	58.6	NA	6.97	8.73	7.24	5.61	10.3	16.3	8.23	11.5	6.09	NA	11.9	7.36	14.4	NA	10.6	6.56	1.42	100.0	10.0
Copper	17.8	NA	13.5	39.0	NA	48.7	23.8	16.8	10.1	11.7	11.5	7.14	10.2	313	NA	8.17	61.7	91.6	NA	25.9	11.2	20.9	500.0	25.0
Lead	57.3	NA	6.93	215	NA	4.29	4.56	79.9	18.7	6.35	7.01	4.05	7.50	42.4	NA	6.07	12.1	15.1	NA	23.6	4.18	3.52	400.0	100.0
Nickel	3.95	NA	3.51	8.58	NA	4.99	5.97	4.83	3.76	10.3	9.59	6.70	8.30	0.64	NA	7.94	5.99	11.7	NA	5.43	4.35	ND	1,000.0	13.0
Mercury	ND	NA	ND	0.20	NA	ND	ND	ND	ND	ND	0.15	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	2.0	0.1
Silver	ND	NA	ND	0.71	NA	ND	ND	ND	ND	ND	ND	ND	ND	52.1	NA	ND	5.24	99.9	NA	ND	ND	ND	100.0	5.0

Notes:

Only detected compounds are reported on this table. See laboratory report for a complete list of analytes.
ND = Not Detected
NA = Not Analyzed

SCDHS = Suffolk County Department of Health Services
Bold shaded values exceed SCDHS Action Levels (pre-remediation samples) or SCDHS Cleanup Objectives.
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