Environmental Quality Services, Inc.
208 Route 109 Suite 101, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

7/5/2011

SCDOH Semivolatile Compounds

Sample: 1106444-1
Client Sample ID: 7 PLP
Matrix: Soil
Type: Grab
Collected: 6/27/2011 12:40
% Solid: 86.2%
Remarks:
Analyzed Date: 6/30/2011
Preparation Date(s) : 6/30/2011

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
83-32-9	Acenaphthene	C2683-1428	48.8	ND	ug/Kg	U
120-12-7	Anthracene	C2683-1428	51.6	ND	ug/Kg	U
56-55-3	Benzo[a]anthracene	C2683-1428	49.1	ND	ug/Kg	U
50-32-8	Benzo[a]pyrene	C2683-1428	60.4	ND	ug/Kg	U
205-99-2	Benzo[b]fluoranthene	C2683-1428	48.1	ND	ug/Kg	U
191-24-2	Benzo[g,h,i]perylene	C2683-1428	88.6	ND	ug/Kg	U
207-08-9	Benzo[k]fluoranthene	C2683-1428	88.3	ND	ug/Kg	U
218-01-9	Chrysene	C2683-1428	61.4	ND	ug/Kg	U
53-70-3	Dibenz[a,h]anthracene	C2683-1428	64.7	ND	ug/Kg	U
206-44-0	Fluoranthene	C2683-1428	63.9	ND	ug/Kg	U
86-73-7	Fluorene	C2683-1428	46.6	ND	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2683-1428	53.6	ND	ug/Kg	U
85-01-8	Phenanthrene	C2683-1428	52.8	ND	ug/Kg	U
129-00-0	Pyrene	C2683-1428	42.9	ND	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2683-1428	60.6 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2683-1428	44.4 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2683-1428	45.0 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2683-1428	47.4 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2683-1428	48.7 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2683-1428	63.9 %	(18 - 137)	

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7/5/2011

SCDOH Semivolatile Compounds

Sample: 1106444-2
Client Sample ID: 9 PLP
Matrix: Soil
Type: Grab
Collected: 6/27/2011 12:55
% Solid: 85.3%
Remarks:
Analyzed Date: 6/30/2011
Preparation Date(s) : 6/30/2011

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
83-32-9	Acenaphthene	C2683-1427	49.4	ND	ug/Kg	U
120-12-7	Anthracene	C2683-1427	52.2	ND	ug/Kg	U
56-55-3	Benzo[a]anthracene	C2683-1427	49.6	ND	ug/Kg	U
50-32-8	Benzo[a]pyrene	C2683-1427	61.1	ND	ug/Kg	U
205-99-2	Benzo[b]fluoranthene	C2683-1427	48.7	ND	ug/Kg	U
191-24-2	Benzo[g,h,i]perylene	C2683-1427	89.6	ND	ug/Kg	U
207-08-9	Benzo[k]fluoranthene	C2683-1427	89.2	ND	ug/Kg	U
218-01-9	Chrysene	C2683-1427	62.0	ND	ug/Kg	U
53-70-3	Dibenz[a,h]anthracene	C2683-1427	65.4	ND	ug/Kg	U
206-44-0	Fluoranthene	C2683-1427	64.6	ND	ug/Kg	U
86-73-7	Fluorene	C2683-1427	47.1	ND	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2683-1427	54.2	ND	ug/Kg	U
85-01-8	Phenanthrene	C2683-1427	53.3	ND	ug/Kg	U
129-00-0	Pyrene	C2683-1427	43.4	ND	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2683-1427	67.7 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2683-1427	52.7 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2683-1427	51.3 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2683-1427	55.1 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2683-1427	56.0 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2683-1427	72.0 %	(18 - 137)	

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7/5/2011

SCDOH Semivolatile Compounds

Sample: 1106444-3
Client Sample ID: 9 SLPB
Matrix: Soil
Type: Grab
Collected: 6/27/2011 14:30
% Solid: 88.5%
Remarks:
Analyzed Date: 7/1/2011
Preparation Date(s) : 6/30/2011

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
83-32-9	Acenaphthene	C2684-1437	47.6	ND	ug/Kg	U
120-12-7	Anthracene	C2684-1437	50.3	ND	ug/Kg	U
56-55-3	Benzo[a]anthracene	C2684-1437	47.8	ND	ug/Kg	U
50-32-8	Benzo[a]pyrene	C2684-1437	58.9	ND	ug/Kg	U
205-99-2	Benzo[b]fluoranthene	C2684-1437	46.9	ND	ug/Kg	U
191-24-2	Benzo[g,h,i]perylene	C2684-1437	86.3	ND	ug/Kg	U
207-08-9	Benzo[k]fluoranthene	C2684-1437	86.0	ND	ug/Kg	U
218-01-9	Chrysene	C2684-1437	59.8	ND	ug/Kg	U
53-70-3	Dibenz[a,h]anthracene	C2684-1437	63.1	ND	ug/Kg	U
206-44-0	Fluoranthene	C2684-1437	62.3	ND	ug/Kg	U
86-73-7	Fluorene	C2684-1437	45.4	ND	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2684-1437	52.2	ND	ug/Kg	U
85-01-8	Phenanthrene	C2684-1437	51.4	ND	ug/Kg	U
129-00-0	Pyrene	C2684-1437	41.8	ND	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2684-1437	79.9 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2684-1437	57.5 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2684-1437	56.5 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2684-1437	58.6 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2684-1437	59.8 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2684-1437	82.1 %	(18 - 137)	

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7/5/2011

SCDOH Semivolatile Compounds

Sample: 1106444-4
Client Sample ID: 8 PLP
Matrix: Soil
Type: Grab
Collected: 6/27/2011 15:30
% Solid: 82.4%
Remarks:
Analyzed Date: 6/30/2011
Preparation Date(s) : 6/30/2011

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
83-32-9	Acenaphthene	C2683-1425	51.1	ND	ug/Kg	U
120-12-7	Anthracene	C2683-1425	54.0	ND	ug/Kg	U
56-55-3	Benzo[a]anthracene	C2683-1425	51.3	ND	ug/Kg	U
50-32-8	Benzo[a]pyrene	C2683-1425	63.2	ND	ug/Kg	U
205-99-2	Benzo[b]fluoranthene	C2683-1425	50.4	ND	ug/Kg	U
191-24-2	Benzo[g,h,i]perylene	C2683-1425	92.7	ND	ug/Kg	U
207-08-9	Benzo[k]fluoranthene	C2683-1425	92.4	ND	ug/Kg	U
218-01-9	Chrysene	C2683-1425	64.2	ND	ug/Kg	U
53-70-3	Dibenz[a,h]anthracene	C2683-1425	67.7	ND	ug/Kg	U
206-44-0	Fluoranthene	C2683-1425	66.9	ND	ug/Kg	U
86-73-7	Fluorene	C2683-1425	48.8	ND	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2683-1425	56.1	ND	ug/Kg	U
85-01-8	Phenanthrene	C2683-1425	55.2	ND	ug/Kg	U
129-00-0	Pyrene	C2683-1425	44.9	ND	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2683-1425	69.9 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2683-1425	52.3 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2683-1425	52.2 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2683-1425	55.2 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2683-1425	56.8 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2683-1425	69.4 %	(18 - 137)	

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7/5/2011

SCDOH Semivolatile Compounds

Sample: 1106444-5
Client Sample ID: SD10
Matrix: Soil
Type: Grab
Collected: 6/27/2011 14:50
% Solid: 96.4%
Remarks:
Analyzed Date: 6/30/2011
Preparation Date(s) : 6/30/2011

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
83-32-9	Acenaphthene	C2683-1424	43.7	ND	ug/Kg	U
120-12-7	Anthracene	C2683-1424	46.2	ND	ug/Kg	U
56-55-3	Benzo[a]anthracene	C2683-1424	43.9	ND	ug/Kg	U
50-32-8	Benzo[a]pyrene	C2683-1424	54.0	ND	ug/Kg	U
205-99-2	Benzo[b]fluoranthene	C2683-1424	43.0	ND	ug/Kg	U
191-24-2	Benzo[g,h,i]perylene	C2683-1424	79.3	ND	ug/Kg	U
207-08-9	Benzo[k]fluoranthene	C2683-1424	78.9	ND	ug/Kg	U
218-01-9	Chrysene	C2683-1424	54.9	ND	ug/Kg	U
53-70-3	Dibenz[a,h]anthracene	C2683-1424	57.9	ND	ug/Kg	U
206-44-0	Fluoranthene	C2683-1424	57.2	ND	ug/Kg	U
86-73-7	Fluorene	C2683-1424	41.7	ND	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2683-1424	47.9	ND	ug/Kg	U
85-01-8	Phenanthrene	C2683-1424	47.2	ND	ug/Kg	U
129-00-0	Pyrene	C2683-1424	38.4	ND	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2683-1424	71.0 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2683-1424	60.9 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2683-1424	59.3 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2683-1424	62.9 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2683-1424	64.6 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2683-1424	75.0 %	(18 - 137)	

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7/5/2011

SCDOH Semivolatile Compounds

Sample: 1106444-6
Client Sample ID: SD13
Matrix: Soil
Type: Grab
Collected: 6/27/2011 14:15
% Solid: 83.2%
Remarks:
Analyzed Date: 6/30/2011
Preparation Date(s) : 6/30/2011

Analytical Results

Cas No	Analyte	File ID	MDL	Result*	Units	Q
83-32-9	Acenaphthene	C2683-1423	50.6	ND	ug/Kg	U
120-12-7	Anthracene	C2683-1423	53.5	ND	ug/Kg	U
56-55-3	Benzo[a]anthracene	C2683-1423	50.8	ND	ug/Kg	U
50-32-8	Benzo[a]pyrene	C2683-1423	62.6	ND	ug/Kg	U
205-99-2	Benzo[b]fluoranthene	C2683-1423	49.9	ND	ug/Kg	U
191-24-2	Benzo[g,h,i]perylene	C2683-1423	91.8	ND	ug/Kg	U
207-08-9	Benzo[k]fluoranthene	C2683-1423	91.5	ND	ug/Kg	U
218-01-9	Chrysene	C2683-1423	63.6	ND	ug/Kg	U
53-70-3	Dibenz[a,h]anthracene	C2683-1423	67.1	ND	ug/Kg	U
206-44-0	Fluoranthene	C2683-1423	66.2	ND	ug/Kg	U
86-73-7	Fluorene	C2683-1423	48.3	ND	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2683-1423	55.5	ND	ug/Kg	U
85-01-8	Phenanthrene	C2683-1423	54.7	ND	ug/Kg	U
129-00-0	Pyrene	C2683-1423	44.5	ND	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2683-1423	62.5 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2683-1423	51.2 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2683-1423	48.8 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2683-1423	51.8 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2683-1423	53.6 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2683-1423	59.9 %	(18 - 137)	

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7/5/2011

Mercury by SW846 7470/7471/EPA 245.1

Sample: 1106444-1
Client Sample ID: 7 PLP
Matrix: Soil
Type: Grab
Collected: 6/27/2011 12:40
% Solid: 86.2%
Remarks:
Analyzed Date: 7/1/2011
Preparation Date(s) : 7/1/2011

Analytical Results

Cas No	Analyte	MDL	Result*	Units	Q
7439-97-6	Mercury	0.016	**0.023**	mg/Kg	

* Results are reported on a dry weight basis

Sample: 1106444-2
Client Sample ID: 9 PLP
Matrix: Soil
Type: Grab
Collected: 6/27/2011 12:55
% Solid: 85.3%
Remarks:
Analyzed Date: 7/1/2011
Preparation Date(s) : 7/1/2011

Analytical Results

Cas No	Analyte	MDL	Result*	Units	Q
7439-97-6	Mercury	0.016	**0.018**	mg/Kg	

* Results are reported on a dry weight basis

Sample: 1106444-3
Client Sample ID: 9 SLPB
Matrix: Soil
Type: Grab
Collected: 6/27/2011 14:30
% Solid: 88.5%
Remarks:
Analyzed Date: 7/1/2011
Preparation Date(s) : 7/1/2011

Analytical Results

Cas No	Analyte	MDL	Result*	Units	Q
7439-97-6	Mercury	0.015	**0.016**	mg/Kg	

* Results are reported on a dry weight basis

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7/5/2011

Mercury by SW846 7470/7471/EPA 245.1

Sample: 1106444-4
Client Sample ID: 8 PLP
Matrix: Soil
Type: Grab
Collected: 6/27/2011 15:30
% Solid: 82.4%
Remarks:
Analyzed Date: 7/1/2011
Preparation Date(s) : 7/1/2011

Analytical Results

Cas No	Analyte	MDL	Result*	Units	Q
7439-97-6	Mercury	0.017	**0.078**	mg/Kg	

* Results are reported on a dry weight basis

Sample: 1106444-5
Client Sample ID: SD10
Matrix: Soil
Type: Grab
Collected: 6/27/2011 14:50
% Solid: 96.4%
Remarks:
Analyzed Date: 7/1/2011
Preparation Date(s) : 7/1/2011

Analytical Results

Cas No	Analyte	MDL	Result*	Units	Q
7439-97-6	Mercury	0.014	ND	mg/Kg	U

* Results are reported on a dry weight basis

Sample: 1106444-6
Client Sample ID: SD13
Matrix: Soil
Type: Grab
Collected: 6/27/2011 14:15
% Solid: 83.2%
Remarks:
Analyzed Date: 7/1/2011
Preparation Date(s) : 7/1/2011

Analytical Results

Cas No	Analyte	MDL	Result*	Units	Q
7439-97-6	Mercury	0.017	**0.019**	mg/Kg	

* Results are reported on a dry weight basis

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7/5/2011

SCDOH - Metals by Method SW846 6010

Sample: 1106444-1
Client Sample ID: 7 PLP
Matrix: Soil
Type: Grab
Collected: 6/27/2011 12:40
% Solid: 86.2%
Remarks:
Analyzed Date: 7/1/2011
Preparation Date(s) : 7/1/2011

Analytical Results

Cas No	Analyte	MDL	Result*	Units	Q
7440-38-2	Arsenic	0.83	ND	mg/Kg	U
7440-39-3	Barium	0.35	**16.4**	mg/Kg	
7440-41-7	Beryllium	0.20	ND	mg/Kg	U
7440-43-9	Cadmium	0.28	**0.62**	mg/Kg	
7440-47-3	Chromium	0.21	**10.5**	mg/Kg	
7440-50-8	Copper	0.92	**13.4**	mg/Kg	
7439-92-1	Lead	0.42	**3.45**	mg/Kg	
7440-02-0	Nickel	1.16	**8.63**	mg/Kg	
7440-22-4	Silver	0.32	ND	mg/Kg	U

* Results are reported on a dry weight basis

Sample: 1106444-2
Client Sample ID: 9 PLP
Matrix: Soil
Type: Grab
Collected: 6/27/2011 12:55
% Solid: 85.3%
Remarks:
Analyzed Date: 7/1/2011
Preparation Date(s) : 7/1/2011

Analytical Results

Cas No	Analyte	MDL	Result*	Units	Q
7440-38-2	Arsenic	0.85	ND	mg/Kg	U
7440-39-3	Barium	0.36	**12.7**	mg/Kg	
7440-41-7	Beryllium	0.21	ND	mg/Kg	U
7440-43-9	Cadmium	0.29	ND	mg/Kg	U
7440-47-3	Chromium	0.22	**2.79**	mg/Kg	
7440-50-8	Copper	0.95	**9.41**	mg/Kg	
7439-92-1	Lead	0.43	ND	mg/Kg	U
7440-02-0	Nickel	1.20	ND	mg/Kg	U
7440-22-4	Silver	0.33	ND	mg/Kg	U

* Results are reported on a dry weight basis

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7/5/2011

SCDOH - Metals by Method SW846 6010

Sample: 1106444-3
Client Sample ID: 9 SLPB
Matrix: Soil
Type: Grab
Collected: 6/27/2011 14:30
% Solid: 88.5%
Remarks:
Analyzed Date: 7/1/2011
Preparation Date(s) : 7/1/2011

Analytical Results

Cas No	Analyte	MDL	Result*	Units	Q
7440-38-2	Arsenic	0.82	ND	mg/Kg	U
7440-39-3	Barium	0.35	**9.06**	mg/Kg	
7440-41-7	Beryllium	0.20	ND	mg/Kg	U
7440-43-9	Cadmium	0.28	**0.34**	mg/Kg	
7440-47-3	Chromium	0.21	**5.10**	mg/Kg	
7440-50-8	Copper	0.92	**9.88**	mg/Kg	
7439-92-1	Lead	0.42	**2.09**	mg/Kg	
7440-02-0	Nickel	1.16	**4.81**	mg/Kg	
7440-22-4	Silver	0.32	ND	mg/Kg	U

* Results are reported on a dry weight basis

Sample: 1106444-4
Client Sample ID: 8 PLP
Matrix: Soil
Type: Grab
Collected: 6/27/2011 15:30
% Solid: 82.4%
Remarks:
Analyzed Date: 7/1/2011
Preparation Date(s) : 7/1/2011

Analytical Results

Cas No	Analyte	MDL	Result*	Units	Q
7440-38-2	Arsenic	0.91	ND	mg/Kg	U
7440-39-3	Barium	0.39	**18.3**	mg/Kg	
7440-41-7	Beryllium	0.23	ND	mg/Kg	U
7440-43-9	Cadmium	0.31	ND	mg/Kg	U
7440-47-3	Chromium	0.24	**4.10**	mg/Kg	
7440-50-8	Copper	1.01	**13.4**	mg/Kg	
7439-92-1	Lead	0.46	**5.94**	mg/Kg	
7440-02-0	Nickel	1.29	**1.40**	mg/Kg	
7440-22-4	Silver	0.35	ND	mg/Kg	U

* Results are reported on a dry weight basis

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7/5/2011

SCDOH - Metals by Method SW846 6010

Sample: 1106444-5
Client Sample ID: SD10
Matrix: Soil
Type: Grab
Collected: 6/27/2011 14:50
% Solid: 96.4%
Remarks:
Analyzed Date: 7/1/2011
Preparation Date(s) : 7/1/2011

Analytical Results

Cas No	Analyte	MDL	Result*	Units	Q
7440-38-2	Arsenic	0.76	**3.39**	mg/Kg	
7440-39-3	Barium	0.32	**2.62**	mg/Kg	
7440-41-7	Beryllium	0.19	ND	mg/Kg	U
7440-43-9	Cadmium	0.26	ND	mg/Kg	U
7440-47-3	Chromium	0.20	**1.48**	mg/Kg	
7440-50-8	Copper	0.85	**4.92**	mg/Kg	
7439-92-1	Lead	0.39	**0.49**	mg/Kg	
7440-02-0	Nickel	1.07	ND	mg/Kg	U
7440-22-4	Silver	0.29	ND	mg/Kg	U

* Results are reported on a dry weight basis

Sample: 1106444-6
Client Sample ID: SD13
Matrix: Soil
Type: Grab
Collected: 6/27/2011 14:15
% Solid: 83.2%
Remarks:
Analyzed Date: 7/1/2011
Preparation Date(s) : 7/1/2011

Analytical Results

Cas No	Analyte	MDL	Result*	Units	Q
7440-38-2	Arsenic	0.85	ND	mg/Kg	U
7440-39-3	Barium	0.36	**34.2**	mg/Kg	
7440-41-7	Beryllium	0.21	ND	mg/Kg	U
7440-43-9	Cadmium	0.29	ND	mg/Kg	U
7440-47-3	Chromium	0.22	**9.04**	mg/Kg	
7440-50-8	Copper	0.95	**14.2**	mg/Kg	
7439-92-1	Lead	0.43	**3.71**	mg/Kg	
7440-02-0	Nickel	1.20	**8.74**	mg/Kg	
7440-22-4	Silver	0.33	ND	mg/Kg	U

* Results are reported on a dry weight basis

Environmental Quality Services, Inc.
208 Route 109 Suite 101, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

7/5/2011

ORGANIC METHOD QUALIFIERS

Q - Qualifier - specified entries and their meanings are as follows:

U - The analytical result is not detected above the Method Detection Limit (MDL). All MDL's are lower than the lowest calibration standard concentration.

J - Indicates an estimated value. The concentration reported was between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).

B - The analyte was found in the associated method blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E - The concentration of the analyte exceeded the calibration range of the instrument.

D - This flag indicates a system monitoring compound diluted out.

INORGANIC METHOD QUALIFIERS

C - (Concentration) qualifiers are as follows:

B - Entered if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Method Detection Limit (MDL).

U - Entered when the analyte was analyzed for, but not detected above the Method Detection Limit (MDL) which is less than the lowest calibration standard concentration.

Q - Qualifier specific entries and their meanings are as follows:

E - Reported value is estimated because of the presence of interferences.

M - (Method) qualifiers are as follows:

AS - Semi-automated Spectrophotometric
AV - Automated Cold Vapor AA
C - Manual Spectrophotometric
P - ICP
T - Titrimetric

OTHER QUALIFIERS

ND - Not Detected

APPENDIX B
CORRESPONDENCE

COUNTY OF SUFFOLK

STEVE LEVY
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF HEALTH SERVICES

JAMES L. TOMARKEN, MD
MSW, MPH, MBA, FRCPC, FACP
Commissioner

June 8, 2011

Mr. Clint Borkstrom
1 Flowerfield Road
St. James, NY 11780

RE: Gyrodyne Property ***Mills Pond Road, St. James, NY***
SCFR# 07444

Dear Mr. Borkstrom,

This letter is to advise you that our office has reviewed the Phase II analytical report submitted by PW Grosser on your behalf for the subject site. Review of the laboratory analyses found the following compounds at concentrations indicative of unpermitted discharges of industrial waste:

	(7PLP)	(8PLP)	(9PLP)	(10PLP)	(SD10)	(SD13)	(SLP9B)
Mercury (ppm)	9.55	5.08	1.01	54.1	0.04	0.19	4.17
Chromium (ppm)	113	162	7.95	47.7	8.94	8.06	108
Silver (ppm)	162	0.08	145	0.04	0.41	0.46	71.6
Chrysene (ppb)	91.8	294	86.9	223	4110	3660	N/S

ppb =(parts per billion) ppm =(parts per million) N/S= (Not Sampled)

Public Health
Protect. Promote. Prevent.

DIVISION OF ENVIRONMENTAL QUALITY
OFFICE OF POLLUTION CONTROL- 15 HORSEBLOCK PLACE, FARMINGVILLE, NY 11738
PHONE #631-854-2502/ FAX# 631-854-2505

These compounds are considered toxic or hazardous and are not to be discharged to the ground, sanitary system, storm drains, or other leaching system. Please be advised that the discharge of any liquid from an industrial process without having first obtained a SPDES permit for that discharge is a violation of the New York State Environmental Conservation Law and Article 12 of the Suffolk County Sanitary Code, which was promulgated to protect the groundwater.

Due to the elevated levels found, **YOU ARE DIRECTED** to have all contaminated solids/sludge and liquids pumped from these leaching pools and all other septic tanks and leaching pools connected to them. Following the extraction of the contaminated soils, confirmatory endpoint sample collection will be required to prove the remediation satisfactory.

Please be advised, that due to the elevated levels of mercury found in these structures, you will be required to have a certified laboratory perform TCLP analysis for waste characterization of the soils extracted prior to disposal.

Failure to comply with the directives set forth in this letter by **July 15, 2011** will result in this matter being scheduled for a formal administrative hearing at which time the department will be seeking the imposition of the maximum penalties of $1000.00 per day for each and every violation of the Suffolk County Sanitary Code including, but not limited to, failure to comply with the directives set forth in this letter. Your immediate attention to this matter is, therefore, expected.

All field activities must be scheduled at mutually agreeable times with the undersigned. If you have any questions concerning these matters, feel free to contact me at 631-854-2534.

Sincerely,

Edward Roe

Janet M. Gremli

Edward Roe, *Project Manager*
Public Health Sanitarian
Bureau of Environmental Investigation and Remediation

Janet M. Gremli
Acting Associate Public Health Sanitarian

cc: NYSDEC
T. Melia, PWGC

COUNTY OF SUFFOLK

STEVE LEVY
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF PUBLIC WORKS

GILBERT ANDERSON, P.E.
COMMISSIONER

JAMES PETERMAN, P.E.
CHIEF DEPUTY COMMISSIONER

June 24, 2011

Tom Melia
P.W. Grosser Consulting
630 Johnson Avenue Suite 7
Bohemia, New York 11716

Re: **Gyrodyne / Flowerfield, St. James**
Acceptability of Waste

Dear Mr. Melia:

This is written to confirm that the liquid contents of four (4) sanitary systems and the drywells servicing the above referenced were acceptable for disposal at the County's Bergen Point facility and that this work was performed under supervision from this office on 21-22 June 2011.

Very truly yours,

Kevin J. Oldham
Industrial Waste
Pretreatment Technician

KJO/ch
cc: D. Krol
D. Booth
J. Gremli

APPENDIX C
WASTE MANIFESTS

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. . . . . Manifest Doc. No. 49759 2. Page 1 of

GENERATOR

3. Generator's Name and Mailing Address
Goodwe Flower Field St. ST James NY
4. Generator's Phone ( )

5. Transporter 1 Company Name: AARCO ENVIRONMENTAL SERVICES CORP.
6. US EPA ID Number: N Y R 0 0 0 1 0 7 3 2 6
A. Transporter's Phone: 631-586-5900

7. Transporter 2 Company Name
8. US EPA ID Number
B. Transporter's Phone

9. Designated Facility Name and Site Address
Eastern Alley 972 Nicolls Rd Deer Park NY
10. US EPA ID Number
C. Facility's Phone

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. Non Hazardous Soil Sludge Septic Pool + tank	001	TT	00012	Y
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
EMERGENCY PHONE # 631-586-5900
Job # 0917583

16. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Printed/Typed Name: Clint W. Bolton Signature: [signature] Month 06 Day 21 Year 17

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Michael Allegro Signature: [signature] Month 06 Day 21 Year 17

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: [redacted] Signature: [signature] Month 06 Day 21 Year 17

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Tara Boyle Signature: [signature] Month 06 Day 21 Year 17

ORIGINAL – RETURN TO GENERATOR

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. . . . . Manifest Doc. No. 48797 2. Page 1 of

GENERATOR

3. Generator's Name and Mailing Address
Grod Inc & Field Street St. James NY

4. Generator's Phone ( )

5. Transporter 1 Company Name
AARCO ENVIRONMENTAL SERVICES CORP.

6. US EPA ID Number
N.Y.R.0.0.0.1.0.7.3.2.6

A. Transporter's Phone
631-586-5900

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address
Earth CARE
972 Nicolls Rd
Deer PARK. NY

10. US EPA ID Number

C. Facility's Phone

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. Non Hazardous Soil Sludge Septic	001	TT	00018	W
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
EMERGENCY PHONE # 631-586-5900
Job. 0917583

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: X Clint W. Borkstrom Signature: X Clint W. Borkstrom Month 06 Day 22 Year 11

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Michael Pellegrino Signature: Michael Pellegrino Month 06 Day 22 Year 11

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name Signature Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: MARA Boggs Signature Month 06 Day 22 Year 11

ORIGINAL – RETURN TO GENERATOR

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Doc. No. 48668

2. Page 1 of

GENERATOR

3. Generator's Name and Mailing Address
J. Hoodwin 2 Flowerfield Street ST. JAMES NY

4. Generator's Phone ( )

5. Transporter 1 Company Name
AARCO ENVIRONMENTAL SERVICES CORP.

6. US EPA ID Number
N Y R 0 0 0 1 0 7 3 2 6

A. Transporter's Phone
631-586-5900

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address
EARTH CARE
972 Nicolls Rd
Deer PARK NY

10. US EPA ID Number

C. Facility's Phone

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. Non Hazardous Soil Sludge Septic	001	TT	00018	W
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
EMERGENCY PHONE # 631-586-5900

Job 917583

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: Clint W. Rondstrom — Signature — Month 06 Day 22 Year 11

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Michael Pellegrino — Signature — Month 06 Day 22 Year 11

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: JARA Boggs — Signature — Month 06 Day 22 Year 11

ORIGINAL – RETURN TO GENERATOR

09-17583

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Doc. No. 49779 | 2. Page 1 of

3. Generator's Name and Mailing Address: GYRODYNE, 1 FLOWERFIELD, ST. JAMES NY

4. Generator's Phone ( )

5. Transporter 1 Company Name: AARCO ENVIRONMENTAL SERVICES CORP. | 6. US EPA ID Number: N.Y.R.0.0.0.1.0.7.3.2.6 | A. Transporter's Phone: 631-586-5900

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address: EARTH CARE, 972 NICOLLS RD, DEER PARK NY | 10. US EPA ID Number | C. Facility's Phone

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. NON HAZ SEPTIC SLUDGE	1	TT	16	Y
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
EMERGENCY PHONE # 631-586-5900

16. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
Clint W. Bonbstrom	Clint W. Bo	06	24	11

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
MICHAEL MAZUR	Michael Mazur	06	24	11

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
TARA Boggs		06	24	11

GENERATOR → TRANSPORTER → FACILITY

ORIGINAL – RETURN TO GENERATOR

09-17583

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Doc. No. 49780

2. Page 1 of

3. Generator's Name and Mailing Address: GYRODYNE, 1 FIANCE FIELD, ST JAMES NY

4. Generator's Phone ( )

5. Transporter 1 Company Name: AARCO ENVIRONMENTAL SERVICES CORP.

6. US EPA ID Number: N Y R 0 0 0 1 0 7 3 2 6

A. Transporter's Phone: 631-586-5900

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address: EARTH CARE, 972 NICOLLS RD, DEER PARK NY

10. US EPA ID Number

C. Facility's Phone

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. NON HAZ STORM DRAIN SLUDGE	1	TT	16	Y
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
EMERGENCY PHONE # 631-586-5900

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: Clint W. Bodtke — Signature: Clint W. Bt — Month 06 Day 24 Year 11

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Michael Mazur — Signature: Michael Mazur — Month 06 Day 24 Year 11

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month . Day . Year .

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: ANNA BOGGS — Signature — Month 06 Day 24 Year 11

GENERATOR / TRANSPORTER / FACILITY

ORIGINAL – RETURN TO GENERATOR

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.
Manifest Doc. No. 49772
2. Page 1 of

3. Generator's Name and Mailing Address
Gyrodyne 1 Flowerfield St. James NY

4. Generator's Phone ( )

5. Transporter 1 Company Name: AARCO ENVIRONMENTAL SERVICES CORP.
6. US EPA ID Number: NYR000107326
A. Transporter's Phone: 631-586-5900

7. Transporter 2 Company Name
8. US EPA ID Number
B. Transporter's Phone

9. Designated Facility Name and Site Address
Earthcare 912 Nicolls Rd Deer Park NY
10. US EPA ID Number
C. Facility's Phone

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. Non Hazardous Soil Sludge	001	TT	00012	Y
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
EMERGENCY PHONE # 631-586-5900
Job# 0917583

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Printed/Typed Name: Clint W. Bark[illegible] Signature: [signature] Month Day Year: 06 27 17

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Michael Pellegrino Signature: [signature] Month Day Year: 06 27 17

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name Signature Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Tara Beggs Signature: [signature] Month Day Year: 6 27 17

ORIGINAL – RETURN TO GENERATOR

EarthCare
We make it easy!

Work Order

Truck # 5411

Site # 71213
WO # 889715
Date 6-27-11 PO #

Office 631.586.0002 Toll Free 888.753.7246

Service Address AARCO.
Customer Name: flowerfield
Address: 1 flowerfield
City & State: ST James NY Zip: 11780
Contact:

Billing Address
Customer Name:
Address:
City & State: Zip:
Contact:

Job/Service Time Detail
EarthCare Departure:
Customer Arrival: 07:15 AM
Customer Departure: 08:20 AM
Disposal Arrival:
Disposal Departure:
EarthCare Return:
Total/Time:
Reason for Delay:

Service Detail
Gallons 4000 Disposal Site
Tons/Yards Manifest #
Jet ☐ Vactor ☐ Hours
Labor
Misc.
Emergency Charge
COD ☐ Send Invoice ☐
Sub Total
Tax Tax Rate %
Total
Customer's Signature: x Clint W. Borkstrom
x Clint W. Borkstrom
Print Name:
By signing, I acknowledge I have read and approve all General Terms and Conditions listed on reverse side.

Waste Type
- ☐ Sewage
- ☐ Sludge
- ☐ Leachate
- ☒ Cesspool / Septic
- ☐ Holding Tank
- ☐ Car Wash
- ☐ Exterior Brown Grease
- ☐ Interior Brown Grease
- ☐ Commercail/Industrial
- ☐ Lift Station
- ☐ Other
- ☐ Catch Basin

EarthCare Operators
EC Driver Name: J - V
EC Helper Name:

Job Notes:
Pumped 4000 gallons.

Recommendations:

Follow Up Assigned To:

Form 129 Rev 411

Page G 370

EarthCare
We make it easy!

Work Order

Truck # 3704
Site # 1
WO # 889663
Date 6-24-11 PO #

Office 631.586.0002 Toll Free 888.753.7246

Service Address
Customer Name: AARCO Flowerfield
Address: 1 Flowerfield Rd
City & State: ST. James NY Zip:
Contact:

Billing Address
Customer Name:
Address:
City & State: Zip:
Contact:

Job/Service Time Detail
EarthCare Departure:
Customer Arrival: 06:40 am
Customer Departure: 08:30 am
Disposal Arrival:
Disposal Departure:
EarthCare Return:
Total/Time:

Service Detail
Gallons 8000 Disposal Site
Tons/Yards Manifest #
Jet ☐ Vactor ☐ Hours
Labor
Misc.
Emergency Charge
COD ☐ Send Invoice ☐

Sub Total
Tax Tax Rate %
Total

Reason for Delay:

Customer's Signature: X Clint W. Borkstrom
X Clint W. Borkstrom
Print Name:

By signing, I acknowledge I have read and approve all General Terms and Conditions listed on reverse side.

Waste Type
- ☐ Sewage
- ☐ Sludge
- ☐ Leachate
- ☐ Cesspool / Septic
- ☐ Holding Tank
- ☐ Car Wash
- ☐ Exterior Brown Grease
- ☐ Interior Brown Grease
- ☐ Commercail/Industrial
- ☐ Lift Station
- ☒ Other
- ☐ Catch Basin

EarthCare Operators
EC Driver Name: J-V
EC Helper Name:

Job Notes:
Pumped 8000 gallons from storm drains

Recommendations:

Follow Up Assigned To:

Form 129 Rev 411

EarthCare
We make it easy!

Work Order

Truck # _____

Site # 1213
WO # 80775
Date 6/7/22 PO #

Office 631.586.0002 / Toll Free 888.753.7246

Service Address

Customer Name: Gyrodyne
Address: _____
City & State: _____ Zip: _____
Contact: _____

Billing Address

Customer Name: AAPCO
Address: _____
City & State: _____ Zip: _____
Contact: _____

Job/Service Time Detail

EarthCare Departure: _____
Customer Arrival: _____
Customer Departure: _____
Disposal Arrival: _____
Disposal Departure: _____
EarthCare Return: _____
Total/Time: _____

Reason for Delay:

Service Detail

Gallons _____ Disposal Site _____
Tons/Yards 8.91 Manifest # _____
Jet ☐ Vactor ☐ Hours _____
Labor _____
Misc. _____
Emergency Charge

COD ☐ Send Invoice ☐

Sub Total _____
Tax _____ Tax Rate %
Total

Customer's Signature: [signature]
Print Name:

By signing, I acknowledge I have read and approve all General Terms and Conditions listed on reverse side.

Waste Type

- ☐ Sewage
- ☐ Sludge
- ☐ Leachate
- ☐ Cesspool / Septic
- ☐ Holding Tank
- ☐ Car Wash
- ☐ Exterior Brown Grease
- ☐ Interior Brown Grease
- ☐ Commercail/Industrial
- ☐ Lift Station
- ☐ Other
- ☐ Catch Basin

EarthCare Operators

EC Driver Name: _____
EC Helper Name: _____

Job Notes:

Recommendations:

4/9

Follow Up Assigned To:

Form 129 Rev 411

EarthCare
We make it easy!

Work Order

Truck # _____

Site # 71213
WO # 889671
Date 6/25 PO #

Office 631.586.0002 Toll Free 888.753.7246

Service Address

Customer Name: Gyrodyne

Address: _____

City & State: _____ Zip: _____

Contact: _____

Billing Address

Customer Name: MARCO

Address: _____

City & State: _____ Zip: _____

Contact: _____

Job/Service Time Detail

EarthCare Departure: _____
Customer Arrival: _____
Customer Departure: _____
Disposal Arrival: _____
Disposal Departure: _____
EarthCare Return: _____
Total/Time: _____

Reason for Delay:

Service Detail

Gallons _____ Disposal Site _____
Tons/Yards 10.28 Manifest # _____
Jet ☐ Vactor ☐ Hours _____
Labor _____
Misc. _____
Emergency Charge

COD ☐ | Send Invoice ☐

Sub Total _____
Tax _____ Tax Rate %
Total _____

Customer's Signature: _____
Print Name: _____

By signing, I acknowledge I have read and approve all General Terms and Conditions listed on reverse side.

Waste Type

- ☐ Sewage
- ☐ Sludge
- ☐ Leachate
- ☐ Cesspool / Septic
- ☐ Holding Tank
- ☐ Car Wash
- ☐ Exterior Brown Grease
- ☐ Interior Brown Grease
- ☐ Commercail/Industrial
- ☐ Lift Station
- ☐ Other
- ☐ Catch Basin

EarthCare Operators

EC Driver Name: _____
EC Helper Name: _____

Job Notes:

Recommendations:

4979

Follow Up Assigned To:

Form 129 Rev 411

EarthCare
We make it easy!

Work Order

Truck # _____

Site # 71213
WO # 1889702
Date 6/24/11 PO #

Office 631.586.0002 / Toll Free 888.753.7246

Service Address

Customer Name: Gyladyne
Address: _____
City & State: _____ Zip: _____
Contact: _____

Billing Address

Customer Name: Amco
Address: _____
City & State: _____ Zip: _____
Contact: _____

Job/Service Time Detail

EarthCare Departure: _____
Customer Arrival: _____
Customer Departure: _____
Disposal Arrival: _____
Disposal Departure: _____
EarthCare Return: _____
Total/Time: _____

Reason for Delay:

Service Detail

Gallons _____ Disposal Site _____
Tons/Yards 10.05 Manifest # _____
Jet ☐ Vactor ☐ Hours _____
Labor _____
Misc. _____
Emergency Charge

COD ☐ | Send Invoice ☐

Sub Total _____
Tax _____ Tax Rate %
Total _____

Customer's Signature: _____
Print Name: _____

By signing, I acknowledge I have read and approve all General Terms and Conditions listed on reverse side.

Waste Type

- ☐ Sewage
- ☐ Sludge
- ☐ Leachate
- ☐ Cesspool / Septic
- ☐ Holding Tank
- ☐ Car Wash
- ☐ Exterior Brown Grease
- ☐ Interior Brown Grease
- ☐ Commercail/Industrial
- ☐ Lift Station
- ☐ Other
- ☐ Catch Basin

EarthCare Operators

EC Driver Name: _____
EC Helper Name: _____

Job Notes:

Recommendations:

49780

Follow Up Assigned To:

Form 129 Rev 411

EarthCare
We make it easy!

Work Order

Page G-374

Truck # _____

Site # 71213
WO # 889625
Date 6/21/ PO #

Office 631.586.0002 Toll Free 888.753.7246

Service Address

Customer Name: Gyrodyne
Address: _____
City & State: _____ Zip: _____
Contact: _____

Billing Address

Customer Name: MARCO
Address: _____
City & State: _____ Zip: _____
Contact: _____

Job/Service Time Detail

EarthCare Departure: _____
Customer Arrival: _____
Customer Departure: _____
Disposal Arrival: _____
Disposal Departure: _____
EarthCare Return: _____
Total/Time: _____

Reason for Delay:

Service Detail

Gallons _____ Disposal Site _____
Tons/Yards 15.64 Manifest # _____
Jet ☐ Vactor ☐ Hours _____
Labor _____
Misc. _____
Emergency Charge

COD ☐ Send Invoice ☐

Sub Total _____
Tax _____ Tax Rate %
Total _____

Customer's Signature: _____
Print Name:

By signing, I acknowledge I have read and approve all General Terms and Conditions listed on reverse side.

Waste Type

- ☐ Sewage
- ☐ Sludge
- ☐ Leachate
- ☐ Cesspool / Septic
- ☐ Holding Tank
- ☐ Car Wash
- ☐ Exterior Brown Grease
- ☐ Interior Brown Grease
- ☐ Commercail/Industrial
- ☐ Lift Station
- ☐ Other
- ☐ Catch Basin

EarthCare Operators

EC Driver Name: _____
EC Helper Name: _____

Job Notes:

Recommendations:

418668

Follow Up Assigned To:

Form 129 Rev 411

EarthCare
We make it easy!

Work Order

Page G-375

Truck # _____

Site # 71213
WO # 880535
Date 6/21/ PO #

Office 631.586.0002 Toll Free 888.753.7246

Service Address

Customer Name: Cytodyne
Address: _____
City & State: _____ Zip: _____
Contact: _____

Billing Address

Customer Name: AMPCO
Address: _____
City & State: _____ Zip: _____
Contact: _____

Job/Service Time Detail

EarthCare Departure: _____
Customer Arrival: _____
Customer Departure: _____
Disposal Arrival: _____
Disposal Departure: _____
EarthCare Return: _____
Total/Time: _____

Reason for Delay:

Service Detail

Gallons _____ Disposal Site _____
Tons/Yards 9.21 Manifest # _____
Jet ☐ Vactor ☐ Hours _____
Labor _____
Misc. _____
Emergency Charge
COD ☐ Send Invoice ☐

Sub Total _____
Tax _____ Tax Rate %
Total _____

Customer's Signature: [signature]
Print Name:

By signing, I acknowledge I have read and approve all General Terms and Conditions listed on reverse side.

Waste Type

- ☐ Sewage
- ☐ Sludge
- ☐ Leachate
- ☐ Cesspool / Septic
- ☐ Holding Tank
- ☐ Car Wash
- ☐ Exterior Brown Grease
- ☐ Interior Brown Grease
- ☐ Commercail/Industrial
- ☐ Lift Station
- ☐ Other
- ☐ Catch Basin

EarthCare Operators

EC Driver Name: _____
EC Helper Name: _____

Job Notes:

Recommendations:

49759

Follow Up Assigned To:

Form 129 Rev 411

EarthCare
We make it easy!

Work Order

Page G-376

Truck # _____

Site # 71213
WO # 1 / 869580
Date 6/22/16 PO #

Office 631.586.0002 / Toll Free 888.753.7246

Service Address

Customer Name: Gyrodyne

Address: _____

City & State: _____ Zip: _____

Contact: _____

Billing Address

Customer Name: ADRCO

Address: _____

City & State: _____ Zip: _____

Contact: _____

Job/Service Time Detail

EarthCare Departure: _____
Customer Arrival: _____
Customer Departure: _____
Disposal Arrival: _____
Disposal Departure: _____
EarthCare Return: _____
Total/Time: _____

Reason for Delay:

Service Detail

Gallons _____ Disposal Site _____
Tons/Yards 14.05 Manifest # _____
Jet ☐ Vactor ☐ Hours _____
Labor _____
Misc. _____
Emergency Charge

COD ☐ Send Invoice ☐

Sub Total _____
Tax _____ Tax Rate %
Total _____

Customer's Signature: _____
Print Name:

By signing, I acknowledge I have read and approve all General Terms and Conditions listed on reverse side.

Waste Type

- ☐ Sewage
- ☐ Sludge
- ☐ Leachate
- ☐ Cesspool / Septic
- ☐ Holding Tank
- ☐ Car Wash
- ☐ Exterior Brown Grease
- ☐ Interior Brown Grease
- ☐ Commercail/Industrial
- ☐ Lift Station
- ☐ Other
- ☐ Catch Basin

EarthCare Operators

EC Driver Name: _____
EC Helper Name: _____

Job Notes:

Recommendations:

4877

Follow Up Assigned To:

Form 129 Rev 411

Waste Manifest Number
17472

EarthCare

We make it easy!

972 Nicolls Road • Deer Park, NY 11729
Office: 631.586.0002 Fax: 631.586.0530
New York State DEC Licensed Transfer Facility

Non Hazardous Waste Manifest

PERMIT # 1-4720-00317/00001

Generator of Waste Material

1. Customer Name: Flower Field 2. Phone Number: _____
3. Street Address: 1 Flower Field Rd 4. City/State/Zip: ST James

ALL WASTES ARE SUBJECT TO THE TERMS AND CONDITIONS CONTAINED IN THE NYS DEC OPERATING PERMIT

The undersigned, being duly authorized, does hereby certify to the best of their knowledge the accuracy of the source and type of waste identified and subject to this manifest. **NOTE: GENERATOR SIGNATURE REQUIRED**

5. Signature of Generator or Agent: N/A Date: 6-22-11
Print Name:

Wastestream Identification: Circle/Fill Out All Boxes

DESCRIPTION OF WASTE	UNIT (Circle One)	QUANTITY	NYS DEC N-CODE
Septic	Cubic Yards (Gallons) Tons	2000	

Others and special handling instructions, if any:

Transporter of Waste **NOTE: TRANSPORTER SIGNATURE REQUIRED**

1. Company Name: Earthcare 2. Address: 972 Nicolls Rd
3. Phone: _____ 4. Pump Out Date: 6-22-11
5. Vehicle License No: _____ 6. NYS DEC Permit No: 2A-263

I certify that to the best of my knowledge the waste that is being delivered into EarthCare transfer facility located at 972 Nicolls Road, Deer Park, NY 11729 contains no hazardous waste.

Print Name: Jorge Vigil Signature: J-V Date: 6-22-11

Acceptance by EarthCare

The above transporter delivered the described waste to the Transfer Facility and if was accepted.

Transfer Date: 6-22-11 Time: 12:20 Sample ID# _____
Signature of Authorized Agent: Chr Sel Print Name Charles Seidel

WHITE: TRANSFER FACILITY YELLOW: TRANSPORTER PINK: GENERATOR GOLD: ACCOUNTING

FORM 130 REV 4/11

...757
...800
...56-7020

LIQUID WASTE DISCHARGE MANIFEST

MANIFEST NUMBER

Part 1	Part 2	Part 3
		Page G-378
6-27-11	07 15	075123
Date of Pick-Up	Time of Pick-Up	Chronological Number /Also Used as Sample #
(Use 2 Digit Numbers) Example 040103	(Military Time)	(Assigned at Clear Flo-Receiving Station)

1. WASTEWATER STREAM IDENTIFICATION (Sections 1A, 1B, & 1C must be completed by generator or hauler)

A. Volume:	**Gallons:** 4000	**Wt. In:**		**Wt. Out:**	
B. Type:	☐ Condensate Water	☐ Decant Grease	☐ Grease	☐ Industrial Rinse	☐ Leachate
	☐ Leachate Pool	☐ Pharmaceutical	☒ Septic/Septage	☐ Sludge	☐ Storm Water
	☐ STP Effluent	☐ Transfer Leachate	**Other:**		
C. Source	☐ Home/Apt.	☐ Office/Commercial	☐ Municipal	☐ Industrial	☐ Other

Description of Other and special handling instructions, if any_____

2. GENERATOR OF WASTEWATER (Sections 2A, 2B, & 2C must be completed by generator or hauler)

A. Complete Name (print or type): Flowerfield B. Tel. No.:_____

C. Complete Pickup Address: 1 Flowerfield Rd, ST James NY

ALL WASTEWATERS ARE SUBJECT TO THE TERMS AND CONDITIONS CONTAINED IN THE DISCHARGE PERMIT

The undersigned, being duly authorized, does hereby certify to the best of their knowledge to the accuracy of the source and type of wastewater identified and subject to this manifest. **SECTION D GENERATOR SIGNATURE REQUIRED**

D. Signature of Generator or Agent: N/A Date: 6-27-11

3. **HAULER OF LIQUID WASTE** (Sections 3A, 3B, 3C, 3D and 3E must be completed by hauler)

A. Company name (print or type): RMS

B. SCDPW Permit No.: 808353 C. Vehicle License No.: 4093773 D. Pump Out Date: 6-27-11

E. NYS DEC Permit No.: 24763

The above described liquid waste was picked up and hauled by me to the disposal facility named below and was discharged. I certify under penalty of perjury that the foregoing is true and correct.

F. Signature of authorized agent and title: J-V

4. **ACCEPTANCE BY CLEAR FLO TECHNOLOGIES, INC.** (must be completed by disposer)

The above hauler delivered the described wastewater to the disposal facility and it was accepted.

Disposal Date: 6-27-11 Sample ID No.: 075123

Signature of authorized agent and title: [illegible]

PINK–GENERATOR YELLOW–TRANSPORTER WHITE–DISPOSAL FACILITY GOLD–FILE

YELLOW–TRANSPORTER

...NC.
...757
...7020

...UID WASTE DISCHARGE MANIFEST

MANIFEST NUMBER		
Part 1	Part 2	Part 3
6-24-11	06:40	075050
Date of Pick-Up	Time of Pick-Up	Chronological Number /Also Used as Sample #
(Use 2 Digit Numbers) Example 040103	(Military Time)	(Assigned at Clear Flo-Receiving Station)

1. WASTEWATER STREAM IDENTIFICATION (Sections 1A, 1B, & 1C must be completed by generator or hauler)

A. Volume:	Gallons: 8000	Wt. In:		Wt. Out:	
B. Type:	☐ Condensate Water	☐ Decant Grease	☐ Grease	☐ Industrial Rinse	☐ Leachate
	☐ Leachate Pool	☐ Pharmaceutical	☐ Septic/Septage	☐ Sludge	☒ Storm Water
	☐ STP Effluent	☐ Transfer Leachate	Other:		
C. Source	☐ Home/Apt.	☐ Office/Commercial	☐ Municipal	☐ Industrial	☒ Other Sump

Description of Other and special handling instructions, if any

2. GENERATOR OF WASTEWATER (Sections 2A, 2B, & 2C must be completed by generator or hauler)

A. Complete Name (print or type): AARCO Environmental Flowerfield B. Tel. No.:

C. Complete Pickup Address: 1 Flowerfield Rd. St James NY

ALL WASTEWATERS ARE SUBJECT TO THE TERMS AND CONDITIONS CONTAINED IN THE DISCHARGE PERMIT

The undersigned, being duly authorized, does hereby certify to the best of their knowledge to the accuracy of the source and type of wastewater identified and subject to this manifest. **SECTION D GENERATOR SIGNATURE REQUIRED**

D. Signature of Generator or Agent: Clint W. Borkstrom Date: 6/24/11

3. **HAULER OF LIQUID WASTE** (Sections 3A, 3B, 3C, 3D and 3E must be completed by hauler)

A. Company name (print or type): RMS
B. SCDPW Permit No.: 808355 C. Vehicle License No.: 4W7597 D. Pump Out Date: 6-24-11
E. NYS DEC Permit No.: 24263

The above described liquid waste was picked up and hauled by me to the disposal facility named below and was discharged. I certify under penalty of perjury that the foregoing is true and correct.

F. Signature of authorized agent and title: J-V

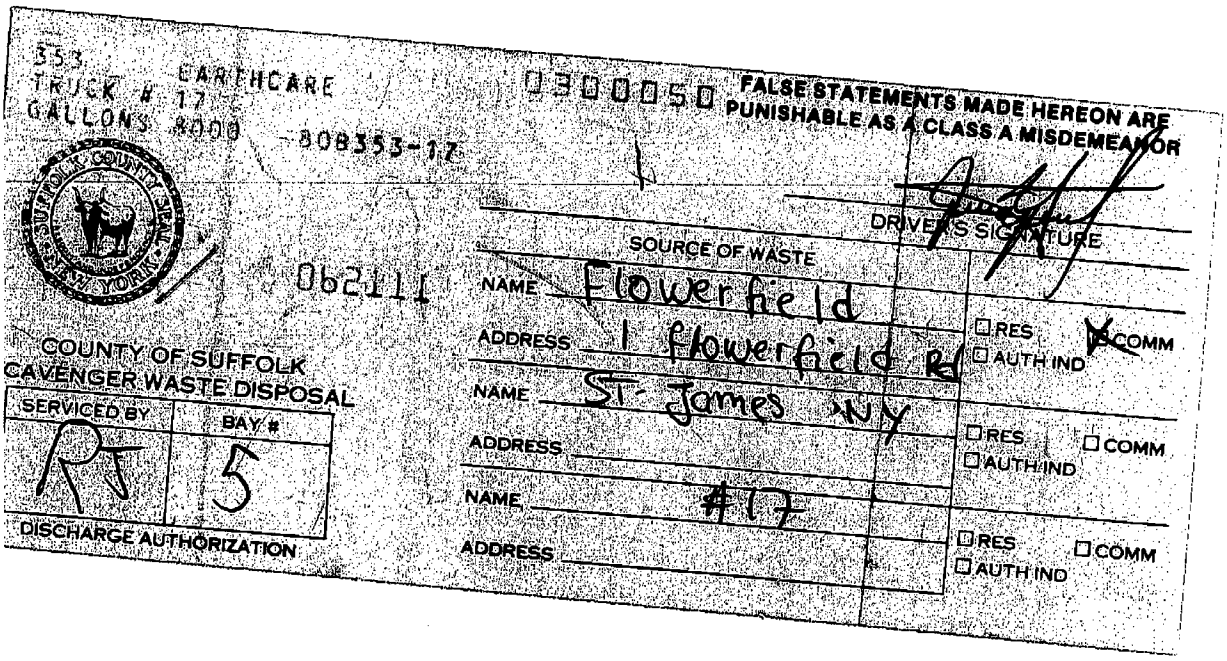
4. **ACCEPTANCE BY CLEAR FLO TECHNOLOGIES, INC.** (must be completed by disposer)

The above hauler delivered the described wastewater to the disposal facility and it was accepted.

Disposal Date: 6-24-11 Sample ID No.: 075050

Signature of authorized agent and title:

PINK–GENERATOR YELLOW–TRANSPORTER WHITE–DISPOSAL FACILITY GOLD–FILE


353
TRUCK # 17
GALLONS 8000
EARTHCARE
0300050
FALSE STATEMENTS MADE HEREON ARE PUNISHABLE AS A CLASS A MISDEMEANOR
-808353-17
DRIVER'S SIGNATURE
SOURCE OF WASTE
NAME Flowerfield
ADDRESS 1 Flowerfield Rd
RES
COMM
AUTH IND
NAME St. James NY
ADDRESS
NAME #17
ADDRESS
COUNTY OF SUFFOLK
SCAVENGER WASTE DISPOSAL
SERVICED BY
BAY #
5
DISCHARGE AUTHORIZATION

REDEVELOPMENT PROJECT
Gyrodyne Property
Saint James, New York

PWGC Project No. GCA0801

INDUSTRIAL AREA SAMPLING

JUNE 3, 2008

Prepared for:

Gyrodyne Company of America, Inc.
1 Flowerfield
Saint James, NY 11780

Prepared by:

PWGC
Strategic Environmental & Engineering Solutions

P.W. GROSSER CONSULTING, INC • 630 Johnson Avenue, Suite 7 • Bohemia, NY 11716-2618
PH 631.589.6353 • FX 631.589.8705 • www.pwgrosser.com

P.W. GROSSER CONSULTING

INTRODUCTION

P.W. Grosser Consulting, Inc. (PWGC) has prepared this report to document the findings of our recent investigation which was performed at the Gyrodyne Property. This investigation was performed in accordance with our March 12, 2008 workplan which was submitted to your office. A copy of the workplan is included as Appendix A.

SCOPE OF WORK

As described in the workplan, the scope of work performed consisted of sampling the primary leaching structures of the onsite sanitary systems associated with the active industrial buildings. In addition, PWGC also collected six surface soil samples which were analyzed for Volatile Organic Compounds (VOCs) and Semi-VOCs (SVOCs) in order to assess whether the soils surrounding the industrial area have been impacted by the sites industrial uses. The details of this scope of work are described more fully below:

Sampling of the Onsite Sanitary Systems

On April 18, 2008 PWGC conducted sampling of the primary leaching structures of the nine onsite sanitary systems associated with Buildings 1, 2, 7, and 8. Each of the sanitary systems are shown on the attached Figure 1. PWGC inspected each of the systems in order to determine which structure was the primary structure. In cases where multiple structures were in a primary configuration, PWGC chose the primary structure based upon piping heights.

At each sample location, PWGC collected a sediment sample from the base of each of the structures utilizing a stainless steel hand auger. Non-disposable equipment was properly decontaminated in between structures utilizing a detergent solution and a potable water rinse. While onsite, PWGC observed an additional leaching structure which was not identified at the time the workplan was prepared. This structure was observed at the southwest corner of Building 2. The structure was sampled and identified as BLDG 2 –SW. During the April 18th, 2008 sampling visit, sanitary systems 6 and 7, associated with buildings 1 and 7 respectively, were found to be located below grade and could not be sampled. PWGC notified Gyrodyne who had their septic system contractor expose the septic tank and primary leaching pool for both systems. The structures were improved with at grade covers. Upon completion of the sanitary system upgrade, PWGC sampled the primary leaching pools of those two systems on May 7, 2008.

Each of the samples were submitted to a New York State Department of Health certified laboratory and analyzed for VOCs, SVOCs, and Metals as per the Suffolk County Department of Health (SCDHS) SOP 9-95.

Analytical results are summarized on Tables 1, 2, and 3. The results were compared to action levels contained within SOP 9-95. A summary of the findings by parameter are as follows:

VOCs and SVOCs – Analytical results revealed detectable levels of VOC and SVOC compounds in each of the samples, however, each of the detected compounds were well below their respective SCDHS action levels.

Metals – Analytical results for metals revealed that five of the ten structures (systems 7, 8, 9, 10, and 12) contained elevated levels of metals. The elevated metals compounds include mercury, cadmium, chromium, copper, and sliver.

Copies of the laboratory data sheets are included in Appendix B.

Surface Soil Sampling

In order to determine if the current and former industrial uses of the property have impacted the surrounding surface soils, PWGC collected surface soil samples from six of the locations which were previously sampled for metals and pesticides. The six sampling locations were those which were located in the vicinity of the current / former industrial area. These include SB-6, SB-7, SB-8, SB-22 SB-27, and SB-28 as shown on Figure 2. On April 18, 2008 a shallow soil sample (0-6" below grade) was collected at each locations utilizing a decontaminated hand auger.

Analytical results of this sampling were compared to the New York State Department of Environmental Conservation (NYSDEC) recommended Soil Cleanup Objectives (RSCOs) contained in TAGM Memo #4046 and are summarized in Tables 4 and 5. No VOCs were detected above their respective method detection limits in the six surface soil samples. SVOC results were non-detect in four of the six samples. Samples SB-27 and SB-28 contained levels of SVOCs which exceeded their respective TAGM RSCOs for one or more compounds. Each of the elevated compounds were detected at concentrations which exceeded their RSCO. Based upon the location of the sample locations near roadways and parking areas, the detected SVOC compounds are likely related to road runoff rather than the former/current industrial uses of the property.

Copies of the laboratory data sheets are included in Appendix B.

CONCLUSIONS AND RECOMENDATIONS

Analytical results from the onsite sanitary system sampling showed that elevated levels of metals were present in sanitary systems 7, 8, 9, 10, and 12. Due the levels detected, the primary leaching structures, as well as the septic tank, from these systems will require remediation. In addition, secondary structures from these systems will require assessment to determine if they require remediation as well.

Based upon the development plans provided to PWGC, the industrial area where the sanitary systems are located is to be redeveloped. Since these structures will require proper closure prior to re-development, PWGC recommends performing the remedial and closure activities concurrently under the direction of the SCHDS if this work is to be performed within the next 12-16 month time frame.

If the industrial area is to continue operating beyond that time frame, the impacted sanitary systems should be remediated prior to closure of the structures. This work should be performed under the oversight of the SCHDS in order to prevent any obstacles should the structures be closed at a later date. If remedial activities are performed prior to closure, the structures will be re-assessed as part of the closure activities.

Analytical results for the surface soils revealed low levels of SVOC compounds which were detected in excess of their respective TAGM guidance values. The detected compounds are generally immobile and do not infiltrate significantly into the soil. Based upon the low concentrations detected and their presence in only two of the six samples, it is PWGC's opinion that the previously prepared soil management plan is adequate for addressing the SVOC impacted soils as well as the metals impacted soil for which it was prepared. PWGC would recommend adding a confirmatory SVOC sample from the SB-27 and SB-28 locations to confirm that vertical mixing was effective in reducing the surface soil concentrations of SVOCs in those locations.

PWGC
Strategic Environmental Engineering Solutions

Based upon the results of this investigation, by following proper closure of the onsite sanitary systems and by complying with the previously prepared soil management plan, PWGC is not aware of any outstanding environmental issues which would require further assessment in order to re-develop the property for residential uses.

If you have any questions concerning the results of this investigation, please do not hesitate to contact either of the undersigned.

Sincerely yours,
P.W. Grosser Consulting, Inc

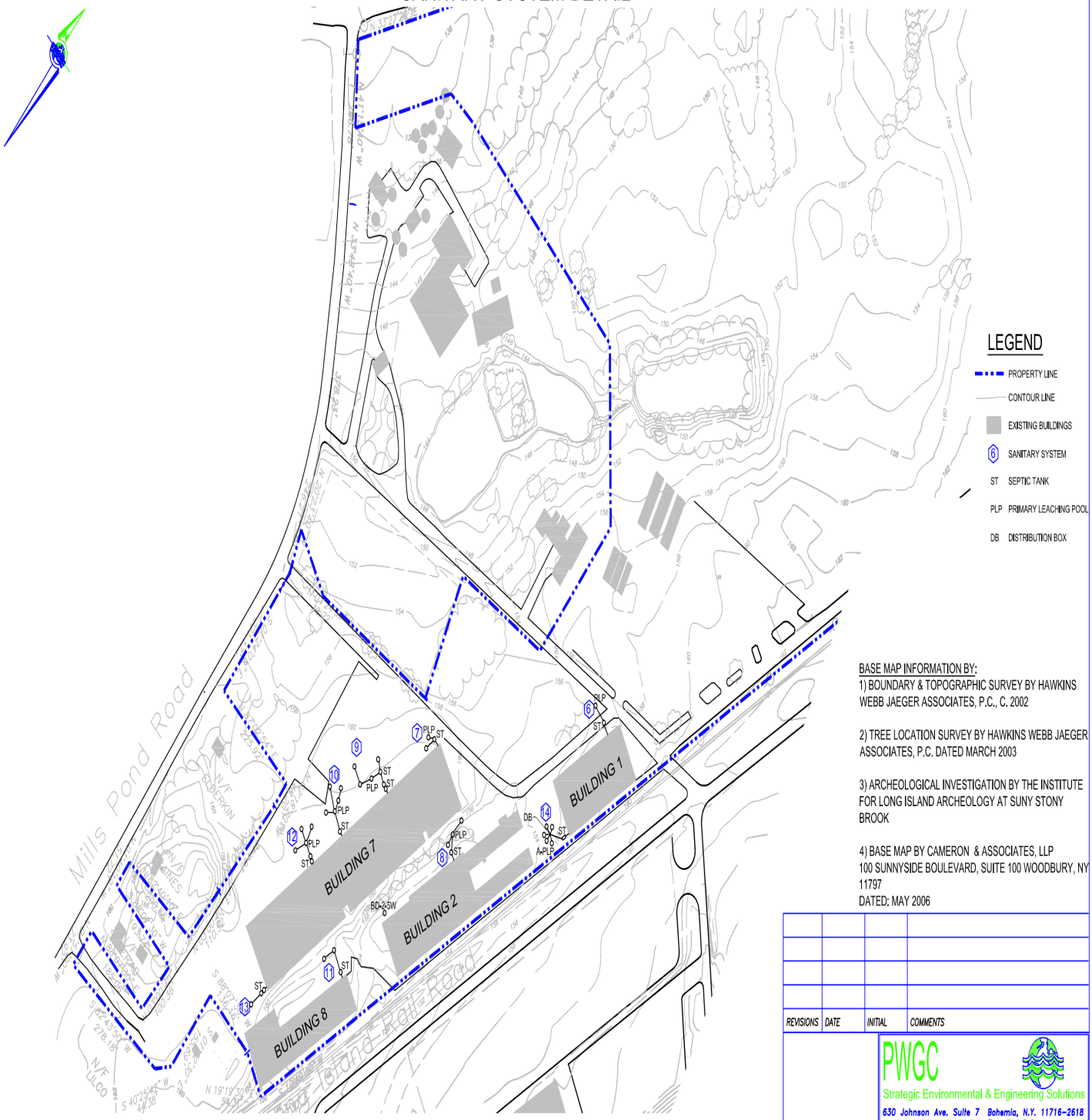
Bryan A Devaux
Project Manager

James P. Rhodes, CPG
Vice President

PWGC
Strategic Environmental Engineering Solutions

FIGURES

FIGURE 1
SANITARY SYSTEM DETAIL



BASE MAP INFORMATION BY:

1) BOUNDARY & TOPOGRAPHIC SURVEY BY HAWKINS WEBB JAEGER ASSOCIATES, P.C., C. 2002

2) TREE LOCATION SURVEY BY HAWKINS WEBB JAEGER ASSOCIATES, P.C. DATED MARCH 2003

3) ARCHEOLOGICAL INVESTIGATION BY THE INSTITUTE FOR LONG ISLAND ARCHEOLOGY AT SUNY STONY BROOK

4) BASE MAP BY CAMERON & ASSOCIATES, LLP
100 SUNNYSIDE BOULEVARD, SUITE 100 WOODBURY, NY 11797
DATED: MAY 2006

REVISIONS	DATE	INITIAL	COMMENTS

1 FLOWERFIELD #24
ST.JAMES, NY

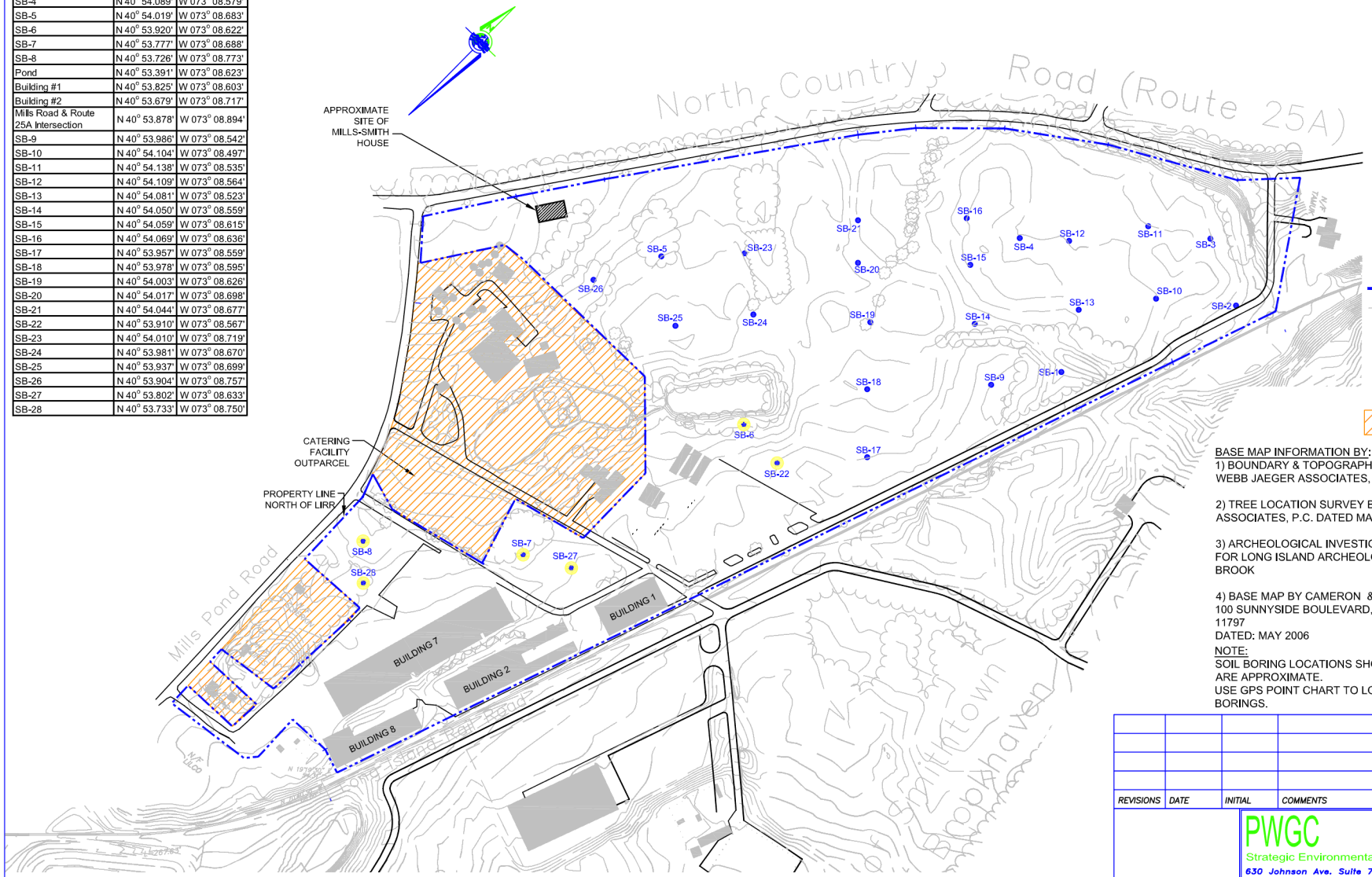
PWGC
Strategic Environmental & Engineering Solutions
630 Johnson Ave. Suite 7 Bohemia, N.Y. 11716-2618
Ph: 631 589-6353 Fx: 631 589-8705 E-mail: info@pwgrosser.com

Project: GCA0801	Designed By: BAD	Figure No: 1
CADD Operator: LLG	Approved By: PWG	Date: 3/11/08

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING AND RELATED DOCUMENTS IS A VIOLATION OF SEC. 7209 OF THE N.Y.S. EDUCATION LAW

FIGURE 2
GYRODYNE COMPANY OF AMERICA SOIL BORING LOCATIONS

Soil Boring Location	Latitude	Longitude
SB-1	N 40° 54.053'	W 073° 08.498'
SB-2	N 40° 54.127'	W 073° 08.452'
SB-3	N 40° 54.155'	W 073° 08.512'
SB-4	N 40° 54.089'	W 073° 08.579'
SB-5	N 40° 54.019'	W 073° 08.683'
SB-6	N 40° 53.920'	W 073° 08.622'
SB-7	N 40° 53.777'	W 073° 08.688'
SB-8	N 40° 53.726'	W 073° 08.773'
Pond	N 40° 53.391'	W 073° 08.623'
Building #1	N 40° 53.825'	W 073° 08.603'
Building #2	N 40° 53.679'	W 073° 08.717'
Mills Road & Route 25A Intersection	N 40° 53.878'	W 073° 08.894'
SB-9	N 40° 53.986'	W 073° 08.542'
SB-10	N 40° 54.104'	W 073° 08.497'
SB-11	N 40° 54.138'	W 073° 08.535'
SB-12	N 40° 54.109'	W 073° 08.564'
SB-13	N 40° 54.081'	W 073° 08.523'
SB-14	N 40° 54.050'	W 073° 08.559'
SB-15	N 40° 54.059'	W 073° 08.615'
SB-16	N 40° 54.069'	W 073° 08.636'
SB-17	N 40° 53.957'	W 073° 08.559'
SB-18	N 40° 53.978'	W 073° 08.595'
SB-19	N 40° 54.003'	W 073° 08.626'
SB-20	N 40° 54.017'	W 073° 08.698'
SB-21	N 40° 54.044'	W 073° 08.677'
SB-22	N 40° 53.910'	W 073° 08.567'
SB-23	N 40° 54.010'	W 073° 08.719'
SB-24	N 40° 53.981'	W 073° 08.670'
SB-25	N 40° 53.937'	W 073° 08.699'
SB-26	N 40° 53.904'	W 073° 08.757'
SB-27	N 40° 53.802'	W 073° 08.633'
SB-28	N 40° 53.733'	W 073° 08.750'



BASE MAP INFORMATION BY:
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4) BASE MAP BY CAMERON & ASSOCIATES, LLP
100 SUNNYSIDE BOULEVARD, SUITE 100 WOODBURY, NY 11797
DATED: MAY 2006

NOTE:
SOIL BORING LOCATIONS SHOWN ON MAP ARE APPROXIMATE.
USE GPS POINT CHART TO LOCATE SOIL BORINGS.

1 FLOWERFIELD #24
ST.JAMES, NY

0 300 600
SCALE: 1" = 300'

REVISIONS	DATE	INITIAL	COMMENTS

PWGC
Strategic Environmental & Engineering Solutions
630 Johnson Ave. Suite 7 Bohemia, N.Y. 11716-2618
Ph: 631 589-6353 Fx: 631 589-8705 E-mail: info@pwgrosser.com

Project:	Designed By:	Figure No:
GCA0801	BAD	2
CADD Operator:	Approved By:	Date:
LLG	PWG	3/11/08

I:\PROJECTS E-L\GCA\0801 Industrial area sampling\cad\Fig 2.dwg

PWGC
Strategic Environmental Engineering Solutions

Tables

Table 1

Soil Sample Analytical Results for Volatile Organic Compounds by EPA Method 8260 SCDHS List

Flowerfields, St James, NY
April 18, 2008

Parameter	SCDHS Action Levels[1]	6-PLP	7-PLP	9-PLP	10-PLP	12-PLP	13-PLP	11-PLP	8-PLP	BLDG-2-SW	14-PLP
VOCs by EPA Method 8260 SCDHS List in µg/kg											
1,1,1,2-Tetrachloroethane	600	1.06	3.99	<176	<3.12	<2.59	<0.59	<3.21	<301	<0.54	<2.91
1,1,1-Trichloroethane	1,600	1.20	4.51	<195	<3.53	<2.92	<0.67	<3.62	<332	<0.61	<3.29
1,1,2,2-Tetrachloroethane	1,200	1.38	5.21	<154	<4.07	<3.37	<0.77	<4.18	<262	<0.71	<3.80
1,1,2-Trichloroethane	600	1.45	5.47	<184	<4.27	<3.54	<0.81	<4.39	<315	<0.74	<3.99
1,1,2-Trichloro-1,2,2-trifluoroethane	12,000	1.20	4.51	<180	<3.53	<2.92	<0.67	<3.62	<308	<0.61	<3.29
1,1-Dichloroethane	400	1.31	4.95	<207	<3.86	<3.20	<0.74	<3.97	<354	<0.67	<3.61
1,1-Dichloroethene	800	0.85	3.21	<191	<2.51	<2.08	<0.48	<2.58	<326	<0.44	<2.34
1,1-Dichloropropene	600	1.22	4.60	<164	<3.59	<2.98	<0.68	<3.69	<280	<0.63	<3.35
1,2,3-Trichlorobenzene	800	1.10	4.17	<127	<3.25	<2.70	<0.62	<3.35	<217	<0.57	<3.04
1,2,3-Trichloropropane	800	1.63	6.16	<160	<4.81	<3.99	<0.92	<4.95	<273	<0.84	<4.49
1,2,4,5-Tetramethylbenzene	15,000	0.92	8.13	348	6.74	187	<0.52	<2.79	3490	<0.47	<2.53
1,2,4-Trichlorobenzene	6,800	0.78	2.95	<137	<2.31	14.4	<0.44	<2.37	<234	<0.40	<2.15
1,2,4-Trimethylbenzene	4,800	7.30	89.80	363	29.5	817	<0.48	<2.58	1450	<0.44	<2.34
1,2-Dibromo-3-chloropropane	1000	1.06	3.99	<154	<3.12	<2.59	<0.59	<3.21	<262	<0.54	<2.91
1,2-Dibromoethane	600	1.36	5.12	<160	<4.00	<3.32	<0.76	<4.11	<273	<0.70	<3.73
1,2-Dichlorobenzene	15,000	1.08	4.08	<164	<3.19	539	<0.61	<3.28	<280	<0.55	6.86
1,2-Dichloroethane	200	1.33	5.03	<199	<3.93	<3.26	<0.75	<4.04	<340	<0.68	<3.67
1,2-Dichloropropane	600	1.36	5.12	<182	<4.00	<3.32	<0.76	<4.11	<312	<0.70	<3.73
1,3,5-Trimethylbenzene	5,200	2.62	32.80	<168	20.7	297	<0.57	<3.07	626	<0.52	<2.79
1,3-Dichlorobenzene	3,200	1.22	4.60	<158	<3.59	66.1	<0.68	<3.69	<270	<0.63	<3.35
1,3-Dichloropropane	600	1.20	4.51	<170	<3.53	<2.92	<0.67	<3.62	<290	<0.61	<3.29
1,4-Dichlorobenzene	15,000	1.75	17.80	739	41.6	1470	<0.62	<3.35	1640	<0.57	9.82
2,2-Dichloropropane	600	1.36	5.12	<178	<4.00	<3.32	<0.76	<4.11	<304	<0.70	<3.73
2-Butanone	600	93.60	19.30	<156	<15.1	89.6	<2.86	<15.5	<266	<2.62	<14.1
2-Chlorotoluene	3,600	1.22	4.60	<170	<3.59	<2.98	<0.68	<3.69	<290	<0.63	<3.35
4-Chlorotoluene	3,600	1.15	4.34	<160	<3.39	<2.81	<0.64	<3.48	<273	<0.59	<3.16
4-Methyl-2-Pentanone	2,000	4.95	18.70	<176	<14.6	<12.1	<2.77	<15.0	<301	<2.54	<13.6
Acetone	**	201.00	126.00	<238	<17.6	605	57.5	113	<406	<3.07	<16.5
Benzene	120	1.22	4.60	<180	<3.59	19.7	<0.68	<3.69	<308	<0.63	<3.35
Bromobenzene	1,600	1.17	4.43	<164	<3.46	<2.87	<0.66	<3.55	<280	<0.60	<3.23
Bromochloromethane	400	1.33	5.03	<187	<3.93	<3.26	<0.75	<4.04	<318	<0.68	<3.67
Bromodichloromethane	600	1.08	4.08	<182	<3.19	<2.64	<0.61	<3.28	<312	<0.55	<2.98
Bromoform	1,000	1.10	4.17	<166	<3.25	<2.70	<0.62	<3.35	<284	<0.57	<3.04
Carbon Tetrachloride	1,200	1.29	4.86	<184	<3.80	<3.15	<0.72	<3.90	<315	<0.66	<3.54
Chlorobenzene	3,400	1.40	5.29	<176	<4.14	1690	<0.79	<4.25	434	<0.72	<3.86
Chloroethane	400	1.61	6.08	<295	<4.75	<3.93	<0.90	<4.88	<504	<0.83	<4.43
Chloroform	600	3.18	6.94	<199	<4.00	<3.32	<0.76	<4.11	<340	<0.70	<3.73
cis-1,2-Dichloroethene	200	1.03	3.91	<182	<3.05	<2.53	<0.58	<3.14	<312	<0.53	<2.85
cis-1,3-Dichloropropene	600	1.17	4.43	<178	<3.46	<2.87	<0.66	<3.55	<304	<0.60	<3.23
Dibromochloromethane	600	1.06	3.99	<170	<3.12	<2.59	<0.59	<3.21	<290	<0.54	<2.91
Dibromomethane	400	1.82	6.86	<187	<5.36	<4.44	<1.02	<5.51	<318	<0.93	<5.00
Dichlorodifluoromethane	600	0.85	3.21	<164	<2.51	<2.08	<0.48	<2.58	<280	<0.44	<2.34
Ethyl Benzene	11,000	1.20	26.60	<182	<3.53	38.6	<0.67	<3.62	<312	<0.61	<3.29
Hexachlorobutadiene	15,000	1.10	4.17	<162	<3.25	<2.70	<0.62	<3.35	<276	<0.57	<3.04
Isopropyl benzene	5,200	1.01	3.82	<176	4.49	37.4	<0.57	<3.07	<301	<0.52	<2.79
m + p Xylene	2,400 *	2.07	136.00	<357	13.4	147	<1.16	<6.27	<609	<1.06	<5.70
Methyl Tertiary Butyl Ether	1,200	1.20	4.51	<180	<3.53	<2.92	<0.67	<3.62	<308	<0.61	<3.29
Methylene Chloride	200	2.16	8.16	<221	8.26	<5.28	<1.21	8.02	<378	<1.11	10.1
n-Butyl benzene	6,800	1.82	4.17	183	<3.25	197	<0.62	<3.35	1390	<0.57	<3.04
n-Propylbenzene	5,000	1.06	12.50	<166	8.8	134	<0.59	<3.21	536	<0.54	<2.91
Naphthalene	15,000	1.03	3.91	149	5.92	198	<0.58	<3.14	350	<0.53	<2.85
o Xylene	2,400 *	0.09	54.50	<174	<2.64	57.6	<0.50	<2.72	<298	<0.46	<2.47
p-Diethyl benzene	7,600	1.06	3.99	554	<3.12	<2.59	<0.59	<3.21	<270	<0.54	<2.91
p-Ethyl toluene	3,600	4.45	72.80	<166	25.3	466	<0.54	<2.93	537	<0.50	<2.66

Table 1

Soil Sample Analytical Results for Volatile Organic Compounds by EPA Method 8260 SCDHS List

Flowerfields, St James, NY
April 18, 2008

Parameter	SCDHS Action Levels[(1)]	6-PLP	7-PLP	9-PLP	10-PLP	12-PLP	13-PLP	11-PLP	8-PLP	BLDG-2-SW	14-PLP
p-Isopropyl toluene	7,800	10.20	10.20	<166	5.49	338	<0.61	<3.28	711	<0.55	10.1
sec-Butyl benzene	10,000	1.03	3.91	<160	<3.05	107	<0.58	<3.14	442	<0.53	<2.85
Styrene	2,000	0.99	3.73	<166	<2.92	<2.42	<0.55	<3.00	<284	<0.51	<2.72
tert-Butylbenzene	6,800	1.22	4.60	<174	<3.59	<2.98	<0.68	<3.69	<298	<0.63	<3.35
Tetrachloroethene	2,800	1.03	10.30	<172	<3.05	<2.53	<0.58	<3.14	<294	<0.53	<2.85
Toluene	3,000	179.00	558.00	3320	<3.25	71	1.57	<3.35	<378	<0.57	15.1
trans-1,2-Dichloroethene	600	1.06	10.30	<195	<3.12	<2.59	<0.59	<3.21	<332	<0.54	<2.91
trans-1,3-Dicholorpropene	600	0.97	3.65	<162	<2.85	<2.36	<0.54	<2.93	<276	<0.50	<2.66
Trichloroethene	1,400	1.13	4.25	<193	<3.32	<2.75	<0.63	<3.42	<329	<0.58	<3.10
Trichlorofluoromethane	1,600	1.29	4.86	<205	<3.80	<3.15	<0.72	<3.90	<350	<0.66	<3.54
Vinyl Chloride	400	1.56	5.90	<168	<4.61	<3.82	<0.88	<4.74	<287	<0.80	<4.30
Xylenes	2,400	2.16	189.50	<357	13.4	204	<1.16	<6.27	<609	<1.06	<5.70

Notes:
[(1)]Suffolk County Dept. of Health Services, Article 12 - SOP 9-95, Action Levels, July 1998.
NS - Not specified
* - Refers to the sum of all isomers
** - Remediation determined on a case by case basis
Bold and shaded text denotes concentrations exceeding SCDHS Action Levels.

Table 2

Soil Sample Analytical Results for Semi-Volatile Organic Compounds by EPA Method 8270 SCDHS List

Flowerfields, St James, NY
April 18, 2008

Parameter	SCDHS Action Levels[1]	6-PLP	7-PLP	9-PLP	10-PLP	12-PLP	13-PLP	11-PLP	8-PLP	BLDG-2-SW	14-PLP
SVOCs by EPA Method 8270 SCDHS List in µg/kg											
Acenaphthene	75,000	48.4	73.1	137	118	218	<54.3	<58.7	138	<49.6	<53.3
Anthracene	75,000	51.2	77.3	<73.1	105	199	<57.3	<62.1	<125	<52.4	<56.3
Benzo(a)anthracene	6,000	48.7	73.4	<69.5	223	295	<54.5	144	232	<49.8	<53.5
Benzo(a)pyrene	22,000	60	90.5	<85.6	153	210	<67.1	143	166	<61.4	<65.9
Benzo(b)fluoranthene	2,200	47.8	72	<68.1	139	240	<53.5	94.7	153	<48.9	<52.5
Benzo(g,h,i)perylene	75,000	87.9	133	<125	<104	<215	<98.5	<107	<214	<90.0	<96.7
Benzo(k)fluoranthene	2,200	87.6	132	<125	164	230	<98.1	<106	<213	<89.6	<96.3
Chrysene	800	60.9	91.8	<86.9	223	367	<68.2	143	294	<62.3	<67.0
Dibenzo(a,h)anthracene	75,000	64.2	96.9	<91.6	<75.7	<157	<71.9	<77.8	<156	<65.7	<70.6
Fluoranthene	75,000	63.4	95.7	117	382	800	<71.0	192	515	<64.9	<69.7
Fluorene	75,000	46.3	69.8	117	144	<113	<51.8	77.5	<113	<47.3	<50.9
Indeno(1,2,3-cd)pyrene	6,400	53.2	80.2	<75.9	<62.7	<130	<59.5	<64.4	<129	<54.4	<58.5
Phenanthrene	75,000	52.4	79	372	518	1140	87	258	1400	57.1	<57.6
Pyrene	75,000	42.6	64.2	150	320	760	49.1	164	531	<43.6	<46.8

Notes:
[1]Suffolk County Dept. of Health Services, Article 12 - SOP 9-95, Action Levels, July 1998.
* - Laboratory unable to separate isomers.
Bold/Shaded text denotes concentrations exceeding SCDHS Action Levels.

Table 3

Soil Sample Analytical Results for Metals SCDHS List

Flowerfields, St James, NY
April 18, 2008

Parameter	SCDHS Action Levels[1]	6-PLP	7-PLP	9-PLP	10-PLP	12-PLP	13-PLP	11-PLP	8-PLP	BLDG-2-SW	14-PLP
Metals SCDHS List in mg/kg											
Mercury	2	0.089	**9.55**	1.01	**54.1**	**3.14**	0.019	0.45	**5.08**	0.03	0.03
Arsenic	25	<1.08	<1.64	<1.55	<1.32	<2.75	<1.25	<1.32	<2.67	<1.15	<1.24
Beryllium	8	<0.022	<0.034	<0.032	<0.027	<0.057	<0.026	<0.027	<0.055	<0.024	<0.025
Cadmium	10	<0.078	8.34	**30.9**	5.04	5.96	<0.090	<0.095	**17**	<0.083	<0.089
Chromium	100	5.82	**113**	7.95	47.7	77.1	2.69	6.5	**162**	13.7	4.86
Copper	500	10.7	267	203	**505**	**811**	42.9	81	305	10.3	15.6
Lead	400	13.6	92.5	94.9	304	170	2.7	199	335	15.4	5.48
Nickel	1,000	4.08	14.9	<0.27	20.5	<0.48	<0.22	<0.23	25.8	<0.20	<0.22
Silver	100	4.05	**162**	**145**	<0.041	<0.085	<0.039	<0.041	<0.083	<0.036	<0.038
Zinc	NS	25.7	487	113	441	827	23.4	157	1350	76.2	26.8

Notes:
[1]Suffolk County Dept. of Health Services, Article 12 - SOP 9-95, Action Levels, July 1998.
Bold/Shaded text denotes concentrations exceeding SCDHS Action Levels.

Table 4

Soil Sample Analytical Results for Volatile Organic Compounds by EPA Method 8260

Flowerfields, St James, NY
April 18, 2008

Compound	NYSDEC Clean-up Objectives [1]	SB-8 (0-0.5')	SB-28 (0-0.5')	SB-7 (0-0.5')	SB-27 (0-0.5')	SB-6 (0-0.5')	SB-22 (0-0.5')
Volatile Organinc Compounds by 8260- µg/Kg							
1,1,1,2-Tetrachloroethane	NS	<0.54	<0.58	<0.53	<0.53	<0.55	<0.54
1,1,1-Trichloroethane	800	<0.61	<0.66	<0.60	<0.60	<0.62	<0.61
1,1,2,2-Tetrachloroethane	600	<0.71	<0.76	<0.70	<0.70	<0.71	<0.70
1,1,2-Trichloroethane	NS	<0.74	<0.80	<0.73	<0.73	<0.75	<0.74
1,1,2-Trichloro-1,2,2-trifluoroethane	6,000	<0.61	<0.66	<0.60	<0.60	<0.62	<0.61
1,1-Dichloroethane	200	<0.67	<0.72	<0.66	<0.66	<0.68	<0.67
1,1-Dichloroethene	400	<0.44	<0.47	<0.43	<0.43	<0.44	<0.43
1,1-Dichloropropene	NS	<0.63	<0.67	<0.61	<0.61	<0.63	<0.62
1,2,3-Trichlorobenzene	NS	<0.57	<0.61	<0.56	<0.56	<0.57	<0.56
1,2,3-Trichloropropane	400	<0.84	<0.90	<0.82	<0.82	<0.84	<0.83
1,2,4,5-Tetramethylbenze	NS	<0.47	<0.51	<0.46	<0.46	<0.48	<0.47
1,2,4-Trichlorobenzene	3,400	<0.40	<0.43	<0.39	<0.39	<0.40	<0.40
1,2,4-Trimethylbenzene	10,000	<0.44	<0.47	<0.43	<0.43	<0.44	<0.43
1,2-Dibromo-3-chloropropane	NS	<0.54	<0.58	<0.53	<0.53	<0.55	<0.54
1,2-Dibromoethane	NS	<0.70	<0.75	<0.68	<0.68	<0.70	<0.69
1,2-Dichlorobenzene	7,900	<0.55	<0.60	<0.55	<0.55	<0.56	<0.55
1,2-Dichloroethane	100	<0.68	<0.74	<0.67	<0.67	<0.69	<0.68
1,2-Dichloropropane	NS	<0.70	<0.75	<0.68	<0.68	<0.70	<0.69
1,3,5-Trimethylbenzene	3,300	<0.52	<0.56	<0.51	<0.51	<0.52	<0.51
1,3-Dichlorobenzene	1,600	<0.63	<0.67	<0.61	<0.61	<0.63	<0.62
1,3-Dichloropropane	300	<0.61	<0.66	<0.60	<0.60	<0.62	<0.61
1,4-Dichlorobenzene	8,500	<0.57	<0.61	<0.56	<0.56	<0.57	<0.56
2,2-Dichloropropane	NS	<0.70	<0.75	<0.68	<0.68	<0.70	<0.69
2-Butanone (MEK)	300	<2.62	<2.82	<2.58	<2.58	<2.64	<2.60
2-Chloroethylvinylether	NS	<0.76	<0.81	<0.74	<0.74	<0.76	<0.75
2-Chlorotoluene	NS	<0.63	<0.67	<0.61	<0.61	<0.63	<0.62
2-Hexanone	NS	<2.34	<2.51	<2.30	<2.30	<2.36	<2.32
4-Chlorotoluene	NS	<0.59	<0.63	<0.58	<0.58	<0.60	<0.58
4-Isopropyltoluene	NS	<0.55	<0.60	<0.55	<0.55	<0.56	<0.55
4-Methyl-2-Pentanone (MIBK)	1,000	<2.54	<2.73	<2.49	<2.49	<2.56	<2.52
Acetone	200	<3.07	<3.30	<3.02	<3.02	<3.09	<3.04
Acrylonitrile	NS	<8.25	<8.88	<8.11	<8.11	<8.32	<8.18
Benzene	60	<0.63	<0.67	<0.61	<0.61	<0.63	<0.62
Bromobenzene	NS	<0.60	<0.65	<0.59	<0.59	<0.61	<0.60
Bromochloromethane	NS	<0.68	<0.74	<0.67	<0.67	<0.69	<0.68
Bromodichloromethane	NS	<0.55	<0.60	<0.55	<0.55	<0.56	<0.55
Bromoform	NS	<0.57	<0.61	<0.56	<0.56	<0.57	<0.56
Bromomethane	NS	<0.58	<0.62	<0.57	<0.57	<0.58	<0.57
cis-1,2-Dichloroethene	200	<0.53	<0.57	<0.52	<0.52	<0.54	<0.53
cis-1,3-Dichloropropene	240	<0.60	<0.65	<0.59	<0.59	<0.61	<0.60
Carbon Disulfide	2,700	<0.55	<0.60	<0.55	<0.55	<0.56	<0.55
Carbon Tetrachloride	600	<0.66	<0.71	<0.65	<0.65	<0.67	<0.66
Chlorobenzene	1,700	<0.72	<0.77	<0.71	<0.71	<0.73	<0.71
Chlorodifluoromethane	NS	<1.04	<1.12	<1.02	<1.02	<1.05	<1.03
Chloroethane	1,900	<0.83	<0.89	<0.81	<0.81	<0.83	<0.82
Chloroform	300	<0.70	<0.75	<0.68	<0.68	<0.70	<0.69
Chloromethane	NS	<0.59	<0.63	<0.58	<0.58	<0.60	<0.58
Dibromochloromethane	NS	<0.54	<0.58	<0.53	<0.53	<0.55	<0.54
Dibromomethane	NS	<0.93	<1.00	<0.92	<0.92	<0.94	<0.92
Dichlordifluoromethane	NS	<0.44	<0.47	<0.43	<0.43	<0.44	<0.43
Ethyl Benzene	5,500	<0.61	<0.66	<0.60	<0.60	<0.62	<0.61
Hexachlorobutadiene	NS	<0.57	<0.61	<0.56	<0.56	<0.57	<0.56
Isopropylbenzene	2,300	<0.52	<0.56	<0.51	<0.51	<0.52	<0.51
m + p Xylene	1,200[X]	<1.06	<1.14	<1.04	<1.04	<1.07	<1.05
Methyl-Tertiary-Butyl-Ether (MTBE)	120	<0.61	<0.66	<0.60	<0.60	<0.62	<0.61
Methylene Chloride	100	<1.11	<1.19	<1.09	<1.09	<1.12	<1.10
n-Butylbenzene	10,000	<0.57	<0.61	<0.56	<0.56	<0.57	<0.56
n-Propylbenzene	3,700	<0.54	<0.58	<0.53	<0.53	<0.55	<0.54
Naphthalene	13,000	<0.53	<0.57	<0.52	<0.52	<0.54	<0.53
o-Xylene	1,200[X]	<0.46	<0.50	<0.45	<0.45	<0.46	<0.46
p-Diethylbenzene	NS	<0.54	<0.58	<0.53	<0.53	<0.55	<0.54
p-Ethyltoluene	NS	<0.50	<0.53	<0.49	<0.49	<0.50	<0.49
sec-Butylbenzene	10,000	<0.53	<0.57	<0.52	<0.52	<0.54	<0.53
Styrene	NS	<0.51	<0.55	<0.50	<0.50	<0.51	<0.50
trans-1,2-Dichloroethene	300	<0.54	<0.58	<0.53	<0.53	<0.55	<0.54
trans-1,3-Dichloropropene	240	<0.50	<0.53	<0.49	<0.49	<0.50	<0.49
TAME	NS	<0.74	<0.80	<0.73	<0.73	<0.75	<0.74

Table 4

Soil Sample Analytical Results for Volatile Organic Compounds by EPA Method 8260

Flowerfields, St James, NY
April 18, 2008

Compound	NYSDEC Clean-up Objectives [1]	SB-8 (0-0.5')	SB-28 (0-0.5')	SB-7 (0-0.5')	SB-27 (0-0.5')	SB-6 (0-0.5')	SB-22 (0-0.5')
Volatile Organinc Compounds by 8260- µg/Kg							
tert-Butylbenzene	10,000	<0.63	<0.67	<0.61	<0.61	<0.63	<0.62
t-Butyl alcohol	NS	<6.36	<6.85	<6.25	<6.25	<6.41	<6.31
Tetrachloroethene	1,400	<0.53	<0.57	<0.52	<0.52	<0.54	<0.53
Toluene	1,500	<0.57	<0.61	<0.56	<0.56	<0.57	<0.56
Trichloroethene	700	<0.58	<0.62	<0.57	<0.57	<0.58	<0.57
Trichlorofluoromethane	NS	<0.66	<0.71	<0.65	<0.65	<0.67	<0.66
Vinyl Chloride	200	<0.80	<0.86	<0.79	<0.79	<0.81	<0.80

Notes:
All units are µg/Kg.
[1] NYSDEC Recommended Soil Cleanup Objectives (RSCO), Technical and Administrative Guidance Memorandum (TAGM) #4046, 12/00
Bold/Shading indicates exceedance of NYSDEC Cleanup Objectives.
X - sum of all isomers
NS- No Standard
B - Analyte Detected in method blank
J - Analyte detected below quanitation limits
U - Indicates compound was analyzed for but not detected

Table 5

Soil Sample Analytical Results for Semi-Volatile Organic Compounds by EPA Method 8270

Flowerfields, St James, NY
April 18, 2008

Parameter	NYSDEC RSCO (1)	SB-8 (0-0.5')	SB-28 (0-0.5')	SB-7 (0-0.5')	SB-27 (0-0.5')	SB-6 (0-0.5')	SB-22 (0-0.5')
Semi-Volatile Organinc Compounds by 8270- µg/Kg							
124-Trichlorobenzene (sv)	NS	<49.1	<52.9	<48.3	<48.1	<49.3	<48.8
1,2 Dichlorobenzene(sv)	NS	<36.4	<39.3	<35.8	<35.7	<36.7	<36.2
1,2-Diphenylhydazine	NS	<35.6	<38.4	<35.0	<34.9	<35.8	<35.4
1,3 Dichlorobenzene(sv)	NS	<39.6	<42.7	<39.0	<38.8	<39.9	<39.4
1,4 Dichlorobenzene(sv)	NS	<38.4	<41.5	<37.8	<37.7	<38.7	<38.2
2,3,4,6-Tetrachlorophenol	NS	<46.7	<50.4	<45.9	<45.8	<47.0	<46.4
2,4,5-Trichlorophenol	100	<25.6	<27.6	<25.2	<25.1	<25.7	<25.4
2,4,6-Trichlorophenol	NS	<44.3	<47.8	<43.6	<43.5	<44.6	<44.1
2,4-Dichlorophenol	400	<38.7	<41.7	<38.1	<37.9	<38.9	<38.5
2,4-Dimethylphenol	NS	<49.3	<53.2	<48.5	<48.3	<49.6	<49.0
2,4-Dinitrophenol	200 or MDL	<415	<448	<408	<407	<418	<413
2,4-Dinitrotoluene	NS	<70.8	<76.3	<69.6	<69.4	<71.2	<70.3
2,6-Dinitrotoluene	1000	<48.6	<52.4	<47.8	<47.6	<48.9	<48.3
2-Chloronaphthalene	NS	<56.8	<61.3	<55.9	<55.7	<57.2	<56.5
2-Chlorophenol	800	<56.8	<61.3	<55.9	<55.7	<57.2	<56.5
2-Methylnaphthalene	36,400	<46.8	179	<46.1	<45.9	<47.1	<46.5
2-Methylphenol	100 or MDL	<42.2	<45.5	<41.5	<41.4	<42.5	<42.0
2-Nitroaniline	430 or MDL	<61.4	<66.3	<60.4	<60.2	<61.8	<61.1
2-Nitrophenol	330 or MDL	<35.8	<38.7	<35.3	<35.1	<36.1	<35.6
3+4-Methylphenol	NS	<36.4	<39.3	<35.8	<35.7	<36.7	<36.2
3,3'-Dichlorobenzidine	NS	<56.8	<61.3	<55.9	<55.7	<57.2	<56.5
3-Nitroaniline	500 or MDL	<20.3	<21.9	<20.0	<19.9	<20.4	<20.2
4,6-Dinitro-2-methylphenol	NS	<515	<556	<507	<505	<518	<512
4-Bromophenyl phenyl ether	NS	<53.5	<57.8	<52.7	<52.5	<53.9	<53.2
4-Chloro-3-methylphenol	240 or MDL	<44.0	<47.5	<43.3	<43.1	<44.2	<43.7
4-Chloroaniline	220 or MDL	<44.9	<48.5	<44.2	<44.0	<45.2	<44.7
4-Chlorophenyl phenyl ether	NS	<45.9	<49.5	<45.1	<45.0	<46.1	<45.6
4-Nitroaniline	NS	<115	<124	<113	<113	<116	<115
4-Nitrophenol	100 or MDL	<787	<849	<774	<771	<791	<782
Acenaphthene	50,000	<49.6	65.4	<48.8	<48.7	<49.9	<49.4
Acenaphthylene	50,000	<40.6	<43.8	<39.9	<39.8	<40.8	<40.3
Aniline	100	<36.7	<39.6	<36.1	<36.0	<36.9	<36.5
Anthracene	50,000	<52.5	71.1	<51.6	<51.4	<52.8	<52.2
Benzidine	NS	<1040	<1120	<1020	<1020	<1040	<1030
Benzo(a)anthracene	224 or MDL	<49.9	**324**	<49.1	144	<50.2	<49.6
Benzo(a)pyrene	61 or MDL	<61.4	**352**	<60.4	**149**	<61.8	<61.1
Benzo(b)fluoranthene	220 or MDL	<48.9	**428**	<48.1	159	<49.2	<48.7
Benzo(ghi)perylene	50,000	<90.1	126	<88.6	<88.3	<90.6	<89.6
Benzo(k)fluoranthene	220 or MDL	<89.7	**325**	<88.3	184	<90.3	<89.2
Benzoic Acid	NS	<6910	<7460	<6800	<6770	<6950	<6870
Benzyl alcohol	NS	<69.6	<75.1	<68.4	<68.2	<70.0	<69.2
Bis(2-chloroethoxy)methane	NS	<48.8	<52.7	<48.0	<47.9	<49.1	<48.5
Bis(2-chloroethyl)ether	NS	<55.8	<60.2	<54.9	<54.7	<56.1	<55.5
Bis(2-chloroisopropyl)ether	NS	<43.3	<46.7	<42.6	<42.4	<43.5	<43.0
Bis(2-ethylhexyl)phthalate	50,000	<77.2	<83.3	76.4	144	<77.7	<76.8
BenzylButylPhthalate	50,000	<62.3	<67.2	<61.3	<61.0	<62.6	<61.9
Carbazole	NS	<67.9	<73.3	<66.8	<66.6	<68.3	<67.5
Chrysene	400	<62.4	**486**	<61.4	220	<62.8	<62.0
Cresols	NS	<78.6	<84.8	<77.3	<77.1	<79.2	<78.2

Table 5

Soil Sample Analytical Results for Semi-Volatile Organic Compounds by EPA Method 8270

Flowerfields, St James, NY
April 18, 2008

Parameter	NYSDEC RSCO [1]	SB-8 (0-0.5')	SB-28 (0-0.5')	SB-7 (0-0.5')	SB-27 (0-0.5')	SB-6 (0-0.5')	SB-22 (0-0.5')
Semi-Volatile Organinc Compounds by 8270- µg/Kg							
Di-n-Butyl Phthalate	8,100	<66.4	<71.6	<65.3	<65.1	<66.8	<66.0
Di-n-octyl Phthalate	50,000	<58.0	<62.6	<57.1	<56.9	<58.4	<57.7
Dibenzo(a,h)anthracene	14 or MDL	<65.8	<71.0	<64.7	<64.5	<66.2	<65.4
Dibenzofuran	6,200	<39.4	<42.5	<38.7	<38.6	<39.6	<39.2
Diethyl Phthalate	7,100	<77.1	<83.2	<75.9	<75.6	<77.6	<76.7
Dimethyl Phthalate	2,000	<57.0	<61.5	<56.0	<55.8	<57.3	<56.6
Fluoranthene	50,000	<65.0	956	<63.9	282	<65.4	<64.6
Fluorene	50,000	<47.4	59.9	<46.6	<46.5	<47.7	<47.1
Hexachlorobenzene	410	<50.5	<54.5	<49.7	<49.5	<50.8	<50.2
Hexachlorobutadiene	NS	<47.2	<50.9	<46.4	<46.2	<47.4	<46.9
Hexachlorocyclopentadiene	NS	<364	<393	<358	<357	<367	<362
Hexachloroethane	NS	<52.5	<56.6	<51.6	<51.4	<52.8	<52.2
Indeno(1,2,3-cd)pyrene	3,200	<54.5	132	<53.6	59.7	<54.8	<54.2
Isophorone	4,400	<53.9	<58.1	<53.0	<52.8	<54.2	<53.6
N-Nitrosodi-n-propylamine	NS	<35.6	<38.4	<35.0	<34.9	<35.8	<35.4
N-Nitrosodimethylamine	NS	<74.9	<80.8	<73.7	<73.4	<75.3	<74.4
N-Nitrosodephenylamine	NS	<64.3	<69.3	<63.2	<63.0	<64.7	<63.9
Naphthalene(sv)	13,000	<47.4	300	<46.6	<46.5	<47.7	<47.1
Nitrobenzene	200 or MDL	<45.6	<49.2	<44.9	<44.7	<45.9	<45.4
Pentachlorophenol	1,000 or MDL	<447	<482	<440	<438	<450	<444
Phenanthrene	50,000	<53.7	584	<52.8	112	<54.0	<53.3
Phenol	30 or MDL	<30.8	<33.2	<30.3	<30.2	<31.0	<30.6
Pyrene	50,000	53.6	667	52.2	245	<43.9	<43.4
Pyridine	NS	<67.6	<72.9	<66.5	<66.2	<68.0	<67.2

Notes:

[1] NYSDEC Recommended Soil Cleanup Objectives (RSCO), Technical and Administrative Guidance Memorandum (TAGM) #4046, 12/00
All units are µg/Kg.
Bold/Shading indicates exceedance of NYSDEC RSCO standards.
MDL - Method detection limit
U - Indicates compound was analyzed for but not detected

PWGC
Strategic Environmental Engineering Solutions

Appendix A
Workplan

P.W. GROSSER CONSULTING

March 12, 2008

Stephanie Hurd
Town of Smithtown
Department of Environment and Waterways
124 West Main Street
P.O. Box 9090
Smithtown, NY 11787

Re: Gyrodyne Property
Investigation of Former Industrial Areas Workplan

Dear Mrs. Hurd:

P.W. Grosser Consulting, Inc. (PWGC) was present during the SEQRA scoping meeting of November 28, 2007 regarding the Gyrodyne Change of Zone Petition and the Positive Declaration on the property. During this meeting, the need to investigate the industrial portions of the property was discussed. These concerns were noted in your December 19, 2007 letter as comment number 2, which requested sampling of the current and former industrial areas.

PWGC has reviewed site files and identified historic environmental reports which may address some of the Town's concerns for the former industrial area. Since PWGC was unsure if the Town was provided these documents, PWGC has prepared this summary of the relevant historical report findings as well as an intended sampling scope to address any outstanding issues. PWGC is requesting the Town's review and approval of this scope prior to commencing sampling activities.

BACKGROUND

The subject property consists of an approximate 62.4 acre parcel owned by Gyrodyne. The property historically included approximately 250 additional acres which were recently acquired by Stony Brook University (SUNY-SB).

Historically, from 1951 to 1972 the Gyrodyne property was used for the final assembly of helicopter drones for the United States Navy. Final assembly of the drones took place in the industrial buildings located in the southern portion of the property. Assembly of the component parts was conducted at an offsite location. Portions of the subject property, outside the subject 62.4 subject site, was utilized for flight testing of finished drones.

Currently the subject property is largely vacant with the exception of four industrial buildings located at the southern portion of the property. These buildings are currently occupied by various medical, commercial and light industrial tenants. These buildings are serviced by nine onsite sanitary systems. Based upon the current re-development plans, the former industrial area will largely be occupied by the sewage treatment plant.

Based upon PWGC's evaluation of the property, the area of concern for the subject property consists of the four commercial industrial buildings (Site Buildings 1, 2, 7, and 8) located in the southern portion of the property. No industrial uses were documented for the remainder of the

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subject 62.4 acres. A summary of the relevant environmental investigations of this area is as follows:

ENVIRONMENTAL HISTORY

PWGC reviewed available environmental documents for the Gyrodyne Property and prepared the following summary:

Phase I Environmental Site Assessment, December 2003 – This document was prepared on behalf of SUNY-SB and was an environmental assessment of the entire 314 acre Gyrodyne Parcel. The relevant findings of the Phase I with respect to the subject 62.4 acres were as follows:

- Based upon the former and current industrial uses at the time, a Phase II sampling investigation was recommended for the site.
- Onsite sanitary systems were identified at buildings 1,2,7, and 8. Sampling of these sanitary systems was recommended.
- Several mounds were identified in the former Fairgrounds area (within the 62.4 acres). There was no evidence that the mounds were related to former dumping, however, that potential could not be ruled out. Excavation of test pits within the mounds was recommended. *Investigation of the mounds on the fairgrounds was never discussed during any subsequent environmental reports. During PWGC's 2006 / 2007 inspections of the property, no evidence of such mounds were identified.*
- Underground Storage Tanks (USTs) were identified at the site. These included two-2,000 gallon tanks west of building 7 which contained #2 fuel oil and a documented gasoline UST at building 8. No evidence of the gasoline tanks was noted during the inspection. The Phase I recommended tightness testing of the fuel oil tanks and investigation of the gasoline tank area.
- Historic USTs were documented as having been present at the site. These included the following:
    - Two 2,000 gallon #2 fuel oil tanks located in the vicinity of building 2. These tanks were removed in 1996
    - Two 550 gallon #2 fuel oil USTs located in the vicinity of building 2. These tanks were removed in 1997 and replaced with aboveground storage tanks (ASTs).
    - A 2,000 gallon gasoline UST located outside building 2. This tank was removed in 1987.
    - Two 5,000 gallon #2 fuel oil USTs located in the vicinity of Building 7. These tanks were removed in 1987

  The Phase I recommended the collection of subsurface samples at each of the former tank areas.
- Numerous fuel oil ASTs were present at the subject property. Evidence of staining was present on asphalt in the vicinity of two of the tanks located at Building 2. Cleaning of the staining was recommended as well as subsurface sampling if evidence of subsurface impacts was present.

Phase II Environmental Assessment, May 2004 – This Phase II was prepared to address the findings of the previously prepared Phase I report. A summary of the relevant findings was as follows:

- A magnetometer survey was conducted in the vicinity of buildings 1,2,7 and 8. The magnetometer survey revealed two anomalies in the vicinity of building 2. One was located 100 feet south of the northwest corner of the building. According to building employees, this was the location of the two former gasoline tanks noted above in the

Phase I findings. The second anomaly was located on the west side of building 2. Soil borings and hand excavation of both anomalies did not reveal the presence of any tanks, however, the soils were indicative of being backfill material. Based upon these findings it was determined that the anomalies represent former tank areas, and additional magnetometer surveys were not required.

- Sampling of accessible sanitary system leaching structures as well as select stormdrain structures was conducted at buildings 1,2,7, and 8. The data was compared to the Suffolk County Department of Health (SCDHS) action levels contained within SOP 9-95. These action levels are used to determine which structures would require remediation. Based upon the SCDHS action levels, stormdrains 8ASD and 2CSD would require remediation due to elevated levels of SVOCs. In addition, sanitary leaching pool 1A would require remediation due to elevated levels of cadmium.
- In order to address former tank areas, soil borings were conducted in the vicinity of buildings 2, 7, and 8. Soil samples at each of these locations were analyzed for VOCs and SVOCs since petroleum products were the primary contaminates of concern. The findings by building were as follows:
    - *Building 2* – Nine borings were conducted in the vicinity of this building. From these borings, six samples were submitted for analysis. At least three of the samples were collected in the former tank areas identified above. The remaining borings were conducted at the suspected former fuel oil tank areas. Analytical results from the six samples revealed low levels of impact, with only one compound detected above their respective RSCOs. The detected compound, Benzo(a)pyene was detected at 83ug/kg which slightly exceeded its RSCO of 61ug/kg The levels of impact detected are not indicative a significant release which would require further assessment or remediation.
    - *Building 7* – Four borings were collected in this area. Each of the borings were conducted in the vicinity of the active fuel oil tanks located in this area. Analytical results from the four samples revealed low levels of VOC and SVOC impacts from the borings. The detected compounds were at levels well below their respective RSCOs. Based upon these finding, there was no indication that the tanks had leaked.
    - *Building 8* – Four borings were conducted in the western side of the building, in suspected former tank locations. Analytical results for each of the four borings were non-detect, so no additional investigation of building 8 was recommended.

- Groundwater at the Gyrodyne site is estimated to be approximately 100’ to 120’ below grade. Due to the significant groundwater depth, it was determined that installation of new monitoring wells would not be warranted unless there was an obvious source of impact which would reach the subsurface. Existing groundwater supply wells were sampled at the site. This sampling included a well on the catering hall portion of the property which supplies the pond during periods of low rainfall. This well is located in a downgradient direction, based upon regional groundwater data, to Buildings 1, 2, 7, and 8. The well was sampled for VOCs, pesticides, PCBs and metals. Analytical results from the wells revealed that each of the VOC, pesticide, and PCB compounds were non detect. Analytical results for metals only detected concentrations of copper and zinc at background levels. Based upon this data, there was no indication that the former and current uses of the buildings 1, 2, 7, and 8 impacted the groundwater beneath the site at that time.

At the conclusion of this Phase II, signs of impact were noted with regards to the onsite sanitary systems and the stormdrains located in the vicinity of Buildings 1, 2, and 8. As a result, remediation of structures 1A, 8ASD and 2CSD would be warranted. The Phase II also identified

low levels of petroleum impact in the former tank areas. The detected concentrations were sufficiently low that PWGC believes that further assessment would not be required.

UIC Closure Letter From the SCDHS, June 2005 – No historic documents with regards remedial activities related to the impact stormdrains and sanitary leaching pools were available for PWGC to review. However, PWGC was provided a copy of a letter from the SCDHS, which indicated that the remediation of stormdrains 8ASD and 2CSD, as well as leaching pool 1A and its respective septic tank, were effective, and that further remediation was not required.

PWGC has included condensed copies of the relevant sections of the above reports as Appendix A.

SCOPE OF WORK

PWGC believes that the 2004 documents adequately addressed the known and suspected environmental concerns, as it related to the sites industrial activity. The sites current tenants are largely medical and commercial in nature (see attached tenant listing, Appendix B) and would be unlikely to cause an environmental concern to the site, however the potential for impacts from 2004 to present can not be ruled out.

In order to assess the site for these potential impacts, PWGC proposes to sample the primary leaching structure of the nine onsite sanitary systems (see figure 1) which are connected to the industrial building 1, 2, 7, and 8 and to recollect surface soil samples from six locations located in the vicinity of the industrial area. These surface soil samples will be analyzed for VOCs. A summary of the proposed scope of work is as follows:

Sampling of the Onsite Sanitary Systems

PWGC plans to sample the primary structure in each of the nine onsite sanitary systems associated with Buildings 1, 2, 7, and 8.. At each sample location, PWGC anticipates collecting a sediment sample from the base of each of the structures utilizing a stainless steel hand auger. Non-disposable equipment will be properly decontaminated in between structures. Samples will be submitted to a New York State Department of Health certified laboratory to be analyzed for Volatile organic compounds (VOCs), Semi VOCs (SVOCs), and Metals as per the Suffolk County Department of Health SOP 9-95. Analytical results from the samples will be compared to the action levels contained within SOP 9-95 to confirm the historic sampling results and todetermine if remediation of the structures will be required.

Surface Soil Sampling

In order to determine if the current and former industrial uses of the property have impacted the surrounding surface soils, PWGC plans to recollect surface soil samples from six of the locations which were previously sampled for metals and pesticides. The six sampling locations will be those locations which were located in the vicinity of the current / former industrial area. These include SB-6, SB-7, SB-8, SB-22 SB-27, and SB-28 as shown on Figure 2. At each of these locations, a shallow soil sample (0-6" below grade) will be collect and analyzed for VOCs and SVOCs only since metals and pesticides were already analyzed for these samples. Analytical results of this sampling will be compared to the New York State Department of Environmental Conservation (NYSDEC) recommended Soil Cleanup Objectives (RSCOs) contained with TAGM Memo #4046.

Reporting

Upon receipt of the analytical results, PWGC will prepare an investigation report which will summarize the previously conducted sampling, a summary of the work performed, and the

findings and conclusions of this investigation. This report will include tables, figures, and photos as required.

Upon reviewing this document, please contact me with regards to any comments you may have to this workplan. PWGC would prefer to have the Towns comments and approval of the workplan prior to commencing field sampling. Due to the time constraints of this project, if PWGC does not receive comments or approval within 30 days of the submittal the workplan, PWGC will take that as an approval and schedule the sampling event.

Sincerely yours,
P.W. Grosser Consulting, Inc

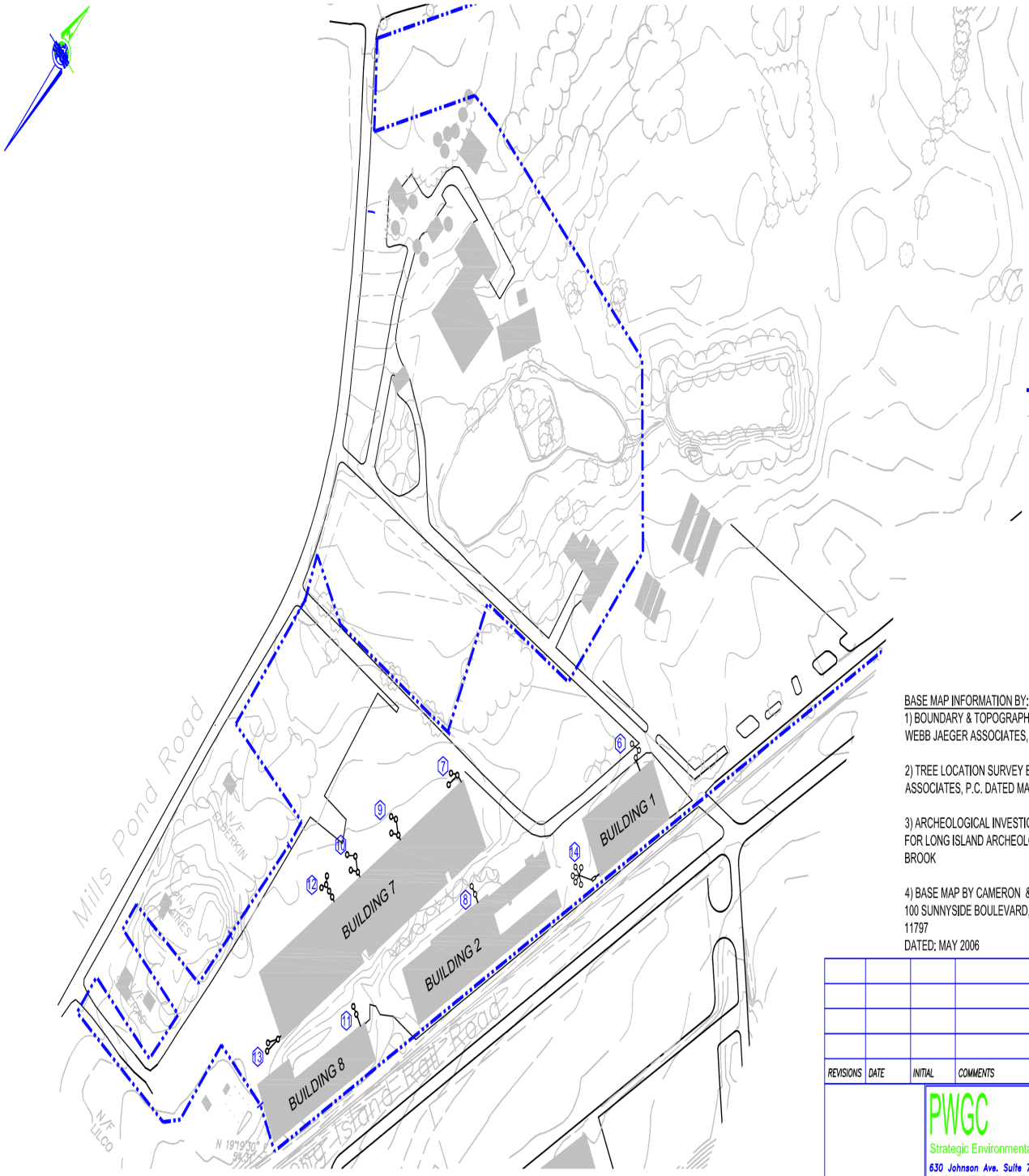
Bryan A Devaux
Project Manager

James P. Rhodes, CPG
Vice President

PWGC
Strategic Environmental Engineering Solutions

FIGURES

FIGURE 1
SANITARY SYSTEM DETAIL



BASE MAP INFORMATION BY:

1) BOUNDARY & TOPOGRAPHIC SURVEY BY HAWKINS WEBB JAEGER ASSOCIATES, P.C., C. 2002

2) TREE LOCATION SURVEY BY HAWKINS WEBB JAEGER ASSOCIATES, P.C. DATED MARCH 2003

3) ARCHEOLOGICAL INVESTIGATION BY THE INSTITUTE FOR LONG ISLAND ARCHEOLOGY AT SUNY STONY BROOK

4) BASE MAP BY CAMERON & ASSOCIATES, LLP
100 SUNNYSIDE BOULEVARD, SUITE 100 WOODBURY, NY 11797
DATED: MAY 2006

1 FLOWERFIELD #24
ST.JAMES, NY

0 200 400
SCALE: 1" = 200'

REVISIONS	DATE	INITIAL	COMMENTS

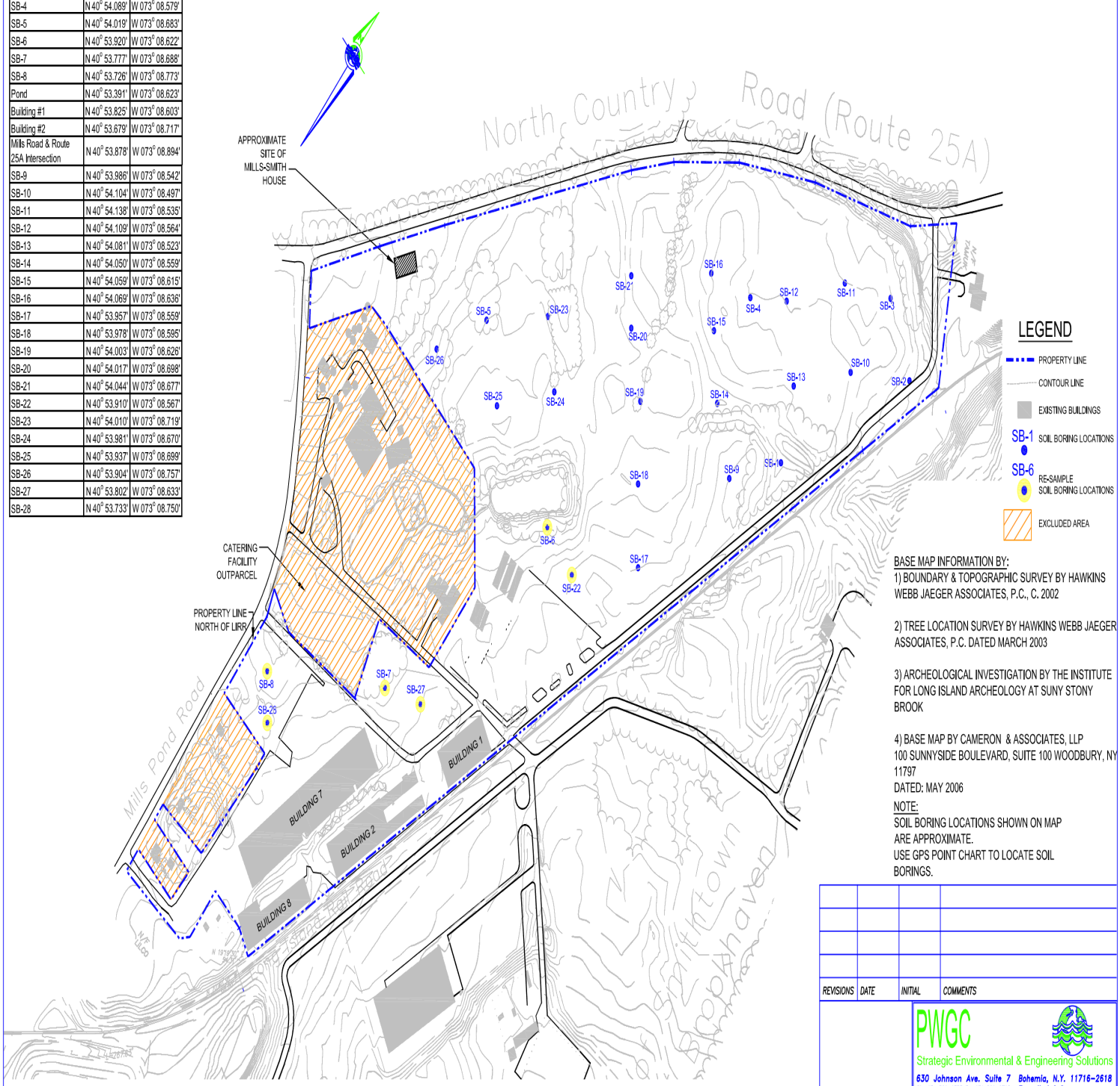
PWGC
Strategic Environmental & Engineering Solutions
630 Johnson Ave. Suite 7 Bohemia, N.Y. 11716-2618
Ph: 631 589-6353 Fx: 631 589-8705 E-mail: info@pwgrosser.com

Project: GCA0801	Designed By: BAD	Figure No: 1
CADD Operator: LLG	Approved By: PWG	Date: 3/11/08

J:\PROJECTS E-L\GCA\GA01 Industrial area sampling\cad\Fig 1.dwg

FIGURE 2
GYRODYNE COMPANY OF AMERICA SOIL BORING LOCATIONS

Soil Boring Location	Latitude	Longitude
SB-1	N 40° 54.053'	W 073° 08.498'
SB-2	N 40° 54.127'	W 073° 08.452'
SB-3	N 40° 54.155'	W 073° 08.512'
SB-4	N 40° 54.089'	W 073° 08.579'
SB-5	N 40° 54.019'	W 073° 08.683'
SB-6	N 40° 53.920'	W 073° 08.622'
SB-7	N 40° 53.777'	W 073° 08.688'
SB-8	N 40° 53.726'	W 073° 08.773'
Pond	N 40° 53.391'	W 073° 08.623'
Building #1	N 40° 53.825'	W 073° 08.603'
Building #2	N 40° 53.679'	W 073° 08.717'
Mills Road & Route 25A Intersection	N 40° 53.878'	W 073° 08.894'
SB-9	N 40° 53.986'	W 073° 08.542'
SB-10	N 40° 54.104'	W 073° 08.497'
SB-11	N 40° 54.138'	W 073° 08.535'
SB-12	N 40° 54.109'	W 073° 08.564'
SB-13	N 40° 54.081'	W 073° 08.523'
SB-14	N 40° 54.050'	W 073° 08.559'
SB-15	N 40° 54.059'	W 073° 08.615'
SB-16	N 40° 54.069'	W 073° 08.636'
SB-17	N 40° 53.957'	W 073° 08.559'
SB-18	N 40° 53.978'	W 073° 08.595'
SB-19	N 40° 54.003'	W 073° 08.626'
SB-20	N 40° 54.017'	W 073° 08.698'
SB-21	N 40° 54.044'	W 073° 08.677'
SB-22	N 40° 53.910'	W 073° 08.567'
SB-23	N 40° 54.010'	W 073° 08.719'
SB-24	N 40° 53.981'	W 073° 08.670'
SB-25	N 40° 53.937'	W 073° 08.699'
SB-26	N 40° 53.904'	W 073° 08.757'
SB-27	N 40° 53.802'	W 073° 08.633'
SB-28	N 40° 53.733'	W 073° 08.750'



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100 SUNNYSIDE BOULEVARD, SUITE 100 WOODBURY, NY 11797
DATED: MAY 2006

NOTE:
SOIL BORING LOCATIONS SHOWN ON MAP ARE APPROXIMATE.
USE GPS POINT CHART TO LOCATE SOIL BORINGS.

1 FLOWERFIELD #24
ST.JAMES, NY

0 300 600
SCALE: 1" = 300'

REVISIONS	DATE	INITIAL	COMMENTS

PWGC
Strategic Environmental & Engineering Solutions
630 Johnson Ave. Suite 7 Bohemia, N.Y. 11716-2618
Ph: 631 589-6353 Fx: 631 589-8705 E-mail: info@pwgrosser.com

Project: GCA0801	Designed By: BAD	Figure No: 2
CADD Operator: LLG	Approved By: PWG	Date: 3/11/08

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APPENDIX A
Historic Documents

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Phase I

TABLE 1 – EXECUTIVE SUMMARY TABLE

ASSESSMENT COMPONENT	FINDINGS/COMMENTS	RECOMMENDATION(S)
Regulatory Database	No RECs	--
Historical Information	Subject property formerly used for industrial purposes.	See REC No. 1
	Former USTs removed from subject property; no available closure documentation	See REC No. 6
	Eight (8) former New York State DEC SPILLS cases on file for subject property. Two (2) cases involved significant amounts spilled.	See REC No. 15 and Historical REC No. 1
	Former ASTs removed from subject property.	See REC No. 8
	Two (2) RCRA cases for subject property	See REC No. 16
Subject Property Reconnaissance		
- Subject Property	Staining observed in several interior areas.	See REC No. 10 and 11
	Drums observed at interior and exterior of subject property buildings without secondary containment.	See RECs No. 9 and 12
	Former irrigation well observed near area of former runway.	See REC No. 3
	Stained asphalt observed near Buildings 2 and 25, and Boneyard	See REC No. 10
	Former and current recharge basins observed.	See REC No. 3
	Mounds, depressions and indiscriminant solid waste dumping observed.	See REC No. 4
	Several industrial-based onsite septic systems observed.	See REC No. 2
	Potential PCB equipment observed on subject property.	See REC No. 14
	LIPA substation observed onsite.	
	LIRR tracks observed that might have potentially been treated with PCB-containing defoliants.	See REC No. 13
	Discarded fluid containers observed in fairgrounds.	See Environmental Concern No. 1
	Many small hazardous materials and waste containers observed in several tenant spaces throughout subject property buildings.	
- USTs	One (1) UST observed with no secondary containment.	See REC No. 5
	Two (2) upgraded UST systems observed.	
	Records of USTs observed; USTs were unaccounted for during site reconnaissance.	
- ASTs	Forty-two (42) ASTs observed at subject property.	See REC No. 7
	Three (3) improperly abandoned ASTs observed near former runway.	See REC No. 8
- Adjacent Properties	No. RECs	--
- Surrounding Area	No RECs	--
Interview	No RECs	--
Non-ASTM Scope Items		
ACBM	Suspect ACBM observed; some ACBM in poor condition with damage.	See non-ASTM Concern No. 1

REC = Signifies a Recognized Environmental Condition as defined by ASTM

1.0 EXECUTIVE SUMMARY

KTR Newmark Consultants LLC ("KTR") performed a Phase I Environmental Site Assessment (ESA) of the Gyrodyne Property-Flowerfield Industrial Park, approximately 314 acres of land bounded by Route 25A to the north and west, Mills Pond Road to the west, and Stony Brook Road to the north, east, and south in the townships of Smithtown and Brookhaven in Suffolk County, New York on November 18, 19, and 25, 2003, herein referred to as the "subject property." The subject property consists of seven (7) former industrial buildings converted for use as commercial office space or for light industrial operations, parking areas, three (3) bus depots, a former residence converted to office space used by Gyrodyne, and fairgrounds. In addition, a Long Island Railroad (LIRR) passenger train line easement bisects the subject property. The subject property was formerly used as a helicopter parts manufacturing and research facility owned by the Gyrodyne Corporation, which included a runway that is no longer in use. A large portion of the subject property was never developed.

The scope of service included a visual reconnaissance of the subject property, interviews with relevant personnel, limited observations of surrounding properties, and a records review including regulatory databases and historical use information. In addition, a limited screening for asbestos containing building material (ACBM) was conducted. Any exception to, or deletions from, this practice are described in Sections 2.0-2.4 of this report.

The assessment has revealed the following RECs in connection with the property with respect to ASTM Standard E 1527-00. The term "recognized environmental condition" (REC) as defined by ASTM means "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or onto the ground, ground water, or surface water of the property." See Section 2.1 for additional details.

Historical Records Review

1. Historical Findings

The results of our investigation, including review of historical aerial photographs, revealed the subject property has been used for industrial purposes since at least 1951. These past uses include the entire facility being occupied by the Gyrodyne Corporation of America, Inc. (Gyrodyne) from 1951 until 1972, and the presence of various light industrial tenants, including three (3) bus depots, from 1972 to the present. **As hazardous material and waste management practices that have occurred on-site over the past 50 years are uncertain, there exists a high possibility that these uses have had an impact on the environmental integrity of the property. As such, KTR recommends a Phase II Environmental Site Assessment be conducted.** The Phase II should include shallow soil and groundwater sampling, field screening and analysis. Since the nature of this transaction will require a property title transfer, some of the Phase II activities proposed herein will have to be conducted under the oversight of the Suffolk County Department of Health Services (SCDHS).

Site Reconnaissance

Exterior Findings

1. On-site Regulated Subsurface Sewage Disposal Systems

Several onsite septic systems have been connected to the on-site industrial buildings since their development in 1950-51. Most notably, the cesspools connected to Buildings 1, 2, 7, 8, 17, 18, and 25 have all historically been associated with industrial discharges. The only septic system that appears to have been upgraded is that of the Kiddie Academy in Building 7 in 1995 with a new septic tank and additional cesspool. Information regarding the nature of waste discharged into cesspools during Gyrodyne's operations was not readily available, nor was evidence pointing to such historical discharges obvious during the reconnaissance. **Since the SCDSHS strictly regulates subsurface sewage disposal systems associated with industrial properties, KTR recommends conducting assessments at each subsurface sewage disposal system in accordance with SCDHS regulations.**

2. Stormwater Recharge Basins

A recharge basin exists adjacent to Building 19. KTR's investigation revealed an interior sump that formerly collected fluids that were discharged to the adjacent recharge basin. The discharge system, which has since been decommissioned, previously pumped stormwater from the Building 19 sump at a maximum rate of 400 gallons per minute to the recharge basin. The basin is currently overgrown, and remnants of cementitious piping were observed in the area of the former basin, as well as steel vent pipes reportedly used for odor control. **Because the type of discharge from this former is unknown, KTR recommends collecting soil samples from the former recharge basin to determine if the historical discharges have impacted the subject property. If soil contamination is identified, follow-up groundwater investigation is recommended.**

A second stormwater recharge basin is located on the western side of the subject property across from the LIPA substation near Building 7. This basin accepts runoff from adjacent parking lots, as well as roadside runoff. Underground trenches and pipe networks gravity drain stormwater runoff into the recharge basin where the naturally sandy soil offers expedited disposal via percolation. Four (4) groundwater monitoring wells installed by the New York State Department of Environmental Conservation (DEC) serve to monitor the local groundwater near the basin. Gyrodyne reportedly does not know when the last sampling round was conducted by the New York State DEC. **KTR recommends petitioning the DEC for the most recent sampling results as well as collecting groundwater samples from the existing wells to determine the current quality of the local groundwater near the recharge basin.**

3. Former Irrigation Well

A former pump house with the small oil tank located on the west side of the runway in Zone E was attached to a large 10-inch diameter well based on review of specifications for the well. However, the actual location of the well could not be determined. The irrigation well was installed on the property in 1937 for Flowerfield, Inc., the original occupant of the subject property. The irrigation well provided water to the fields of flowers/bulbs that were grown on-site for sale. A potential for improper disposal of liquid wastes via the well by former tenants exists. **KTR recommends locating the well and sampling it if possible. If the conduit is clogged making sampling impossible, a monitoring well should be installed down gradient of the former well to facilitate sampling of the groundwater.**

The well should also be closed in accordance with NYSDEC guidelines. If the former well cannot be found, installation of monitoring wells down gradient of the approximate location of the former would be recommended.

4. On-site Mounds, Depressions, or Other On-site Dumping

Several mounds were identified amid relatively flat grassland located in the Fairgrounds and areas along the former runway. No evidence was obvious as to previous potential dumping or burial activities; however, burial of waste may have occurred since environmental laws had not yet been enforced when Gyrodyne began its operations in the 1950's. It should be noted, however, that excessive growth along the former runway made identification of the exact areas of potential dumping difficult to discern. **KTR recommends identifying the areas of raised ground in the Fairgrounds and along the former runway, and advancing several deep test pits in all mounds to ascertain the contents of the mounded soils. If any improper dumping is identified, collection of subsurface soil samples is recommended.**

Indiscriminant dumping of solid waste was observed in a fenced-in area adjacent to Building 18. Several large dumpsters containing what appeared to be municipal solid waste, as well as improperly abandoned vehicles, crushed drums and containers, vehicle batteries, and other miscellaneous debris were observed throughout this asphalt-paved area. This area was also reportedly used as a "docking station" for drone helicopters undergoing refueling, retooling, or repair during Gyrodyne's operations at the subject property. **KTR recommends removal and proper disposal of the debris, as well as the collection of subsurface samples to determine if impact from the potentially hazardous materials dumped in the area has occurred.**

KTR observed an area of the site being purposely used as a dump for "vegetative wastes" only on the north side of the former runway. Based on KTR's observations in this area, it is clear that dumping has been occurring at this location for several years. **Because the historical dumping practices at this location are not known, KTR recommends a deep test pit investigation in the dump to insure only vegetation was being dumped. If any indication of regulated wastes were also dumped at this location, soil sampling will be required.**

5. On-site Petroleum Bulk Storage – Current Underground Storage Tanks (USTs)

One (1) 10,000-gallon single-walled steel UST used to store No. 2 fuel oil is located at the eastern side of Building 17 beneath a grassy hill. The fill pipe was observed on the grassy incline, and two (2) new 1.5-inch recessed aboveground pipes supply No. 2 fuel oil to the oil burner located within Building 17. The tank was reportedly installed in 1965, and was reportedly inspected in 2001 with satisfactory results. However, based on the date of installation, the UST has surpassed its average life expectancy of thirty (30) years. **KTR recommends updated tightness testing for the UST and an investigation into the facility's compliance with county requirements are made. If the UST is found to be non-compliant with Suffolk County petroleum bulk storage requirements, KTR recommends that the UST be retrofitted to meet those requirements. Based on the UST's apparent age, the UST has surpassed its expected useful life, and as an alternative to retrofitting, complete replacement may be required. If the UST fails the tightness test, a Phase II subsurface investigation is recommended in the area of the UST.**

Two (2) 2,000-gallon fiberglass-coated steel USTs used to store No. 2 fuel oil are located on the western side of Building 7 in the parking lot. The fill and vent pipes for the USTs were observed in

fenced-in islands in the parking lot. The USTs serve the northern and southern portions of Building 7, and provide fuel to the two (2) oil burners located within the building. The USTs were reportedly installed in 1988, and were last inspected in 1996. **Based on the installation date of the USTs, tightness tests are recommended at this time because the New York State DEC recommends tightness testing of fiberglass USTs after 15 years of use. If the USTs fail the tightness tests, a Phase II subsurface investigation is recommended in the area of the USTs.**

KTR reviewed additional information regarding USTs at the subject property at the Smithtown Building Department. Two (2) particular permits indicated the presence of USTs not identified during the reconnaissance.

- Permit number 57205 issued on March 8, 1977 indicates the installation of a 10,000-gallon gasoline UST located, "under the tether tower west side."
- Permit number 55259 issued on October 21, 1975 indicates the installation of a gasoline UST at Building 8.

No evidence of either UST was observed during the inspection, and no records regarding buried tanks or bulk chemical storage were available at the SCDHS. **KTR recommends confirming the status, location, condition, and compliance of both gasoline USTs. If the information cannot be obtained through interviews and file review, an extensive ground penetrating radar (GPR) survey is recommended around the perimeters of Building 8 and the "tether tower" following identification of the location of that reported tower. A Phase II subsurface investigation is also recommended in both areas to determine if the reported USTs have impacted the subsurface.**

6. On-site Petroleum Bulk Storage Facilities – Former Underground Storage Tanks (USTs)

All of the following USTs were decommissioned and removed from the subject property in connection with either upgrading existing USTs or the cessation or changeover of operations at a particular building on the subject property.

- Two (2) 2,000-gallon single-walled steel USTs used to store No. 2 fuel oil were located outside Building 2. These USTs were removed on November 7, 1996 as part of a UST system replacement.
- Two (2) 550-gallon single-walled steel UST used to store No. 2 fuel oil were located outside Building 2. These USTs were removed on January 7, 1997 and were replaced with "lube cube" aboveground storage tanks (ASTs).
- A 2,000-gallon single-walled steel UST used to store gasoline was located outside Building 2. This UST was removed on January 1, 1987.
- Two (2) 5,000-gallon single-walled steel USTs used to store No. 2 fuel oil were located in the parking lot of Building 7. These USTs were removed on December 9, 1987 as part of a UST system upgrade.
- A 5,000-gallon single-walled steel UST used to store diesel fuel was located in the parking lot of Building 17. This UST was most likely removed during the cessation of Gyrodyne operations at this building.

Documentation regarding these former USTs such as post-excavation sampling reports was reportedly unavailable, and the former USTs were not listed on any New York State DEC databases. **KTR recommends locating the areas of all of the former buried tanks and conducting subsurface sampling in those areas. The results of those investigations are required be filed with the SCDHS.**

7. On-site Petroleum Bulk Storage – Current Aboveground Storage Tanks (ASTs)

KTR observed a total of forty-two (42) registered ASTs located inside and outside several buildings throughout the subject property. Many of the ASTs had been installed between 1996 and 1999, and most were provided with secondary containment. See Section 6.7.2 for a complete listing of ASTs at the subject property. Staining or leaks associated with these tanks are discussed in REC Number 10 and 11 below.

KTR recommends providing all ASTs with some form of secondary containment to prevent potential spills. In the absence of secondary containment, KTR recommends reinspection of these areas prior to taking title to the subject property to determine whether releases have occurred subsequent to the subject property reconnaissance.

8. On-site Petroleum Bulk Storage –Former Aboveground Storage Tanks (ASTs)

Two (2) improperly abandoned 275-gallon single-walled steel ASTs were observed in two (2) areas to the west of the former runway. One (1) was observed in the remaining foundation of a former building that may have been used to house irrigation equipment, and one (1) was observed near a large, rusted 1,500-gallon saddled AST that, according to Gyrodyne personnel, formerly stored water. The AST located near the saddled tank appeared to be severely rusted through the bottom. No stained soil was observed; however, a distinct petroleum-like odor was detected near the AST in the former irrigation building.

KTR recommends determination of the current contents, if any, of the 1,500-gallon saddled AST located near the former runway and disposal of both improperly abandoned ASTs. Subsurface sampling in the area of each abandoned AST located near the former runway is also recommended.

The following two (2) ASTs were reportedly removed from the subject property in connection either with system upgrades or cessation or changeover of operations at the subject property.

- A 275-gallon single-walled steel AST used to store waste oil was formerly located in the Boneyard. The AST was reportedly removed on October 31, 1989, possibly in connection with an AST system replacement.
- A 550-gallon single-walled steel AST used to store No. 2 fuel oil was formerly located in Building 25. The AST was reportedly removed on October 14, 1988 and replaced with the current AST.

Staining was observed at the Boneyard and in Building 25 and is discussed further in REC Numbers 10 and 11 respectively.

9. Drum Storage

The following drums were observed at exterior portions of the subject property:

- Two (2) 55-gallon plastic unlabeled drums possibly used to store either cleaning supplies or pesticides located in the center tent building in the Boneyard
- One (1) 55-gallon steel drum possibly used to store pesticides located in a tented building in the Boneyard
- Two (2) 55-gallon steel unlabeled drums possibly containing asphalt tar located adjacent to the tents in the Boneyard

- One (1) crushed 55-gallon steel drum, former contents unknown, located in the dumping ground (former heliport) of Building 18

The drums are all located over asphalt paving. None of the drums are provided with secondary containment; however, no staining or leakage was observed near any of the drum storage areas. **KTR recommends collecting subsurface and surface soil samples from the area near the crushed drum near Building 18 and the pesticide drums in the Boneyard to determine if the subsurface has been impacted. Installation of secondary containment would serve as preventative maintenance; however, due to the nature of this Phase I ESA, secondary containment is not feasible. Therefore, these areas should be reinspected prior to the taking of the subject property.**

10. Stains and/or Corrosions

Three (3) areas of stained soil and asphalt were observed at the subject property as follows:

- An area of stained asphalt was observed near the diesel fueling pumps adjacent to Building 25. Absorbent material had been used to remove the bulk of the spilled fuel, which was most likely caused by poor housekeeping or maintenance of the diesel pumps, as well as vehicles leaking oil or other fluids. The asphalt and concrete appeared to be cracked during the reconnaissance.
- A second area of stained soil was observed beneath one of the former Flowerfield tents in the "Boneyard" Bus Depot. It appeared that oil had leaked from an asphalt-paving vehicle within one of the tents, and oil appeared to have stained an extensive area of partially paved ground beneath the vehicle.
- A third area of stained asphalt surface was observed around two (2) 275-gallon "lube cube" ASTs located outside Building 2 near the 2600 Enterprise tenant space (Suite 30) and the CDM Dynamics tenant space (Suite 66).

KTR recommends cleanup of the staining. Collection of subsurface samples from these stained areas is recommended if during clean-up, spilled fluids are observed to have penetrated the subsurface.

Interior Findings

11. Stains and/or Corrosions

The following areas of interior staining and/or corrosion were identified as a result of the subject property reconnaissance:

- Leaking oil near a tub-enclosed 550-gallon AST in the School of Visual Arts tenant space in Building 8;
- Staining of the concrete floor and trench in Building 25;
- Staining on the floor of Building 2, Suite 54 (vacant) near a tub-enclosed aboveground storage tank (AST) used to store heating oil;
- Staining on the concrete floor near three (3) boiler pumps and the oil-fired boiler in Building 17; and
- Minor staining on the floor of the Medbill tenant space in Building 8;
- Staining on the floor of the Building 7 boiler room beneath some spare boiler parts;

Cleanup of the leak observed at the School of Visual Arts followed by repair of the AST is recommended. If fractures are observed at the base of the AST, KTR recommends conducting a Phase II subsurface investigation to determine if underlying soil and groundwater has been impacted.

The oil staining in Building 25 (Town Bus repair shop) appeared to be concentrated around an oil-changing trench. The condition of the concrete could not be observed at the time of the reconnaissance; however, it is presumed to be reinforced. **KTR recommends cleaning of the oil changing trench and a follow-up visual inspection of the concrete surface. If fractures are observed at the base of the trench, KTR recommends conducting a Phase II subsurface investigation to determine if underlying soil and groundwater has been impacted.**

The other interior stains are minor concerns and appear to be over reinforced concrete that was observed to be in good condition. None of the concrete surfaces observed appeared to be compromised or fractured.

12. Drum Storage

The following drums were observed in the interior portions of the subject property buildings during the reconnaissance:

- One (1) 55-gallon steel drum used to store motor oil in the Gyrodyne Mechanic Shop in Building 2
- One (1) 55-gallon steel drum used to store waste oil in the Gyrodyne Mechanic Shop in Building 2
- Two (2) empty 55-gallon rusted drums (previous contents unknown) located at the exterior of Custom Autocraft in Building 2
- Thirty (30) 55-gallon steel and plastic drums used to store alumina silica and primer binder located in the Solarsun tenant space in Building 8
- Three (3) empty 55-gallon steel drums (unlabeled; previous contents unknown) located in the Solarsun tenant space in Building 8
- Seven (7) unlabeled 55-gallon steel drums (contents unknown) located on wood platforms in the Solarsun tenant space in Building 8
- One (1) 55-gallon steel drum used to store waste antifreeze in Building 25
- Two (2) 55-gallon steel drums used to store antifreeze in Building 25
- One (1) 55-gallon unlabeled steel drum reportedly used to store waste oil in Building 25

None of the drums observed are provided with any form of secondary containment. Staining and/or leaks were not observed in connection with any of the drums in their respective storage areas. **Although no staining was observed around any of the drums, the SCDHS regulates hazardous materials storage. As such, KTR recommends the SCDHS be notified of the stored materials, and that they be managed in accordance with SCDHS requirements. At minimum, KTR recommends that the drums be stored in designated, well-lit locations away from potential receptors (catch basins, drains, etc) atop spill containment receptors compatible with the stored chemicals. Additionally, the storage areas should be clearly labeled, and material safety data sheets (MSDS) should be readily accessible to those actively involved with the stored chemicals. Long-term storage areas should be equipped with emergency spill kits as a precaution. In the absence of secondary containment, KTR recommends reinspection of these areas prior to taking title to the subject property to determine whether release(s) have occurred subsequent to the subject property reconnaissance. KTR also recommends proper disposal of empty drums, as well**

as identifying the contents of unlabeled drums and providing them with U.S. Department of Transportation (DOT) hazardous materials placards, if applicable.

Potential Polychlorinated Biphenyls (PCBs)

13. Long Island Railroad (LIRR) passenger train line easement

Long Island Railroad (LIRR) railroad tracks bisect the subject property. As PCB containing herbicides were historically used to maintain vegetation in the area of railroad tracks, a potential for subsurface PCB contamination at the subject property exists. **KTR therefore recommends subsurface sampling and analysis of soil located along the railroad tracks in constant intervals. If soil contamination were identified, groundwater sampling would then be recommended.**

14. On-site Utility Owned Transformers

The following transformers owned by the Long Island Power Authority (LIPA) were identified during the reconnaissance:

- Four (4) pad-mounted transformers located on the west side of Building 7 with blue "Non-PCB" labels
- A pad-mounted transformer located near Building 2 (ID Number 245276)
- A pad-mounted transformer located near Building 1 (ID Number 60015)
- A pole-mounted transformer near Building 17 (ID Number 21B)
- Two (2) pad-mounted transformers on the northwest corner of Building 17 (ID Numbers 229161; dated January 22, 1986)
- One (1) pad-mounted transformer located outside Building 18 (ID Number 304499)

No spills or leaks were observed at any of the transformers observed. According to Gyrodyne personnel, annual electromagnetic radiation (EMR) tests are performed near the transformers. .

A large LIPA power station was observed near the western perimeter of the subject property adjacent to Building 7. Several large transformers and other electrical equipment were observed within a fenced-in area. No discernable staining could be observed through the fence line during the reconnaissance.

KTR has contacted LIPA regarding the potential PCB content of the unlabeled transformers observed. A response is pending. KTR will provide any pertinent information once it becomes available.

Regulatory Records Review

15. Regulatory Issue

Eight (8) New York State DEC Spills Information System (SPILLS) cases were reported for the subject property and each case has been closed. Two (2) of these spill cases involved significant releases of petroleum.

Spill Number 9010704 involved a spill that was reported on January 7, 1991, and involved the release of a reported 15,000 gallons of fuel oil into the sewer system. Despite the large quantity of fuel released, the case was closed two (2) days later on January 9, 1991 following reported remediation.

According to New York State DEC files, the spill occurred, based on the address provided by the New York State DEC for the spill, at 1182 Mills Pond Road in Saint James. Gyrodyne was named the "potential spiller." Files indicate a tractor-trailer was filling a UST when No. 2 fuel oil started to overflow through the tank vent, and then from the truck. The UST was being topped off in order to conduct a PetroTite™ test. The oil spilled reportedly entered the sewer system, and may have impacted an on-site septic system or recharge basin. **KTR has contacted Mr. Nick Acampora, lead investigator of this case for the New York State DEC, in order to obtain additional information regarding this SPILLS case. A response is pending.**

The other SPILLS cases for the subject property are discussed in the historical recognized environmental condition (HREC) section below.

16. The New York State DEC Region 1 office also provided information regarding New York State Resource Conservation and Recovery Act (NY RCRA) facilities at the subject property. Two (2) inspection reports are available for the following two (2) subject property tenants: Staiger Instrument Company (Facility ID NYD986875250) and WE Transportation (Facility ID NYN008011785). **KTR has requested copies of these reports from the New York State DEC and the U.S. Environmental Protection Agency (EPA), respectively. A response is pending.**

In addition to the above detailed RECs, KTR has also identified the following environmental concern in connection with the property:

1. Small Hazardous Material Storage Containers

The following hazardous substance and/or petroleum containers were observed at exterior portions of the subject property:

- Approximately ten (10) discarded containers of window cleaning fluid located along a tree line in the fairgrounds
- Several containers of liquid propane located in the Boneyard
- A 50-gallon asphalt mixer filled with blacktop tar located in the Boneyard

According to Gyrodyne personnel, a cleaning crew for the nearby catering hall may have discarded the containers by. The containers formerly contained commercial-strength window cleaning fluid, and do not appear to pose a threat to the subsurface. Additionally, neither the contents of asphalt mixer nor the liquid propane containers pose a likely threat of impact to the subsurface. **KTR recommends removal of the discarded window cleaning fluid containers as soon as possible. No further action is recommended regarding the other small hazardous waste containers observed.**

Additional small hazardous waste and materials containers stored at the subject property are listed in section 6.4.7. The containers appeared to be stored in orderly fashion with no obvious evidence of staining, leaks or corrosion of storage surfaces. Therefore, the potential for impact to the subject property subsurface from these materials appears to be relatively low. **KTR does not recommend any further action at this time.**

The assessment has revealed the following historical REC in connection with the property with respect to ASTM Standard E 1527-00. A historical recognized environmental condition as defined by ASTM includes "environmental conditions which in the past would have been considered an REC, but which may or may not be considered an REC currently" based on remediation of the REC.

Regulatory Records Review

1. Regulatory Issues

Eight (8) New York State DEC Spills Information System (SPILLS) cases were reported for the subject property and each case has been closed. Two (2) of these spill cases involved significant releases of petroleum products. One (1) is discussed in the following paragraph and the other is detailed above as REC Number 15 above.

Spill Number 9516493 involved a spill that was reported on March 21, 1996, and involved the release of two hundred (200) gallons of diesel fuel into a pond. The case was closed on March 11, 1998. According to New York State DEC files, the spill occurred along Parkside Drive within the Gyrodyne property when fuel was released during a bus refueling operation. The diesel fuel entered Flowerfield Pond via the subject property stormwater drainage system. Eder Associates, a division of Gannet Fleming Engineers and Architects, was contracted to remediate the spill. Twenty-two (22) tons of diesel-contaminated soil were removed off-site by Ecocycle, Inc., and disposed at Posillico Brothers Asphalt Company. Additionally, Tyree Brothers Environmental Services pumped approximately 975 gallons of diesel-contaminated water from the pond. Sixteen (16) 55-gallon drums of oil-soaked debris were removed off-site by Able Environmental, and disposed at A.B. Oil Services. Manifests for all waste materials were reportedly provided to the New York State DEC. **Based on the above, there does not appear to be any potential for impact to the subject property from this former spill case. KTR does not recommend any further action at this time.**

The remaining six (6) SPILLS cases involved small releases and the cases were each closed. KTR also does not recommend any further action at this time.

The following non-ASTM environmental concern was identified during the subject property reconnaissance. A non-ASTM environmental concern is an issue of environmental significance that does not fall under the scope of work of a Phase I Environmental Site Assessment pursuant to the innocent landowner's defense as stipulated under ASTM E 1527-00. Non-ASTM environmental concerns include, but are not limited to asbestos containing building materials (ACBM), lead-based paint (LBP), radon, lead in drinking water and issues related to mold.

1. Asbestos-Containing Building Materials (ACBMs)

Screening for ACBM is not within the scope of an ASTM Phase I ESA. However, the scope of this assignment included a limited visual screening without sampling of any readily observable suspect ACBM at the request of Stony Brook State University of New York. Suspect ACBM was observed during the subject property reconnaissance as noted in Table 13 of Section 6.10. Some of the ACBM was observed to be in poor condition with significant damage, which is also noted in Section 6.10 of this report.

According to Gyrodyne personnel, some areas of vinyl floor tile (VFT) have been overlain with carpeting or non-ACBM containing VFT. However a complete account of ACBM and encapsulated ACBM present in the subject property buildings could not be ascertained from Gyrodyne. In addition, an Operations and Maintenance (O&M) Plan is currently not in use by Gyrodyne.

KTR recommends conducting a full ACBM survey of all buildings on the subject property, as well as the development and implementation of an O&M Plan for proper management of all ACBM. KTR also recommends abatement of all areas of damaged ACBM identified, including those areas observed to have suspect material in poor condition as indicated in Section 6.10, Table 13.

PWGC
Strategic Environmental Engineering Solutions

Phase II

Phase II Environmental Site Assessment

Of

Gyrodyne Property
Flowerfield Industrial Park
Smithtown/ Brookhaven, New York

Suffolk County, New York

Prepared for:

KTR Newmark Consultants, L.L.C.
New York, New York

Prepared by:
Jade Environmental, Inc.
Hopewell Junction, New York

May 7, 2004

Overview

The Purpose of this investigation was to collect samples of soil, sediment and groundwater to the extent feasible and test those samples for the presence of regulated contaminants. The Objective of the investigation was to identify conditions noncompliant with environmental quality regulations with respect to soil, sediment and groundwater.

Scope of Work

The Scope of Work included the collection of soil, sediment and groundwater samples in accordance with USEPA sample collection guidelines and the analysis of those samples by a state licensed laboratory for the presence of regulated organic and inorganic constituents that may constitute a noncompliant regulatory condition in accordance with all applicable federal, state and local environmental quality requirements.

Soil Sampling Techniques

Generally soil samples were collected via Geoprobe® Subsurface Sampling Equipment via a Macrocore® Soil Sampler advanced into the formation utilizing standard direct push technology. Each penetration started at grade and continued at four foot intervals to the point of equipment refusal or a maximum depth of 16' below grade. Soil samples were collected in four foot long clear acetate liners and visually inspected for discoloring indicative of contamination. The soil was then removed from the liner and inspected for olfactory evidence of contamination. A portion of all intervals exhibiting any evidence of contamination or visually clean samples periodically as a standard check, were transferred to a zip lock bag and left to vaporize in the sun for up to ten minutes. After that time, the head space in the bag was checked with a photoionization detector by piercing the probe of the detector through the wall of the bag. A copy of the PID calibration certification conducted just prior to the field work is provided in Appendix T.

All soil cuttings were returned to the boring following boring completion and the top of the boring was finished consistent with surrounding surfaces. All down hole equipment was cleaned in an Alconox wash and rinsed with clean water between each sample. Soil samples were typically collected for lab analysis from the 1 foot interval exhibiting the greatest evidence of contamination or, if no contamination was found, from the bottom of the boring. Occasionally, boring composites, which consisted of portions of all boring sample intervals combined into one sample, were collected. Compositing was minimized due to uncertainty regarding the effect this sampling method might have on volatile organic compound contamination that might be present.

Sediment Sampling Techniques

Sediment samples from the bottom of on-site subsurface sewage disposal systems ("SSDS") and storm water leaching pits were collected with a standard bucket auger and deconned between samples. Portions of every bucket auger sample were bagged for head space analysis and the results recorded. Shallow samples collected from the bottom of the old recharge basin and adjacent to the railroad were collected with a standard spade shovel after removing approximately 12" of topsoil.

Groundwater Sampling

Because groundwater beneath the property is located approximately 120' below grade, no monitoring wells were installed as part of this preliminary investigation. Groundwater was collected from two on-site wells during the course of this investigation including the Flowerfield Pond Supply Well and the Bus Garage Potable Water Supply Well. The samples were collected by allowing the well pumps to run for several minutes in order to purge the well casings and any tanks in-line and the samples collected directly from plumbing spigots. Jade attempted to collect a third groundwater sample from an abandoned well located near the air strip but was unsuccessful at removing the well pump from the well. In addition to the groundwater quality data obtained as a result of our sampling, groundwater quality data for the property was also obtained from the Suffolk County Water Authority as a result of their sampling and analysis of four county wells located at the southwest corner of the Gyrodyne facility. According to the data provided by the SCWA, the four wells screen at various depths, resulting in groundwater sample collection from various zones and aquifers. No specific information regarding the Flowerfield or the bus garage wells that were sampled was available.

Investigation Activities

Deep Test Pitting

On-site Dump Sites/Mounds Depressions

On February 24 through February 27, 2004 Jade excavated deep test pits in the area of the on-site dump, in select areas of the former air strip and in a smaller dump location located along the access road to the bus garage. The objective of the deep test pitting was to investigate the type of dumping that occurred in those areas. Samples were collected from select deep test pits throughout the area and sited with a global positioning system. Each test pit was excavated to minimum depth of original grade. The table below provides lat/long data for most of the pits, should relocation of any particular area be required.

Table 1
GYRODYNE / Flowerfield Test Pits
St. James, NY

Test Pit Hole No.	Latitude	Longitude
1	40.90538	73.13676
2	40.90547	73.13676
3	40.90555	73.13665
4	40.90542	73.13658
5	40.90588	73.13630
6	40.90608	73.13647
7	40.90590	73.13633
8	40.90568	73.13654
9	40.90538	73.13680
10	40.90527	73.13685
11	40.90523	73.13682
12	40.90525	73.13692
13	40.90532	73.13670
14	40.90520	73.13665
15	40.90560	73.13645
16	40.90550	73.13623
17	40.90272	73.13530
18	40.90468	73.13509
19	40.90423	73.13513
20	40.90408	73.13512
21	40.90325	73.13665
22	40.90257	73.13609
23	40.90275	73.13610
24	40.90240	73.13610
25	40.90173	73.13525
26	40.90123	73.13500
27	40.90150	73.13530
28	40.90148	73.13531
29	40.90166	73.13499
30	40.90275	73.13525
31	40.90233	73.13531
32	40.90257	73.13523
33	40.90275	73.13525
34	40.90330	73.13520
35	40.90322	73.13530
36	40.90434	73.13486
37	40.90483	73.13365
38	40.90480	73.13382
39	40.90479	73.13370
40	40.90017	73.13478
41	40.90023	73.13525
42	40.90015	73.13577
43	40.87978	73.14825
44	40.87978	73.14825
45	40.89903	73.14825
46	40.89898	73.14167
47	40.89902	73.14165
48	40.89952	73.14190
49	40.89907	73.14097
50	40.89890	73.14177
51	40.89868	73.14140
52	40.89857	73.14114

**Latitude and longitude are in decimal form*

Based on our deep test pitting in the area of the former dump, Jade concludes a majority of the dumping consisted of vegetative wastes as was reported by Gyrodyne representatives. However, it was documented that some of the older dump areas included plastics, metals, glass and other solid wastes. The wastes identified appeared to be typical of waste that would be generated at a nursery, and suspected to be the remnants of the former Flowerfield Bulb Farm which occupied the site from the 1920s until the 1960's. During our deep test pitting Jade did not identify any stained or odor emitting soils indicative of contamination. We also did not find any drums or other containers suspected to contain potentially regulated wastes. We did however find a layer of asbestos containing floor tile at test pits #9 and #10 which has been improperly disposed. **The floor tile should be removed and properly disposed of.** Appendix V provided notes and logs collected during our deep test pitting.

In all, four soil samples were collected for analysis during our deep test pitting to provide general soil quality data in the area. These samples includes SP-1 collected from LF#1, SP-2 collected from LF#5, SP-3 from LF#12 and SP-4 from LF#34. Each sample was analyzed for pesticides, herbicides, base and neutral semi-volatile organic compounds and volatile organic compounds. The results of this analysis did not reveal any significant contamination. In the four samples collected only a few pesticides and a single VOC were detected, which coincides with our field screening results, which did not detect any visual or olfactory evidence of contamination or any PID readings indicative of a contaminant condition. The concentrations of compounds that were detected in the soil samples are summarized in the table below and compared to the recommended soil clean-up objectives provided by the NYSDEC.

Table 2
Summary of Analysis on Deep Test Pit Soil Samples

Analyte	RSCO	SP-1	SP-2	SP-3	SP-4
4,4'-DDD	2,900	16.0	ND	12.0	ND
4,4'-DDE	2,100	27.6	ND	29.8	ND
4,4'-DDT	2,100	19.7	ND	ND	ND
Dieldrin	44	11.0	ND	ND	ND
Endrin	100	13.6	ND	ND	ND
n-Butylbenzene	No RSCO	ND	16	ND	ND

Notes:
1. RSCO – Recommended Soil Clean-up Objective
2. All concentrations in parts per billion (ppb).
3. Only constituents detected are provided.
4. Complete lab reports provided in Appendix I-O

As can be seen in the table, low levels of pesticides exist in area soils two orders of magnitude below the recommended soil clean-up objectives. As will be seen further in this report, pesticide contamination at very low levels is prevalent across the site and may be considered a background contaminant for the site. Jade suspects the concentrations are the result of the historical use of the site by the bulb farm. Over time the concentrations will continue to drop as the chemicals continue to decay. During our deep test pitting we were unable to access the Fairgrounds and as such recommend additional deep test pitting be conducted in that area. **Because the presence of contamination as well as the improper dumping of regulated wastes was identified in the landfill area at the end of the air strip, we also recommend additional deep test pits be excavated at that location.**

Magnetometer Survey

Because municipal files indicate the former presence of buried fuel tanks throughout the property, but no specific information with regards to the locations of those former facilities was available, Jade conducted a magnetometer survey around the perimeter of several on-site buildings. On March 1, 2004, magnetometer surveys were carried out around buildings 7, 1, 2, 8, 17 and 18.

The results of our magnetometer survey included two anomalies identified at Building #2, indicative of buried steel tanks. Jade marked the locations of these anomalies in anticipation of returning to them to excavate soils and identify the source of the anomalies. On March 5 we returned to excavate the anomaly specifically located beneath the grass on the west side of Building #2, approximately 100 feet south of the northwest corner of the building. According to building occupants this was also the former location of two buried gas tanks the presence of which was identified during review of county records. On March 7, Jade returned and advanced a soil boring in the location of the second anomaly specifically located beneath the blacktop on the west side of the building horseshoe approximately 20' south of the northwest corner of the horseshoe. Two additional borings were later advanced adjacent to the hand excavation to get a better look at deeper soils.

The results of our hand excavation and probing revealed the presence of buried washed stone at both anomalies. Jade suspects the stone was used to backfill the open excavation that would have resulted after removal of a buried tank. The quartz stone backfill apparently has a high iron content, which resulted in the detection of the stone by the magnetometer. The use of gravel is common with tank removal contractors because it settles instantly upon deposition and significantly reduces the potential for future settlement. Most importantly, our investigation of these two anomalies did not identify any buried tanks at either location. Discussion regarding soil conditions identified during sampling is provided in sections below.

No additional investigation is recommended as a result of the magnetometer surveys.

Sewer/Stormwater Leaching Pit Sampling

On March 3, 2004 Jade sampled sediments at the bottom of all accessible primary leaching pits associated with the many subsurface sewage disposal systems ("SSDS") located at the subject property. We also sampled a few leaching pits used for storm water recharge in suspect areas. Sediments were collected with a standard bucket auger. A portion of each sample was bagged for head space analysis and a portion sent to the laboratory for analysis in accordance with SCDHS requirements. The results of our analysis of bottom sediments are summarized in the table below.

Of note, several leaching pits associated with on-site SSDS could not be located and as such, were not sampled. These systems have been identified as:

- System 7A located at the northwestern corner of Building #7 (under blacktop)
- System 25A located outside the bus garage (under temporary structures)
- System 18A located outside the tower/post office (under blacktop)
- System 1B northwest corner of Building #1 (under blacktop, system possibly removed)

These systems could not be located due to the presence of blacktop, temporary structures, vehicles and snow cover at the time of our field investigation. **We recommend these systems be located, overburden obstructions removed and the sediments sampled and analyzed in accordance with Suffolk County requirements. If any of these primary leaching systems cannot be found, deep soil borings will be required to sample soils to 40' below grade in the location of the former primary leaching pit.**

Table 3 Summary of Leaching Pit Sediment Analysis

	Analyte	NYSDEC RSCO	Leaching Pit Id												
			2ASD	8ASD	2CSD	1A	2B	7B	7C	7D	7E	8A	17A	17B	17c
Volatiles	Toluene	1500	22	10	15	ND	8	6	17	23	11	9	13	8	71
	Trichloroethene	700	16	6	ND	5	5	ND	8	9	ND	ND	ND	ND	ND
	p-Isopropyltoluene	No RSCO	ND	ND	20	ND	ND	ND	ND	50	ND	ND	ND	ND	ND
	tert-Butylbenzene	No RSCO	ND	ND	18	ND	ND	ND	ND	30	ND	ND	ND	ND	ND
	Tetrachloroethene	1400	ND	ND	12	10	ND	ND	ND	ND	ND	ND	ND	6	ND
	Ethylbenzene	5500	ND	ND	ND	ND	ND	ND	ND	25	ND	ND	ND	ND	ND
	Isopropylbenzene	No RSCO	ND	ND	ND	ND	ND	ND	ND	10	ND	ND	ND	ND	ND
	Napthalene	No RSCO	ND	ND	ND	ND	ND	ND	ND	51	ND	ND	ND	ND	ND
	n-Butylbenzene	No RSCO	ND	ND	ND	ND	ND	ND	ND	18	ND	ND	ND	ND	ND
	n-Propylbenzene	No RSCO	ND	ND	ND	ND	ND	ND	ND	30	ND	ND	ND	ND	ND
	p-Diethylbenzene	No RSCO	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	sec-Butylbenzene	No RSCO	ND	ND	ND	ND	ND	ND	ND	27	ND	ND	ND	ND	ND
	Xylenes, total	1200	ND	ND	ND	ND	ND	ND	ND	263	ND	ND	ND	ND	ND
	Chlorobenzene	1700	ND	ND	ND	ND	ND	ND	ND	210	ND	ND	ND	ND	ND
	1,4-Dichlorobenzene	8500	ND	ND	ND	ND	ND	43	ND	290	ND	ND	20	21	88
	1,2,4-Trimethylbenzene	No RSCO	ND	ND	ND	ND	ND	10	ND	240	ND	ND	ND	32	ND
	1,3,5-Trimethylbenzene	No RSCO	ND	ND	24	ND	ND	6	ND	98	ND	ND	ND	10	ND
RCRA Metals	Arsenic	7.5	0.58	0.74	1.47	ND	1.62	0.52	ND	1.51	0.72	2.08	6.10	1.53	1.51
	Cadmium	1.0	ND	ND	1.59	10.7*	0.86	1.95	ND	3.53	ND	0.62	1.55	19.0*	0.79
	Chromium	10	2.35	19.2	15.3	22.3	17.2	1.75	4.02	82.6	3.50	7.20	22.6	22.0	3.89
	Copper	25	7.36	21.5	34.2	48.0	40.0	18.5	17.7	344	93.6	53.5	40.8	174	116
	Lead	4-61	5.35	15.4	37.7	9.60	22.4	9.44	9.37	113	4.60	14.8	13.7	43.8	9.02
	Nickel	13	1.94	13.2	7.61	7.33	7.24	ND	2.21	11.8	2.98	8.92	23.2	4.37	2.97
	Silver	SB	ND	ND	ND	69.3	ND	68.7	ND	1.84	ND	ND	ND	1.47	ND
	Mercury	0.1	ND	ND	ND	ND	ND	ND	ND	0.96	ND	ND	0.20	1.04	0.18
Semi-volatiles	Benzo(a)anthracene	224	ND	2200	18000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Benzo(a)pyrene	61	ND	1600	15000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Benzo(b)fluoranthene	1100	ND	1900	27000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Benzo(g,h,i)perylene	50000	ND	ND	6700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Benzo(k)fluoranthene	1100	ND	2400*	39000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Chrysene	400	ND	2400*	22000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Fluoranthene	50000	ND	5300	33000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Indeno(1,2,3-cd)pyrene	3200	ND	ND	7000*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Phenanthrene	50000	ND	4300	20000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Pyrene	50000	ND	4200	24000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

1. RSCO – States recommended Soil Clean-up Objective.
2. Bolded concentrations in shaded cells indicate exceedences.
3. ND – Concentration below analytical detection limit (see lab report for specific detection limits).
4. * Indicates exceedences of the SCDHS Action Levels which generally equal twice the RSCO.
5. All concentrations provided in parts per billion except metals provided in parts per million.

As can be seen in the analytical summary table, only two of the 13 leaching pits sampled were within state soil quality requirements. Specifically, storm drains 8A and 2C were significantly contaminated with semi-volatile organic compounds exceeding the state recommended clean-up objectives by several orders of magnitude. Because the storm drains have been found to be contaminated, **Jade recommends all storm water leaching pits be located, sampled and analyzed in accordance with SCDHS requirements. Additionally, all on-site contaminated sewage and storm water disposal systems will have to be remediated under the auspices of the SCDHS.** Complete lab reports are provided in Appendix I-O. Locations of the leaching systems sampled are provided in the sketch's appended as A-H.

Old Recharge Basin Sediment Sampling

In order to ascertain whether any regulated materials were intentionally or inadvertently introduced into the portion of the property stormwater control system which discharges to the main recharge basin located adjacent to Building #19, on March 5, 2004, Jade excavated approximately 12" of sand from two locations within the basin and sampled soils at the bottom of each excavation for field screening and lab analysis. Soil samples from both the north and south ends of the basin appeared clean and free of chemical or petroleum odor. Jade analyzed each of these samples for suspected contaminants including volatile organic compounds, pesticides, herbicides and priority pollutant metals. Of note, the north end of the basin is the entrance to the basin and the most likely location contaminants introduced to the system would be deposited.

Table 4
Summary of Analysis on Old Recharge Basin Sediment Samples

Analyte	RSCO	Old Basin North	Old Basin South
Toluene	1500	8	7
Chlordane	540	55.4	ND
Arsenic	7.5	4.72	4.2
Cadmium	1.0	0.60	ND
Chromium	10	9.09	6.06
Copper	25	16.1	11.1
Lead	4-61	**85.6**	7.18
Nickel	13	9.71	10.2
Selenium	2.0	ND	1.88
Zinc	20	**86.9**	**23.5**

Notes:
1. RSCO - Recommended Soil Clean-up Objective
2. Bolded concentrations in shaded cells indicate exceedences
3. ND – Concentration below analytical detection limit (see lab report for specific detection limits)
4. All concentrations provided in parts per billion except metals provided in parts per million
5. Complete lab reports provided in Appendix I-O

As can be seen in the analytical summary table, lead and zinc were identified to exceed the RSCO in sediment samples. As the minor exceedences are not grounds for remediation, Jade recommends additional investigation to ascertain the full nature of the metal contamination identified. **Additional sampling is recommended.** Asbestos containing cementitious drainage pipes were also identified throughout the bottom of the basin. **KTR recommends removal and proper disposal of this asbestos containing building material (ACBM).**

Railroad Right-of-way Shallow Soil Sampling

Jade spent the afternoon of March 5, 2004 collecting shallow soil samples at two locations adjacent to the Port Jefferson Line of the Long Island Railroad which bisects the site. Two samples were collected alongside the railroad track in the same manor listed above. The railroad was cited as a potential concern due to the historical use of herbicides and PCBs by some railroad maintenance companies to control foliage. Jade also submitted the two samples for pesticides analysis to ascertain the aerial extent of the pesticide contamination beginning to present itself following review of incoming lab reports. The following table summarizes the results of the labs analysis of the two samples collected. Complete lab reports are provided in Appendix I-O. The approximate sample locations are provided in Boring Location Maps provided in Appendix A and H.

Table 5
Summary of Analysis on Railroad Shallow Soil Samples

Analyte	RSCO	RRT-1	RRT-2
4,4'-DDD	2,900	ND	12.7
4,4'-DDE	2,100	ND	55.3
4,4'-DDT	2,100	18.8	314
PCB 1254	1,000	40	ND

Notes:
1. RSCO - Recommended Soil Clean-up Objective
2. Bolded concentrations in shaded cells indicate exceedences
3. ND – Concentration below analytical detection limit (see lab report for specific detection limits)

As can be seen in the summary table, shallow soil adjacent to the railroad are free of herbicides but have been slightly impacted by concentrations of PCB's and pesticides. As concentrations identified are not grounds for remediation, Jade recommends additional investigation to ascertain the full nature of the PCB contamination identified. **Additional sampling is recommended.**

Geoprobe Soil Sampling

In order to determine whether former/existing buried storage tanks, buried hydraulic systems and/or chronic surface spillage of petroleum and other chemicals have impacted site soils Jade conducted soil sampling via Geoprobe subsurface sampling. The Geoprobe sampling was conducted in the following areas and carried out on March 7, 9, 13, 14 and 21, 2004:

- Building #7 in the location of two existing 2,000 gallon buried #2 fuel oil tanks and the suspected location of two previous 5,000 gallon buried fuel tanks reported to have existed at this building.
- Building #2 to address the reported presence of several former buried storage tanks including two gasoline tanks.
- Building #8 to address the reported presence of several former buried storage tanks.
- Building #17 to address one active buried 10,000 gallon fuel oil tank and one abandoned approximately 1,000 gallon fuel oil tank.
- Building #18 to address several buried lift locations. We were unable to locate the potential presence of a former buried gasoline storage tank at this location due to limited access.
- Building #25 to address the reported former presence of a buried 5,000 gallon diesel tank and surface staining indicative of chronic surface spillage.
- The Bone Yard due to the presence of chemical and petroleum storage with significant site staining indicating chronic spillage

Boring logs for select boring locations are provided in Appendix W.

Building #2

We started Geoprobing on March 7 at Building #2 advancing a total of nine (9) borings at this location to a depth of 12' below grade and referred to the borings as SB2-1 thru SB2-9. From these nine borings, six soil samples were collected including four boring composites and two grab samples collected from the bottom of the borings. All six samples were analyzed for volatile and semi-volatile organic compounds regulated by the NYSDEC with regards to petroleum contaminated soil. The analytical table below summarizes the analytical results and provides sample identification. Complete lab reports are provided in Appendix I-O. Boring locations are provided in the Boring Location Map provided in Appendix B.

Table 6
Summary of Analysis on Soil Samples Collected From Building #2

Analyte	RSCO	SB2-1 (0-12')	SB2-2 (0-12')	SB2-3 (0-12')	SB2-5 (0-10')	SB2-8 (11')	SB2-9 (11')
Benzo(a)anthracene	224	ND	48	130	ND	ND	ND
Benzo(a)pyrene	61	ND	ND	83	ND	ND	ND
Benzo(b)fluoranthene	1100	ND	40	150	ND	ND	ND
Benzo(g,h,i)perylene	50000	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	1100	ND	ND	170	ND	ND	ND
Chrysene	400	ND	47	130	ND	ND	ND
Fluoranthene	50000	43	120	220	ND	ND	ND
Phenanthrene	50000	ND	73	82	ND	ND	ND
Pyrene	50000	ND	82	160	ND	ND	ND

Notes:
1. RSCO – Recommended Soil Clean-up Objective
2. All concentrations in parts per billion (ppb).
3. No volatiles were detected.
4. Bolded concentrations in shaded cells indicate exceedences
5. Concentration below analytical detection limit (see lab report for specific detection limits)

Borings SB2-1 through SB2-7 were advanced inside the horseshoe of Building #2. One of the borings was advanced at the location of a metallic anomaly identified with the magnetometer survey discussed above. That boring identified gravel backfill indicative of a backfill after a tank removal. The remaining borings were advanced in areas suspected to have been occupied by fuel oil tanks which were reportedly buried prior to the existing lube cube installation. Borings SB2-8 and SB2-9 were advanced at the northwest corner of the building in the location of a second metallic anomaly also identified to be gravel backfill by excavation. The borings were advanced to determine whether or not the former tanks located at this location had leaked and impacted deeper soils. Our borings through the gravel pack was limited by refusals and samples collected did identify some levels of contamination that may be indicative of a contaminant condition.

Based on preliminary findings, Jade recommends follow-up investigation be conducted to ascertain the extent of contamination identified near Building #2.

Boneyard and Building #25 (Bus Garage)

On March 9, 2004, Jade completed borings at the Boneyard and Building #25 adjacent to the bus garage. In all, five shallow borings were advanced in the Boneyard (SBB4 -1 thru SBB4-5) to determine whether soil contamination resulted from chronic spillage of petroleum and chemicals. Four additional borings were advanced at the bus garage (SBBG-1 thru SBBG-4) in search of contaminated soil resulting from chronic spillage of petroleum and spent automotive fluids and the potential presence of a buried petroleum tank reported to exist at that location. A summary of the lab analysis of soils collected during the days sampling is provided below. Complete lab reports are provided in Appendix I-O. Boring locations are provided in the Boring Location Map provided in Appendix G and H.

Table 7
Summary of Analysis on Soil Samples Collected From Bone Yard and Bus Garage Bldg#25

Analyte	RSCO	SBB4-1 (0-4')	SBB4-2 (0-4')	SBB4-4 (0-4')	SBB4-5 (0-4')	SBB4-1 (0-4')	SBBG-1 (0-4')	SBBG-2 (4-8')	SBBG-4 (6-7')
4,4'-DDE	2,100	117	46.6	ND	49.2	ND	ND	ND	ND
4,4'-DDT	2,100	186	66.4	ND	66.2	ND	ND	ND	ND
Dieldrin	44	ND	ND	ND	24.8	ND	ND	ND	ND
Bis(2-ethylhexl)phthalate	50000	ND	ND	ND	ND	ND	2100	880	1000
Tetrachloroethylene	1400	ND	ND	ND	ND	ND	ND	ND	6

Notes:
1. RSCO – Recommended Soil Clean-up Objective
2. All concentrations in parts per billion (ppb).
3. No volatiles were detected.
4. Bolded concentrations in shaded cells indicate exceedences
5. Concentration below analytical detection limit (see lab report for specific detection limits)

The results of our analysis revealed that chronic spillage of petroleum and chemicals at the bus garage and Boneyard have not had a significant environmental impact on the property. The concentrations of pesticides were identified at low levels similar to other areas of the site that were investigated. Of note, the actual location of the former buried petroleum tank at the bus garage was not identified. Jade believes a large concrete pad adjacent to the existing aboveground diesel tank may be protecting an underlying tank. Our borings on the down gradient end of this pad did not identify any evidence of petroleum contamination. However, did identify the presence of what appears to be an underlying slab, which may be the foundation for a tank. Although our investigation did not identify any contamination indicating a tank under the slab has leaked and impacted site soils, should a tank exist below the slab, it must be closed properly to maintain compliance. **As such, Jade recommends a portion of the slab be removed and soils underlying the slab be excavated to ascertain whether a tank actually exists below the slab.**

With regard to the concentrations of Bis(2-ethylhexl)phthalate detected, this compound is very commonly used to soften hard plastics such as tubing or plastic bags. This compound is sometimes found at low concentrations as a cross contaminant encountered during sampling as a result of the sample coming into contact with liners and/or plastic bags which are used for head space analysis. Because this compound was found at low concentrations in deeper soils and the compound would not be readily used in the garage, Jade suspects the presence of this compound in our samples is the result of cross contamination during sampling. **Based on the low concentrations detected, well below the recommended soil clean-up objectives, Jade concludes that no additional sampling is warranted for either of these sites at this time.**

Building #7

On March 13, 2004, Jade conducted sampling at Building # 7 and Building #8. Due to tenant activities, Jade moved from Building #8 to Building #17 and planned to return to Building #8 when tenant activity was at a minimum.

At Building #7 Jade advanced a total of four borings including, borings at the northeast and southwest corners of both buried fuel tanks which support the buildings heating systems. Each boring was advanced to a minimum depth of 16' and maximum depth of 20' below grade with continuous sampling starting at grade. The borings were advanced to ascertain whether or not the active tanks had leaked, and also to determine potential contamination from two older 5,000 gallon fuel oil tanks that likely preceded these tanks based on records reviewed. The results of our soil screening revealed no evidence of contamination in or around the south tank, however, our soils screening did reveal the presence of fuel oil contamination in deep soils 12-16' below grade at the north tank. The results of the labs analysis on the samples collected are provided below. Complete lab reports are provided in Appendix I-O. Boring locations are provided in the Boring Location Map provided in Appendix C.

Table 8
Summary of Analysis on Soil Samples Collected From Active Buried Fuel Tanks Bldg #7

	Analyte	RSCO	SB7-NT-NE/16'	SB7-NT-SW/16'	SB7-ST-NE/16'	SB7-ST-SW/16'
VOCs	1,2,4-Trimethylbenzene	No RSCO	220	ND	ND	ND
	1,3,5-Trimethylbenzene	No RSCO	80	ND	ND	ND
	Isopropylbenzene	No RSCO	44	ND	ND	ND
	Napthalene	No RSCO	120	ND	ND	ND
	n-Butylbenzene	No RSCO	120	ND	ND	ND
	n-Propylbenzene	No RSCO	100	ND	ND	ND
	p-Isopropyltoluene	No RSCO	390	ND	ND	ND
	sec-Butylbenzene	No RSCO	300	ND	ND	ND
SVOCs	Acenaphthene	50000	1800	ND	ND	ND
	Anthracene	50000	1300	ND	ND	ND
	Chrysene	400	250	ND	ND	ND
	Fluorene	50000	2600	ND	ND	ND
	Phenanthrene	50000	5100	59	ND	ND
	Pyrene	50000	2200	ND	520	ND

Notes:
1. RSCO – Recommended Soil Clean-up Objective
2. All concentrations in parts per billion (ppb).
3. No volatiles were detected.
4. Bolded concentrations in shaded cells indicate exceedences
5. Concentration below analytical detection limit (see lab report for specific detection limits)

As noted in the summary table, petroleum contamination was identified in the soil sample collected from 16' below grade at the northeast corner of the north tank. Although no RSCO for petroleum products other then BTEX compounds has been provided by the NYSDEC, the presence of soil contamination is indicative of potential impact to groundwater quality. **Based on preliminary findings, Jade recommends follow-up investigation be conducted to ascertain the extent of contamination identified beneath the north tank at Building #7.**

Buildings #8 and #17

Geoprobing at Buildings #8 and #17 was completed on March 13, 2004. Due to tenant activities, Jade had to leave Building #8 partially completed and return on March 21, 2004 to complete the borings.

A total of four borings were advanced in the driveway of Building #8, in the most likely locations that buried fuel tanks would have existed. All borings were advanced to 12' below grade and samples collected in accordance with screening results. Our screening did not identify any obvious contamination in the shallow soils. Three samples were collected at 12' below grade from borings SB8-02, -03 and -04. Of note, samples SB8-02 (12') and SB8-03 (11') in the

lab report dated April 5, 2004 should actually be identified as SB8-03 (12') and SB8-04 (11'). All three samples were analyzed for volatile and semi-volatile organic compounds typical of petroleum and recommended by the NYSDEC. No summary table of that analysis is provided because no compounds were detected. Our investigation at Building #8 did not identify any contamination in any of the suspected former buried fuel tank locations. **Unless additional information specific to the locations of the former tanks is obtained that shows the actual tank locations were not investigated with these four borings, Jade recommends no further investigation at this time.**

At Building #17, Jade advanced a total of five soil borings along the northwest wall of the building through the parking lot, just under two buried tanks at this location. One of the tanks is active and has a capacity of 10,000 gallons. The second tank is abandoned, has an assumed capacity of 1,000 gallons and is located adjacent north of the 10,000 gallons tank. All five borings were advanced to a depth of 16' below grade, which is well below the inverts of both tanks. Both tanks are buried in a hill adjacent to the parking lot up against the building. As such, their inverts are just a few feet below grade. Due to the lack of contamination identified in site soils during screening, only two samples were submitted to the lab for analysis including samples SB17-NT-01 (16') and SB17-ST-03 (16'). Both samples were analyzed for volatile and semi-volatile organic compounds typical of petroleum and recommended by the NYSDEC. No table is provided to summarize the data because no contamination was identified in either of the samples submitted, as was expected based on our field screening results. Complete lab reports are provided in Appendix I-O. Boring locations are provided in the Boring Location Maps for these building provided in Appendix D and E.

Based on our field screening and laboratory results, Jade recommends no further investigation at Building #17 at this time. Jade does recommend that the abandoned tank at Building #17 be properly closed in accordance with all applicable regulations.

Building #18 (Tower)

Records indicate the former presence of a buried gasoline tank at this location. Our inspections did not identify any evidence of a former gas station, but did identify a concrete slab behind the building. Our visual survey and ability to conduct testing in this area was impeded due to the presence of numerous vehicles and debris behind the building. Our inspection did result in the identification of five circular concrete pads behind the building each of which appear to have been associated with some type of hydraulic lift system. To determine whether hydraulic fluids may have leaked from these systems and contaminated site soils, Jade advanced a single boring adjacent to each mechanical box attached for each pad. The first borings was advanced to a depth of 12' below grade and the remaining borings were advanced to 8' below grade. Because no obvious contamination was identified in any of the borings, Jade collected samples for analysis from the bottom of each boring. Jade directed the lab to analyze each sample for total diesel range petroleum hydrocarbons via EPA analytical method 8015B. A summary of the result the analysis is provided below. Complete lab reports are provided in Appendix I-O. Boring locations are provided in the Boring Location Map provided in Appendix F.

Table 9
Summary of Analysis on Soil Samples Collected From Beneath Hydraulic Lifts at Bldg #18

Analyte	RSCO	SB18-01/12'	SB18-02/8'	SB18-03/8'	SB18-04/8'	SB18-05/8'
TPH – DRO	No RSCO	ND	ND	ND	34.5	ND

Notes:
1. RSCO – Recommended Soil Clean-up Objective
2. All concentrations in parts per million (ppm).

As noted in the summary table, no detectable levels of TPH were identified in soils adjacent to any of the buried systems except for the system referred to as SB18-04. Although no visual or olfactory evidence of contamination was identified during our soil screening at this location, the labs results indicate a small amount of contamination is present adjacent to this lift. **As such, Jade recommends additional sampling in the area of this lift. In addition, Jade recommends conducting the additional sampling following in the area of the concrete pad behind the building after all vehicles and other debris are cleared from the area.**

Groundwater Sampling and Analysis

Recorded Well Data

Jade reviewed data complied by the United States Geological Survey in cooperation with the New York City Department of Environmental Protection, the Suffolk County Department of Health Services and the Suffolk County Water Authority presented in a report entitled *"Water Table and Potentiometric-Surface Altitudes of the Upper Glacial, Magothy and Lloyd Aquifers on Long Island, New York in March-April2000, with a Summary of Hydrogeologic Conditions"*. According to this report, groundwater beneath the property is over 100 feet below grade and likely about 120 feet below grade across most of the site.

This report listed the old abandoned well located near the air strip as follows:

Figure 1
Record of Wells in Suffolk County Supplement #1 Bulletin GW-9 1945

Flowerfield Bulb Farm, St. James (12E, 4.6N, 2.8w) drilled by Emil Lorentson in December 1937. Altitude of street about 100 ft above sea level. Log begins at land surface.

	Thickness (Ft)	Depth (Ft)
Top Soil	7	7
Hardpan and Gravel	93	100
Sand and gravel	67	167
Sand, Very fine	at	167

Casing 10" diameter
Screen 21' of 9.5" diameter with bottom at 167'
Static Water level: 121'

This data confirms that about 70 years ago, groundwater beneath the site was about 120 ft below grade. No water quality data was provided in the report.

Abandoned Flowerfield Well

Jade identified this well while inspecting the wooded area along the air strip, the well building was previously removed and the well head and casing were all that remained. In the interest of sampling the water within the well, Jade mobilized an excavator, 230 volt generator, a three-wire submersible pump with controls and cutting equipment necessary to remove the piston contained in the well casing. The idea was that once the piston was removed from the casing, the well could be pumped of several well volumes and a sample collected for analysis. After removing the pump head, Jade made several attempt to remove the piston, however, the piston was stuck and most likely permanently lodged within the casing forever. A 10,000 # steel chain was snapped several times during our attempt to remove the piston. No further attempt to access groundwater via this conduit is recommended. **Jade does recommend this well be permanently closed in accordance with NYSDEC requirements.**

Groundwater Samples Collected for Analysis

Jade was able to collect groundwater from two on-site wells including a well at Building #25, referred to as the Bus Garage Well, which provides potable water to the bus garage and a second well referred to as the Flowerfield Pond Well, which provides water to the reception hall pond as needed. No specific information regarding the construction of these wells (depth, aquifer screened, etc.) was available.

Jade requested that the lab analyze the water sample collected from the bus garage well for VOCs via EPA analytical method 8260, the most likely type of contaminant anticipated to be found in the water should any contaminant be present. If contamination existed in the water sample as a result of human activity, the contamination would likely be detected with this broad scan. Because the Flowerfield well was discussed prior to sampling, Jade was able to get approval to analyze samples from this well for volatiles via EAP analytical method 8260, pesticides, PCBs and priority pollutant metals.

With regard to the VOC analysis of the water sample collected from the Bus Garage outdoor spigot, no VOCs were detected. The lab maintained a method detection limit of 1 ppb as a result of the good clarity of the water sample submitted. Of note, Jade let the spigot flow for approximately 10 minutes at 5 gpm prior to sample collection.

With regard to the broad analysis of the Flowerfield well, no chemical constituents were detected. The only two constituents detected include 32 ppb of copper (Cu) and 96 ppb of zinc (Zn). No other constituents were detected above method detection limits set by the laboratory, which were low based on the clarity of the water samples submitted. With regards to the Cu and Zn detected, the concentrations detected are considered background levels for Long Island and well below the USEPA unenforceable Secondary Drinking Water Standards for Nuisance Chemicals of 1.0 mg/L Cu and 5.0 mg/L Zn. Of note, Jade permitted the Flowerfield Pond well to pump for approximately 15 minutes prior to sampling at a rate of approximately 30 gallons a minute.

SCWA Observation Wells

In addition to the above groundwater data obtained via sampling, Jade was also able to attain extensive analytical data from groundwater samples collected from four adjacent observation wells located on the site which are owned and operated by the Suffolk County Water Authority, under the authority of the Gyrodyne company. The wells are located adjacent to Mill Pond Road at the southwest most corner of the property, just south of a newly constructed recharge basin. According to the lab report provided to Jade by the SCWA, the data was generated via a December 2002 sampling event and is almost a year and half old. However, our investigations to date have not identified any incidents or other reasons that groundwater quality in the locations of these wells may have changed.

The county's analysis included chemical, physical and biological analysis of groundwater collected from various depths. The aquifer zones are defined by the SCWA as follows:

Zone I	165 – 185 feet below grade;
Zone II	195 – 215 feet below grade;
Zone III	460 – 490 feet below grade;
Zone IV	505 – 535 feet below grade:

Jade estimates that Zone I and II consist of groundwater contained within the Upper Unconfined Aquifer and Zone III and IV consist of groundwater contained in the confined Magothy or possibly the Lloyd Aquifers. Based on the significant topographic relief between the site and the north adjacent Long Island Sound, Jade predicts groundwater contained in these aquifers would flow in a northerly direction, making the residential neighborhood south of the site hydrogeologically up gradient. However, based on the dip of bedrock and the stratification of the deep overburdens, it is possible that groundwater in certain underlying aquifers is flowing in a southerly direction toward the ocean. Either way, it is our opinion that the data collected from Zones I and II would be most indicative of past on-site activities that may have resulted in impacts to the underlying groundwater. Data collected from zones III and IV may be indicative of impacts associated with activities that may have occurred in other more distant areas. A summary of the data is provided below. Only constituents detected are provided. Full reports are appended.

Table 9
Summary of Analysis on Groundwater Samples Collected From SCWA Wells On-site

	Analyte	MCL	Zone I 165–185' Ft	Zone II 195–215 Ft	Zone III 460–490 Ft	Zone IV 505–535 Ft
Trace Metals	Silicon	No MCL	6.8 mg/L	6.4	8.6	8.4
	Manganese	0.30	**0.31 mg/L**	0.17	0.16	0.25
	Iron	0.30	**0.5 mg/L**	0.07	**1.46**	**1.55**
	Arsenic	10.0	1.6 mg/L	1.9	3.3	4.8
	Lead	15.0	ND	ND	ND	1.1
	Strontium	No MCL	54 µg/L	60	20	20
	Total Phosphate	No MCL	0.12 mg/L	0.16	ND	0.17
	Sodium	No MCL	8.5 mg/L	9.6	5.1	5.1
	Potassium	No MCL	1.64 mg/L	1.45	0.72	0.82
	Calcium	No MCL	16.2 mg/L	17.2	5.6	6.2
	Magnesium	No MCL	6.80 mg/L	4.58	2.43	2.80
Physical	Turbidity	5.0	2.27 NT	0.17	0.36	0.41
	pH	No MCL	7.3	7.5	6.9	6.9
	Specific Conductance	No MCL	207 µohm/cm	179	83	90
	Total Hardness	No MCL	68.3 mg/L	61.8	24.0	27.0
	Total Alkalinity	No MCL	57.4 mg/L	61.6	29.6	34.2
	Free Amonia	No MCL	0.03 mg/L	0.1	0.02	ND
Inorganic Anions	Chloride	250	9.6 mg/L	5.6	4.8	4.7
	Nitrate	10.0	0.44 mg/L	0.1	ND	ND
	Ortho Phosphate	No MCL	ND	0.13	ND	ND
	Sulfates	250	29.7 mg/L	19.4	4.8	4.6
VOC	1,2 Dichloropropane	5.0	4.0 µg/L	ND	ND	ND
	1,2,3-Trichloropropane	5.0	0.5 µg/L	ND	ND	ND

Notes:
1. MCL – Maximum Contaminant Level
2. Concentrations noted
3. Bolded concentrations in shaded cells indicate exceedence
4. Concentration below analytical detection limit (see lab report for specific detection limits)

Based on the data provided in the summary table, Jade considers the water quality from all four zones as "good" to "excellent" with respect to overall nationwide ground water quality. The slightly elevated concentrations of iron and manganese are typical for the area and not representative of an environmental concern.

With regard to the dichloro and trichloropropanes identified, these unnatural chemicals are harmful, but only at concentrations well above the concentrations detected. These chemicals were mainly used to create other chlorinated solvents, but were occasionally used to fumigate soil and were also occasionally found in paint strippers, varnishes, furniture finish removers and degreasers. Most of the above listed uses for those chemical have been discontinued and the production of the chemicals has significantly decreased over the past 20 years. These same compounds were not detected in either the Flowerfield Pond well or the bus garage well, which indicates the source of these chemicals in the SCWA groundwater wells originates from off-site. Jade also noted in the lab report that no pesticides were identified in any of the groundwater samples collected. **Although the groundwater data collected to date does not indicate the presence of a serious contamination condition, Jade remains concerned as to the uncertainty of groundwater quality conditions across the site as a result of the fact that all of Long Island is provided potable water via a Sole Source Aquifer. Based on this fact and the fact that soil contamination has been identified on-site as a result of stormwater and sewage subsurface discharge which discharge by design to the upper unconfined aquifer, Jade recommends additional groundwater investigation be conducted.**

Summary of Conclusions and Recommendations

Following is a brief synopsis of each area of concern identified and the results of our Phase II investigation regarding those concerns.

Deep Test Pits – The deep test pit survey of the on-site dump and mounds and depressions along the wooded areas around the air strip did not identify any dumping that would significantly impact the environmental quality of the site subsurface. **A small quantity (under 10 yards) of floor tile, which contains asbestos, was improperly dumped in the landfill and should be excavated and properly disposed. Because access to the fair grounds was not available at the time of our testing, Jade also recommends testing in this area be conducted. Finally, because of the finding of regulated materials in the on-site dump and the extreme uncertainty associated with these types of concerns, Jade recommends addition testing in this area as well.**

Magnetometer Survey – **No further investigation as result of our magnetometer survey is recommended.**

Sewer/Stormwater Leaching Pit Sampling - Access to several on-site leaching pits which discharge either preliminarily treated sewage effluent or storm water to the subsurface were inaccessible as they were covered with blacktop or temporary structures and/or abandoned vehicles. **Jade recommends that these systems be located, overburden obstructions removed and the sediments sampled and analyzed in accordance with county requirements. If the systems cannot be found, deep soil sampling will have to be conducted in the approximate areas of these systems to ascertain whether not they have had an impact on the sites subsurface. Additionally, because contamination was identified in several on-site stormwater leaching pits, we recommend all on-site stormwater pits be located and sampled. Finally, Jade recommends the contaminated drains identified be remediated under the auspices of the SCDHS.**

Old Recharge Basin Sediment Sampling – Minor contamination of shallow soil in the old recharge basin indicates a potential environmental concern. **Jade recommends additional sampling to ascertain the extent of the contamination identified.** Asbestos containing cementitious drainage pipes were also identified at the north and south sides of the former recharge basin. **Jade recommends removal and proper disposal of this asbestos containing building material (ACBM).**

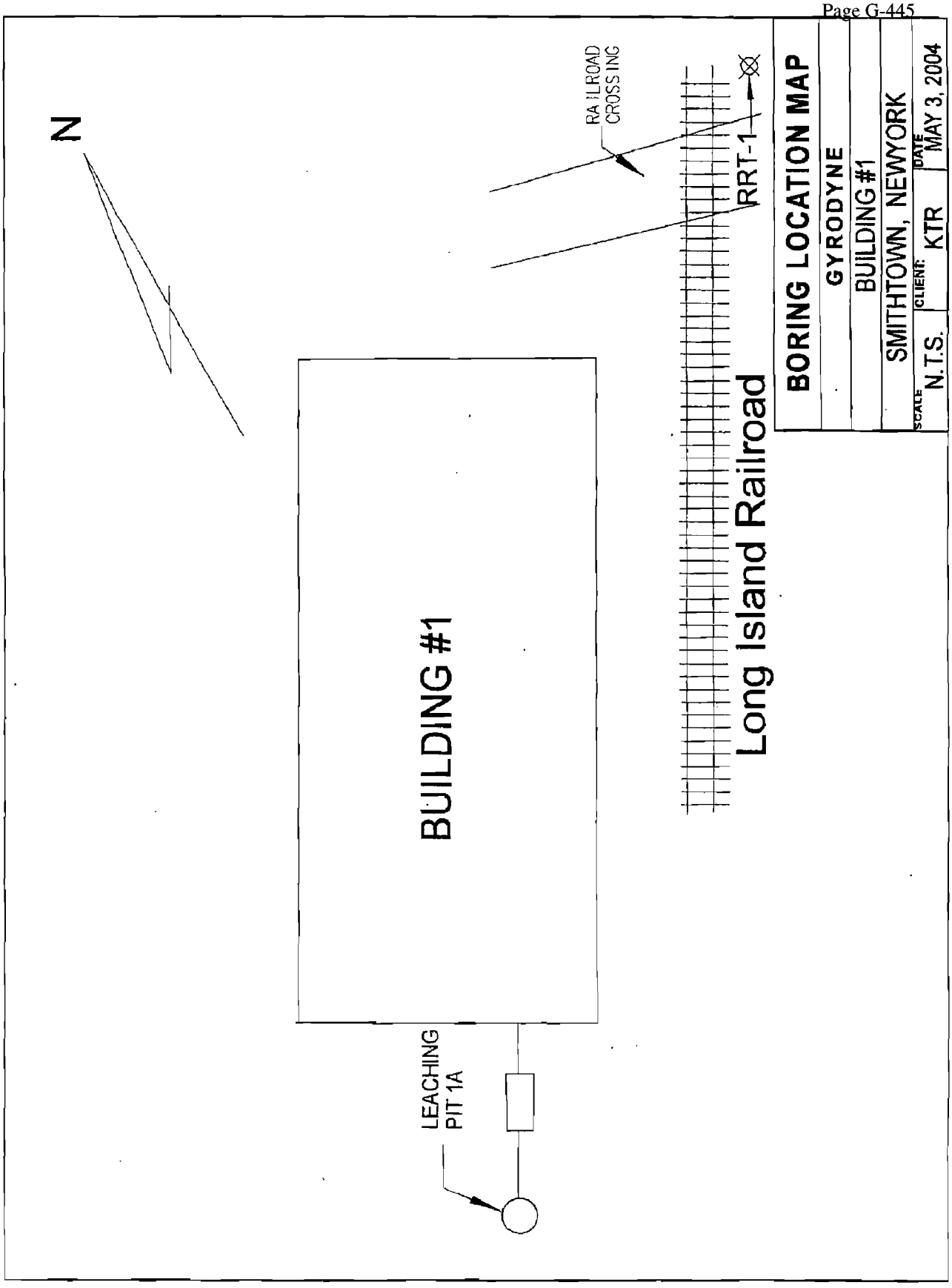
Railroad Right-of-way Shallow Soil Sampling – Preliminary sampling of shallow soil samples along the railroad right-of-way indicate low levels of PCB's and pesticides. **We recommend additional sampling along the right-of-way to determine whether PCB contamination as a result of the railroad activities represents a significant environmental concern for the site.**

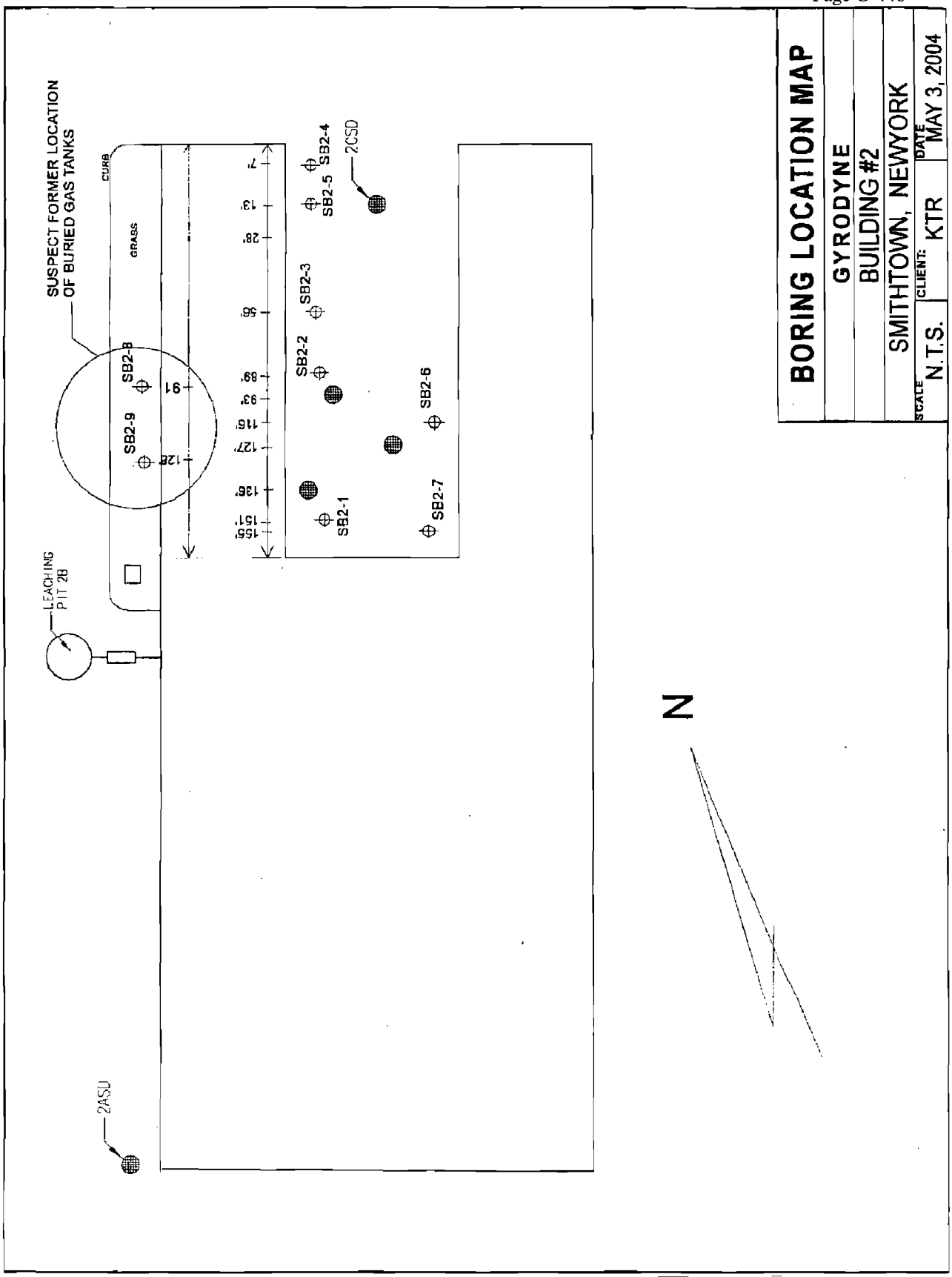
Geoprobe Deep Soil Sampling – **The deep soil sampling via the Geoprobe equipment identified contamination in the area of Building #2, the north tank at Building #7 and at a hydraulic lift at Building #18 that warrant additional investigation. The borings at Building #18 should not be advanced until abandoned autos and other debris stored behind the building are removed to facilitate an inspection of the area and access for additional**

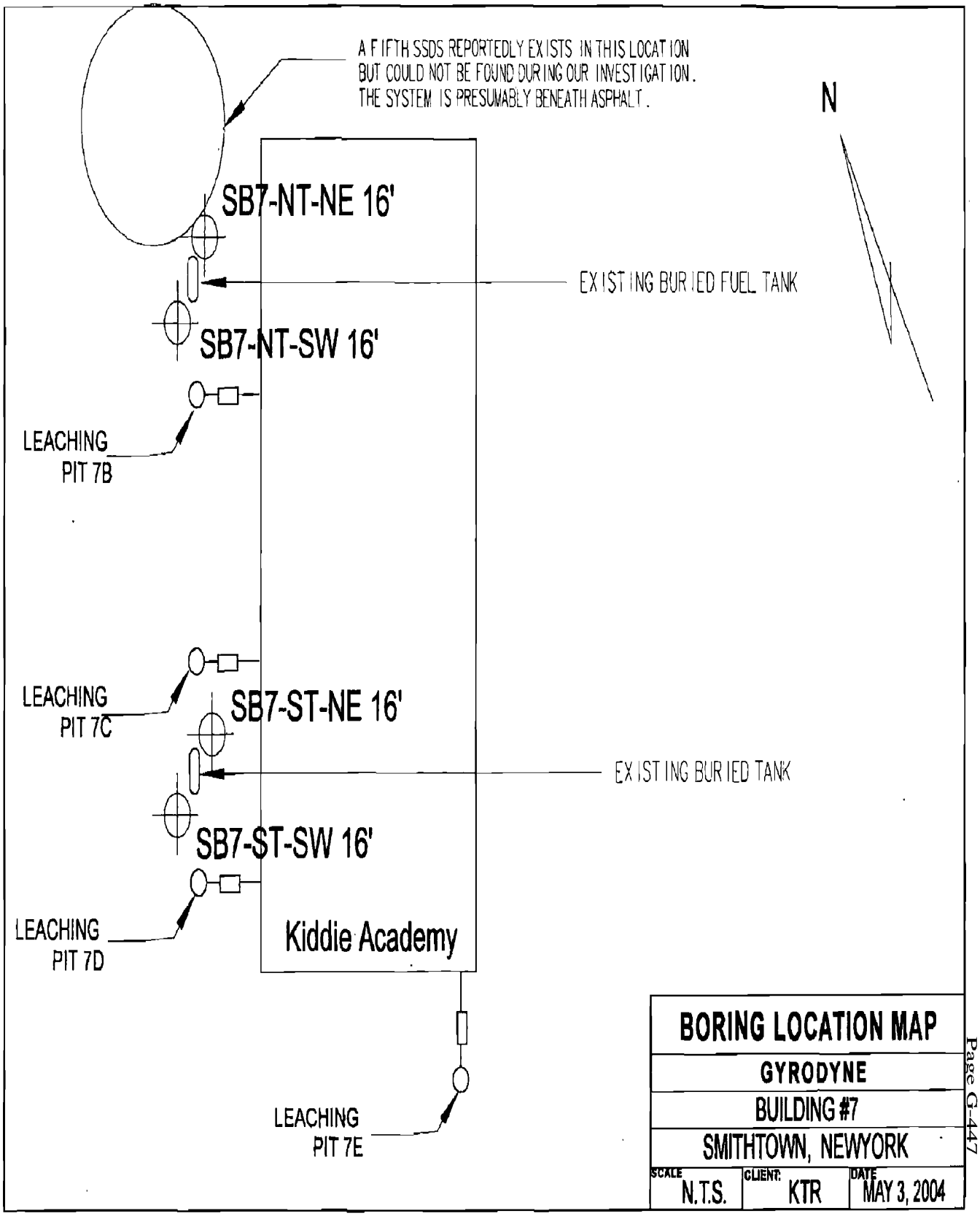
borings if subsurface investigation is deemed necessary. No further action is recommended at Building #8 and #17 because no contamination was identified. Should data be obtained specifying the locations of the former tanks at building #8 and our borings are found to not have been conducted in those areas, follow up testing will be required. The presence of an underlying slab, which may be the foundation for a tank, was identified at Building #25. Although our investigation did not identify any contamination indicating a tank under the slab has leaked, should a tank exist below the slab, it must be closed properly to maintain compliance. **As such, Jade recommends that a portion of the slab be removed and soils underlying the slab be excavated to ascertain whether a tank actually exists below the slab.**

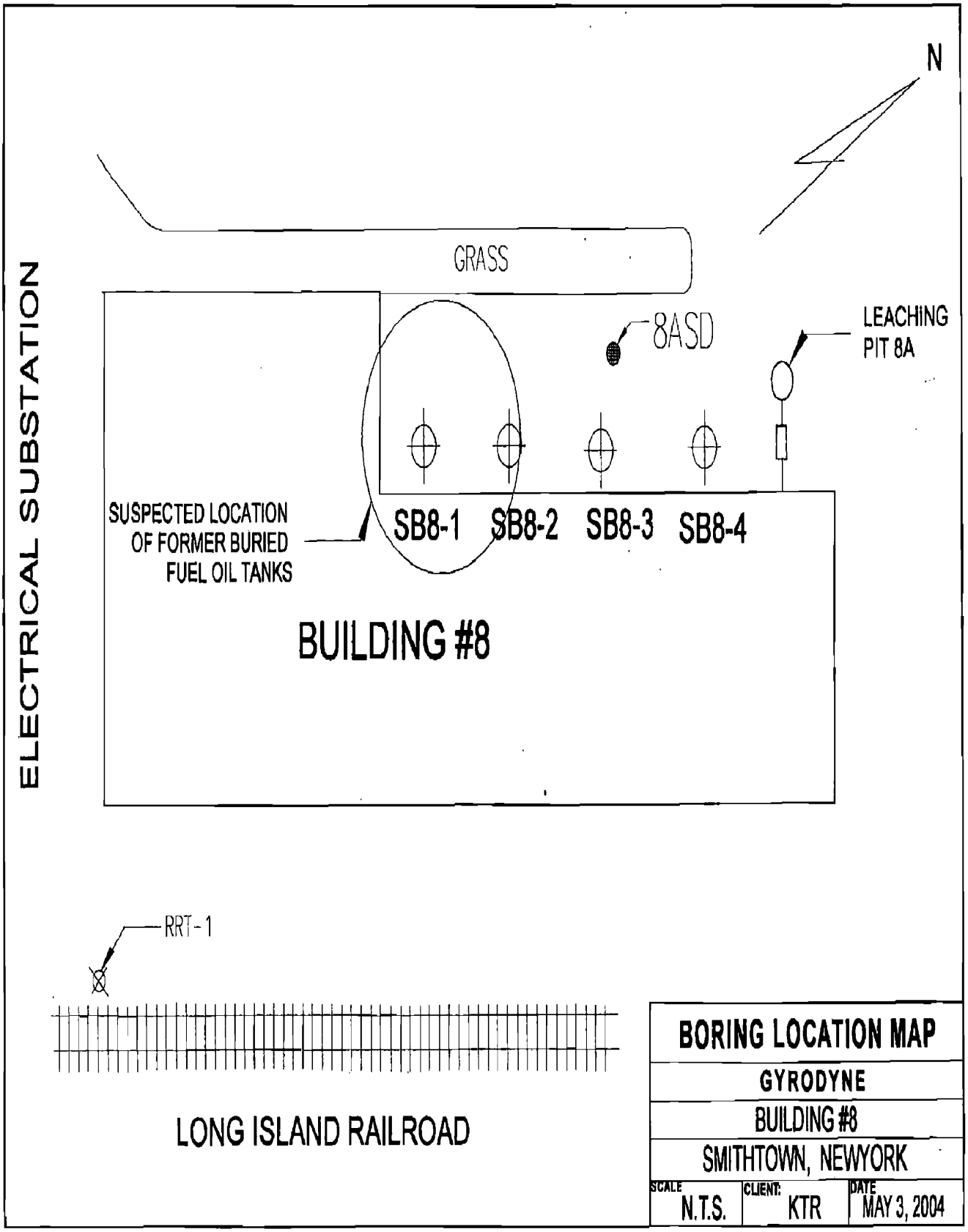
Groundwater Investigation – **Although our limited groundwater investigation completed to date has not identified any significant environmental concerns, we recommend additional groundwater investigation be conducted for the following reasons:**

- **The source of the groundwater collected from the Flowerfield Pond well and the Bus Garage well could not be determined.**
- **Contamination was identified in soil collected from the bottom of several on-site leaching pits which discharge wastewater effluent and stormwater directly to the aquifer by design.**
- **The groundwater quality data obtained through the SCWA is not representative of site conditions because of the locations of there wells with respect to the bulk of the on-site activities.**
- **Because access to the abandoned Flowerfield Bulb Farm well was not obtained, no groundwater data for the entire eastern portion of the property was available.**


N
RAILROAD CROSSING
RRT-1
Long Island Railroad
BUILDING #1
LEACHING PIT 1A
BORING LOCATION MAP
GYRODYNE
BUILDING #1
SMITHTOWN, NEWYORK
SCALE N.T.S.
CLIENT: KTR
DATE MAY 3, 2004


BORING LOCATION MAP
GYRODYNE
BUILDING #2
SMITHTOWN, NEWYORK
SCALE N.T.S.
CLIENT: KTR
DATE MAY 3, 2004
SUSPECT FORMER LOCATION OF BURIED GAS TANKS
CURB
GRASS
SB2-8
SB2-9
SB2-1
SB2-2
SB2-3
SB2-4
SB2-5
SB2-6
SB2-7
2CSD
2ASD
LEACHING PIT 2B
91
128
7
13
28
36
89
93
115
127
136
151
155
N





BORING LOCATION MAP		
GYRODYNE		
BUILDING #8		
SMITHTOWN, NEWYORK		
SCALE: N.T.S.	CLIENT: KTR	DATE: MAY 3, 2004

PWGC
Strategic Environmental Engineering Solutions

SCDHS Correspondence

COUNTY OF SUFFOLK

STEVE LEVY
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF HEALTH SERVICES

BRIAN L. HARPER M.D., M.P.H.
COMMISSIONER

May 13, 2005

Mr. Clint Borkstrom
Gyrodyne Company of America
Flowerfield
St. James, NY 11780

Re: Gyrodyne Company of America (SCDHS File Ref. #15358)

Dear Mr. Borkstrom,

I have received the analysis results for the samples that were taken following the April 28 & 29, 2005 remediation of two storm drains (8ASD and 2CSD), a sanitary leaching pool (1A) and it's associated septic tank at the above referenced facility. The analysis reports have been reviewed, and, based on the information presently available, no further remediation will be required by this department at this time.

The records of the department show that the material excavated during the remediation has been transported from the site. Please forward copies documenting the disposal of this material a properly permitted facility so that this matter maybe closed.

If you have any questions concerning this matter, please feel free to call me at (631) 854-2533.

Sincerely,

Walter T. Petrule
Senior Public Health Sanitarian
Bureau of Environmental Evaluation & Remediation

cc: Doug Schrimpf, Tradewinds

COUNTY OF SUFFOLK

STEVE LEVY
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF HEALTH SERVICES

BRIAN L. HARPER M.D., M.P.H.
COMMISSIONER

Elizabeth H. Harrington, Esq.
DEPUTYY COMMISSIONER

June 9, 2005

Mr. Clint Borkstrom
Gyrodyne Company of America
Flowerfield
St. James, NY 11780

Re: Gyrodyne Company of America (SCDHS File Ref. #15358)

Dear Mr. Borkstrom,

The records of this department indicate that the material removed during the April 29, 2005 remediation of two storm drains (8ASD and 2CSD) and on sanitary leaching pool (1A) at your facility has been removed and properly disposed of. Therefore, this department is considering this matter closed.

If you have any questions concerning these matters, please feel free to contact me at 631-855-2533.

Sincerely,

Walter T. Petrule
Sr. Public Health Sanitarian
Bureau of Environmental Evaluation and Remediation

cc: Doug Schrimpf, Tradewinds

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Strategic Environmental Engineering Solutions

APPENDIX B
Tennant Listing

FLOWERFIELD : TENANT LOCATIONS AND PHONE NUMBERS

TENANT NAME	BUILDING #	SUITE #
2600 ENTERPRISES	2	30
A.S.K.D., INC.	7	8
ALTUS METAL & MARBLE MAINT.	1	48
AMAZING CONCRETE FENCES	2	36
BAY OTHOPEDIC	1	51
BELLA DOLCE, LLC.	2	45
BIOTHOTIC, INC.	2	18
BIRNBAUM, MELANIE	7	20-1, 20-2 & 20-3
BOYS & GIRLS CLUB OF SUFFOLK	7	28, 30, 42, 78 & 80
CABLEVISION	7	28A
CATHERINE'S TOTAL FITNESS, INC.	7	88 & 90
CJ PERFORMANCE II	8	30
CLEARWATER INTERNATIONAL, INC.	2	63
CUSTOM AUTOCRAFT	2	6, 9
D.L. PETERSON	7	10
EAST END FURS	1	201, 205
EXPER-TIESS GYM	7	14
HECHTEL MUSIC STUDIO	7	24
J.B. LARSEN	8	9
LASZLO SINKA FURNITURE REPAIR	2	51
LEN'SWORK STOCK PHOTOGRAPHY	7	98
LONG HILL CARPENTRY, INC.	8	12
LONG ISLAND MANTEL & MILLWORKS	2	57
LOVIN'OVEN CELEB	TENT	
LOVIN'OVEN SAYVILLE	OFFICE	
MARK ORTON MUSIC	7	82
NORPOTH MUSIC STUDIO	7	23
OMAHAORANGE, LLC.	7	86
PAPADAKOS, NAUSICA	1	203
PEDERSON-KRAG	7	44
PETROLEUM MARKETING GROUP	1	9
QUEST LASER SERVICES, INC.	2	48
R.J.D. AGENCY, INC.	1	3
RAM MARKETING	1	10, 12
RANTIN' & RAVEN ENTERTAINMENT, LLC.	7	12
RINEN, RAMON	8	24
S & B SOLUTIONS, INC.	7	22
SAMA, THOMAS	2	21, 24, 27 & 33
SCHAFERHUND SCHUTZHUND CLUB	1	209
SEISKAYA BALLET	7	16, 25
SIANI, DONNA	1	6
SOLARSUN, INC.	8	15
STATE UNIVERSITY	7	38, 36, 32
SUNY PEDIATRICS	7	4,6 & 13
THE GOOD TIMES BOOK SHOP	7	11
THREE VILLAGE SOCCER & RECREATION	7	18, 20-4 & 26
TOM WILD	2	66
TOP O' THE DAY DELI, INC.	7	43
TOWNE BUS	2	39, 42
TOWNE BUS PLAINVIEW	1	18
TRIANGLE ELECTRIC	8	18
VISUAL ARTS FOUNDATION	8	28
WEATHER OR NOT A/C	7	40

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Appendix B
Laboratory Data

Environmental Testing Laboratories, Inc.
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

05/28/2008

Laboratory Identifier: 0805165
Received: 05/07/2008 16:13
Sampled by: Jamie Nix

Client: PW Grosser Consulting Engineers PC
630 Johnson Avenue - Suite 7
Bohemia,
NY 11716-2618

Project: GCA0801
1 Flowerfield #24
St James,
NY

Manager: Bryan Devaux

Respectfully submitted,

Technical Director

NYS Lab ID # 10969
NJ Cert. # 73812
CT Cert. # PH0645
MA Cert. # NY061
NH Cert. # 252592-BA

Environmental Testing Laboratories, Inc. Page G-456
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

05/28/2008

Volatiles - EPA 8260B

Sample: 0805165-1
Client Sample ID: PLP-7
Matrix: Soil
Remarks: See Case Narrative
Analyzed Date: 05/08/2008

Type: Composite

Collected: 05/07/2008 13:30
% Solid: 57.6%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
630-20-6	1,1,1,2-Tetrachloroethane	B2643-4915	3.99	3.99	ug/Kg	U
71-55-6	1,1,1-Trichloroethane	B2643-4915	4.51	4.51	ug/Kg	U
79-34-5	1,1,2,2-Tetrachloroethane	B2643-4915	5.21	5.21	ug/Kg	U
79-00-5	1,1,2-Trichloroethane	B2643-4915	5.47	5.47	ug/Kg	U
76-13-1	Freon 113	B2643-4915	4.51	4.51	ug/Kg	U
75-34-3	1,1-Dichloroethane	B2643-4915	4.95	4.95	ug/Kg	U
75-35-4	1,1-Dichloroethylene	B2643-4915	3.21	3.21	ug/Kg	U
563-58-6	1,1-Dichlorpropene	B2643-4915	4.60	4.60	ug/Kg	U
87-61-6	1,2,3-Trichlorobenzene	B2643-4915	4.17	4.17	ug/Kg	U
96-18-4	1,2,3-Trichloropropane	B2643-4915	6.16	6.16	ug/Kg	U
95-93-2	1,2,4,5-Tetramethylbenzene	B2643-4915	3.47	**8.13**	ug/Kg	J
120-82-1	1,2,4-Trichlorobenzene	B2643-4915	2.95	2.95	ug/Kg	U
95-63-6	1,2,4-Trimethylbenzene	B2643-4915	3.21	**89.8**	ug/Kg	
96-12-8	1,2-Dibromo-3-chloropropane	B2643-4915	3.99	3.99	ug/Kg	U
106-93-4	Ethylene dibromide	B2643-4915	5.12	5.12	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	B2643-4915	4.08	4.08	ug/Kg	U
107-06-2	1,2-Dichloroethane	B2643-4915	5.03	5.03	ug/Kg	U
78-87-5	1,2-Dichloropropane	B2643-4915	5.12	5.12	ug/Kg	U
108-67-8	1,3,5-Trimethylbenzene	B2643-4915	3.82	**32.8**	ug/Kg	J
541-73-1	1,3-Dichlorobenzene	B2643-4915	4.60	4.60	ug/Kg	U
142-28-9	1,3-Dichloropropane	B2643-4915	4.51	4.51	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	B2643-4915	4.17	**17.8**	ug/Kg	J
590-20-7	2,2-Dichloropropane	B2643-4915	5.12	5.12	ug/Kg	U
78-93-3	Methyl ethyl ketone (2-Butanone)	B2643-4915	19.3	19.3	ug/Kg	U
110-75-8	2-Chloroethyl vinyl ether	B2643-4915	5.56	5.56	ug/Kg	U
95-49-8	2-Chlorotoluene	B2643-4915	4.60	4.60	ug/Kg	U
591-78-6	2-Hexanone	B2643-4915	17.2	17.2	ug/Kg	U
106-43-4	4-Chlorotoluene	B2643-4915	4.34	4.34	ug/Kg	U
99-87-6	4-Isopropyltoluene	B2643-4915	4.08	**39.3**	ug/Kg	J
108-10-1	Methyl isobutyl ketone	B2643-4915	18.7	18.7	ug/Kg	U
67-64-1	2-Propanone	B2643-4915	22.6	**126**	ug/Kg	J
107-13-1	Acrylonitrile	B2643-4915	60.7	60.7	ug/Kg	U

Environmental Testing Laboratories, Inc. Page G-457
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

05/28/2008

Volatiles - EPA 8260B

Sample: 0805165-1
Client Sample ID: PLP-7
Matrix: Soil
Remarks: See Case Narrative
Analyzed Date: 05/08/2008

Type: Composite

Collected: 05/07/2008 13:30
% Solid: 57.6%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
71-43-2	Benzene	B2643-4915	4.60	4.60	ug/Kg	U
108-86-1	Bromobenzene	B2643-4915	4.43	4.43	ug/Kg	U
74-97-5	Bromochloromethane	B2643-4915	5.03	5.03	ug/Kg	U
75-27-4	Bromodichloromethane	B2643-4915	4.08	4.08	ug/Kg	U
75-25-2	Bromoform	B2643-4915	4.17	4.17	ug/Kg	U
74-83-9	Methyl bromide	B2643-4915	4.25	4.25	ug/Kg	U
156-59-2	cis-1,2-Dichloroethylene	B2643-4915	3.91	3.91	ug/Kg	U
10061-01-5	cis-1,3-Dichloropropene	B2643-4915	4.43	4.43	ug/Kg	U
75-15-0	Carbon disulfide	B2643-4915	4.08	4.08	ug/Kg	U
56-23-5	Carbon tetrachloride	B2643-4915	4.86	4.86	ug/Kg	U
108-90-7	Chlorobenzene	B2643-4915	5.29	5.29	ug/Kg	U
75-45-6	Chlorodifluoromethane	B2643-4915	7.64	7.64	ug/Kg	U
75-00-3	Chloroethane	B2643-4915	6.08	6.08	ug/Kg	U
67-66-3	Chloroform	B2643-4915	5.12	**6.94**	ug/Kg	J
74-87-3	Methyl chloride	B2643-4915	4.34	4.34	ug/Kg	U
124-48-1	Chlorodibromomethane	B2643-4915	3.99	3.99	ug/Kg	U
74-95-3	Dibromomethane	B2643-4915	6.86	6.86	ug/Kg	U
75-71-8	Dichlorodifluoromethane	B2643-4915	3.21	3.21	ug/Kg	U
100-41-4	Ethylbenzene	B2643-4915	4.51	**26.6**	ug/Kg	J
87-68-3	Hexachlorobutadiene	B2643-4915	4.17	4.17	ug/Kg	U
98-82-8	Isopropylbenzene	B2643-4915	3.82	3.82	ug/Kg	U
108-38-3	m,p-Xylene	B2643-4915	7.81	**136**	ug/Kg	
1634-04-4	Methyl tertiary butyl ether	B2643-4915	4.51	4.51	ug/Kg	U
75-09-2	Methylene Chloride	B2643-4915	8.16	8.16	ug/Kg	U
104-51-8	n-Butylbenzene	B2643-4915	4.17	4.17	ug/Kg	U
103-65-1	n-Propylbenzene	B2643-4915	3.99	**12.5**	ug/Kg	J
91-20-3	Naphthalene	B2643-4915	3.91	3.91	ug/Kg	U
95-47-6	o-Xylene	B2643-4915	3.39	**54.5**	ug/Kg	
105-05-5	p-Diethylbenzene	B2643-4915	3.99	3.99	ug/Kg	U
622-96-8	p-Ethyltoluene	B2643-4915	3.65	**72.8**	ug/Kg	
135-98-8	sec-Butylbenzene	B2643-4915	3.91	3.91	ug/Kg	U
100-42-5	Styrene	B2643-4915	3.73	3.73	ug/Kg	U

Environmental Testing Laboratories, Inc. Page G-458
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

05/28/2008

Volatiles - EPA 8260B

Sample: 0805165-1
Client Sample ID: PLP-7
Matrix: Soil
Remarks: See Case Narrative
Analyzed Date: 05/08/2008

Type: Composite

Collected: 05/07/2008 13:30
% Solid: 57.6%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
156-60-5	trans-1,2-Dichloroethylene	B2643-4915	3.99	3.99	ug/Kg	U
10061-02-6	trans-1,3-Dichloropropene	B2643-4915	3.65	3.65	ug/Kg	U
994-05-8	TAME	B2643-4915	5.47	5.47	ug/Kg	U
98-06-6	tert-Butylbenzene	B2643-4915	4.60	4.60	ug/Kg	U
75-65-0	Tertiary butyl alcohol	B2643-4915	46.8	46.8	ug/Kg	U
127-18-4	Tetrachloroethylene	B2643-4915	3.91	**10.3**	ug/Kg	J
108-88-3	Toluene	B2643-4915	4.17	**558**	ug/Kg	
79-01-6	TCE	B2643-4915	4.25	4.25	ug/Kg	U
75-69-4	Trichlorofluoromethane	B2643-4915	4.86	4.86	ug/Kg	U
75-01-4	Vinyl Chloride	B2643-4915	5.90	5.90	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	B2643-4915	103.0 %	(82 - 148)	
460-00-4	4-BROMOFLUOROBENZENE	B2643-4915	83.6 %	(74 - 104)	
4774-33-8	DIBROMOFLUOROMETHANE	B2643-4915	115.0 %	(94 - 140)	
2037-26-5	TOLUENE-D8	B2643-4915	99.5 %	(85 - 110)	

Environmental Testing Laboratories, Inc. Page G-459
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

05/28/2008

Volatiles - EPA 8260B

Sample: 0805165-2
Client Sample ID: PLP-6
Matrix: Soil
Remarks: See Case Narrative
Analyzed Date: 05/08/2008

Type: Composite

Collected: 05/07/2008 14:30
% Solid: 86.9%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
630-20-6	1,1,1,2-Tetrachloroethane	B2643-4914	1.06	1.06	ug/Kg	U
71-55-6	1,1,1-Trichloroethane	B2643-4914	1.20	1.20	ug/Kg	U
79-34-5	1,1,2,2-Tetrachloroethane	B2643-4914	1.38	1.38	ug/Kg	U
79-00-5	1,1,2-Trichloroethane	B2643-4914	1.45	1.45	ug/Kg	U
76-13-1	Freon 113	B2643-4914	1.20	1.20	ug/Kg	U
75-34-3	1,1-Dichloroethane	B2643-4914	1.31	1.31	ug/Kg	U
75-35-4	1,1-Dichloroethylene	B2643-4914	0.85	0.85	ug/Kg	U
563-58-6	1,1-Dichlorpropene	B2643-4914	1.22	1.22	ug/Kg	U
87-61-6	1,2,3-Trichlorobenzene	B2643-4914	1.10	1.10	ug/Kg	U
96-18-4	1,2,3-Trichloropropane	B2643-4914	1.63	1.63	ug/Kg	U
95-93-2	1,2,4,5-Tetramethylbenzene	B2643-4914	0.92	0.92	ug/Kg	U
120-82-1	1,2,4-Trichlorobenzene	B2643-4914	0.78	0.78	ug/Kg	U
95-63-6	1,2,4-Trimethylbenzene	B2643-4914	0.85	**7.30**	ug/Kg	J
96-12-8	1,2-Dibromo-3-chloropropane	B2643-4914	1.06	1.06	ug/Kg	U
106-93-4	Ethylene dibromide	B2643-4914	1.36	1.36	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	B2643-4914	1.08	1.08	ug/Kg	U
107-06-2	1,2-Dichloroethane	B2643-4914	1.33	1.33	ug/Kg	U
78-87-5	1,2-Dichloropropane	B2643-4914	1.36	1.36	ug/Kg	U
108-67-8	1,3,5-Trimethylbenzene	B2643-4914	1.01	**2.62**	ug/Kg	J
541-73-1	1,3-Dichlorobenzene	B2643-4914	1.22	1.22	ug/Kg	U
142-28-9	1,3-Dichloropropane	B2643-4914	1.20	1.20	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	B2643-4914	1.10	**1.75**	ug/Kg	J
590-20-7	2,2-Dichloropropane	B2643-4914	1.36	1.36	ug/Kg	U
78-93-3	Methyl ethyl ketone (2-Butanone)	B2643-4914	5.11	**93.6**	ug/Kg	
110-75-8	2-Chloroethyl vinyl ether	B2643-4914	1.47	1.47	ug/Kg	U
95-49-8	2-Chlorotoluene	B2643-4914	1.22	1.22	ug/Kg	U
591-78-6	2-Hexanone	B2643-4914	4.55	4.55	ug/Kg	U
106-43-4	4-Chlorotoluene	B2643-4914	1.15	1.15	ug/Kg	U
99-87-6	4-Isopropyltoluene	B2643-4914	1.08	**10.2**	ug/Kg	J
108-10-1	Methyl isobutyl ketone	B2643-4914	4.95	4.95	ug/Kg	U
67-64-1	2-Propanone	B2643-4914	5.98	**201**	ug/Kg	
107-13-1	Acrylonitrile	B2643-4914	16.1	16.1	ug/Kg	U

Environmental Testing Laboratories, Inc. Page G-460
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

05/28/2008

Volatiles - EPA 8260B

Sample: 0805165-2
Client Sample ID: PLP-6
Matrix: Soil
Remarks: See Case Narrative
Analyzed Date: 05/08/2008

Type: Composite

Collected: 05/07/2008 14:30
% Solid: 86.9%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
71-43-2	Benzene	B2643-4914	1.22	1.22	ug/Kg	U
108-86-1	Bromobenzene	B2643-4914	1.17	1.17	ug/Kg	U
74-97-5	Bromochloromethane	B2643-4914	1.33	1.33	ug/Kg	U
75-27-4	Bromodichloromethane	B2643-4914	1.08	1.08	ug/Kg	U
75-25-2	Bromoform	B2643-4914	1.10	1.10	ug/Kg	U
74-83-9	Methyl bromide	B2643-4914	1.13	1.13	ug/Kg	U
156-59-2	cis-1,2-Dichloroethylene	B2643-4914	1.03	1.03	ug/Kg	U
10061-01-5	cis-1,3-Dichloropropene	B2643-4914	1.17	1.17	ug/Kg	U
75-15-0	Carbon disulfide	B2643-4914	1.08	1.08	ug/Kg	U
56-23-5	Carbon tetrachloride	B2643-4914	1.29	1.29	ug/Kg	U
108-90-7	Chlorobenzene	B2643-4914	1.40	1.40	ug/Kg	U
75-45-6	Chlorodifluoromethane	B2643-4914	2.02	2.02	ug/Kg	U
75-00-3	Chloroethane	B2643-4914	1.61	1.61	ug/Kg	U
67-66-3	Chloroform	B2643-4914	1.36	**3.18**	ug/Kg	J
74-87-3	Methyl chloride	B2643-4914	1.15	1.15	ug/Kg	U
124-48-1	Chlorodibromomethane	B2643-4914	1.06	1.06	ug/Kg	U
74-95-3	Dibromomethane	B2643-4914	1.82	1.82	ug/Kg	U
75-71-8	Dichlorodifluoromethane	B2643-4914	0.85	0.85	ug/Kg	U
100-41-4	Ethylbenzene	B2643-4914	1.20	1.20	ug/Kg	U
87-68-3	Hexachlorobutadiene	B2643-4914	1.10	1.10	ug/Kg	U
98-82-8	Isopropylbenzene	B2643-4914	1.01	1.01	ug/Kg	U
108-38-3	m,p-Xylene	B2643-4914	2.07	2.07	ug/Kg	U
1634-04-4	Methyl tertiary butyl ether	B2643-4914	1.20	1.20	ug/Kg	U
75-09-2	Methylene Chloride	B2643-4914	2.16	2.16	ug/Kg	U
104-51-8	n-Butylbenzene	B2643-4914	1.10	**1.82**	ug/Kg	J
103-65-1	n-Propylbenzene	B2643-4914	1.06	1.06	ug/Kg	U
91-20-3	Naphthalene	B2643-4914	1.03	1.03	ug/Kg	U
95-47-6	o-Xylene	B2643-4914	0.90	0.90	ug/Kg	U
105-05-5	p-Diethylbenzene	B2643-4914	1.06	1.06	ug/Kg	U
622-96-8	p-Ethyltoluene	B2643-4914	0.97	**4.45**	ug/Kg	J
135-98-8	sec-Butylbenzene	B2643-4914	1.03	1.03	ug/Kg	U
100-42-5	Styrene	B2643-4914	0.99	0.99	ug/Kg	U

Environmental Testing Laboratories, Inc. Page G-461
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

05/28/2008

Volatiles - EPA 8260B

Sample: 0805165-2
Client Sample ID: PLP-6
Matrix: Soil
Remarks: See Case Narrative
Analyzed Date: 05/08/2008

Type: Composite

Collected: 05/07/2008 14:30
% Solid: 86.9%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
156-60-5	trans-1,2-Dichloroethylene	B2643-4914	1.06	1.06	ug/Kg	U
10061-02-6	trans-1,3-Dichloropropene	B2643-4914	0.97	0.97	ug/Kg	U
994-05-8	TAME	B2643-4914	1.45	1.45	ug/Kg	U
98-06-6	tert-Butylbenzene	B2643-4914	1.22	1.22	ug/Kg	U
75-65-0	Tertiary butyl alcohol	B2643-4914	12.4	12.4	ug/Kg	U
127-18-4	Tetrachloroethylene	B2643-4914	1.03	1.03	ug/Kg	U
108-88-3	Toluene	B2643-4914	1.10	**179**	ug/Kg	
79-01-6	TCE	B2643-4914	1.13	1.13	ug/Kg	U
75-69-4	Trichlorofluoromethane	B2643-4914	1.29	1.29	ug/Kg	U
75-01-4	Vinyl Chloride	B2643-4914	1.56	1.56	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	B2643-4914	111.0 %	(82 - 148)	
460-00-4	4-BROMOFLUOROBENZENE	B2643-4914	84.7 %	(74 - 104)	
4774-33-8	DIBROMOFLUOROMETHANE	B2643-4914	123.0 %	(94 - 140)	
2037-26-5	TOLUENE-D8	B2643-4914	101.0 %	(85 - 110)	

Environmental Testing Laboratories, Inc. Page G-462
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

05/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0805165-1
Client Sample ID: PLP-7
Matrix: Soil
Type: Composite
Collected: 05/07/2008 13:30
% Solid: 57.6%
Remarks:
Analyzed Date: 05/08/2008
Preparation Date(s) : 05/08/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
120-82-1	1,2,4-Trichlorobenzene	C2023-7115	72.2	72.2	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	C2023-7115	53.6	53.6	ug/Kg	U
122-66-7	1,2-Diphenylhydrazine	C2023-7115	52.4	52.4	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	C2023-7115	58.3	58.3	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	C2023-7115	56.6	**193**	ug/Kg	J
58-90-2	2,3,4,6-Tetrachlorophenol	C2023-7115	68.8	68.8	ug/Kg	U
95-95-4	2,4,5-Trichlorophenol	C2023-7115	37.7	37.7	ug/Kg	U
88-06-2	2,4,6-Trichlorophenol	C2023-7115	65.3	65.3	ug/Kg	U
120-83-2	2,4-Dichlorophenol	C2023-7115	56.9	56.9	ug/Kg	U
105-67-9	2,4-Dimethylphenol	C2023-7115	72.6	72.6	ug/Kg	U
51-28-5	2,4-Dinitrophenol	C2023-7115	611	611	ug/Kg	U
121-14-2	2,4-Dinitrotoluene	C2023-7115	104	104	ug/Kg	U
606-20-2	2,6-Dinitrotoluene	C2023-7115	71.5	71.5	ug/Kg	U
91-58-7	2-Chloronaphthalene	C2023-7115	83.7	83.7	ug/Kg	U
95-57-8	2-Chlorophenol	C2023-7115	83.7	83.7	ug/Kg	U
91-57-6	2-Methylnaphthalene	C2023-7115	68.9	**173**	ug/Kg	J
95-48-7	2-Methylphenol(o-Cresol)	C2023-7115	62.2	62.2	ug/Kg	U
88-74-4	2-Nitroaniline	C2023-7115	90.5	90.5	ug/Kg	U
88-75-5	2-Nitrophenol	C2023-7115	52.8	52.8	ug/Kg	U
106-44-5	m,p-Cresol	C2023-7115	53.6	**1440**	ug/Kg	
91-94-1	3,3'-Dichlorobenzidine	C2023-7115	83.7	83.7	ug/Kg	U
99-09-2	3-Nitroaniline	C2023-7115	29.9	29.9	ug/Kg	U
534-52-1	4,6-Dinitro-o-cresol	C2023-7115	759	759	ug/Kg	U
101-55-3	4-Bromophenylphenyl ether	C2023-7115	78.8	78.8	ug/Kg	U
59-50-7	4-Chloro-3-methylphenol	C2023-7115	64.8	64.8	ug/Kg	U
106-47-8	4-Chloroaniline	C2023-7115	66.1	66.1	ug/Kg	U
7005-72-3	4-Chlorophenylphenyl ether	C2023-7115	67.5	67.5	ug/Kg	U
100-01-6	4-Nitroaniline	C2023-7115	170	170	ug/Kg	U
100-02-7	4-Nitrophenol	C2023-7115	1160	1160	ug/Kg	U
83-32-9	Acenaphthene	C2023-7115	73.1	73.1	ug/Kg	U
208-96-8	Acenaphthylene	C2023-7115	59.7	59.7	ug/Kg	U
62-53-3	Aniline	C2023-7115	54.0	54.0	ug/Kg	U

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208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

05/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0805165-1
Client Sample ID: PLP-7
Matrix: Soil
Type: Composite
Collected: 05/07/2008 13:30
% Solid: 57.6%
Remarks:
Analyzed Date: 05/08/2008
Preparation Date(s) : 05/08/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
120-12-7	Anthracene	C2023-7115	77.3	77.3	ug/Kg	U
92-87-5	Benzidine	C2023-7115	1520	1520	ug/Kg	U
56-55-3	Benzo[a]anthracene	C2023-7115	73.4	73.4	ug/Kg	U
50-32-8	Benzo[a]pyrene	C2023-7115	90.5	90.5	ug/Kg	U
205-99-2	Benzo[b]fluoranthene	C2023-7115	72.0	72.0	ug/Kg	U
191-24-2	Benzo[g,h,i]perylene	C2023-7115	133	133	ug/Kg	U
207-08-9	Benzo[k]fluoranthene	C2023-7115	132	132	ug/Kg	U
65-85-0	Benzoic acid	C2023-7115	10200	10200	ug/Kg	U
100-51-6	Benzyl alcohol	C2023-7115	102	102	ug/Kg	U
111-91-1	bis(2-chloroethoxy)methane	C2023-7115	71.9	71.9	ug/Kg	U
111-44-4	bis(2-chloroethyl)ether	C2023-7115	82.1	82.1	ug/Kg	U
108-60-1	bis(2-chloroisopropyl)ether	C2023-7115	63.7	63.7	ug/Kg	U
117-81-7	bis(2-Ethylhexyl)phthalate	C2024-7125	2270	**24200**	ug/Kg	
85-68-7	Butyl benzyl phthalate	C2023-7115	91.7	**1350**	ug/Kg	
86-74-8	Carbazole	C2023-7115	100	100	ug/Kg	U
218-01-9	Chrysene	C2023-7115	91.8	91.8	ug/Kg	U
	Cresol (total)	C2023-7115	116	**1440**	ug/Kg	
84-74-2	Di-n-butyl phthalate	C2023-7115	97.7	97.7	ug/Kg	U
117-84-0	Di-n-octyl phthalate	C2023-7115	85.4	85.4	ug/Kg	U
53-70-3	Dibenzo[a,h]anthracene	C2023-7115	96.9	96.9	ug/Kg	U
132-64-9	Dibenzofuran	C2023-7115	58.0	58.0	ug/Kg	U
84-66-2	Diethyl phthalate	C2023-7115	114	114	ug/Kg	U
131-11-3	Dimethyl phthalate	C2023-7115	83.9	83.9	ug/Kg	U
206-44-0	Fluoranthene	C2023-7115	95.7	95.7	ug/Kg	U
86-73-7	Fluorene	C2023-7115	69.8	69.8	ug/Kg	U
118-74-1	Hexachlorobenzene	C2023-7115	74.3	74.3	ug/Kg	U
87-68-3	Hexachlorobutadiene	C2023-7115	69.4	69.4	ug/Kg	U
77-47-4	Hexachlorocyclopentadiene	C2023-7115	536	536	ug/Kg	U
67-72-1	Hexachloroethane	C2023-7115	77.3	77.3	ug/Kg	U
193-39-5	Indeno[1,2,3-cd]pyrene	C2023-7115	80.2	80.2	ug/Kg	U
78-59-1	Isophorone	C2023-7115	79.3	79.3	ug/Kg	U
621-64-7	Di-n-propylnitrosamine	C2023-7115	52.4	52.4	ug/Kg	U

Environmental Testing Laboratories, Inc. Page G-464
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05/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0805165-1
Client Sample ID: PLP-7
Matrix: Soil
Type: Composite
Collected: 05/07/2008 13:30
% Solid: 57.6%
Remarks:
Analyzed Date: 05/08/2008
Preparation Date(s) : 05/08/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
62-75-9	n-Nitrosodimethylamine	C2023-7115	110	110	ug/Kg	U
86-30-6	Diphenylnitrosamine	C2023-7115	94.6	94.6	ug/Kg	U
91-20-3	Naphthalene	C2023-7115	69.8	**135**	ug/Kg	J
98-95-3	Nitrobenzene	C2023-7115	67.2	67.2	ug/Kg	U
87-86-5	Pentachlorophenol	C2023-7115	658	658	ug/Kg	U
85-01-8	Phenanthrene	C2023-7115	79.0	79.0	ug/Kg	U
108-95-2	Phenol	C2023-7115	45.3	45.3	ug/Kg	U
129-00-0	Pyrene	C2023-7115	64.2	64.2	ug/Kg	U
110-86-1	Pyridine	C2023-7115	99.5	99.5	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2023-7115	19.3 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2023-7115	41.3 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2023-7115	23.6 %	(25 - 121)	D
4165-60-0	NITROBENZENE-D5	C2023-7115	25.3 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2023-7115	26.2 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2023-7115	25.2 %	(18 - 137)	

Environmental Testing Laboratories, Inc. Page G-465
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05/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0805165-2
Client Sample ID: PLP-6
Matrix: Soil
Type: Composite
Collected: 05/07/2008 14:30
% Solid: 86.9%
Remarks:
Analyzed Date: 05/08/2008
Preparation Date(s) : 05/08/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
120-82-1	1,2,4-Trichlorobenzene	C2023-7114	47.9	47.9	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	C2023-7114	35.6	35.6	ug/Kg	U
122-66-7	1,2-Diphenylhydrazine	C2023-7114	34.8	34.8	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	C2023-7114	38.7	38.7	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	C2023-7114	37.5	37.5	ug/Kg	U
58-90-2	2,3,4,6-Tetrachlorophenol	C2023-7114	45.6	45.6	ug/Kg	U
95-95-4	2,4,5-Trichlorophenol	C2023-7114	25.0	25.0	ug/Kg	U
88-06-2	2,4,6-Trichlorophenol	C2023-7114	43.3	43.3	ug/Kg	U
120-83-2	2,4-Dichlorophenol	C2023-7114	37.7	37.7	ug/Kg	U
105-67-9	2,4-Dimethylphenol	C2023-7114	48.1	48.1	ug/Kg	U
51-28-5	2,4-Dinitrophenol	C2023-7114	405	405	ug/Kg	U
121-14-2	2,4-Dinitrotoluene	C2023-7114	69.0	69.0	ug/Kg	U
606-20-2	2,6-Dinitrotoluene	C2023-7114	47.4	47.4	ug/Kg	U
91-58-7	2-Chloronaphthalene	C2023-7114	55.5	55.5	ug/Kg	U
95-57-8	2-Chlorophenol	C2023-7114	55.5	55.5	ug/Kg	U
91-57-6	2-Methylnaphthalene	C2023-7114	45.7	45.7	ug/Kg	U
95-48-7	2-Methylphenol(o-Cresol)	C2023-7114	41.2	41.2	ug/Kg	U
88-74-4	2-Nitroaniline	C2023-7114	60.0	60.0	ug/Kg	U
88-75-5	2-Nitrophenol	C2023-7114	35.0	35.0	ug/Kg	U
106-44-5	m,p-Cresol	C2023-7114	35.6	35.6	ug/Kg	U
91-94-1	3,3'-Dichlorobenzidine	C2023-7114	55.5	55.5	ug/Kg	U
99-09-2	3-Nitroaniline	C2023-7114	19.8	19.8	ug/Kg	U
534-52-1	4,6-Dinitro-o-cresol	C2023-7114	503	503	ug/Kg	U
101-55-3	4-Bromophenylphenyl ether	C2023-7114	52.2	52.2	ug/Kg	U
59-50-7	4-Chloro-3-methylphenol	C2023-7114	42.9	42.9	ug/Kg	U
106-47-8	4-Chloroaniline	C2023-7114	43.8	43.8	ug/Kg	U
7005-72-3	4-Chlorophenylphenyl ether	C2023-7114	44.8	44.8	ug/Kg	U
100-01-6	4-Nitroaniline	C2023-7114	113	113	ug/Kg	U
100-02-7	4-Nitrophenol	C2023-7114	768	768	ug/Kg	U
83-32-9	Acenaphthene	C2023-7114	48.4	48.4	ug/Kg	U
208-96-8	Acenaphthylene	C2023-7114	39.6	39.6	ug/Kg	U
62-53-3	Aniline	C2023-7114	35.8	35.8	ug/Kg	U

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05/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0805165-2
Client Sample ID: PLP-6
Matrix: Soil
Type: Composite
Collected: 05/07/2008 14:30
% Solid: 86.9%
Remarks:
Analyzed Date: 05/08/2008
Preparation Date(s) : 05/08/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
120-12-7	Anthracene	C2023-7114	51.2	51.2	ug/Kg	U
92-87-5	Benzidine	C2023-7114	1010	1010	ug/Kg	U
56-55-3	Benzo[a]anthracene	C2023-7114	48.7	**57.1**	ug/Kg	J
50-32-8	Benzo[a]pyrene	C2023-7114	60.0	60.0	ug/Kg	U
205-99-2	Benzo[b]fluoranthene	C2023-7114	47.8	47.8	ug/Kg	U
191-24-2	Benzo[g,h,i]perylene	C2023-7114	87.9	87.9	ug/Kg	U
207-08-9	Benzo[k]fluoranthene	C2023-7114	87.6	87.6	ug/Kg	U
65-85-0	Benzoic acid	C2023-7114	6740	6740	ug/Kg	U
100-51-6	Benzyl alcohol	C2023-7114	67.9	67.9	ug/Kg	U
111-91-1	bis(2-chloroethoxy)methane	C2023-7114	47.6	47.6	ug/Kg	U
111-44-4	bis(2-chloroethyl)ether	C2023-7114	54.4	54.4	ug/Kg	U
108-60-1	bis(2-chloroisopropyl)ether	C2023-7114	42.2	42.2	ug/Kg	U
117-81-7	bis(2-Ethylhexyl)phthalate	C2023-7114	75.4	**829**	ug/Kg	
85-68-7	Butyl benzyl phthalate	C2023-7114	60.8	60.8	ug/Kg	U
86-74-8	Carbazole	C2023-7114	66.3	66.3	ug/Kg	U
218-01-9	Chrysene	C2023-7114	60.9	**61.6**	ug/Kg	J
	Cresol (total)	C2023-7114	76.8	76.8	ug/Kg	U
84-74-2	Di-n-butyl phthalate	C2023-7114	64.8	64.8	ug/Kg	U
117-84-0	Di-n-octyl phthalate	C2023-7114	56.6	56.6	ug/Kg	U
53-70-3	Dibenzo[a,h]anthracene	C2023-7114	64.2	64.2	ug/Kg	U
132-64-9	Dibenzofuran	C2023-7114	38.4	38.4	ug/Kg	U
84-66-2	Diethyl phthalate	C2023-7114	75.3	75.3	ug/Kg	U
131-11-3	Dimethyl phthalate	C2023-7114	55.6	55.6	ug/Kg	U
206-44-0	Fluoranthene	C2023-7114	63.4	63.4	ug/Kg	U
86-73-7	Fluorene	C2023-7114	46.3	46.3	ug/Kg	U
118-74-1	Hexachlorobenzene	C2023-7114	49.3	49.3	ug/Kg	U
87-68-3	Hexachlorobutadiene	C2023-7114	46.0	46.0	ug/Kg	U
77-47-4	Hexachlorocyclopentadiene	C2023-7114	356	356	ug/Kg	U
67-72-1	Hexachloroethane	C2023-7114	51.2	51.2	ug/Kg	U
193-39-5	Indeno[1,2,3-cd]pyrene	C2023-7114	53.2	53.2	ug/Kg	U
78-59-1	Isophorone	C2023-7114	52.6	52.6	ug/Kg	U
621-64-7	Di-n-propylnitrosamine	C2023-7114	34.8	34.8	ug/Kg	U

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05/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0805165-2
Client Sample ID: PLP-6
Matrix: Soil
Type: Composite
Collected: 05/07/2008 14:30
% Solid: 86.9%
Remarks:
Analyzed Date: 05/08/2008
Preparation Date(s) : 05/08/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
62-75-9	n-Nitrosodimethylamine	C2023-7114	73.1	73.1	ug/Kg	U
86-30-6	Diphenylnitrosamine	C2023-7114	62.7	62.7	ug/Kg	U
91-20-3	Naphthalene	C2023-7114	46.3	46.3	ug/Kg	U
98-95-3	Nitrobenzene	C2023-7114	44.5	44.5	ug/Kg	U
87-86-5	Pentachlorophenol	C2023-7114	436	436	ug/Kg	U
85-01-8	Phenanthrene	C2023-7114	52.4	52.4	ug/Kg	U
108-95-2	Phenol	C2023-7114	30.0	30.0	ug/Kg	U
129-00-0	Pyrene	C2023-7114	42.6	42.6	ug/Kg	U
110-86-1	Pyridine	C2023-7114	65.9	65.9	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2023-7114	80.6 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2023-7114	74.9 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2023-7114	57.7 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2023-7114	62.7 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2023-7114	59.4 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2023-7114	65.6 %	(18 - 137)	

Environmental Testing Laboratories, Inc. Page G-468
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05/28/2008

Mercury by SW846 7470/7471/EPA 245.1

Sample: 0805165-1
Client Sample ID: PLP-7
Matrix: Soil
Remarks:
Analyzed Date: 05/08/2008
Preparation Date(s) : 05/08/2008

Type: Composite

Collected: 05/07/2008 13:30
% Solid: 57.6%

Analytical Results

Cas No	Analyte	MDL	Concentration*	Units	Q
7439-97-6	Mercury	0.0094	**9.55**	mg/Kg	

* Results are reported on a dry weight basis

Sample: 0805165-2
Client Sample ID: PLP-6
Matrix: Soil
Remarks:
Analyzed Date: 05/08/2008
Preparation Date(s) : 05/08/2008

Type: Composite

Collected: 05/07/2008 14:30
% Solid: 86.9%

Analytical Results

Cas No	Analyte	MDL	Concentration*	Units	Q
7439-97-6	Mercury	0.0015	**0.089**	mg/Kg	

* Results are reported on a dry weight basis

Environmental Testing Laboratories, Inc. Page G-469
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05/28/2008

Suffolk County Metals by SW846 6010/EPA 200.7

Sample: 0805165-1
Client Sample ID: PLP-7
Matrix: Soil Type: Composite
Remarks:
Analyzed Date: 05/09/2008
Preparation Date(s) : 05/08/2008 05/08/2008
Collected: 05/07/2008 13:30
% Solid: 57.6%

Analytical Results

Cas No	Analyte	MDL	Concentration*	Units	Q
7440-38-2	Arsenic	1.64	1.64	mg/Kg	U
7440-41-7	Beryllium	0.034	0.034	mg/Kg	U
7440-43-9	Cadmium	0.12	**8.34**	mg/Kg	
7440-47-3	Chromium	0.17	**113**	mg/Kg	
7440-50-8	Copper	0.52	**267**	mg/Kg	
7439-92-1	Lead	0.41	**92.5**	mg/Kg	
7440-02-0	Nickel	0.29	**14.9**	mg/Kg	
7440-22-4	Silver	0.051	**162**	mg/Kg	
7440-66-6	Zinc	0.98	**487**	mg/Kg	

* Results are reported on a dry weight basis

Sample: 0805165-2
Client Sample ID: PLP-6
Matrix: Soil Type: Composite
Remarks:
Analyzed Date: 05/09/2008
Preparation Date(s) : 05/08/2008 05/08/2008
Collected: 05/07/2008 14:30
% Solid: 86.9%

Analytical Results

Cas No	Analyte	MDL	Concentration*	Units	Q
7440-38-2	Arsenic	1.08	1.08	mg/Kg	U
7440-41-7	Beryllium	0.022	0.022	mg/Kg	U
7440-43-9	Cadmium	0.078	0.078	mg/Kg	U
7440-47-3	Chromium	0.11	**5.82**	mg/Kg	
7440-50-8	Copper	0.34	**10.7**	mg/Kg	
7439-92-1	Lead	0.27	**13.6**	mg/Kg	
7440-02-0	Nickel	0.19	**4.08**	mg/Kg	
7440-22-4	Silver	0.033	**4.05**	mg/Kg	
7440-66-6	Zinc	0.64	**25.7**	mg/Kg	

* Results are reported on a dry weight basis

Environmental Testing Laboratories, Inc. Page G-470
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05/28/2008

ORGANIC METHOD QUALIFIERS

Q - Qualifier - specified entries and their meanings are as follows:

U - The analytical result is not detected above the Method Detection Limit (MDL). All MDL's are lower than the lowest calibration standard concentration.

J - Indicates an estimated value. The concentration reported was between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).

B - The analyte was found in the associated method blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E - The concentration of the analyte exceeded the calibration range of the instrument.

D - This flag indicates a system monitoring compound diluted out.

INORGANIC METHOD QUALIFIERS

C - (Concentration) qualifiers are as follows:

B - Entered if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL).

U - Entered when the analyte was analyzed for, but not detected above the Method Detection Limit (MDL) which is less than the lowest calibration standard concentration.

Q - Qualifier specific entries and their meanings are as follows:

E - Reported value is estimated because of the presence of interferences.

M - (Method) qualifiers are as follows:

A - Flame AA
AS - Semi-automated Spectrophotometric
AV - Automated Cold Vapor AA
C - Manual Spectrophotometric
F - Furnace AA
P - ICP
T - Titrimetric

OTHER QUALIFIERS

ND - Not Detected

Environmental Testing Laboratories, Inc. Page G-471
208 Route 109, Farmingdale NY 11735
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04/28/2008

Laboratory Identifier: 0804503
Received: 04/18/2008 16:37
Sampled by: Jennifer Lewis

Client: PW Grosser Consulting Engineers PC
630 Johnson Avenue - Suite 7
Bohemia,
NY 11716-2618

Project: GYRODOME
Flowerfields
St James,
NY
Area: GCA0801

Manager: Bryan Devaux

Respectfully submitted,

Technical Director

NYS Lab ID # 10969
NJ Cert. # 73812
CT Cert. # PH0645
MA Cert. # NY061
NH Cert. # 252592-BA

Environmental Testing Laboratories, Inc. Page G-472
208 Route 109, Farmingdale NY 11735
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04/28/2008

Volatiles - EPA 8260B

Sample: 0804503-9
Client Sample ID: SB-8
Matrix: Soil
Type: Grab
Collected: 04/18/2008 14:45
% Solid: 84.8%
Remarks: See Case Narrative
Analyzed Date: 04/20/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
630-20-6	1,1,1,2-Tetrachloroethane	B2629-4640	0.54	0.54	ug/Kg	U
71-55-6	1,1,1-Trichloroethane	B2629-4640	0.61	0.61	ug/Kg	U
79-34-5	1,1,2,2-Tetrachloroethane	B2629-4640	0.71	0.71	ug/Kg	U
79-00-5	1,1,2-Trichloroethane	B2629-4640	0.74	0.74	ug/Kg	U
76-13-1	1,1,2-Trichlorotrifluoroethane	B2629-4640	0.61	0.61	ug/Kg	U
75-34-3	1,1-Dichloroethane	B2629-4640	0.67	0.67	ug/Kg	U
75-35-4	1,1-Dichloroethene	B2629-4640	0.44	0.44	ug/Kg	U
563-58-6	1,1-Dichloropropene	B2629-4640	0.63	0.63	ug/Kg	U
87-61-6	1,2,3-Trichlorobenzene	B2629-4640	0.57	0.57	ug/Kg	U
96-18-4	1,2,3-Trichloropropane	B2629-4640	0.84	0.84	ug/Kg	U
95-93-2	1,2,4,5-Tetramethylbenzene	B2629-4640	0.47	0.47	ug/Kg	U
120-82-1	1,2,4-Trichlorobenzene	B2629-4640	0.40	0.40	ug/Kg	U
95-63-6	1,2,4-Trimethylbenzene	B2629-4640	0.44	0.44	ug/Kg	U
96-12-8	1,2-Dibromo-3-chloropropane	B2629-4640	0.54	0.54	ug/Kg	U
106-93-4	1,2-Dibromoethane	B2629-4640	0.70	0.70	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	B2629-4640	0.55	0.55	ug/Kg	U
107-06-2	1,2-Dichloroethane	B2629-4640	0.68	0.68	ug/Kg	U
78-87-5	1,2-Dichloropropane	B2629-4640	0.70	0.70	ug/Kg	U
108-67-8	1,3,5-Trimethylbenzene	B2629-4640	0.52	0.52	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	B2629-4640	0.63	0.63	ug/Kg	U
142-28-9	1,3-Dichloropropane	B2629-4640	0.61	0.61	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	B2629-4640	0.57	0.57	ug/Kg	U
590-20-7	2,2-Dichloropropane	B2629-4640	0.70	0.70	ug/Kg	U
78-93-3	2-Butanone	B2629-4640	2.62	2.62	ug/Kg	U
110-75-8	2-Chloroethylvinylether	B2629-4640	0.76	0.76	ug/Kg	U
95-49-8	2-Chlorotoluene	B2629-4640	0.63	0.63	ug/Kg	U
591-78-6	2-Hexanone	B2629-4640	2.34	2.34	ug/Kg	U
106-43-4	4-Chlorotoluene	B2629-4640	0.59	0.59	ug/Kg	U
99-87-6	4-Isopropyltoluene	B2629-4640	0.55	0.55	ug/Kg	U
108-10-1	4-Methyl-2-pentanone	B2629-4640	2.54	2.54	ug/Kg	U
67-64-1	Acetone	B2629-4640	3.07	3.07	ug/Kg	U
107-13-1	Acrylonitrile	B2629-4640	8.25	8.25	ug/Kg	U
71-43-2	Benzene	B2629-4640	0.63	0.63	ug/Kg	U

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04/28/2008

Volatiles - EPA 8260B

Sample: 0804503-9
Client Sample ID: SB-8
Matrix: Soil
Type: Grab
Collected: 04/18/2008 14:45
% Solid: 84.8%
Remarks: See Case Narrative
Analyzed Date: 04/20/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
108-86-1	Bromobenzene	B2629-4640	0.60	0.60	ug/Kg	U
74-97-5	Bromochloromethane	B2629-4640	0.68	0.68	ug/Kg	U
75-27-4	Bromodichloromethane	B2629-4640	0.55	0.55	ug/Kg	U
75-25-2	Bromoform	B2629-4640	0.57	0.57	ug/Kg	U
74-83-9	Bromomethane	B2629-4640	0.58	0.58	ug/Kg	U
156-59-2	c-1,2-Dichloroethene	B2629-4640	0.53	0.53	ug/Kg	U
10061-01-5	c-1,3-Dichloropropene	B2629-4640	0.60	0.60	ug/Kg	U
75-15-0	Carbon disulfide	B2629-4640	0.55	0.55	ug/Kg	U
56-23-5	Carbon Tetrachloride	B2629-4640	0.66	0.66	ug/Kg	U
108-90-7	Chlorobenzene	B2629-4640	0.72	0.72	ug/Kg	U
75-45-6	Chlorodifluoromethane	B2629-4640	1.04	1.04	ug/Kg	U
75-00-3	Chloroethane	B2629-4640	0.83	0.83	ug/Kg	U
67-66-3	Chloroform	B2629-4640	0.70	0.70	ug/Kg	U
74-87-3	Chloromethane	B2629-4640	0.59	0.59	ug/Kg	U
124-48-1	Dibromochloromethane	B2629-4640	0.54	0.54	ug/Kg	U
74-95-3	Dibromomethane	B2629-4640	0.93	0.93	ug/Kg	U
75-71-8	Dichlorodifluoromethane	B2629-4640	0.44	0.44	ug/Kg	U
100-41-4	Ethylbenzene	B2629-4640	0.61	0.61	ug/Kg	U
87-68-3	Hexachlorobutadiene	B2629-4640	0.57	0.57	ug/Kg	U
98-82-8	Isopropylbenzene	B2629-4640	0.52	0.52	ug/Kg	U
108-38-3	m,p-xylene	B2629-4640	1.06	1.06	ug/Kg	U
1634-04-4	Methyl t-butyl ether	B2629-4640	0.61	0.61	ug/Kg	U
75-09-2	Methylene Chloride	B2629-4640	1.11	1.11	ug/Kg	U
104-51-8	n-Butylbenzene	B2629-4640	0.57	0.57	ug/Kg	U
103-65-1	n-Propylbenzene	B2629-4640	0.54	0.54	ug/Kg	U
91-20-3	Naphthalene	B2629-4640	0.53	0.53	ug/Kg	U
95-47-6	o-xylene	B2629-4640	0.46	0.46	ug/Kg	U
105-05-5	p-Diethylbenzene	B2629-4640	0.54	0.54	ug/Kg	U
622-96-8	p-Ethyltoluene	B2629-4640	0.50	0.50	ug/Kg	U
135-98-8	sec-Butylbenzene	B2629-4640	0.53	0.53	ug/Kg	U
100-42-5	Styrene	B2629-4640	0.51	0.51	ug/Kg	U
156-60-5	t-1,2-Dichloroethene	B2629-4640	0.54	0.54	ug/Kg	U
10061-02-6	t-1,3-Dichloropropene	B2629-4640	0.50	0.50	ug/Kg	U

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04/28/2008

Volatiles - EPA 8260B

Sample: 0804503-9
Client Sample ID: SB-8
Matrix: Soil
Type: Grab
Collected: 04/18/2008 14:45
% Solid: 84.8%
Remarks: See Case Narrative
Analyzed Date: 04/20/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
994-05-8	TAME	B2629-4640	0.74	0.74	ug/Kg	U
98-06-6	tert-Butylbenzene	B2629-4640	0.63	0.63	ug/Kg	U
75-65-0	Tertiary butyl alcohol	B2629-4640	6.36	6.36	ug/Kg	U
127-18-4	Tetrachloroethene	B2629-4640	0.53	0.53	ug/Kg	U
108-88-3	Toluene	B2629-4640	0.57	0.57	ug/Kg	U
79-01-6	Trichloroethene	B2629-4640	0.58	0.58	ug/Kg	U
75-69-4	Trichlorofluoromethane	B2629-4640	0.66	0.66	ug/Kg	U
75-01-4	Vinyl Chloride	B2629-4640	0.80	0.80	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	B2629-4640	113.0 %	(82 - 148)	
460-00-4	4-BROMOFLUOROBENZENE	B2629-4640	95.6 %	(74 - 108)	
4774-33-8	DIBROMOFLUOROMETHANE	B2629-4640	107.0 %	(80 - 140)	
2037-26-5	TOLUENE-D8	B2629-4640	101.0 %	(85 - 110)	

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04/28/2008

Volatiles - EPA 8260B

Sample: 0804503-10
Client Sample ID: SB-26
Matrix: Soil
Type: Grab
Collected: 04/18/2008 14:50
% Solid: 78.6%
Remarks: See Case Narrative
Analyzed Date: 04/20/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
630-20-6	1,1,1,2-Tetrachloroethane	B2629-4641	0.58	0.58	ug/Kg	U
71-55-6	1,1,1-Trichloroethane	B2629-4641	0.66	0.66	ug/Kg	U
79-34-5	1,1,2,2-Tetrachloroethane	B2629-4641	0.76	0.76	ug/Kg	U
79-00-5	1,1,2-Trichloroethane	B2629-4641	0.80	0.80	ug/Kg	U
76-13-1	1,1,2-Trichlorotrifluoroethane	B2629-4641	0.66	0.66	ug/Kg	U
75-34-3	1,1-Dichloroethane	B2629-4641	0.72	0.72	ug/Kg	U
75-35-4	1,1-Dichloroethene	B2629-4641	0.47	0.47	ug/Kg	U
563-58-6	1,1-Dichloropropene	B2629-4641	0.67	0.67	ug/Kg	U
87-61-6	1,2,3-Trichlorobenzene	B2629-4641	0.61	0.61	ug/Kg	U
96-18-4	1,2,3-Trichloropropane	B2629-4641	0.90	0.90	ug/Kg	U
95-93-2	1,2,4,5-Tetramethylbenzene	B2629-4641	0.51	0.51	ug/Kg	U
120-82-1	1,2,4-Trichlorobenzene	B2629-4641	0.43	0.43	ug/Kg	U
95-63-6	1,2,4-Trimethylbenzene	B2629-4641	0.47	0.47	ug/Kg	U
96-12-8	1,2-Dibromo-3-chloropropane	B2629-4641	0.58	0.58	ug/Kg	U
106-93-4	1,2-Dibromoethane	B2629-4641	0.75	0.75	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	B2629-4641	0.60	0.60	ug/Kg	U
107-06-2	1,2-Dichloroethane	B2629-4641	0.74	0.74	ug/Kg	U
78-87-5	1,2-Dichloropropane	B2629-4641	0.75	0.75	ug/Kg	U
108-67-8	1,3,5-Trimethylbenzene	B2629-4641	0.56	0.56	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	B2629-4641	0.67	0.67	ug/Kg	U
142-28-9	1,3-Dichloropropane	B2629-4641	0.66	0.66	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	B2629-4641	0.61	0.61	ug/Kg	U
590-20-7	2,2-Dichloropropane	B2629-4641	0.75	0.75	ug/Kg	U
78-93-3	2-Butanone	B2629-4641	2.82	2.82	ug/Kg	U
110-75-8	2-Chloroethylvinylether	B2629-4641	0.81	0.81	ug/Kg	U
95-49-8	2-Chlorotoluene	B2629-4641	0.67	0.67	ug/Kg	U
591-78-6	2-Hexanone	B2629-4641	2.51	2.51	ug/Kg	U
106-43-4	4-Chlorotoluene	B2629-4641	0.63	0.63	ug/Kg	U
99-87-6	4-Isopropyltoluene	B2629-4641	0.60	0.60	ug/Kg	U
108-10-1	4-Methyl-2-pentanone	B2629-4641	2.73	2.73	ug/Kg	U
67-64-1	Acetone	B2629-4641	3.30	3.30	ug/Kg	U
107-13-1	Acrylonitrile	B2629-4641	8.88	8.88	ug/Kg	U
71-43-2	Benzene	B2629-4641	0.67	0.67	ug/Kg	U

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Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

Volatiles - EPA 8260B

Sample: 0804503-10
Client Sample ID: SB-26
Matrix: Soil
Type: Grab
Collected: 04/18/2008 14:50
% Solid: 78.6%
Remarks: See Case Narrative
Analyzed Date: 04/20/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
108-86-1	Bromobenzene	B2629-4641	0.65	0.65	ug/Kg	U
74-97-5	Bromochloromethane	B2629-4641	0.74	0.74	ug/Kg	U
75-27-4	Bromodichloromethane	B2629-4641	0.60	0.60	ug/Kg	U
75-25-2	Bromoform	B2629-4641	0.61	0.61	ug/Kg	U
74-83-9	Bromomethane	B2629-4641	0.62	0.62	ug/Kg	U
156-59-2	c-1,2-Dichloroethene	B2629-4641	0.57	0.57	ug/Kg	U
10061-01-5	c-1,3-Dichloropropene	B2629-4641	0.65	0.65	ug/Kg	U
75-15-0	Carbon disulfide	B2629-4641	0.60	0.60	ug/Kg	U
56-23-5	Carbon Tetrachloride	B2629-4641	0.71	0.71	ug/Kg	U
108-90-7	Chlorobenzene	B2629-4641	0.77	0.77	ug/Kg	U
75-45-6	Chlorodifluoromethane	B2629-4641	1.12	1.12	ug/Kg	U
75-00-3	Chloroethane	B2629-4641	0.89	0.89	ug/Kg	U
67-66-3	Chloroform	B2629-4641	0.75	0.75	ug/Kg	U
74-87-3	Chloromethane	B2629-4641	0.63	0.63	ug/Kg	U
124-48-1	Dibromochloromethane	B2629-4641	0.58	0.58	ug/Kg	U
74-95-3	Dibromomethane	B2629-4641	1.00	1.00	ug/Kg	U
75-71-8	Dichlorodifluoromethane	B2629-4641	0.47	0.47	ug/Kg	U
100-41-4	Ethylbenzene	B2629-4641	0.66	0.66	ug/Kg	U
87-68-3	Hexachlorobutadiene	B2629-4641	0.61	0.61	ug/Kg	U
98-82-8	Isopropylbenzene	B2629-4641	0.56	0.56	ug/Kg	U
108-38-3	m,p-xylene	B2629-4641	1.14	1.14	ug/Kg	U
1634-04-4	Methyl t-butyl ether	B2629-4641	0.66	0.66	ug/Kg	U
75-09-2	Methylene Chloride	B2629-4641	1.19	1.19	ug/Kg	U
104-51-8	n-Butylbenzene	B2629-4641	0.61	0.61	ug/Kg	U
103-65-1	n-Propylbenzene	B2629-4641	0.58	0.58	ug/Kg	U
91-20-3	Naphthalene	B2629-4641	0.57	0.57	ug/Kg	U
95-47-6	o-xylene	B2629-4641	0.50	0.50	ug/Kg	U
105-05-5	p-Diethylbenzene	B2629-4641	0.58	0.58	ug/Kg	U
622-96-8	p-Ethyltoluene	B2629-4641	0.53	0.53	ug/Kg	U
135-98-8	sec-Butylbenzene	B2629-4641	0.57	0.57	ug/Kg	U
100-42-5	Styrene	B2629-4641	0.55	0.55	ug/Kg	U
156-60-5	t-1,2-Dichloroethene	B2629-4641	0.58	0.58	ug/Kg	U
10061-02-6	t-1,3-Dichloropropene	B2629-4641	0.53	0.53	ug/Kg	U

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04/28/2008

Volatiles - EPA 8260B

Sample: 0804503-10
Client Sample ID: SB-26
Matrix: Soil
Type: Grab
Collected: 04/18/2008 14:50
% Solid: 78.6%
Remarks: See Case Narrative
Analyzed Date: 04/20/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
994-05-8	TAME	B2629-4641	0.80	0.80	ug/Kg	U
98-06-6	tert-Butylbenzene	B2629-4641	0.67	0.67	ug/Kg	U
75-65-0	Tertiary butyl alcohol	B2629-4641	6.85	6.85	ug/Kg	U
127-18-4	Tetrachloroethene	B2629-4641	0.57	0.57	ug/Kg	U
108-88-3	Toluene	B2629-4641	0.61	0.61	ug/Kg	U
79-01-6	Trichloroethene	B2629-4641	0.62	0.62	ug/Kg	U
75-69-4	Trichlorofluoromethane	B2629-4641	0.71	0.71	ug/Kg	U
75-01-4	Vinyl Chloride	B2629-4641	0.86	0.86	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	B2629-4641	108.0 %	(82 - 148)	
460-00-4	4-BROMOFLUOROBENZENE	B2629-4641	92.7 %	(74 - 108)	
4774-33-8	DIBROMOFLUOROMETHANE	B2629-4641	110.0 %	(80 - 140)	
2037-26-5	TOLUENE-D8	B2629-4641	96.9 %	(85 - 110)	

Environmental Testing Laboratories, Inc. Page G-478
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04/28/2008

Volatiles - EPA 8260B

Sample: 0804503-11
Client Sample ID: SB-7
Matrix: Soil
Type: Grab
Collected: 04/18/2008 15:10
% Solid: 86.2%
Remarks: See Case Narrative
Analyzed Date: 04/19/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
630-20-6	1,1,1,2-Tetrachloroethane	B2628-4626	0.53	0.53	ug/Kg	U
71-55-6	1,1,1-Trichloroethane	B2628-4626	0.60	0.60	ug/Kg	U
79-34-5	1,1,2,2-Tetrachloroethane	B2628-4626	0.70	0.70	ug/Kg	U
79-00-5	1,1,2-Trichloroethane	B2628-4626	0.73	0.73	ug/Kg	U
76-13-1	1,1,2-Trichlorotrifluoroethane	B2628-4626	0.60	0.60	ug/Kg	U
75-34-3	1,1-Dichloroethane	B2628-4626	0.66	0.66	ug/Kg	U
75-35-4	1,1-Dichloroethene	B2628-4626	0.43	0.43	ug/Kg	U
563-58-6	1,1-Dichloropropene	B2628-4626	0.61	0.61	ug/Kg	U
87-61-6	1,2,3-Trichlorobenzene	B2628-4626	0.56	0.56	ug/Kg	U
96-18-4	1,2,3-Trichloropropane	B2628-4626	0.82	0.82	ug/Kg	U
95-93-2	1,2,4,5-Tetramethylbenzene	B2628-4626	0.46	0.46	ug/Kg	U
120-82-1	1,2,4-Trichlorobenzene	B2628-4626	0.39	0.39	ug/Kg	U
95-63-6	1,2,4-Trimethylbenzene	B2628-4626	0.43	0.43	ug/Kg	U
96-12-8	1,2-Dibromo-3-chloropropane	B2628-4626	0.53	0.53	ug/Kg	U
106-93-4	1,2-Dibromoethane	B2628-4626	0.68	0.68	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	B2628-4626	0.55	0.55	ug/Kg	U
107-06-2	1,2-Dichloroethane	B2628-4626	0.67	0.67	ug/Kg	U
78-87-5	1,2-Dichloropropane	B2628-4626	0.68	0.68	ug/Kg	U
108-67-8	1,3,5-Trimethylbenzene	B2628-4626	0.51	0.51	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	B2628-4626	0.61	0.61	ug/Kg	U
142-28-9	1,3-Dichloropropane	B2628-4626	0.60	0.60	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	B2628-4626	0.56	0.56	ug/Kg	U
590-20-7	2,2-Dichloropropane	B2628-4626	0.68	0.68	ug/Kg	U
78-93-3	2-Butanone	B2628-4626	2.58	2.58	ug/Kg	U
110-75-8	2-Chloroethylvinylether	B2628-4626	0.74	0.74	ug/Kg	U
95-49-8	2-Chlorotoluene	B2628-4626	0.61	0.61	ug/Kg	U
591-78-6	2-Hexanone	B2628-4626	2.30	2.30	ug/Kg	U
106-43-4	4-Chlorotoluene	B2628-4626	0.58	0.58	ug/Kg	U
99-87-6	4-Isopropyltoluene	B2628-4626	0.55	0.55	ug/Kg	U
108-10-1	4-Methyl-2-pentanone	B2628-4626	2.49	2.49	ug/Kg	U
67-64-1	Acetone	B2628-4626	3.02	3.02	ug/Kg	U
107-13-1	Acrylonitrile	B2628-4626	8.11	8.11	ug/Kg	U
71-43-2	Benzene	B2628-4626	0.61	0.61	ug/Kg	U

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Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

Volatiles - EPA 8260B

Sample: 0804503-11
Client Sample ID: SB-7
Matrix: Soil
Type: Grab
Collected: 04/18/2008 15:10
% Solid: 86.2%
Remarks: See Case Narrative
Analyzed Date: 04/19/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
108-86-1	Bromobenzene	B2628-4626	0.59	0.59	ug/Kg	U
74-97-5	Bromochloromethane	B2628-4626	0.67	0.67	ug/Kg	U
75-27-4	Bromodichloromethane	B2628-4626	0.55	0.55	ug/Kg	U
75-25-2	Bromoform	B2628-4626	0.56	0.56	ug/Kg	U
74-83-9	Bromomethane	B2628-4626	0.57	0.57	ug/Kg	U
156-59-2	c-1,2-Dichloroethene	B2628-4626	0.52	0.52	ug/Kg	U
10061-01-5	c-1,3-Dichloropropene	B2628-4626	0.59	0.59	ug/Kg	U
75-15-0	Carbon disulfide	B2628-4626	0.55	0.55	ug/Kg	U
56-23-5	Carbon Tetrachloride	B2628-4626	0.65	0.65	ug/Kg	U
108-90-7	Chlorobenzene	B2628-4626	0.71	0.71	ug/Kg	U
75-45-6	Chlorodifluoromethane	B2628-4626	1.02	1.02	ug/Kg	U
75-00-3	Chloroethane	B2628-4626	0.81	0.81	ug/Kg	U
67-66-3	Chloroform	B2628-4626	0.68	0.68	ug/Kg	U
74-87-3	Chloromethane	B2628-4626	0.58	0.58	ug/Kg	U
124-48-1	Dibromochloromethane	B2628-4626	0.53	0.53	ug/Kg	U
74-95-3	Dibromomethane	B2628-4626	0.92	0.92	ug/Kg	U
75-71-8	Dichlorodifluoromethane	B2628-4626	0.43	0.43	ug/Kg	U
100-41-4	Ethylbenzene	B2628-4626	0.60	0.60	ug/Kg	U
87-68-3	Hexachlorobutadiene	B2628-4626	0.56	0.56	ug/Kg	U
98-82-8	Isopropylbenzene	B2628-4626	0.51	0.51	ug/Kg	U
108-38-3	m,p-xylene	B2628-4626	1.04	1.04	ug/Kg	U
1634-04-4	Methyl t-butyl ether	B2628-4626	0.60	0.60	ug/Kg	U
75-09-2	Methylene Chloride	B2628-4626	1.09	1.09	ug/Kg	U
104-51-8	n-Butylbenzene	B2628-4626	0.56	0.56	ug/Kg	U
103-65-1	n-Propylbenzene	B2628-4626	0.53	0.53	ug/Kg	U
91-20-3	Naphthalene	B2628-4626	0.52	0.52	ug/Kg	U
95-47-6	o-xylene	B2628-4626	0.45	0.45	ug/Kg	U
105-05-5	p-Diethylbenzene	B2628-4626	0.53	0.53	ug/Kg	U
622-96-8	p-Ethyltoluene	B2628-4626	0.49	0.49	ug/Kg	U
135-98-8	sec-Butylbenzene	B2628-4626	0.52	0.52	ug/Kg	U
100-42-5	Styrene	B2628-4626	0.50	0.50	ug/Kg	U
156-60-5	t-1,2-Dichloroethene	B2628-4626	0.53	0.53	ug/Kg	U
10061-02-6	t-1,3-Dichloropropene	B2628-4626	0.49	0.49	ug/Kg	U

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04/28/2008

Volatiles - EPA 8260B

Sample: 0804503-11
Client Sample ID: SB-7
Matrix: Soil
Type: Grab
Collected: 04/18/2008 15:10
% Solid: 86.2%
Remarks: See Case Narrative
Analyzed Date: 04/19/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
994-05-8	TAME	B2628-4626	0.73	0.73	ug/Kg	U
98-06-6	tert-Butylbenzene	B2628-4626	0.61	0.61	ug/Kg	U
75-65-0	Tertiary butyl alcohol	B2628-4626	6.25	6.25	ug/Kg	U
127-18-4	Tetrachloroethene	B2628-4626	0.52	0.52	ug/Kg	U
108-88-3	Toluene	B2628-4626	0.56	0.56	ug/Kg	U
79-01-6	Trichloroethene	B2628-4626	0.57	0.57	ug/Kg	U
75-69-4	Trichlorofluoromethane	B2628-4626	0.65	0.65	ug/Kg	U
75-01-4	Vinyl Chloride	B2628-4626	0.79	0.79	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	B2628-4626	111.0 %	(82 - 148)	
460-00-4	4-BROMOFLUOROBENZENE	B2628-4626	92.3 %	(74 - 108)	
4774-33-8	DIBROMOFLUOROMETHANE	B2628-4626	115.0 %	(80 - 140)	
2037-26-5	TOLUENE-D8	B2628-4626	98.1 %	(85 - 110)	

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04/28/2008

Volatiles - EPA 8260B

Sample: 0804503-12
Client Sample ID: SB-27
Matrix: Soil
Type: Grab
Collected: 04/18/2008 15:15
% Solid: 86.5%
Remarks: See Case Narrative
Analyzed Date: 04/20/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
630-20-6	1,1,1,2-Tetrachloroethane	B2628-4627	0.53	0.53	ug/Kg	U
71-55-6	1,1,1-Trichloroethane	B2628-4627	0.60	0.60	ug/Kg	U
79-34-5	1,1,2,2-Tetrachloroethane	B2628-4627	0.70	0.70	ug/Kg	U
79-00-5	1,1,2-Trichloroethane	B2628-4627	0.73	0.73	ug/Kg	U
76-13-1	1,1,2-Trichlorotrifluoroethane	B2628-4627	0.60	0.60	ug/Kg	U
75-34-3	1,1-Dichloroethane	B2628-4627	0.66	0.66	ug/Kg	U
75-35-4	1,1-Dichloroethene	B2628-4627	0.43	0.43	ug/Kg	U
563-58-6	1,1-Dichloropropene	B2628-4627	0.61	0.61	ug/Kg	U
87-61-6	1,2,3-Trichlorobenzene	B2628-4627	0.56	0.56	ug/Kg	U
96-18-4	1,2,3-Trichloropropane	B2628-4627	0.82	0.82	ug/Kg	U
95-93-2	1,2,4,5-Tetramethylbenzene	B2628-4627	0.46	0.46	ug/Kg	U
120-82-1	1,2,4-Trichlorobenzene	B2628-4627	0.39	0.39	ug/Kg	U
95-63-6	1,2,4-Trimethylbenzene	B2628-4627	0.43	0.43	ug/Kg	U
96-12-8	1,2-Dibromo-3-chloropropane	B2628-4627	0.53	0.53	ug/Kg	U
106-93-4	1,2-Dibromoethane	B2628-4627	0.68	0.68	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	B2628-4627	0.55	0.55	ug/Kg	U
107-06-2	1,2-Dichloroethane	B2628-4627	0.67	0.67	ug/Kg	U
78-87-5	1,2-Dichloropropane	B2628-4627	0.68	0.68	ug/Kg	U
108-67-8	1,3,5-Trimethylbenzene	B2628-4627	0.51	0.51	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	B2628-4627	0.61	0.61	ug/Kg	U
142-28-9	1,3-Dichloropropane	B2628-4627	0.60	0.60	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	B2628-4627	0.56	0.56	ug/Kg	U
590-20-7	2,2-Dichloropropane	B2628-4627	0.68	0.68	ug/Kg	U
78-93-3	2-Butanone	B2628-4627	2.58	2.58	ug/Kg	U
110-75-8	2-Chloroethylvinylether	B2628-4627	0.74	0.74	ug/Kg	U
95-49-8	2-Chlorotoluene	B2628-4627	0.61	0.61	ug/Kg	U
591-78-6	2-Hexanone	B2628-4627	2.30	2.30	ug/Kg	U
106-43-4	4-Chlorotoluene	B2628-4627	0.58	0.58	ug/Kg	U
99-87-6	4-Isopropyltoluene	B2628-4627	0.55	0.55	ug/Kg	U
108-10-1	4-Methyl-2-pentanone	B2628-4627	2.49	2.49	ug/Kg	U
67-64-1	Acetone	B2628-4627	3.02	3.02	ug/Kg	U
107-13-1	Acrylonitrile	B2628-4627	8.11	8.11	ug/Kg	U
71-43-2	Benzene	B2628-4627	0.61	0.61	ug/Kg	U

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04/28/2008

Volatiles - EPA 8260B

Sample: 0804503-12
Client Sample ID: SB-27
Matrix: Soil
Type: Grab
Collected: 04/18/2008 15:15
% Solid: 86.5%
Remarks: See Case Narrative
Analyzed Date: 04/20/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
108-86-1	Bromobenzene	B2628-4627	0.59	0.59	ug/Kg	U
74-97-5	Bromochloromethane	B2628-4627	0.67	0.67	ug/Kg	U
75-27-4	Bromodichloromethane	B2628-4627	0.55	0.55	ug/Kg	U
75-25-2	Bromoform	B2628-4627	0.56	0.56	ug/Kg	U
74-83-9	Bromomethane	B2628-4627	0.57	0.57	ug/Kg	U
156-59-2	c-1,2-Dichloroethene	B2628-4627	0.52	0.52	ug/Kg	U
10061-01-5	c-1,3-Dichloropropene	B2628-4627	0.59	0.59	ug/Kg	U
75-15-0	Carbon disulfide	B2628-4627	0.55	0.55	ug/Kg	U
56-23-5	Carbon Tetrachloride	B2628-4627	0.65	0.65	ug/Kg	U
108-90-7	Chlorobenzene	B2628-4627	0.71	0.71	ug/Kg	U
75-45-6	Chlorodifluoromethane	B2628-4627	1.02	1.02	ug/Kg	U
75-00-3	Chloroethane	B2628-4627	0.81	0.81	ug/Kg	U
67-66-3	Chloroform	B2628-4627	0.68	0.68	ug/Kg	U
74-87-3	Chloromethane	B2628-4627	0.58	0.58	ug/Kg	U
124-48-1	Dibromochloromethane	B2628-4627	0.53	0.53	ug/Kg	U
74-95-3	Dibromomethane	B2628-4627	0.92	0.92	ug/Kg	U
75-71-8	Dichlorodifluoromethane	B2628-4627	0.43	0.43	ug/Kg	U
100-41-4	Ethylbenzene	B2628-4627	0.60	0.60	ug/Kg	U
87-68-3	Hexachlorobutadiene	B2628-4627	0.56	0.56	ug/Kg	U
98-82-8	Isopropylbenzene	B2628-4627	0.51	0.51	ug/Kg	U
108-38-3	m,p-xylene	B2628-4627	1.04	1.04	ug/Kg	U
1634-04-4	Methyl t-butyl ether	B2628-4627	0.60	0.60	ug/Kg	U
75-09-2	Methylene Chloride	B2628-4627	1.09	1.09	ug/Kg	U
104-51-8	n-Butylbenzene	B2628-4627	0.56	0.56	ug/Kg	U
103-65-1	n-Propylbenzene	B2628-4627	0.53	0.53	ug/Kg	U
91-20-3	Naphthalene	B2628-4627	0.52	0.52	ug/Kg	U
95-47-6	o-xylene	B2628-4627	0.45	0.45	ug/Kg	U
105-05-5	p-Diethylbenzene	B2628-4627	0.53	0.53	ug/Kg	U
622-96-8	p-Ethyltoluene	B2628-4627	0.49	0.49	ug/Kg	U
135-98-8	sec-Butylbenzene	B2628-4627	0.52	0.52	ug/Kg	U
100-42-5	Styrene	B2628-4627	0.50	0.50	ug/Kg	U
156-60-5	t-1,2-Dichloroethene	B2628-4627	0.53	0.53	ug/Kg	U
10061-02-6	t-1,3-Dichloropropene	B2628-4627	0.49	0.49	ug/Kg	U

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04/28/2008

Volatiles - EPA 8260B

Sample: 0804503-12
Client Sample ID: SB-27
Matrix: Soil
Type: Grab
Collected: 04/18/2008 15:15
% Solid: 86.5%
Remarks: See Case Narrative
Analyzed Date: 04/20/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
994-05-8	TAME	B2628-4627	0.73	0.73	ug/Kg	U
98-06-6	tert-Butylbenzene	B2628-4627	0.61	0.61	ug/Kg	U
75-65-0	Tertiary butyl alcohol	B2628-4627	6.25	6.25	ug/Kg	U
127-18-4	Tetrachloroethene	B2628-4627	0.52	0.52	ug/Kg	U
108-88-3	Toluene	B2628-4627	0.56	0.56	ug/Kg	U
79-01-6	Trichloroethene	B2628-4627	0.57	0.57	ug/Kg	U
75-69-4	Trichlorofluoromethane	B2628-4627	0.65	0.65	ug/Kg	U
75-01-4	Vinyl Chloride	B2628-4627	0.79	0.79	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	B2628-4627	109.0 %	(82 - 148)	
460-00-4	4-BROMOFLUOROBENZENE	B2628-4627	92.0 %	(74 - 108)	
4774-33-8	DIBROMOFLUOROMETHANE	B2628-4627	114.0 %	(80 - 140)	
2037-26-5	TOLUENE-D8	B2628-4627	98.8 %	(85 - 110)	

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04/28/2008

Volatiles - EPA 8260B

Sample: 0804503-13
Client Sample ID: SB-6
Matrix: Soil
Type: Grab
Collected: 04/18/2008 15:30
% Solid: 84.3%
Remarks: See Case Narrative
Analyzed Date: 04/20/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
630-20-6	1,1,1,2-Tetrachloroethane	B2628-4628	0.55	0.55	ug/Kg	U
71-55-6	1,1,1-Trichloroethane	B2628-4628	0.62	0.62	ug/Kg	U
79-34-5	1,1,2,2-Tetrachloroethane	B2628-4628	0.71	0.71	ug/Kg	U
79-00-5	1,1,2-Trichloroethane	B2628-4628	0.75	0.75	ug/Kg	U
76-13-1	1,1,2-Trichlorotrifluoroethane	B2628-4628	0.62	0.62	ug/Kg	U
75-34-3	1,1-Dichloroethane	B2628-4628	0.68	0.68	ug/Kg	U
75-35-4	1,1-Dichloroethene	B2628-4628	0.44	0.44	ug/Kg	U
563-58-6	1,1-Dichloropropene	B2628-4628	0.63	0.63	ug/Kg	U
87-61-6	1,2,3-Trichlorobenzene	B2628-4628	0.57	0.57	ug/Kg	U
96-18-4	1,2,3-Trichloropropane	B2628-4628	0.84	0.84	ug/Kg	U
95-93-2	1,2,4,5-Tetramethylbenzene	B2628-4628	0.48	0.48	ug/Kg	U
120-82-1	1,2,4-Trichlorobenzene	B2628-4628	0.40	0.40	ug/Kg	U
95-63-6	1,2,4-Trimethylbenzene	B2628-4628	0.44	0.44	ug/Kg	U
96-12-8	1,2-Dibromo-3-chloropropane	B2628-4628	0.55	0.55	ug/Kg	U
106-93-4	1,2-Dibromoethane	B2628-4628	0.70	0.70	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	B2628-4628	0.56	0.56	ug/Kg	U
107-06-2	1,2-Dichloroethane	B2628-4628	0.69	0.69	ug/Kg	U
78-87-5	1,2-Dichloropropane	B2628-4628	0.70	0.70	ug/Kg	U
108-67-8	1,3,5-Trimethylbenzene	B2628-4628	0.52	0.52	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	B2628-4628	0.63	0.63	ug/Kg	U
142-28-9	1,3-Dichloropropane	B2628-4628	0.62	0.62	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	B2628-4628	0.57	0.57	ug/Kg	U
590-20-7	2,2-Dichloropropane	B2628-4628	0.70	0.70	ug/Kg	U
78-93-3	2-Butanone	B2628-4628	2.64	2.64	ug/Kg	U
110-75-8	2-Chloroethylvinylether	B2628-4628	0.76	0.76	ug/Kg	U
95-49-8	2-Chlorotoluene	B2628-4628	0.63	0.63	ug/Kg	U
591-78-6	2-Hexanone	B2628-4628	2.36	2.36	ug/Kg	U
106-43-4	4-Chlorotoluene	B2628-4628	0.60	0.60	ug/Kg	U
99-87-6	4-Isopropyltoluene	B2628-4628	0.56	0.56	ug/Kg	U
108-10-1	4-Methyl-2-pentanone	B2628-4628	2.56	2.56	ug/Kg	U
67-64-1	Acetone	B2628-4628	3.09	3.09	ug/Kg	U
107-13-1	Acrylonitrile	B2628-4628	8.32	8.32	ug/Kg	U
71-43-2	Benzene	B2628-4628	0.63	0.63	ug/Kg	U

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208 Route 109, Farmingdale NY 11735
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04/28/2008

Volatiles - EPA 8260B

Sample: 0804503-13
Client Sample ID: SB-6
Matrix: Soil
Type: Grab
Collected: 04/18/2008 15:30
% Solid: 84.3%
Remarks: See Case Narrative
Analyzed Date: 04/20/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
108-86-1	Bromobenzene	B2628-4628	0.61	0.61	ug/Kg	U
74-97-5	Bromochloromethane	B2628-4628	0.69	0.69	ug/Kg	U
75-27-4	Bromodichloromethane	B2628-4628	0.56	0.56	ug/Kg	U
75-25-2	Bromoform	B2628-4628	0.57	0.57	ug/Kg	U
74-83-9	Bromomethane	B2628-4628	0.58	0.58	ug/Kg	U
156-59-2	c-1,2-Dichloroethene	B2628-4628	0.54	0.54	ug/Kg	U
10061-01-5	c-1,3-Dichloropropene	B2628-4628	0.61	0.61	ug/Kg	U
75-15-0	Carbon disulfide	B2628-4628	0.56	0.56	ug/Kg	U
56-23-5	Carbon Tetrachloride	B2628-4628	0.67	0.67	ug/Kg	U
108-90-7	Chlorobenzene	B2628-4628	0.73	0.73	ug/Kg	U
75-45-6	Chlorodifluoromethane	B2628-4628	1.05	1.05	ug/Kg	U
75-00-3	Chloroethane	B2628-4628	0.83	0.83	ug/Kg	U
67-66-3	Chloroform	B2628-4628	0.70	0.70	ug/Kg	U
74-87-3	Chloromethane	B2628-4628	0.60	0.60	ug/Kg	U
124-48-1	Dibromochloromethane	B2628-4628	0.55	0.55	ug/Kg	U
74-95-3	Dibromomethane	B2628-4628	0.94	0.94	ug/Kg	U
75-71-8	Dichlorodifluoromethane	B2628-4628	0.44	0.44	ug/Kg	U
100-41-4	Ethylbenzene	B2628-4628	0.62	0.62	ug/Kg	U
87-68-3	Hexachlorobutadiene	B2628-4628	0.57	0.57	ug/Kg	U
98-82-8	Isopropylbenzene	B2628-4628	0.52	0.52	ug/Kg	U
108-38-3	m,p-xylene	B2628-4628	1.07	1.07	ug/Kg	U
1634-04-4	Methyl t-butyl ether	B2628-4628	0.62	0.62	ug/Kg	U
75-09-2	Methylene Chloride	B2628-4628	1.12	1.12	ug/Kg	U
104-51-8	n-Butylbenzene	B2628-4628	0.57	0.57	ug/Kg	U
103-65-1	n-Propylbenzene	B2628-4628	0.55	0.55	ug/Kg	U
91-20-3	Naphthalene	B2628-4628	0.54	0.54	ug/Kg	U
95-47-6	o-xylene	B2628-4628	0.46	0.46	ug/Kg	U
105-05-5	p-Diethylbenzene	B2628-4628	0.55	0.55	ug/Kg	U
622-96-8	p-Ethyltoluene	B2628-4628	0.50	0.50	ug/Kg	U
135-98-8	sec-Butylbenzene	B2628-4628	0.54	0.54	ug/Kg	U
100-42-5	Styrene	B2628-4628	0.51	0.51	ug/Kg	U
156-60-5	t-1,2-Dichloroethene	B2628-4628	0.55	0.55	ug/Kg	U
10061-02-6	t-1,3-Dichloropropene	B2628-4628	0.50	0.50	ug/Kg	U

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208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

Volatiles - EPA 8260B

Sample: 0804503-13
Client Sample ID: SB-6
Matrix: Soil
Type: Grab
Collected: 04/18/2008 15:30
% Solid: 84.3%
Remarks: See Case Narrative
Analyzed Date: 04/20/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
994-05-8	TAME	B2628-4628	0.75	0.75	ug/Kg	U
98-06-6	tert-Butylbenzene	B2628-4628	0.63	0.63	ug/Kg	U
75-65-0	Tertiary butyl alcohol	B2628-4628	6.41	6.41	ug/Kg	U
127-18-4	Tetrachloroethene	B2628-4628	0.54	0.54	ug/Kg	U
108-88-3	Toluene	B2628-4628	0.57	0.57	ug/Kg	U
79-01-6	Trichloroethene	B2628-4628	0.58	0.58	ug/Kg	U
75-69-4	Trichlorofluoromethane	B2628-4628	0.67	0.67	ug/Kg	U
75-01-4	Vinyl Chloride	B2628-4628	0.81	0.81	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	B2628-4628	114.0 %	(82 - 148)	
460-00-4	4-BROMOFLUOROBENZENE	B2628-4628	89.9 %	(74 - 108)	
4774-33-8	DIBROMOFLUOROMETHANE	B2628-4628	117.0 %	(80 - 140)	
2037-26-5	TOLUENE-D8	B2628-4628	96.1 %	(85 - 110)	

Environmental Testing Laboratories, Inc. Page G-487
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

Volatiles - EPA 8260B

Sample: 0804503-14
Client Sample ID: SB-22
Matrix: Soil
Type: Grab
Collected: 04/18/2008 15:35
% Solid: 85.3%
Remarks: See Case Narrative
Analyzed Date: 04/20/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
630-20-6	1,1,1,2-Tetrachloroethane	B2628-4629	0.54	0.54	ug/Kg	U
71-55-6	1,1,1-Trichloroethane	B2628-4629	0.61	0.61	ug/Kg	U
79-34-5	1,1,2,2-Tetrachloroethane	B2628-4629	0.70	0.70	ug/Kg	U
79-00-5	1,1,2-Trichloroethane	B2628-4629	0.74	0.74	ug/Kg	U
76-13-1	1,1,2-Trichlorotrifluoroethane	B2628-4629	0.61	0.61	ug/Kg	U
75-34-3	1,1-Dichloroethane	B2628-4629	0.67	0.67	ug/Kg	U
75-35-4	1,1-Dichloroethene	B2628-4629	0.43	0.43	ug/Kg	U
563-58-6	1,1-Dichloropropene	B2628-4629	0.62	0.62	ug/Kg	U
87-61-6	1,2,3-Trichlorobenzene	B2628-4629	0.56	0.56	ug/Kg	U
96-18-4	1,2,3-Trichloropropane	B2628-4629	0.83	0.83	ug/Kg	U
95-93-2	1,2,4,5-Tetramethylbenzene	B2628-4629	0.47	0.47	ug/Kg	U
120-82-1	1,2,4-Trichlorobenzene	B2628-4629	0.40	0.40	ug/Kg	U
95-63-6	1,2,4-Trimethylbenzene	B2628-4629	0.43	0.43	ug/Kg	U
96-12-8	1,2-Dibromo-3-chloropropane	B2628-4629	0.54	0.54	ug/Kg	U
106-93-4	1,2-Dibromoethane	B2628-4629	0.69	0.69	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	B2628-4629	0.55	0.55	ug/Kg	U
107-06-2	1,2-Dichloroethane	B2628-4629	0.68	0.68	ug/Kg	U
78-87-5	1,2-Dichloropropane	B2628-4629	0.69	0.69	ug/Kg	U
108-67-8	1,3,5-Trimethylbenzene	B2628-4629	0.51	0.51	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	B2628-4629	0.62	0.62	ug/Kg	U
142-28-9	1,3-Dichloropropane	B2628-4629	0.61	0.61	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	B2628-4629	0.56	0.56	ug/Kg	U
590-20-7	2,2-Dichloropropane	B2628-4629	0.69	0.69	ug/Kg	U
78-93-3	2-Butanone	B2628-4629	2.60	2.60	ug/Kg	U
110-75-8	2-Chloroethylvinylether	B2628-4629	0.75	0.75	ug/Kg	U
95-49-8	2-Chlorotoluene	B2628-4629	0.62	0.62	ug/Kg	U
591-78-6	2-Hexanone	B2628-4629	2.32	2.32	ug/Kg	U
106-43-4	4-Chlorotoluene	B2628-4629	0.58	0.58	ug/Kg	U
99-87-6	4-Isopropyltoluene	B2628-4629	0.55	0.55	ug/Kg	U
108-10-1	4-Methyl-2-pentanone	B2628-4629	2.52	2.52	ug/Kg	U
67-64-1	Acetone	B2628-4629	3.04	3.04	ug/Kg	U
107-13-1	Acrylonitrile	B2628-4629	8.18	8.18	ug/Kg	U
71-43-2	Benzene	B2628-4629	0.62	0.62	ug/Kg	U

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Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

Volatiles - EPA 8260B

Sample: 0804503-14
Client Sample ID: SB-22
Matrix: Soil
Type: Grab
Collected: 04/18/2008 15:35
% Solid: 85.3%
Remarks: See Case Narrative
Analyzed Date: 04/20/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
108-86-1	Bromobenzene	B2628-4629	0.60	0.60	ug/Kg	U
74-97-5	Bromochloromethane	B2628-4629	0.68	0.68	ug/Kg	U
75-27-4	Bromodichloromethane	B2628-4629	0.55	0.55	ug/Kg	U
75-25-2	Bromoform	B2628-4629	0.56	0.56	ug/Kg	U
74-83-9	Bromomethane	B2628-4629	0.57	0.57	ug/Kg	U
156-59-2	c-1,2-Dichloroethene	B2628-4629	0.53	0.53	ug/Kg	U
10061-01-5	c-1,3-Dichloropropene	B2628-4629	0.60	0.60	ug/Kg	U
75-15-0	Carbon disulfide	B2628-4629	0.55	0.55	ug/Kg	U
56-23-5	Carbon Tetrachloride	B2628-4629	0.66	0.66	ug/Kg	U
108-90-7	Chlorobenzene	B2628-4629	0.71	0.71	ug/Kg	U
75-45-6	Chlorodifluoromethane	B2628-4629	1.03	1.03	ug/Kg	U
75-00-3	Chloroethane	B2628-4629	0.82	0.82	ug/Kg	U
67-66-3	Chloroform	B2628-4629	0.69	0.69	ug/Kg	U
74-87-3	Chloromethane	B2628-4629	0.58	0.58	ug/Kg	U
124-48-1	Dibromochloromethane	B2628-4629	0.54	0.54	ug/Kg	U
74-95-3	Dibromomethane	B2628-4629	0.92	0.92	ug/Kg	U
75-71-8	Dichlorodifluoromethane	B2628-4629	0.43	0.43	ug/Kg	U
100-41-4	Ethylbenzene	B2628-4629	0.61	0.61	ug/Kg	U
87-68-3	Hexachlorobutadiene	B2628-4629	0.56	0.56	ug/Kg	U
98-82-8	Isopropylbenzene	B2628-4629	0.51	0.51	ug/Kg	U
108-38-3	m,p-xylene	B2628-4629	1.05	1.05	ug/Kg	U
1634-04-4	Methyl t-butyl ether	B2628-4629	0.61	0.61	ug/Kg	U
75-09-2	Methylene Chloride	B2628-4629	1.10	1.10	ug/Kg	U
104-51-8	n-Butylbenzene	B2628-4629	0.56	0.56	ug/Kg	U
103-65-1	n-Propylbenzene	B2628-4629	0.54	0.54	ug/Kg	U
91-20-3	Naphthalene	B2628-4629	0.53	0.53	ug/Kg	U
95-47-6	o-xylene	B2628-4629	0.46	0.46	ug/Kg	U
105-05-5	p-Diethylbenzene	B2628-4629	0.54	0.54	ug/Kg	U
622-96-8	p-Ethyltoluene	B2628-4629	0.49	0.49	ug/Kg	U
135-98-8	sec-Butylbenzene	B2628-4629	0.53	0.53	ug/Kg	U
100-42-5	Styrene	B2628-4629	0.50	0.50	ug/Kg	U
156-60-5	t-1,2-Dichloroethene	B2628-4629	0.54	0.54	ug/Kg	U
10061-02-6	t-1,3-Dichloropropene	B2628-4629	0.49	0.49	ug/Kg	U

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04/28/2008

Volatiles - EPA 8260B

Sample: 0804503-14
Client Sample ID: SB-22
Matrix: Soil
Type: Grab
Collected: 04/18/2008 15:35
% Solid: 85.3%
Remarks: See Case Narrative
Analyzed Date: 04/20/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
994-05-8	TAME	B2628-4629	0.74	0.74	ug/Kg	U
98-06-6	tert-Butylbenzene	B2628-4629	0.62	0.62	ug/Kg	U
75-65-0	Tertiary butyl alcohol	B2628-4629	6.31	6.31	ug/Kg	U
127-18-4	Tetrachloroethene	B2628-4629	0.53	0.53	ug/Kg	U
108-88-3	Toluene	B2628-4629	0.56	0.56	ug/Kg	U
79-01-6	Trichloroethene	B2628-4629	0.57	0.57	ug/Kg	U
75-69-4	Trichlorofluoromethane	B2628-4629	0.66	0.66	ug/Kg	U
75-01-4	Vinyl Chloride	B2628-4629	0.80	0.80	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	B2628-4629	110.0 %	(82 - 148)	
460-00-4	4-BROMOFLUOROBENZENE	B2628-4629	90.8 %	(74 - 108)	
4774-33-8	DIBROMOFLUOROMETHANE	B2628-4629	116.0 %	(80 - 140)	
2037-26-5	TOLUENE-D8	B2628-4629	97.3 %	(85 - 110)	

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04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-1
Client Sample ID: 9-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 13:25
% Solid: 60.9%
Remarks: See Case Narrative
Analyzed Date: 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
630-20-6	1,1,1,2-Tetrachloroethane	A2749-7092	176	176	ug/Kg	U
71-55-6	1,1,1-Trichloroethane	A2749-7092	195	195	ug/Kg	U
79-34-5	1,1,2,2-Tetrachloroethane	A2749-7092	154	154	ug/Kg	U
79-00-5	1,1,2-Trichloroethane	A2749-7092	184	184	ug/Kg	U
76-13-1	1,1,2-Trichlorotrifluoroethane	A2749-7092	180	180	ug/Kg	U
75-34-3	1,1-Dichloroethane	A2749-7092	207	207	ug/Kg	U
75-35-4	1,1-Dichloroethene	A2749-7092	191	191	ug/Kg	U
563-58-6	1,1-Dichloropropene	A2749-7092	164	164	ug/Kg	U
87-61-6	1,2,3-Trichlorobenzene	A2749-7092	127	127	ug/Kg	U
96-18-4	1,2,3-Trichloropropane	A2749-7092	160	160	ug/Kg	U
95-93-2	1,2,4,5-Tetramethylbenzene	A2749-7092	160	**348**	ug/Kg	J
120-82-1	1,2,4-Trichlorobenzene	A2749-7092	137	137	ug/Kg	U
95-63-6	1,2,4-Trimethylbenzene	A2749-7092	172	**363**	ug/Kg	J
96-12-8	1,2-Dibromo-3-chloropropane	A2749-7092	154	154	ug/Kg	U
106-93-4	1,2-Dibromoethane	A2749-7092	160	160	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	A2749-7092	164	164	ug/Kg	U
107-06-2	1,2-Dichloroethane	A2749-7092	199	199	ug/Kg	U
78-87-5	1,2-Dichloropropane	A2749-7092	182	182	ug/Kg	U
108-67-8	1,3,5-Trimethylbenzene	A2749-7092	168	168	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	A2749-7092	158	158	ug/Kg	U
142-28-9	1,3-Dichloropropane	A2749-7092	170	170	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	A2749-7092	160	**739**	ug/Kg	J
590-20-7	2,2-Dichloropropane	A2749-7092	178	178	ug/Kg	U
78-93-3	2-Butanone	A2749-7092	156	156	ug/Kg	U
95-49-8	2-Chlorotoluene	A2749-7092	170	170	ug/Kg	U
106-43-4	4-Chlorotoluene	A2749-7092	160	160	ug/Kg	U
108-10-1	4-Methyl-2-pentanone	A2749-7092	176	176	ug/Kg	U
67-64-1	Acetone	A2749-7092	238	238	ug/Kg	U
71-43-2	Benzene	A2749-7092	180	180	ug/Kg	U
108-86-1	Bromobenzene	A2749-7092	164	164	ug/Kg	U
74-97-5	Bromochloromethane	A2749-7092	187	187	ug/Kg	U
75-27-4	Bromodichloromethane	A2749-7092	182	182	ug/Kg	U
75-25-2	Bromoform	A2749-7092	166	166	ug/Kg	U

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04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-1
Client Sample ID: 9-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 13:25
% Solid: 60.9%
Remarks: See Case Narrative
Analyzed Date: 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
56-23-5	Carbon tetrachloride	A2749-7092	184	184	ug/Kg	U
108-90-7	Chlorobenzene	A2749-7092	176	176	ug/Kg	U
75-00-3	Chloroethane	A2749-7092	295	295	ug/Kg	U
67-66-3	Chloroform	A2749-7092	199	199	ug/Kg	U
156-59-2	cis-1,2-Dichloroethene	A2749-7092	182	182	ug/Kg	U
10061-01-5	cis-1,3-Dichloro-1-propene	A2749-7092	178	178	ug/Kg	U
124-48-1	Dibromochloromethane	A2749-7092	170	170	ug/Kg	U
74-95-3	Dibromomethane	A2749-7092	187	187	ug/Kg	U
75-71-8	Dichlorodifluoromethane	A2749-7092	164	164	ug/Kg	U
100-41-4	Ethylbenzene	A2749-7092	182	182	ug/Kg	U
87-68-3	Hexachlorobutadiene	A2749-7092	162	162	ug/Kg	U
98-82-8	Isopropylbenzene	A2749-7092	176	176	ug/Kg	U
108-38-3	m+p-Xylene	A2749-7092	357	357	ug/Kg	U
1634-04-4	Methyl t-butyl ether	A2749-7092	180	180	ug/Kg	U
75-09-2	Methylene chloride	A2749-7092	221	221	ug/Kg	U
104-51-8	n-Butylbenzene	A2749-7092	170	**183**	ug/Kg	J
103-65-1	n-Propylbenzene	A2749-7092	166	166	ug/Kg	U
91-20-3	Naphthalene	A2749-7092	125	**149**	ug/Kg	J
95-47-6	o-Xylene	A2749-7092	174	174	ug/Kg	U
105-05-5	p-Diethylbenzene	A2749-7092	158	**554**	ug/Kg	J
622-96-8	p-Ethyltoluene	A2749-7092	166	166	ug/Kg	U
99-87-6	p-Isopropyltoluene	A2749-7092	166	166	ug/Kg	U
135-98-8	sec-Butylbenzene	A2749-7092	160	160	ug/Kg	U
100-42-5	Styrene	A2749-7092	166	166	ug/Kg	U
98-06-6	tert-Butylbenzene	A2749-7092	174	174	ug/Kg	U
127-18-4	Tetrachloroethene	A2749-7092	172	172	ug/Kg	U
108-88-3	Toluene	A2749-7092	221	**3320**	ug/Kg	
156-60-5	trans-1,2-Dichloroethene	A2749-7092	195	195	ug/Kg	U
10061-02-6	trans-1,3-Dichloropropene	A2749-7092	162	162	ug/Kg	U
79-01-6	Trichloroethene	A2749-7092	193	193	ug/Kg	U
75-69-4	Trichlorofluoromethane	A2749-7092	205	205	ug/Kg	U
75-01-4	Vinylchloride	A2749-7092	168	168	ug/Kg	U
1330-20-7	Xylenes	A2749-7092	357	357	ug/Kg	U

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Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-1
Client Sample ID: 9-PLP
Matrix: Sludge
Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/24/2008
Collected: 04/18/2008 13:25
% Solid: 60.9%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	A2749-7092	97.7 %	(74 - 173)	
460-00-4	4-BROMOFLUOROBENZENE	A2749-7092	97.6 %	(77 - 131)	
4774-33-8	DIBROMOFLUOROMETHANE	A2749-7092	98.1 %	(75 - 159)	
2037-26-5	TOLUENE-D8	A2749-7092	100.0 %	(74 - 136)	

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04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-2
Client Sample ID: 10-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 10:15
% Solid: 73.7%
Remarks: See Case Narrative
Analyzed Date: 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
630-20-6	1,1,1,2-Tetrachloroethane	B2632-4715	3.12	3.12	ug/Kg	U
71-55-6	1,1,1-Trichloroethane	B2632-4715	3.53	3.53	ug/Kg	U
79-34-5	1,1,2,2-Tetrachloroethane	B2632-4715	4.07	4.07	ug/Kg	U
79-00-5	1,1,2-Trichloroethane	B2632-4715	4.27	4.27	ug/Kg	U
76-13-1	1,1,2-Trichlorotrifluoroethane	B2632-4715	3.53	3.53	ug/Kg	U
75-34-3	1,1-Dichloroethane	B2632-4715	3.86	3.86	ug/Kg	U
75-35-4	1,1-Dichloroethene	B2632-4715	2.51	2.51	ug/Kg	U
563-58-6	1,1-Dichloropropene	B2632-4715	3.59	3.59	ug/Kg	U
87-61-6	1,2,3-Trichlorobenzene	B2632-4715	3.25	3.25	ug/Kg	U
96-18-4	1,2,3-Trichloropropane	B2632-4715	4.81	4.81	ug/Kg	U
95-93-2	1,2,4,5-Tetramethylbenzene	B2632-4715	2.71	**6.74**	ug/Kg	J
120-82-1	1,2,4-Trichlorobenzene	B2632-4715	2.31	2.31	ug/Kg	U
95-63-6	1,2,4-Trimethylbenzene	B2632-4715	2.51	**29.5**	ug/Kg	J
96-12-8	1,2-Dibromo-3-chloropropane	B2632-4715	3.12	3.12	ug/Kg	U
106-93-4	1,2-Dibromoethane	B2632-4715	4.00	4.00	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	B2632-4715	3.19	3.19	ug/Kg	U
107-06-2	1,2-Dichloroethane	B2632-4715	3.93	3.93	ug/Kg	U
78-87-5	1,2-Dichloropropane	B2632-4715	4.00	4.00	ug/Kg	U
108-67-8	1,3,5-Trimethylbenzene	B2632-4715	2.98	**20.7**	ug/Kg	J
541-73-1	1,3-Dichlorobenzene	B2632-4715	3.59	3.59	ug/Kg	U
142-28-9	1,3-Dichloropropane	B2632-4715	3.53	3.53	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	B2632-4715	3.25	**41.6**	ug/Kg	
590-20-7	2,2-Dichloropropane	B2632-4715	4.00	4.00	ug/Kg	U
78-93-3	2-Butanone	B2632-4715	15.1	15.1	ug/Kg	U
95-49-8	2-Chlorotoluene	B2632-4715	3.59	3.59	ug/Kg	U
106-43-4	4-Chlorotoluene	B2632-4715	3.39	3.39	ug/Kg	U
108-10-1	4-Methyl-2-pentanone	B2632-4715	14.6	14.6	ug/Kg	U
67-64-1	Acetone	B2632-4715	17.6	17.6	ug/Kg	U
71-43-2	Benzene	B2632-4715	3.59	3.59	ug/Kg	U
108-86-1	Bromobenzene	B2632-4715	3.46	3.46	ug/Kg	U
74-97-5	Bromochloromethane	B2632-4715	3.93	3.93	ug/Kg	U
75-27-4	Bromodichloromethane	B2632-4715	3.19	3.19	ug/Kg	U
75-25-2	Bromoform	B2632-4715	3.25	3.25	ug/Kg	U

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208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-2
Client Sample ID: 10-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 10:15
% Solid: 73.7%
Remarks: See Case Narrative
Analyzed Date: 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
56-23-5	Carbon tetrachloride	B2632-4715	3.80	3.80	ug/Kg	U
108-90-7	Chlorobenzene	B2632-4715	4.14	4.14	ug/Kg	U
75-00-3	Chloroethane	B2632-4715	4.75	4.75	ug/Kg	U
67-66-3	Chloroform	B2632-4715	4.00	4.00	ug/Kg	U
156-59-2	cis-1,2-Dichloroethene	B2632-4715	3.05	3.05	ug/Kg	U
10061-01-5	cis-1,3-Dichloro-1-propene	B2632-4715	3.46	3.46	ug/Kg	U
124-48-1	Dibromochloromethane	B2632-4715	3.12	3.12	ug/Kg	U
74-95-3	Dibromomethane	B2632-4715	5.36	5.36	ug/Kg	U
75-71-8	Dichlorodifluoromethane	B2632-4715	2.51	2.51	ug/Kg	U
100-41-4	Ethylbenzene	B2632-4715	3.53	3.53	ug/Kg	U
87-68-3	Hexachlorobutadiene	B2632-4715	3.25	3.25	ug/Kg	U
98-82-8	Isopropylbenzene	B2632-4715	2.98	**4.49**	ug/Kg	J
108-38-3	m+p-Xylene	B2632-4715	6.10	**13.4**	ug/Kg	J
1634-04-4	Methyl t-butyl ether	B2632-4715	3.53	3.53	ug/Kg	U
75-09-2	Methylene chloride	B2632-4715	6.37	**8.26**	ug/Kg	BJ
104-51-8	n-Butylbenzene	B2632-4715	3.25	3.25	ug/Kg	U
103-65-1	n-Propylbenzene	B2632-4715	3.12	**8.80**	ug/Kg	J
91-20-3	Naphthalene	B2632-4715	3.05	**5.92**	ug/Kg	J
95-47-6	o-Xylene	B2632-4715	2.64	2.64	ug/Kg	U
105-05-5	p-Diethylbenzene	B2632-4715	3.12	3.12	ug/Kg	U
622-96-8	p-Ethyltoluene	B2632-4715	2.85	**25.3**	ug/Kg	J
99-87-6	p-Isopropyltoluene	B2632-4715	3.19	**5.49**	ug/Kg	J
135-98-8	sec-Butylbenzene	B2632-4715	3.05	3.05	ug/Kg	U
100-42-5	Styrene	B2632-4715	2.92	2.92	ug/Kg	U
98-06-6	tert-Butylbenzene	B2632-4715	3.59	3.59	ug/Kg	U
127-18-4	Tetrachloroethene	B2632-4715	3.05	3.05	ug/Kg	U
108-88-3	Toluene	B2632-4715	3.25	3.25	ug/Kg	U
156-60-5	trans-1,2-Dichloroethene	B2632-4715	3.12	3.12	ug/Kg	U
10061-02-6	trans-1,3-Dichloropropene	B2632-4715	2.85	2.85	ug/Kg	U
79-01-6	Trichloroethene	B2632-4715	3.32	3.32	ug/Kg	U
75-69-4	Trichlorofluoromethane	B2632-4715	3.80	3.80	ug/Kg	U
75-01-4	Vinylchloride	B2632-4715	4.61	4.61	ug/Kg	U
1330-20-7	Xylenes	B2632-4715	6.10	**13.4**	ug/Kg	J

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04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-2
Client Sample ID: 10-PLP
Matrix: Sludge
Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/24/2008
Collected: 04/18/2008 10:15
% Solid: 73.7%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	B2632-4715	101.0 %	(82 - 148)	
460-00-4	4-BROMOFLUOROBENZENE	B2632-4715	95.8 %	(74 - 104)	
4774-33-8	DIBROMOFLUOROMETHANE	B2632-4715	105.0 %	(94 - 140)	
2037-26-5	TOLUENE-D8	B2632-4715	95.8 %	(85 - 110)	

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04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-3
Client Sample ID: 12-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 10:50
% Solid: 35.6%
Remarks: See Case Narrative
Analyzed Date: 04/22/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
630-20-6	1,1,1,2-Tetrachloroethane	B2631-4694	2.59	2.59	ug/Kg	U
71-55-6	1,1,1-Trichloroethane	B2631-4694	2.92	2.92	ug/Kg	U
79-34-5	1,1,2,2-Tetrachloroethane	B2631-4694	3.37	3.37	ug/Kg	U
79-00-5	1,1,2-Trichloroethane	B2631-4694	3.54	3.54	ug/Kg	U
76-13-1	1,1,2-Trichlorotrifluoroethane	B2631-4694	2.92	2.92	ug/Kg	U
75-34-3	1,1-Dichloroethane	B2631-4694	3.20	3.20	ug/Kg	U
75-35-4	1,1-Dichloroethene	B2631-4694	2.08	2.08	ug/Kg	U
563-58-6	1,1-Dichloropropene	B2631-4694	2.98	2.98	ug/Kg	U
87-61-6	1,2,3-Trichlorobenzene	B2631-4694	2.70	2.70	ug/Kg	U
96-18-4	1,2,3-Trichloropropane	B2631-4694	3.99	3.99	ug/Kg	U
95-93-2	1,2,4,5-Tetramethylbenzene	B2631-4694	2.25	**187**	ug/Kg	
120-82-1	1,2,4-Trichlorobenzene	B2631-4694	1.91	**14.4**	ug/Kg	J
95-63-6	1,2,4-Trimethylbenzene	B2631-4694	2.08	**817**	ug/Kg	
96-12-8	1,2-Dibromo-3-chloropropane	B2631-4694	2.59	2.59	ug/Kg	U
106-93-4	1,2-Dibromoethane	B2631-4694	3.32	3.32	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	B2631-4694	2.64	**539**	ug/Kg	
107-06-2	1,2-Dichloroethane	B2631-4694	3.26	3.26	ug/Kg	U
78-87-5	1,2-Dichloropropane	B2631-4694	3.32	3.32	ug/Kg	U
108-67-8	1,3,5-Trimethylbenzene	B2631-4694	2.47	**297**	ug/Kg	
541-73-1	1,3-Dichlorobenzene	B2631-4694	2.98	**66.1**	ug/Kg	
142-28-9	1,3-Dichloropropane	B2631-4694	2.92	2.92	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	B2632-4714	6.72	**1470**	ug/Kg	
590-20-7	2,2-Dichloropropane	B2631-4694	3.32	3.32	ug/Kg	U
78-93-3	2-Butanone	B2631-4694	12.5	**89.6**	ug/Kg	J
95-49-8	2-Chlorotoluene	B2631-4694	2.98	2.98	ug/Kg	U
106-43-4	4-Chlorotoluene	B2631-4694	2.81	2.81	ug/Kg	U
108-10-1	4-Methyl-2-pentanone	B2631-4694	12.1	12.1	ug/Kg	U
67-64-1	Acetone	B2631-4694	14.6	**605**	ug/Kg	
71-43-2	Benzene	B2631-4694	2.98	**19.7**	ug/Kg	J
108-86-1	Bromobenzene	B2631-4694	2.87	2.87	ug/Kg	U
74-97-5	Bromochloromethane	B2631-4694	3.26	3.26	ug/Kg	U
75-27-4	Bromodichloromethane	B2631-4694	2.64	2.64	ug/Kg	U
75-25-2	Bromoform	B2631-4694	2.70	2.70	ug/Kg	U

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04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-3
Client Sample ID: 12-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 10:50
% Solid: 35.6%
Remarks: See Case Narrative
Analyzed Date: 04/22/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
56-23-5	Carbon tetrachloride	B2631-4694	3.15	3.15	ug/Kg	U
108-90-7	Chlorobenzene	B2632-4714	8.54	**1690**	ug/Kg	
75-00-3	Chloroethane	B2631-4694	3.93	3.93	ug/Kg	U
67-66-3	Chloroform	B2631-4694	3.32	3.32	ug/Kg	U
156-59-2	cis-1,2-Dichloroethene	B2631-4694	2.53	2.53	ug/Kg	U
10061-01-5	cis-1,3-Dichloro-1-propene	B2631-4694	2.87	2.87	ug/Kg	U
124-48-1	Dibromochloromethane	B2631-4694	2.59	2.59	ug/Kg	U
74-95-3	Dibromomethane	B2631-4694	4.44	4.44	ug/Kg	U
75-71-8	Dichlorodifluoromethane	B2631-4694	2.08	2.08	ug/Kg	U
100-41-4	Ethylbenzene	B2631-4694	2.92	**38.6**	ug/Kg	
87-68-3	Hexachlorobutadiene	B2631-4694	2.70	2.70	ug/Kg	U
98-82-8	Isopropylbenzene	B2631-4694	2.47	**37.4**	ug/Kg	
108-38-3	m+p-Xylene	B2631-4694	5.06	**147**	ug/Kg	
1634-04-4	Methyl t-butyl ether	B2631-4694	2.92	2.92	ug/Kg	U
75-09-2	Methylene chloride	B2631-4694	5.28	5.28	ug/Kg	U
104-51-8	n-Butylbenzene	B2631-4694	2.70	**197**	ug/Kg	
103-65-1	n-Propylbenzene	B2631-4694	2.59	**134**	ug/Kg	
91-20-3	Naphthalene	B2631-4694	2.53	**198**	ug/Kg	
95-47-6	o-Xylene	B2631-4694	2.19	**57.6**	ug/Kg	
105-05-5	p-Diethylbenzene	B2631-4694	2.59	2.59	ug/Kg	U
622-96-8	p-Ethyltoluene	B2631-4694	2.36	**466**	ug/Kg	
99-87-6	p-Isopropyltoluene	B2631-4694	2.64	**338**	ug/Kg	
135-98-8	sec-Butylbenzene	B2631-4694	2.53	**107**	ug/Kg	
100-42-5	Styrene	B2631-4694	2.42	2.42	ug/Kg	U
98-06-6	tert-Butylbenzene	B2631-4694	2.98	2.98	ug/Kg	U
127-18-4	Tetrachloroethene	B2631-4694	2.53	2.53	ug/Kg	U
108-88-3	Toluene	B2631-4694	2.70	**71.0**	ug/Kg	
156-60-5	trans-1,2-Dichloroethene	B2631-4694	2.59	2.59	ug/Kg	U
10061-02-6	trans-1,3-Dichloropropene	B2631-4694	2.36	2.36	ug/Kg	U
79-01-6	Trichloroethene	B2631-4694	2.75	2.75	ug/Kg	U
75-69-4	Trichlorofluoromethane	B2631-4694	3.15	3.15	ug/Kg	U
75-01-4	Vinylchloride	B2631-4694	3.82	3.82	ug/Kg	U
1330-20-7	Xylenes	B2631-4694	5.06	**204**	ug/Kg	

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04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-3
Client Sample ID: 12-PLP
Matrix: Sludge
Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/22/2008
Collected: 04/18/2008 10:50
% Solid: 35.6%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	B2631-4694	112.0 %	(82 - 148)	
460-00-4	4-BROMOFLUOROBENZENE	B2631-4694	87.1 %	(74 - 104)	
4774-33-8	DIBROMOFLUOROMETHANE	B2631-4694	119.0 %	(94 - 140)	
2037-26-5	TOLUENE-D8	B2631-4694	95.9 %	(85 - 110)	
17060-07-0	1,2-DICHLOROETHANE-D4	B2632-4714	100.0 %	(82 - 148)	
460-00-4	4-BROMOFLUOROBENZENE	B2632-4714	94.4 %	(74 - 104)	
4774-33-8	DIBROMOFLUOROMETHANE	B2632-4714	103.0 %	(94 - 140)	
2037-26-5	TOLUENE-D8	B2632-4714	97.6 %	(85 - 110)	

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04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-4
Client Sample ID: 13-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 11:25
% Solid: 77.6%
Remarks: See Case Narrative
Analyzed Date: 04/20/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
630-20-6	1,1,1,2-Tetrachloroethane	B2629-4647	0.59	0.59	ug/Kg	U
71-55-6	1,1,1-Trichloroethane	B2629-4647	0.67	0.67	ug/Kg	U
79-34-5	1,1,2,2-Tetrachloroethane	B2629-4647	0.77	0.77	ug/Kg	U
79-00-5	1,1,2-Trichloroethane	B2629-4647	0.81	0.81	ug/Kg	U
76-13-1	1,1,2-Trichlorotrifluoroethane	B2629-4647	0.67	0.67	ug/Kg	U
75-34-3	1,1-Dichloroethane	B2629-4647	0.74	0.74	ug/Kg	U
75-35-4	1,1-Dichloroethene	B2629-4647	0.48	0.48	ug/Kg	U
563-58-6	1,1-Dichloropropene	B2629-4647	0.68	0.68	ug/Kg	U
87-61-6	1,2,3-Trichlorobenzene	B2629-4647	0.62	0.62	ug/Kg	U
96-18-4	1,2,3-Trichloropropane	B2629-4647	0.92	0.92	ug/Kg	U
95-93-2	1,2,4,5-Tetramethylbenzene	B2629-4647	0.52	0.52	ug/Kg	U
120-82-1	1,2,4-Trichlorobenzene	B2629-4647	0.44	0.44	ug/Kg	U
95-63-6	1,2,4-Trimethylbenzene	B2629-4647	0.48	0.48	ug/Kg	U
96-12-8	1,2-Dibromo-3-chloropropane	B2629-4647	0.59	0.59	ug/Kg	U
106-93-4	1,2-Dibromoethane	B2629-4647	0.76	0.76	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	B2629-4647	0.61	0.61	ug/Kg	U
107-06-2	1,2-Dichloroethane	B2629-4647	0.75	0.75	ug/Kg	U
78-87-5	1,2-Dichloropropane	B2629-4647	0.76	0.76	ug/Kg	U
108-67-8	1,3,5-Trimethylbenzene	B2629-4647	0.57	0.57	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	B2629-4647	0.68	0.68	ug/Kg	U
142-28-9	1,3-Dichloropropane	B2629-4647	0.67	0.67	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	B2629-4647	0.62	0.62	ug/Kg	U
590-20-7	2,2-Dichloropropane	B2629-4647	0.76	0.76	ug/Kg	U
78-93-3	2-Butanone	B2629-4647	2.86	2.86	ug/Kg	U
95-49-8	2-Chlorotoluene	B2629-4647	0.68	0.68	ug/Kg	U
106-43-4	4-Chlorotoluene	B2629-4647	0.64	0.64	ug/Kg	U
108-10-1	4-Methyl-2-pentanone	B2629-4647	2.77	2.77	ug/Kg	U
67-64-1	Acetone	B2629-4647	3.35	**57.5**	ug/Kg	
71-43-2	Benzene	B2629-4647	0.68	0.68	ug/Kg	U
108-86-1	Bromobenzene	B2629-4647	0.66	0.66	ug/Kg	U
74-97-5	Bromochloromethane	B2629-4647	0.75	0.75	ug/Kg	U
75-27-4	Bromodichloromethane	B2629-4647	0.61	0.61	ug/Kg	U
75-25-2	Bromoform	B2629-4647	0.62	0.62	ug/Kg	U

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04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-4
Client Sample ID: 13-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 11:25
% Solid: 77.6%
Remarks: See Case Narrative
Analyzed Date: 04/20/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
56-23-5	Carbon tetrachloride	B2629-4647	0.72	0.72	ug/Kg	U
108-90-7	Chlorobenzene	B2629-4647	0.79	0.79	ug/Kg	U
75-00-3	Chloroethane	B2629-4647	0.90	0.90	ug/Kg	U
67-66-3	Chloroform	B2629-4647	0.76	0.76	ug/Kg	U
156-59-2	cis-1,2-Dichloroethene	B2629-4647	0.58	0.58	ug/Kg	U
10061-01-5	cis-1,3-Dichloro-1-propene	B2629-4647	0.66	0.66	ug/Kg	U
124-48-1	Dibromochloromethane	B2629-4647	0.59	0.59	ug/Kg	U
74-95-3	Dibromomethane	B2629-4647	1.02	1.02	ug/Kg	U
75-71-8	Dichlorodifluoromethane	B2629-4647	0.48	0.48	ug/Kg	U
100-41-4	Ethylbenzene	B2629-4647	0.67	0.67	ug/Kg	U
87-68-3	Hexachlorobutadiene	B2629-4647	0.62	0.62	ug/Kg	U
98-82-8	Isopropylbenzene	B2629-4647	0.57	0.57	ug/Kg	U
108-38-3	m+p-Xylene	B2629-4647	1.16	1.16	ug/Kg	U
1634-04-4	Methyl t-butyl ether	B2629-4647	0.67	0.67	ug/Kg	U
75-09-2	Methylene chloride	B2629-4647	1.21	1.21	ug/Kg	U
104-51-8	n-Butylbenzene	B2629-4647	0.62	0.62	ug/Kg	U
103-65-1	n-Propylbenzene	B2629-4647	0.59	0.59	ug/Kg	U
91-20-3	Naphthalene	B2629-4647	0.58	0.58	ug/Kg	U
95-47-6	o-Xylene	B2629-4647	0.50	0.50	ug/Kg	U
105-05-5	p-Diethylbenzene	B2629-4647	0.59	0.59	ug/Kg	U
622-96-8	p-Ethyltoluene	B2629-4647	0.54	0.54	ug/Kg	U
99-87-6	p-Isopropyltoluene	B2629-4647	0.61	0.61	ug/Kg	U
135-98-8	sec-Butylbenzene	B2629-4647	0.58	0.58	ug/Kg	U
100-42-5	Styrene	B2629-4647	0.55	0.55	ug/Kg	U
98-06-6	tert-Butylbenzene	B2629-4647	0.68	0.68	ug/Kg	U
127-18-4	Tetrachloroethene	B2629-4647	0.58	0.58	ug/Kg	U
108-88-3	Toluene	B2629-4647	0.62	**1.57**	ug/Kg	J
156-60-5	trans-1,2-Dichloroethene	B2629-4647	0.59	0.59	ug/Kg	U
10061-02-6	trans-1,3-Dichloropropene	B2629-4647	0.54	0.54	ug/Kg	U
79-01-6	Trichloroethene	B2629-4647	0.63	0.63	ug/Kg	U
75-69-4	Trichlorofluoromethane	B2629-4647	0.72	0.72	ug/Kg	U
75-01-4	Vinylchloride	B2629-4647	0.88	0.88	ug/Kg	U
1330-20-7	Xylenes	B2629-4647	1.16	1.16	ug/Kg	U

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208 Route 109, Farmingdale NY 11735
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04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-4
Client Sample ID: 13-PLP
Matrix: Sludge
Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/20/2008
Collected: 04/18/2008 11:25
% Solid: 77.6%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	B2629-4647	98.8 %	(82 - 148)	
460-00-4	4-BROMOFLUOROBENZENE	B2629-4647	102.0 %	(74 - 108)	
4774-33-8	DIBROMOFLUOROMETHANE	B2629-4647	105.0 %	(80 - 140)	
2037-26-5	TOLUENE-D8	B2629-4647	97.6 %	(85 - 110)	

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208 Route 109, Farmingdale NY 11735
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04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-5
Client Sample ID: 11-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 11:55
% Solid: 71.7%
Remarks: See Case Narrative
Analyzed Date: 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
630-20-6	1,1,1,2-Tetrachloroethane	B2632-4713	3.21	3.21	ug/Kg	U
71-55-6	1,1,1-Trichloroethane	B2632-4713	3.62	3.62	ug/Kg	U
79-34-5	1,1,2,2-Tetrachloroethane	B2632-4713	4.18	4.18	ug/Kg	U
79-00-5	1,1,2-Trichloroethane	B2632-4713	4.39	4.39	ug/Kg	U
76-13-1	1,1,2-Trichlorotrifluoroethane	B2632-4713	3.62	3.62	ug/Kg	U
75-34-3	1,1-Dichloroethane	B2632-4713	3.97	3.97	ug/Kg	U
75-35-4	1,1-Dichloroethene	B2632-4713	2.58	2.58	ug/Kg	U
563-58-6	1,1-Dichloropropene	B2632-4713	3.69	3.69	ug/Kg	U
87-61-6	1,2,3-Trichlorobenzene	B2632-4713	3.35	3.35	ug/Kg	U
96-18-4	1,2,3-Trichloropropane	B2632-4713	4.95	4.95	ug/Kg	U
95-93-2	1,2,4,5-Tetramethylbenzene	B2632-4713	2.79	2.79	ug/Kg	U
120-82-1	1,2,4-Trichlorobenzene	B2632-4713	2.37	2.37	ug/Kg	U
95-63-6	1,2,4-Trimethylbenzene	B2632-4713	2.58	2.58	ug/Kg	U
96-12-8	1,2-Dibromo-3-chloropropane	B2632-4713	3.21	3.21	ug/Kg	U
106-93-4	1,2-Dibromoethane	B2632-4713	4.11	4.11	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	B2632-4713	3.28	3.28	ug/Kg	U
107-06-2	1,2-Dichloroethane	B2632-4713	4.04	4.04	ug/Kg	U
78-87-5	1,2-Dichloropropane	B2632-4713	4.11	4.11	ug/Kg	U
108-67-8	1,3,5-Trimethylbenzene	B2632-4713	3.07	3.07	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	B2632-4713	3.69	3.69	ug/Kg	U
142-28-9	1,3-Dichloropropane	B2632-4713	3.62	3.62	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	B2632-4713	3.35	3.35	ug/Kg	U
590-20-7	2,2-Dichloropropane	B2632-4713	4.11	4.11	ug/Kg	U
78-93-3	2-Butanone	B2632-4713	15.5	15.5	ug/Kg	U
95-49-8	2-Chlorotoluene	B2632-4713	3.69	3.69	ug/Kg	U
106-43-4	4-Chlorotoluene	B2632-4713	3.48	3.48	ug/Kg	U
108-10-1	4-Methyl-2-pentanone	B2632-4713	15.0	15.0	ug/Kg	U
67-64-1	Acetone	B2632-4713	18.1	**113**	ug/Kg	J
71-43-2	Benzene	B2632-4713	3.69	3.69	ug/Kg	U
108-86-1	Bromobenzene	B2632-4713	3.55	3.55	ug/Kg	U
74-97-5	Bromochloromethane	B2632-4713	4.04	4.04	ug/Kg	U
75-27-4	Bromodichloromethane	B2632-4713	3.28	3.28	ug/Kg	U
75-25-2	Bromoform	B2632-4713	3.35	3.35	ug/Kg	U

Environmental Testing Laboratories, Inc. Page G-503
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-5
Client Sample ID: 11-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 11:55
% Solid: 71.7%
Remarks: See Case Narrative
Analyzed Date: 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
56-23-5	Carbon tetrachloride	B2632-4713	3.90	3.90	ug/Kg	U
108-90-7	Chlorobenzene	B2632-4713	4.25	4.25	ug/Kg	U
75-00-3	Chloroethane	B2632-4713	4.88	4.88	ug/Kg	U
67-66-3	Chloroform	B2632-4713	4.11	4.11	ug/Kg	U
156-59-2	cis-1,2-Dichloroethene	B2632-4713	3.14	3.14	ug/Kg	U
10061-01-5	cis-1,3-Dichloro-1-propene	B2632-4713	3.55	3.55	ug/Kg	U
124-48-1	Dibromochloromethane	B2632-4713	3.21	3.21	ug/Kg	U
74-95-3	Dibromomethane	B2632-4713	5.51	5.51	ug/Kg	U
75-71-8	Dichlorodifluoromethane	B2632-4713	2.58	2.58	ug/Kg	U
100-41-4	Ethylbenzene	B2632-4713	3.62	3.62	ug/Kg	U
87-68-3	Hexachlorobutadiene	B2632-4713	3.35	3.35	ug/Kg	U
98-82-8	Isopropylbenzene	B2632-4713	3.07	3.07	ug/Kg	U
108-38-3	m+p-Xylene	B2632-4713	6.27	6.27	ug/Kg	U
1634-04-4	Methyl t-butyl ether	B2632-4713	3.62	3.62	ug/Kg	U
75-09-2	Methylene chloride	B2632-4713	6.55	**8.02**	ug/Kg	BJ
104-51-8	n-Butylbenzene	B2632-4713	3.35	3.35	ug/Kg	U
103-65-1	n-Propylbenzene	B2632-4713	3.21	3.21	ug/Kg	U
91-20-3	Naphthalene	B2632-4713	3.14	3.14	ug/Kg	U
95-47-6	o-Xylene	B2632-4713	2.72	2.72	ug/Kg	U
105-05-5	p-Diethylbenzene	B2632-4713	3.21	3.21	ug/Kg	U
622-96-8	p-Ethyltoluene	B2632-4713	2.93	2.93	ug/Kg	U
99-87-6	p-Isopropyltoluene	B2632-4713	3.28	3.28	ug/Kg	U
135-98-8	sec-Butylbenzene	B2632-4713	3.14	3.14	ug/Kg	U
100-42-5	Styrene	B2632-4713	3.00	3.00	ug/Kg	U
98-06-6	tert-Butylbenzene	B2632-4713	3.69	3.69	ug/Kg	U
127-18-4	Tetrachloroethene	B2632-4713	3.14	3.14	ug/Kg	U
108-88-3	Toluene	B2632-4713	3.35	3.35	ug/Kg	U
156-60-5	trans-1,2-Dichloroethene	B2632-4713	3.21	3.21	ug/Kg	U
10061-02-6	trans-1,3-Dichloropropene	B2632-4713	2.93	2.93	ug/Kg	U
79-01-6	Trichloroethene	B2632-4713	3.42	3.42	ug/Kg	U
75-69-4	Trichlorofluoromethane	B2632-4713	3.90	3.90	ug/Kg	U
75-01-4	Vinylchloride	B2632-4713	4.74	4.74	ug/Kg	U
1330-20-7	Xylenes	B2632-4713	6.27	6.27	ug/Kg	U

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208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-5
Client Sample ID: 11-PLP
Matrix: Sludge
Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/24/2008
Collected: 04/18/2008 11:55
% Solid: 71.7%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	B2632-4713	102.0 %	(82 - 148)	
460-00-4	4-BROMOFLUOROBENZENE	B2632-4713	99.7 %	(74 - 104)	
4774-33-8	DIBROMOFLUOROMETHANE	B2632-4713	101.0 %	(94 - 140)	
2037-26-5	TOLUENE-D8	B2632-4713	99.4 %	(85 - 110)	

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04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-6
Client Sample ID: 8-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 12:20
% Solid: 35.7%
Remarks: See Case Narrative
Analyzed Date: 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
630-20-6	1,1,1,2-Tetrachloroethane	A2749-7093	301	301	ug/Kg	U
71-55-6	1,1,1-Trichloroethane	A2749-7093	332	332	ug/Kg	U
79-34-5	1,1,2,2-Tetrachloroethane	A2749-7093	262	262	ug/Kg	U
79-00-5	1,1,2-Trichloroethane	A2749-7093	315	315	ug/Kg	U
76-13-1	1,1,2-Trichlorotrifluoroethane	A2749-7093	308	308	ug/Kg	U
75-34-3	1,1-Dichloroethane	A2749-7093	354	354	ug/Kg	U
75-35-4	1,1-Dichloroethene	A2749-7093	326	326	ug/Kg	U
563-58-6	1,1-Dichloropropene	A2749-7093	280	280	ug/Kg	U
87-61-6	1,2,3-Trichlorobenzene	A2749-7093	217	217	ug/Kg	U
96-18-4	1,2,3-Trichloropropane	A2749-7093	273	273	ug/Kg	U
95-93-2	1,2,4,5-Tetramethylbenzene	A2749-7093	273	**3490**	ug/Kg	
120-82-1	1,2,4-Trichlorobenzene	A2749-7093	234	234	ug/Kg	U
95-63-6	1,2,4-Trimethylbenzene	A2749-7093	294	**1450**	ug/Kg	J
96-12-8	1,2-Dibromo-3-chloropropane	A2749-7093	262	262	ug/Kg	U
106-93-4	1,2-Dibromoethane	A2749-7093	273	273	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	A2749-7093	280	280	ug/Kg	U
107-06-2	1,2-Dichloroethane	A2749-7093	340	340	ug/Kg	U
78-87-5	1,2-Dichloropropane	A2749-7093	312	312	ug/Kg	U
108-67-8	1,3,5-Trimethylbenzene	A2749-7093	287	**626**	ug/Kg	J
541-73-1	1,3-Dichlorobenzene	A2749-7093	270	270	ug/Kg	U
142-28-9	1,3-Dichloropropane	A2749-7093	290	290	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	A2749-7093	273	**1640**	ug/Kg	J
590-20-7	2,2-Dichloropropane	A2749-7093	304	304	ug/Kg	U
78-93-3	2-Butanone	A2749-7093	266	266	ug/Kg	U
95-49-8	2-Chlorotoluene	A2749-7093	290	290	ug/Kg	U
106-43-4	4-Chlorotoluene	A2749-7093	273	273	ug/Kg	U
108-10-1	4-Methyl-2-pentanone	A2749-7093	301	301	ug/Kg	U
67-64-1	Acetone	A2749-7093	406	406	ug/Kg	U
71-43-2	Benzene	A2749-7093	308	308	ug/Kg	U
108-86-1	Bromobenzene	A2749-7093	280	280	ug/Kg	U
74-97-5	Bromochloromethane	A2749-7093	318	318	ug/Kg	U
75-27-4	Bromodichloromethane	A2749-7093	312	312	ug/Kg	U
75-25-2	Bromoform	A2749-7093	284	284	ug/Kg	U

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208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-6
Client Sample ID: 8-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 12:20
% Solid: 35.7%
Remarks: See Case Narrative
Analyzed Date: 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
56-23-5	Carbon tetrachloride	A2749-7093	315	315	ug/Kg	U
108-90-7	Chlorobenzene	A2749-7093	301	**434**	ug/Kg	J
75-00-3	Chloroethane	A2749-7093	504	504	ug/Kg	U
67-66-3	Chloroform	A2749-7093	340	340	ug/Kg	U
156-59-2	cis-1,2-Dichloroethene	A2749-7093	312	312	ug/Kg	U
10061-01-5	cis-1,3-Dichloro-1-propene	A2749-7093	304	304	ug/Kg	U
124-48-1	Dibromochloromethane	A2749-7093	290	290	ug/Kg	U
74-95-3	Dibromomethane	A2749-7093	318	318	ug/Kg	U
75-71-8	Dichlorodifluoromethane	A2749-7093	280	280	ug/Kg	U
100-41-4	Ethylbenzene	A2749-7093	312	312	ug/Kg	U
87-68-3	Hexachlorobutadiene	A2749-7093	276	276	ug/Kg	U
98-82-8	Isopropylbenzene	A2749-7093	301	301	ug/Kg	U
108-38-3	m+p-Xylene	A2749-7093	609	609	ug/Kg	U
1634-04-4	Methyl t-butyl ether	A2749-7093	308	308	ug/Kg	U
75-09-2	Methylene chloride	A2749-7093	378	378	ug/Kg	U
104-51-8	n-Butylbenzene	A2749-7093	290	**1390**	ug/Kg	J
103-65-1	n-Propylbenzene	A2749-7093	284	**536**	ug/Kg	J
91-20-3	Naphthalene	A2749-7093	214	**350**	ug/Kg	J
95-47-6	o-Xylene	A2749-7093	298	298	ug/Kg	U
105-05-5	p-Diethylbenzene	A2749-7093	270	270	ug/Kg	U
622-96-8	p-Ethyltoluene	A2749-7093	284	**537**	ug/Kg	J
99-87-6	p-Isopropyltoluene	A2749-7093	284	**711**	ug/Kg	J
135-98-8	sec-Butylbenzene	A2749-7093	273	**442**	ug/Kg	J
100-42-5	Styrene	A2749-7093	284	284	ug/Kg	U
98-06-6	tert-Butylbenzene	A2749-7093	298	298	ug/Kg	U
127-18-4	Tetrachloroethene	A2749-7093	294	294	ug/Kg	U
108-88-3	Toluene	A2749-7093	378	378	ug/Kg	U
156-60-5	trans-1,2-Dichloroethene	A2749-7093	332	332	ug/Kg	U
10061-02-6	trans-1,3-Dichloropropene	A2749-7093	276	276	ug/Kg	U
79-01-6	Trichloroethene	A2749-7093	329	329	ug/Kg	U
75-69-4	Trichlorofluoromethane	A2749-7093	350	350	ug/Kg	U
75-01-4	Vinylchloride	A2749-7093	287	287	ug/Kg	U
1330-20-7	Xylenes	A2749-7093	609	609	ug/Kg	U

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208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-6
Client Sample ID: 8-PLP
Matrix: Sludge
Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/24/2008
Collected: 04/18/2008 12:20
% Solid: 35.7%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	A2749-7093	94.1 %	(74 - 173)	
460-00-4	4-BROMOFLUOROBENZENE	A2749-7093	104.0 %	(77 - 131)	
4774-33-8	DIBROMOFLUOROMETHANE	A2749-7093	94.2 %	(75 - 159)	
2037-26-5	TOLUENE-D8	A2749-7093	101.0 %	(74 - 136)	

Environmental Testing Laboratories, Inc. Page G-508
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-7
Client Sample ID: Bd2-SW
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 12:35
% Solid: 84.9%
Remarks: See Case Narrative
Analyzed Date: 04/20/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
630-20-6	1,1,1,2-Tetrachloroethane	B2629-4639	0.54	0.54	ug/Kg	U
71-55-6	1,1,1-Trichloroethane	B2629-4639	0.61	0.61	ug/Kg	U
79-34-5	1,1,2,2-Tetrachloroethane	B2629-4639	0.71	0.71	ug/Kg	U
79-00-5	1,1,2-Trichloroethane	B2629-4639	0.74	0.74	ug/Kg	U
76-13-1	1,1,2-Trichlorotrifluoroethane	B2629-4639	0.61	0.61	ug/Kg	U
75-34-3	1,1-Dichloroethane	B2629-4639	0.67	0.67	ug/Kg	U
75-35-4	1,1-Dichloroethene	B2629-4639	0.44	0.44	ug/Kg	U
563-58-6	1,1-Dichloropropene	B2629-4639	0.63	0.63	ug/Kg	U
87-61-6	1,2,3-Trichlorobenzene	B2629-4639	0.57	0.57	ug/Kg	U
96-18-4	1,2,3-Trichloropropane	B2629-4639	0.84	0.84	ug/Kg	U
95-93-2	1,2,4,5-Tetramethylbenzene	B2629-4639	0.47	0.47	ug/Kg	U
120-82-1	1,2,4-Trichlorobenzene	B2629-4639	0.40	0.40	ug/Kg	U
95-63-6	1,2,4-Trimethylbenzene	B2629-4639	0.44	0.44	ug/Kg	U
96-12-8	1,2-Dibromo-3-chloropropane	B2629-4639	0.54	0.54	ug/Kg	U
106-93-4	1,2-Dibromoethane	B2629-4639	0.70	0.70	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	B2629-4639	0.55	0.55	ug/Kg	U
107-06-2	1,2-Dichloroethane	B2629-4639	0.68	0.68	ug/Kg	U
78-87-5	1,2-Dichloropropane	B2629-4639	0.70	0.70	ug/Kg	U
108-67-8	1,3,5-Trimethylbenzene	B2629-4639	0.52	0.52	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	B2629-4639	0.63	0.63	ug/Kg	U
142-28-9	1,3-Dichloropropane	B2629-4639	0.61	0.61	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	B2629-4639	0.57	0.57	ug/Kg	U
590-20-7	2,2-Dichloropropane	B2629-4639	0.70	0.70	ug/Kg	U
78-93-3	2-Butanone	B2629-4639	2.62	2.62	ug/Kg	U
95-49-8	2-Chlorotoluene	B2629-4639	0.63	0.63	ug/Kg	U
106-43-4	4-Chlorotoluene	B2629-4639	0.59	0.59	ug/Kg	U
108-10-1	4-Methyl-2-pentanone	B2629-4639	2.54	2.54	ug/Kg	U
67-64-1	Acetone	B2629-4639	3.07	3.07	ug/Kg	U
71-43-2	Benzene	B2629-4639	0.63	0.63	ug/Kg	U
108-86-1	Bromobenzene	B2629-4639	0.60	0.60	ug/Kg	U
74-97-5	Bromochloromethane	B2629-4639	0.68	0.68	ug/Kg	U
75-27-4	Bromodichloromethane	B2629-4639	0.55	0.55	ug/Kg	U
75-25-2	Bromoform	B2629-4639	0.57	0.57	ug/Kg	U

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208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-7
Client Sample ID: Bd2-SW
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 12:35
% Solid: 84.9%
Remarks: See Case Narrative
Analyzed Date: 04/20/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
56-23-5	Carbon tetrachloride	B2629-4639	0.66	0.66	ug/Kg	U
108-90-7	Chlorobenzene	B2629-4639	0.72	0.72	ug/Kg	U
75-00-3	Chloroethane	B2629-4639	0.83	0.83	ug/Kg	U
67-66-3	Chloroform	B2629-4639	0.70	0.70	ug/Kg	U
156-59-2	cis-1,2-Dichloroethene	B2629-4639	0.53	0.53	ug/Kg	U
10061-01-5	cis-1,3-Dichloro-1-propene	B2629-4639	0.60	0.60	ug/Kg	U
124-48-1	Dibromochloromethane	B2629-4639	0.54	0.54	ug/Kg	U
74-95-3	Dibromomethane	B2629-4639	0.93	0.93	ug/Kg	U
75-71-8	Dichlorodifluoromethane	B2629-4639	0.44	0.44	ug/Kg	U
100-41-4	Ethylbenzene	B2629-4639	0.61	0.61	ug/Kg	U
87-68-3	Hexachlorobutadiene	B2629-4639	0.57	0.57	ug/Kg	U
98-82-8	Isopropylbenzene	B2629-4639	0.52	0.52	ug/Kg	U
108-38-3	m+p-Xylene	B2629-4639	1.06	1.06	ug/Kg	U
1634-04-4	Methyl t-butyl ether	B2629-4639	0.61	0.61	ug/Kg	U
75-09-2	Methylene chloride	B2629-4639	1.11	1.11	ug/Kg	U
104-51-8	n-Butylbenzene	B2629-4639	0.57	0.57	ug/Kg	U
103-65-1	n-Propylbenzene	B2629-4639	0.54	0.54	ug/Kg	U
91-20-3	Naphthalene	B2629-4639	0.53	0.53	ug/Kg	U
95-47-6	o-Xylene	B2629-4639	0.46	0.46	ug/Kg	U
105-05-5	p-Diethylbenzene	B2629-4639	0.54	0.54	ug/Kg	U
622-96-8	p-Ethyltoluene	B2629-4639	0.50	0.50	ug/Kg	U
99-87-6	p-Isopropyltoluene	B2629-4639	0.55	0.55	ug/Kg	U
135-98-8	sec-Butylbenzene	B2629-4639	0.53	0.53	ug/Kg	U
100-42-5	Styrene	B2629-4639	0.51	0.51	ug/Kg	U
98-06-6	tert-Butylbenzene	B2629-4639	0.63	0.63	ug/Kg	U
127-18-4	Tetrachloroethene	B2629-4639	0.53	0.53	ug/Kg	U
108-88-3	Toluene	B2629-4639	0.57	0.57	ug/Kg	U
156-60-5	trans-1,2-Dichloroethene	B2629-4639	0.54	0.54	ug/Kg	U
10061-02-6	trans-1,3-Dichloropropene	B2629-4639	0.50	0.50	ug/Kg	U
79-01-6	Trichloroethene	B2629-4639	0.58	0.58	ug/Kg	U
75-69-4	Trichlorofluoromethane	B2629-4639	0.66	0.66	ug/Kg	U
75-01-4	Vinylchloride	B2629-4639	0.80	0.80	ug/Kg	U
1330-20-7	Xylenes	B2629-4639	1.06	1.06	ug/Kg	U

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208 Route 109, Farmingdale NY 11735
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04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-7
Client Sample ID: Bd2-SW
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 12:35
% Solid: 84.9%
Remarks: See Case Narrative
Analyzed Date: 04/20/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	B2629-4639	102.0 %	(82 - 148)	
460-00-4	4-BROMOFLUOROBENZENE	B2629-4639	98.1 %	(74 - 108)	
4774-33-8	DIBROMOFLUOROMETHANE	B2629-4639	110.0 %	(80 - 140)	
2037-26-5	TOLUENE-D8	B2629-4639	96.5 %	(85 - 110)	

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04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-8
Client Sample ID: 14A-PLP
Matrix: Sludge Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/24/2008

Collected: 04/18/2008 13:00
% Solid: 79%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
630-20-6	1,1,1,2-Tetrachloroethane	B2632-4716	2.91	2.91	ug/Kg	U
71-55-6	1,1,1-Trichloroethane	B2632-4716	3.29	3.29	ug/Kg	U
79-34-5	1,1,2,2-Tetrachloroethane	B2632-4716	3.80	3.80	ug/Kg	U
79-00-5	1,1,2-Trichloroethane	B2632-4716	3.99	3.99	ug/Kg	U
76-13-1	1,1,2-Trichlorotrifluoroethane	B2632-4716	3.29	3.29	ug/Kg	U
75-34-3	1,1-Dichloroethane	B2632-4716	3.61	3.61	ug/Kg	U
75-35-4	1,1-Dichloroethene	B2632-4716	2.34	2.34	ug/Kg	U
563-58-6	1,1-Dichloropropene	B2632-4716	3.35	3.35	ug/Kg	U
87-61-6	1,2,3-Trichlorobenzene	B2632-4716	3.04	3.04	ug/Kg	U
96-18-4	1,2,3-Trichloropropane	B2632-4716	4.49	4.49	ug/Kg	U
95-93-2	1,2,4,5-Tetramethylbenzene	B2632-4716	2.53	2.53	ug/Kg	U
120-82-1	1,2,4-Trichlorobenzene	B2632-4716	2.15	2.15	ug/Kg	U
95-63-6	1,2,4-Trimethylbenzene	B2632-4716	2.34	2.34	ug/Kg	U
96-12-8	1,2-Dibromo-3-chloropropane	B2632-4716	2.91	2.91	ug/Kg	U
106-93-4	1,2-Dibromoethane	B2632-4716	3.73	3.73	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	B2632-4716	2.98	**6.86**	ug/Kg	J
107-06-2	1,2-Dichloroethane	B2632-4716	3.67	3.67	ug/Kg	U
78-87-5	1,2-Dichloropropane	B2632-4716	3.73	3.73	ug/Kg	U
108-67-8	1,3,5-Trimethylbenzene	B2632-4716	2.79	2.79	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	B2632-4716	3.35	3.35	ug/Kg	U
142-28-9	1,3-Dichloropropane	B2632-4716	3.29	3.29	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	B2632-4716	3.04	**9.82**	ug/Kg	J
590-20-7	2,2-Dichloropropane	B2632-4716	3.73	3.73	ug/Kg	U
78-93-3	2-Butanone	B2632-4716	14.1	14.1	ug/Kg	U
95-49-8	2-Chlorotoluene	B2632-4716	3.35	3.35	ug/Kg	U
106-43-4	4-Chlorotoluene	B2632-4716	3.16	3.16	ug/Kg	U
108-10-1	4-Methyl-2-pentanone	B2632-4716	13.6	13.6	ug/Kg	U
67-64-1	Acetone	B2632-4716	16.5	16.5	ug/Kg	U
71-43-2	Benzene	B2632-4716	3.35	3.35	ug/Kg	U
108-86-1	Bromobenzene	B2632-4716	3.23	3.23	ug/Kg	U
74-97-5	Bromochloromethane	B2632-4716	3.67	3.67	ug/Kg	U
75-27-4	Bromodichloromethane	B2632-4716	2.98	2.98	ug/Kg	U
75-25-2	Bromoform	B2632-4716	3.04	3.04	ug/Kg	U

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04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-8
Client Sample ID: 14A-PLP
Matrix: Sludge Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/24/2008

Collected: 04/18/2008 13:00
% Solid: 79%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
56-23-5	Carbon tetrachloride	B2632-4716	3.54	3.54	ug/Kg	U
108-90-7	Chlorobenzene	B2632-4716	3.86	3.86	ug/Kg	U
75-00-3	Chloroethane	B2632-4716	4.43	4.43	ug/Kg	U
67-66-3	Chloroform	B2632-4716	3.73	3.73	ug/Kg	U
156-59-2	cis-1,2-Dichloroethene	B2632-4716	2.85	2.85	ug/Kg	U
10061-01-5	cis-1,3-Dichloro-1-propene	B2632-4716	3.23	3.23	ug/Kg	U
124-48-1	Dibromochloromethane	B2632-4716	2.91	2.91	ug/Kg	U
74-95-3	Dibromomethane	B2632-4716	5.00	5.00	ug/Kg	U
75-71-8	Dichlorodifluoromethane	B2632-4716	2.34	2.34	ug/Kg	U
100-41-4	Ethylbenzene	B2632-4716	3.29	3.29	ug/Kg	U
87-68-3	Hexachlorobutadiene	B2632-4716	3.04	3.04	ug/Kg	U
98-82-8	Isopropylbenzene	B2632-4716	2.79	2.79	ug/Kg	U
108-38-3	m+p-Xylene	B2632-4716	5.70	5.70	ug/Kg	U
1634-04-4	Methyl t-butyl ether	B2632-4716	3.29	3.29	ug/Kg	U
75-09-2	Methylene chloride	B2632-4716	5.95	**10.1**	ug/Kg	BJ
104-51-8	n-Butylbenzene	B2632-4716	3.04	3.04	ug/Kg	U
103-65-1	n-Propylbenzene	B2632-4716	2.91	2.91	ug/Kg	U
91-20-3	Naphthalene	B2632-4716	2.85	2.85	ug/Kg	U
95-47-6	o-Xylene	B2632-4716	2.47	2.47	ug/Kg	U
105-05-5	p-Diethylbenzene	B2632-4716	2.91	2.91	ug/Kg	U
622-96-8	p-Ethyltoluene	B2632-4716	2.66	2.66	ug/Kg	U
99-87-6	p-Isopropyltoluene	B2632-4716	2.98	**10.1**	ug/Kg	J
135-98-8	sec-Butylbenzene	B2632-4716	2.85	2.85	ug/Kg	U
100-42-5	Styrene	B2632-4716	2.72	2.72	ug/Kg	U
98-06-6	tert-Butylbenzene	B2632-4716	3.35	3.35	ug/Kg	U
127-18-4	Tetrachloroethene	B2632-4716	2.85	2.85	ug/Kg	U
108-88-3	Toluene	B2632-4716	3.04	**15.1**	ug/Kg	J
156-60-5	trans-1,2-Dichloroethene	B2632-4716	2.91	2.91	ug/Kg	U
10061-02-6	trans-1,3-Dichloropropene	B2632-4716	2.66	2.66	ug/Kg	U
79-01-6	Trichloroethene	B2632-4716	3.10	3.10	ug/Kg	U
75-69-4	Trichlorofluoromethane	B2632-4716	3.54	3.54	ug/Kg	U
75-01-4	Vinylchloride	B2632-4716	4.30	4.30	ug/Kg	U
1330-20-7	Xylenes	B2632-4716	5.70	5.70	ug/Kg	U

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208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

SCDOH Volatiles by EPA 8260B

Sample: 0804503-8
Client Sample ID: 14A-PLP
Matrix: Sludge
Type: Grab
Remarks: See Case Narrative
Analyzed Date: 04/24/2008
Collected: 04/18/2008 13:00
% Solid: 79%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	B2632-4716	98.6 %	(82 - 148)	
460-00-4	4-BROMOFLUOROBENZENE	B2632-4716	98.6 %	(74 - 104)	
4774-33-8	DIBROMOFLUOROMETHANE	B2632-4716	102.0 %	(94 - 140)	
2037-26-5	TOLUENE-D8	B2632-4716	96.8 %	(85 - 110)	

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208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0804503-9
Client Sample ID: SB-8
Matrix: Soil
Type: Grab
Collected: 04/18/2008 14:45
% Solid: 84.8%
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
120-82-1	1,2,4-Trichlorobenzene	C2013-6891	49.1	49.1	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	C2013-6891	36.4	36.4	ug/Kg	U
122-66-7	1,2-Diphenylhydrazine	C2013-6891	35.6	35.6	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	C2013-6891	39.6	39.6	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	C2013-6891	38.4	38.4	ug/Kg	U
58-90-2	2,3,4,6-Tetrachlorophenol	C2013-6891	46.7	46.7	ug/Kg	U
95-95-4	2,4,5-Trichlorophenol	C2013-6891	25.6	25.6	ug/Kg	U
88-06-2	2,4,6-Trichlorophenol	C2013-6891	44.3	44.3	ug/Kg	U
120-83-2	2,4-Dichlorophenol	C2013-6891	38.7	38.7	ug/Kg	U
105-67-9	2,4-Dimethylphenol	C2013-6891	49.3	49.3	ug/Kg	U
51-28-5	2,4-Dinitrophenol	C2013-6891	415	415	ug/Kg	U
121-14-2	2,4-Dinitrotoluene	C2013-6891	70.8	70.8	ug/Kg	U
606-20-2	2,6-Dinitrotoluene	C2013-6891	48.6	48.6	ug/Kg	U
91-58-7	2-Chloronaphthalene	C2013-6891	56.8	56.8	ug/Kg	U
95-57-8	2-Chlorophenol	C2013-6891	56.8	56.8	ug/Kg	U
91-57-6	2-Methylnaphthalene	C2013-6891	46.8	46.8	ug/Kg	U
95-48-7	2-Methylphenol	C2013-6891	42.2	42.2	ug/Kg	U
88-74-4	2-Nitroaniline	C2013-6891	61.4	61.4	ug/Kg	U
88-75-5	2-Nitrophenol	C2013-6891	35.8	35.8	ug/Kg	U
106-44-5	3+4-Methylphenol	C2013-6891	36.4	36.4	ug/Kg	U
91-94-1	3,3'-Dichlorobenzidine	C2013-6891	56.8	56.8	ug/Kg	U
99-09-2	3-Nitroaniline	C2013-6891	20.3	20.3	ug/Kg	U
534-52-1	4,6-Dinitro-2-methylphenol	C2013-6891	515	515	ug/Kg	U
101-55-3	4-Bromophenyl phenyl ether	C2013-6891	53.5	53.5	ug/Kg	U
59-50-7	4-Chloro-3-methylphenol	C2013-6891	44.0	44.0	ug/Kg	U
106-47-8	4-Chloroaniline	C2013-6891	44.9	44.9	ug/Kg	U
7005-72-3	4-Chlorophenyl phenyl ether	C2013-6891	45.9	45.9	ug/Kg	U
100-01-6	4-Nitroaniline	C2013-6891	115	115	ug/Kg	U
100-02-7	4-Nitrophenol	C2013-6891	787	787	ug/Kg	U
83-32-9	Acenaphthene	C2013-6891	49.6	49.6	ug/Kg	U
208-96-8	Acenaphthylene	C2013-6891	40.6	40.6	ug/Kg	U
62-53-3	Aniline	C2013-6891	36.7	36.7	ug/Kg	U
120-12-7	Anthracene	C2013-6891	52.5	52.5	ug/Kg	U

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04/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0804503-9
Client Sample ID: SB-8
Matrix: Soil
Type: Grab
Collected: 04/18/2008 14:45
% Solid: 84.8%
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
92-87-5	Benzidine	C2013-6891	1040	1040	ug/Kg	U
56-55-3	Benzo(a)anthracene	C2013-6891	49.9	49.9	ug/Kg	U
50-32-8	Benzo(a)pyrene	C2013-6891	61.4	61.4	ug/Kg	U
205-99-2	Benzo(b)fluoranthene	C2013-6891	48.9	48.9	ug/Kg	U
191-24-2	Benzo(g,h,i)perylene	C2013-6891	90.1	90.1	ug/Kg	U
207-08-9	Benzo(k)fluoranthene	C2013-6891	89.7	89.7	ug/Kg	U
65-85-0	Benzoic acid	C2013-6891	6910	6910	ug/Kg	U
100-51-6	Benzyl alcohol	C2013-6891	69.6	69.6	ug/Kg	U
111-91-1	bis(2-Chloroethoxy)methane	C2013-6891	48.8	48.8	ug/Kg	U
111-44-4	bis(2-Chloroethyl)ether	C2013-6891	55.8	55.8	ug/Kg	U
108-60-1	bis(2-Chloroisopropyl)ether	C2013-6891	43.3	43.3	ug/Kg	U
117-81-7	bis(2-Ethylhexyl)phthalate	C2013-6891	77.2	77.2	ug/Kg	U
85-68-7	Butyl benzyl phthalate	C2013-6891	62.3	62.3	ug/Kg	U
86-74-8	Carbazole	C2013-6891	67.9	67.9	ug/Kg	U
218-01-9	Chrysene	C2013-6891	62.4	62.4	ug/Kg	U
	Cresols	C2013-6891	78.6	78.6	ug/Kg	U
84-74-2	Di-n-butyl phthalate	C2013-6891	66.4	66.4	ug/Kg	U
117-84-0	Di-n-octyl phthalate	C2013-6891	58.0	58.0	ug/Kg	U
53-70-3	Dibenz(a,h)anthracene	C2013-6891	65.8	65.8	ug/Kg	U
132-64-9	Dibenzofuran	C2013-6891	39.4	39.4	ug/Kg	U
84-66-2	Diethyl phthalate	C2013-6891	77.1	77.1	ug/Kg	U
131-11-3	Dimethyl phthalate	C2013-6891	57.0	57.0	ug/Kg	U
206-44-0	Fluoranthene	C2013-6891	65.0	65.0	ug/Kg	U
86-73-7	Fluorene	C2013-6891	47.4	47.4	ug/Kg	U
118-74-1	Hexachlorobenzene	C2013-6891	50.5	50.5	ug/Kg	U
87-68-3	Hexachlorobutadiene	C2013-6891	47.2	47.2	ug/Kg	U
77-47-4	Hexachlorocyclopentadiene	C2013-6891	364	364	ug/Kg	U
67-72-1	Hexachloroethane	C2013-6891	52.5	52.5	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2013-6891	54.5	54.5	ug/Kg	U
78-59-1	Isophorone	C2013-6891	53.9	53.9	ug/Kg	U
621-64-7	N-Nitrosodi-n-propylamine	C2013-6891	35.6	35.6	ug/Kg	U
62-75-9	N-Nitrosodimethylamine	C2013-6891	74.9	74.9	ug/Kg	U
86-30-6	N-Nitrosodiphenylamine	C2013-6891	64.3	64.3	ug/Kg	U

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Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0804503-9
Client Sample ID: SB-8
Matrix: Soil
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Type: Grab

Collected: 04/18/2008 14:45
% Solid: 84.8%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
91-20-3	Naphthalene	C2013-6891	47.4	47.4	ug/Kg	U
98-95-3	Nitrobenzene	C2013-6891	45.6	45.6	ug/Kg	U
87-86-5	Pentachlorophenol	C2013-6891	447	447	ug/Kg	U
85-01-8	Phenanthrene	C2013-6891	53.7	53.7	ug/Kg	U
108-95-2	Phenol	C2013-6891	30.8	30.8	ug/Kg	U
129-00-0	Pyrene	C2013-6891	43.6	**53.6**	ug/Kg	J
110-86-1	Pyridine	C2013-6891	67.6	67.6	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2013-6891	90.2 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2013-6891	91.8 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2013-6891	75.3 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2013-6891	73.2 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2013-6891	76.5 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2013-6891	94.5 %	(18 - 137)	

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04/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0804503-10
Client Sample ID: SB-26
Matrix: Soil Type: Grab
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Collected: 04/18/2008 14:50
% Solid: 78.6%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
120-82-1	1,2,4-Trichlorobenzene	C2013-6896	52.9	52.9	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	C2013-6896	39.3	39.3	ug/Kg	U
122-66-7	1,2-Diphenylhydrazine	C2013-6896	38.4	38.4	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	C2013-6896	42.7	42.7	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	C2013-6896	41.5	41.5	ug/Kg	U
58-90-2	2,3,4,6-Tetrachlorophenol	C2013-6896	50.4	50.4	ug/Kg	U
95-95-4	2,4,5-Trichlorophenol	C2013-6896	27.6	27.6	ug/Kg	U
88-06-2	2,4,6-Trichlorophenol	C2013-6896	47.8	47.8	ug/Kg	U
120-83-2	2,4-Dichlorophenol	C2013-6896	41.7	41.7	ug/Kg	U
105-67-9	2,4-Dimethylphenol	C2013-6896	53.2	53.2	ug/Kg	U
51-28-5	2,4-Dinitrophenol	C2013-6896	448	448	ug/Kg	U
121-14-2	2,4-Dinitrotoluene	C2013-6896	76.3	76.3	ug/Kg	U
606-20-2	2,6-Dinitrotoluene	C2013-6896	52.4	52.4	ug/Kg	U
91-58-7	2-Chloronaphthalene	C2013-6896	61.3	61.3	ug/Kg	U
95-57-8	2-Chlorophenol	C2013-6896	61.3	61.3	ug/Kg	U
91-57-6	2-Methylnaphthalene	C2013-6896	50.5	**179**	ug/Kg	J
95-48-7	2-Methylphenol	C2013-6896	45.5	45.5	ug/Kg	U
88-74-4	2-Nitroaniline	C2013-6896	66.3	66.3	ug/Kg	U
88-75-5	2-Nitrophenol	C2013-6896	38.7	38.7	ug/Kg	U
106-44-5	3+4-Methylphenol	C2013-6896	39.3	39.3	ug/Kg	U
91-94-1	3,3'-Dichlorobenzidine	C2013-6896	61.3	61.3	ug/Kg	U
99-09-2	3-Nitroaniline	C2013-6896	21.9	21.9	ug/Kg	U
534-52-1	4,6-Dinitro-2-methylphenol	C2013-6896	556	556	ug/Kg	U
101-55-3	4-Bromophenyl phenyl ether	C2013-6896	57.8	57.8	ug/Kg	U
59-50-7	4-Chloro-3-methylphenol	C2013-6896	47.5	47.5	ug/Kg	U
106-47-8	4-Chloroaniline	C2013-6896	48.5	48.5	ug/Kg	U
7005-72-3	4-Chlorophenyl phenyl ether	C2013-6896	49.5	49.5	ug/Kg	U
100-01-6	4-Nitroaniline	C2013-6896	124	124	ug/Kg	U
100-02-7	4-Nitrophenol	C2013-6896	849	849	ug/Kg	U
83-32-9	Acenaphthene	C2013-6896	53.6	**65.4**	ug/Kg	J
208-96-8	Acenaphthylene	C2013-6896	43.8	43.8	ug/Kg	U
62-53-3	Aniline	C2013-6896	39.6	39.6	ug/Kg	U
120-12-7	Anthracene	C2013-6896	56.6	**71.1**	ug/Kg	J

Environmental Testing Laboratories, Inc. Page G-518
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0804503-10
Client Sample ID: SB-26
Matrix: Soil Type: Grab
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Collected: 04/18/2008 14:50
% Solid: 78.6%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
92-87-5	Benzidine	C2013-6896	1120	1120	ug/Kg	U
56-55-3	Benzo(a)anthracene	C2013-6896	53.8	**324**	ug/Kg	J
50-32-8	Benzo(a)pyrene	C2013-6896	66.3	**352**	ug/Kg	J
205-99-2	Benzo(b)fluoranthene	C2013-6896	52.8	**428**	ug/Kg	J
191-24-2	Benzo(g,h,i)perylene	C2013-6896	97.2	**126**	ug/Kg	J
207-08-9	Benzo(k)fluoranthene	C2013-6896	96.8	**325**	ug/Kg	J
65-85-0	Benzoic acid	C2013-6896	7460	7460	ug/Kg	U
100-51-6	Benzyl alcohol	C2013-6896	75.1	75.1	ug/Kg	U
111-91-1	bis(2-Chloroethoxy)methane	C2013-6896	52.7	52.7	ug/Kg	U
111-44-4	bis(2-Chloroethyl)ether	C2013-6896	60.2	60.2	ug/Kg	U
108-60-1	bis(2-Chloroisopropyl)ether	C2013-6896	46.7	46.7	ug/Kg	U
117-81-7	bis(2-Ethylhexyl)phthalate	C2013-6896	83.3	83.3	ug/Kg	U
85-68-7	Butyl benzyl phthalate	C2013-6896	67.2	67.2	ug/Kg	U
86-74-8	Carbazole	C2013-6896	73.3	73.3	ug/Kg	U
218-01-9	Chrysene	C2013-6896	67.3	**486**	ug/Kg	J
	Cresols	C2013-6896	84.8	84.8	ug/Kg	U
84-74-2	Di-n-butyl phthalate	C2013-6896	71.6	71.6	ug/Kg	U
117-84-0	Di-n-octyl phthalate	C2013-6896	62.6	62.6	ug/Kg	U
53-70-3	Dibenz(a,h)anthracene	C2013-6896	71.0	71.0	ug/Kg	U
132-64-9	Dibenzofuran	C2013-6896	42.5	42.5	ug/Kg	U
84-66-2	Diethyl phthalate	C2013-6896	83.2	83.2	ug/Kg	U
131-11-3	Dimethyl phthalate	C2013-6896	61.5	61.5	ug/Kg	U
206-44-0	Fluoranthene	C2013-6896	70.1	**956**	ug/Kg	
86-73-7	Fluorene	C2013-6896	51.1	**59.9**	ug/Kg	J
118-74-1	Hexachlorobenzene	C2013-6896	54.5	54.5	ug/Kg	U
87-68-3	Hexachlorobutadiene	C2013-6896	50.9	50.9	ug/Kg	U
77-47-4	Hexachlorocyclopentadiene	C2013-6896	393	393	ug/Kg	U
67-72-1	Hexachloroethane	C2013-6896	56.6	56.6	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2013-6896	58.8	**132**	ug/Kg	J
78-59-1	Isophorone	C2013-6896	58.1	58.1	ug/Kg	U
621-64-7	N-Nitrosodi-n-propylamine	C2013-6896	38.4	38.4	ug/Kg	U
62-75-9	N-Nitrosodimethylamine	C2013-6896	80.8	80.8	ug/Kg	U
86-30-6	N-Nitrosodiphenylamine	C2013-6896	69.3	69.3	ug/Kg	U

Environmental Testing Laboratories, Inc. Page G-519
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0804503-10
Client Sample ID: SB-26
Matrix: Soil
Type: Grab
Collected: 04/18/2008 14:50
% Solid: 78.6%
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
91-20-3	Naphthalene	C2013-6896	51.1	**300**	ug/Kg	J
98-95-3	Nitrobenzene	C2013-6896	49.2	49.2	ug/Kg	U
87-86-5	Pentachlorophenol	C2013-6896	482	482	ug/Kg	U
85-01-8	Phenanthrene	C2013-6896	57.9	**584**	ug/Kg	J
108-95-2	Phenol	C2013-6896	33.2	33.2	ug/Kg	U
129-00-0	Pyrene	C2013-6896	47.1	**667**	ug/Kg	
110-86-1	Pyridine	C2013-6896	72.9	72.9	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2013-6896	95.1 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2013-6896	88.6 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2013-6896	74.8 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2013-6896	73.6 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2013-6896	78.2 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2013-6896	89.0 %	(18 - 137)	

Environmental Testing Laboratories, Inc. Page G-520
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0804503-11
Client Sample ID: SB-7
Matrix: Soil Type: Grab
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Collected: 04/18/2008 15:10
% Solid: 86.2%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
120-82-1	1,2,4-Trichlorobenzene	C2013-6892	48.3	48.3	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	C2013-6892	35.8	35.8	ug/Kg	U
122-66-7	1,2-Diphenylhydrazine	C2013-6892	35.0	35.0	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	C2013-6892	39.0	39.0	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	C2013-6892	37.8	37.8	ug/Kg	U
58-90-2	2,3,4,6-Tetrachlorophenol	C2013-6892	45.9	45.9	ug/Kg	U
95-95-4	2,4,5-Trichlorophenol	C2013-6892	25.2	25.2	ug/Kg	U
88-06-2	2,4,6-Trichlorophenol	C2013-6892	43.6	43.6	ug/Kg	U
120-83-2	2,4-Dichlorophenol	C2013-6892	38.1	38.1	ug/Kg	U
105-67-9	2,4-Dimethylphenol	C2013-6892	48.5	48.5	ug/Kg	U
51-28-5	2,4-Dinitrophenol	C2013-6892	408	408	ug/Kg	U
121-14-2	2,4-Dinitrotoluene	C2013-6892	69.6	69.6	ug/Kg	U
606-20-2	2,6-Dinitrotoluene	C2013-6892	47.8	47.8	ug/Kg	U
91-58-7	2-Chloronaphthalene	C2013-6892	55.9	55.9	ug/Kg	U
95-57-8	2-Chlorophenol	C2013-6892	55.9	55.9	ug/Kg	U
91-57-6	2-Methylnaphthalene	C2013-6892	46.1	46.1	ug/Kg	U
95-48-7	2-Methylphenol	C2013-6892	41.5	41.5	ug/Kg	U
88-74-4	2-Nitroaniline	C2013-6892	60.4	60.4	ug/Kg	U
88-75-5	2-Nitrophenol	C2013-6892	35.3	35.3	ug/Kg	U
106-44-5	3+4-Methylphenol	C2013-6892	35.8	35.8	ug/Kg	U
91-94-1	3,3'-Dichlorobenzidine	C2013-6892	55.9	55.9	ug/Kg	U
99-09-2	3-Nitroaniline	C2013-6892	20.0	20.0	ug/Kg	U
534-52-1	4,6-Dinitro-2-methylphenol	C2013-6892	507	507	ug/Kg	U
101-55-3	4-Bromophenyl phenyl ether	C2013-6892	52.7	52.7	ug/Kg	U
59-50-7	4-Chloro-3-methylphenol	C2013-6892	43.3	43.3	ug/Kg	U
106-47-8	4-Chloroaniline	C2013-6892	44.2	44.2	ug/Kg	U
7005-72-3	4-Chlorophenyl phenyl ether	C2013-6892	45.1	45.1	ug/Kg	U
100-01-6	4-Nitroaniline	C2013-6892	113	113	ug/Kg	U
100-02-7	4-Nitrophenol	C2013-6892	774	774	ug/Kg	U
83-32-9	Acenaphthene	C2013-6892	48.8	48.8	ug/Kg	U
208-96-8	Acenaphthylene	C2013-6892	39.9	39.9	ug/Kg	U
62-53-3	Aniline	C2013-6892	36.1	36.1	ug/Kg	U
120-12-7	Anthracene	C2013-6892	51.6	51.6	ug/Kg	U

Environmental Testing Laboratories, Inc. Page G-521
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0804503-11
Client Sample ID: SB-7
Matrix: Soil
Type: Grab
Collected: 04/18/2008 15:10
% Solid: 86.2%
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
92-87-5	Benzidine	C2013-6892	1020	1020	ug/Kg	U
56-55-3	Benzo(a)anthracene	C2013-6892	49.1	49.1	ug/Kg	U
50-32-8	Benzo(a)pyrene	C2013-6892	60.4	60.4	ug/Kg	U
205-99-2	Benzo(b)fluoranthene	C2013-6892	48.1	48.1	ug/Kg	U
191-24-2	Benzo(g,h,i)perylene	C2013-6892	88.6	88.6	ug/Kg	U
207-08-9	Benzo(k)fluoranthene	C2013-6892	88.3	88.3	ug/Kg	U
65-85-0	Benzoic acid	C2013-6892	6800	6800	ug/Kg	U
100-51-6	Benzyl alcohol	C2013-6892	68.4	68.4	ug/Kg	U
111-91-1	bis(2-Chloroethoxy)methane	C2013-6892	48.0	48.0	ug/Kg	U
111-44-4	bis(2-Chloroethyl)ether	C2013-6892	54.9	54.9	ug/Kg	U
108-60-1	bis(2-Chloroisopropyl)ether	C2013-6892	42.6	42.6	ug/Kg	U
117-81-7	bis(2-Ethylhexyl)phthalate	C2013-6892	76.0	**76.4**	ug/Kg	J
85-68-7	Butyl benzyl phthalate	C2013-6892	61.3	61.3	ug/Kg	U
86-74-8	Carbazole	C2013-6892	66.8	66.8	ug/Kg	U
218-01-9	Chrysene	C2013-6892	61.4	61.4	ug/Kg	U
	Cresols	C2013-6892	77.3	77.3	ug/Kg	U
84-74-2	Di-n-butyl phthalate	C2013-6892	65.3	65.3	ug/Kg	U
117-84-0	Di-n-octyl phthalate	C2013-6892	57.1	57.1	ug/Kg	U
53-70-3	Dibenz(a,h)anthracene	C2013-6892	64.7	64.7	ug/Kg	U
132-64-9	Dibenzofuran	C2013-6892	38.7	38.7	ug/Kg	U
84-66-2	Diethyl phthalate	C2013-6892	75.9	75.9	ug/Kg	U
131-11-3	Dimethyl phthalate	C2013-6892	56.0	56.0	ug/Kg	U
206-44-0	Fluoranthene	C2013-6892	63.9	63.9	ug/Kg	U
86-73-7	Fluorene	C2013-6892	46.6	46.6	ug/Kg	U
118-74-1	Hexachlorobenzene	C2013-6892	49.7	49.7	ug/Kg	U
87-68-3	Hexachlorobutadiene	C2013-6892	46.4	46.4	ug/Kg	U
77-47-4	Hexachlorocyclopentadiene	C2013-6892	358	358	ug/Kg	U
67-72-1	Hexachloroethane	C2013-6892	51.6	51.6	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2013-6892	53.6	53.6	ug/Kg	U
78-59-1	Isophorone	C2013-6892	53.0	53.0	ug/Kg	U
621-64-7	N-Nitrosodi-n-propylamine	C2013-6892	35.0	35.0	ug/Kg	U
62-75-9	N-Nitrosodimethylamine	C2013-6892	73.7	73.7	ug/Kg	U
86-30-6	N-Nitrosodiphenylamine	C2013-6892	63.2	63.2	ug/Kg	U

Environmental Testing Laboratories, Inc. Page G-522
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0804503-11
Client Sample ID: SB-7
Matrix: Soil
Type: Grab
Collected: 04/18/2008 15:10
% Solid: 86.2%
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
91-20-3	Naphthalene	C2013-6892	46.6	46.6	ug/Kg	U
98-95-3	Nitrobenzene	C2013-6892	44.9	44.9	ug/Kg	U
87-86-5	Pentachlorophenol	C2013-6892	440	440	ug/Kg	U
85-01-8	Phenanthrene	C2013-6892	52.8	52.8	ug/Kg	U
108-95-2	Phenol	C2013-6892	30.3	30.3	ug/Kg	U
129-00-0	Pyrene	C2013-6892	42.9	**52.2**	ug/Kg	J
110-86-1	Pyridine	C2013-6892	66.5	66.5	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2013-6892	93.9 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2013-6892	93.4 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2013-6892	76.1 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2013-6892	79.0 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2013-6892	81.8 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2013-6892	91.7 %	(18 - 137)	

Environmental Testing Laboratories, Inc. Page G-523
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0804503-12
Client Sample ID: SB-27
Matrix: Soil
Type: Grab
Collected: 04/18/2008 15:15
% Solid: 86.5%
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
120-82-1	1,2,4-Trichlorobenzene	C2013-6895	48.1	48.1	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	C2013-6895	35.7	35.7	ug/Kg	U
122-66-7	1,2-Diphenylhydrazine	C2013-6895	34.9	34.9	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	C2013-6895	38.8	38.8	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	C2013-6895	37.7	37.7	ug/Kg	U
58-90-2	2,3,4,6-Tetrachlorophenol	C2013-6895	45.8	45.8	ug/Kg	U
95-95-4	2,4,5-Trichlorophenol	C2013-6895	25.1	25.1	ug/Kg	U
88-06-2	2,4,6-Trichlorophenol	C2013-6895	43.5	43.5	ug/Kg	U
120-83-2	2,4-Dichlorophenol	C2013-6895	37.9	37.9	ug/Kg	U
105-67-9	2,4-Dimethylphenol	C2013-6895	48.3	48.3	ug/Kg	U
51-28-5	2,4-Dinitrophenol	C2013-6895	407	407	ug/Kg	U
121-14-2	2,4-Dinitrotoluene	C2013-6895	69.4	69.4	ug/Kg	U
606-20-2	2,6-Dinitrotoluene	C2013-6895	47.6	47.6	ug/Kg	U
91-58-7	2-Chloronaphthalene	C2013-6895	55.7	55.7	ug/Kg	U
95-57-8	2-Chlorophenol	C2013-6895	55.7	55.7	ug/Kg	U
91-57-6	2-Methylnaphthalene	C2013-6895	45.9	45.9	ug/Kg	U
95-48-7	2-Methylphenol	C2013-6895	41.4	41.4	ug/Kg	U
88-74-4	2-Nitroaniline	C2013-6895	60.2	60.2	ug/Kg	U
88-75-5	2-Nitrophenol	C2013-6895	35.1	35.1	ug/Kg	U
106-44-5	3+4-Methylphenol	C2013-6895	35.7	35.7	ug/Kg	U
91-94-1	3,3'-Dichlorobenzidine	C2013-6895	55.7	55.7	ug/Kg	U
99-09-2	3-Nitroaniline	C2013-6895	19.9	19.9	ug/Kg	U
534-52-1	4,6-Dinitro-2-methylphenol	C2013-6895	505	505	ug/Kg	U
101-55-3	4-Bromophenyl phenyl ether	C2013-6895	52.5	52.5	ug/Kg	U
59-50-7	4-Chloro-3-methylphenol	C2013-6895	43.1	43.1	ug/Kg	U
106-47-8	4-Chloroaniline	C2013-6895	44.0	44.0	ug/Kg	U
7005-72-3	4-Chlorophenyl phenyl ether	C2013-6895	45.0	45.0	ug/Kg	U
100-01-6	4-Nitroaniline	C2013-6895	113	113	ug/Kg	U
100-02-7	4-Nitrophenol	C2013-6895	771	771	ug/Kg	U
83-32-9	Acenaphthene	C2013-6895	48.7	48.7	ug/Kg	U
208-96-8	Acenaphthylene	C2013-6895	39.8	39.8	ug/Kg	U
62-53-3	Aniline	C2013-6895	36.0	36.0	ug/Kg	U
120-12-7	Anthracene	C2013-6895	51.4	51.4	ug/Kg	U

Environmental Testing Laboratories, Inc. Page G-524
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0804503-12
Client Sample ID: SB-27
Matrix: Soil
Type: Grab
Collected: 04/18/2008 15:15
% Solid: 86.5%
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
92-87-5	Benzidine	C2013-6895	1020	1020	ug/Kg	U
56-55-3	Benzo(a)anthracene	C2013-6895	48.9	**144**	ug/Kg	J
50-32-8	Benzo(a)pyrene	C2013-6895	60.2	**149**	ug/Kg	J
205-99-2	Benzo(b)fluoranthene	C2013-6895	48.0	**159**	ug/Kg	J
191-24-2	Benzo(g,h,i)perylene	C2013-6895	88.3	88.3	ug/Kg	U
207-08-9	Benzo(k)fluoranthene	C2013-6895	88.0	**184**	ug/Kg	J
65-85-0	Benzoic acid	C2013-6895	6770	6770	ug/Kg	U
100-51-6	Benzyl alcohol	C2013-6895	68.2	68.2	ug/Kg	U
111-91-1	bis(2-Chloroethoxy)methane	C2013-6895	47.9	47.9	ug/Kg	U
111-44-4	bis(2-Chloroethyl)ether	C2013-6895	54.7	54.7	ug/Kg	U
108-60-1	bis(2-Chloroisopropyl)ether	C2013-6895	42.4	42.4	ug/Kg	U
117-81-7	bis(2-Ethylhexyl)phthalate	C2013-6895	75.7	**144**	ug/Kg	J
85-68-7	Butyl benzyl phthalate	C2013-6895	61.0	61.0	ug/Kg	U
86-74-8	Carbazole	C2013-6895	66.6	66.6	ug/Kg	U
218-01-9	Chrysene	C2013-6895	61.2	**220**	ug/Kg	J
	Cresols	C2013-6895	77.1	77.1	ug/Kg	U
84-74-2	Di-n-butyl phthalate	C2013-6895	65.1	65.1	ug/Kg	U
117-84-0	Di-n-octyl phthalate	C2013-6895	56.9	56.9	ug/Kg	U
53-70-3	Dibenz(a,h)anthracene	C2013-6895	64.5	64.5	ug/Kg	U
132-64-9	Dibenzofuran	C2013-6895	38.6	38.6	ug/Kg	U
84-66-2	Diethyl phthalate	C2013-6895	75.6	75.6	ug/Kg	U
131-11-3	Dimethyl phthalate	C2013-6895	55.8	55.8	ug/Kg	U
206-44-0	Fluoranthene	C2013-6895	63.7	**282**	ug/Kg	J
86-73-7	Fluorene	C2013-6895	46.5	46.5	ug/Kg	U
118-74-1	Hexachlorobenzene	C2013-6895	49.5	49.5	ug/Kg	U
87-68-3	Hexachlorobutadiene	C2013-6895	46.2	46.2	ug/Kg	U
77-47-4	Hexachlorocyclopentadiene	C2013-6895	357	357	ug/Kg	U
67-72-1	Hexachloroethane	C2013-6895	51.4	51.4	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2013-6895	53.4	**59.7**	ug/Kg	J
78-59-1	Isophorone	C2013-6895	52.8	52.8	ug/Kg	U
621-64-7	N-Nitrosodi-n-propylamine	C2013-6895	34.9	34.9	ug/Kg	U
62-75-9	N-Nitrosodimethylamine	C2013-6895	73.4	73.4	ug/Kg	U
86-30-6	N-Nitrosodiphenylamine	C2013-6895	63.0	63.0	ug/Kg	U

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04/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0804503-12
Client Sample ID: SB-27
Matrix: Soil
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Type: Grab

Collected: 04/18/2008 15:15
% Solid: 86.5%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
91-20-3	Naphthalene	C2013-6895	46.5	46.5	ug/Kg	U
98-95-3	Nitrobenzene	C2013-6895	44.7	44.7	ug/Kg	U
87-86-5	Pentachlorophenol	C2013-6895	438	438	ug/Kg	U
85-01-8	Phenanthrene	C2013-6895	52.6	**112**	ug/Kg	J
108-95-2	Phenol	C2013-6895	30.2	30.2	ug/Kg	U
129-00-0	Pyrene	C2013-6895	42.8	**245**	ug/Kg	J
110-86-1	Pyridine	C2013-6895	66.2	66.2	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2013-6895	83.9 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2013-6895	76.9 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2013-6895	61.5 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2013-6895	63.6 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2013-6895	66.8 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2013-6895	88.9 %	(18 - 137)	

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04/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0804503-13
Client Sample ID: SB-6
Matrix: Soil
Type: Grab
Collected: 04/18/2008 15:30
% Solid: 84.3%
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
120-82-1	1,2,4-Trichlorobenzene	C2013-6893	49.3	49.3	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	C2013-6893	36.7	36.7	ug/Kg	U
122-66-7	1,2-Diphenylhydrazine	C2013-6893	35.8	35.8	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	C2013-6893	39.9	39.9	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	C2013-6893	38.7	38.7	ug/Kg	U
58-90-2	2,3,4,6-Tetrachlorophenol	C2013-6893	47.0	47.0	ug/Kg	U
95-95-4	2,4,5-Trichlorophenol	C2013-6893	25.7	25.7	ug/Kg	U
88-06-2	2,4,6-Trichlorophenol	C2013-6893	44.6	44.6	ug/Kg	U
120-83-2	2,4-Dichlorophenol	C2013-6893	38.9	38.9	ug/Kg	U
105-67-9	2,4-Dimethylphenol	C2013-6893	49.6	49.6	ug/Kg	U
51-28-5	2,4-Dinitrophenol	C2013-6893	418	418	ug/Kg	U
121-14-2	2,4-Dinitrotoluene	C2013-6893	71.2	71.2	ug/Kg	U
606-20-2	2,6-Dinitrotoluene	C2013-6893	48.9	48.9	ug/Kg	U
91-58-7	2-Chloronaphthalene	C2013-6893	57.2	57.2	ug/Kg	U
95-57-8	2-Chlorophenol	C2013-6893	57.2	57.2	ug/Kg	U
91-57-6	2-Methylnaphthalene	C2013-6893	47.1	47.1	ug/Kg	U
95-48-7	2-Methylphenol	C2013-6893	42.5	42.5	ug/Kg	U
88-74-4	2-Nitroaniline	C2013-6893	61.8	61.8	ug/Kg	U
88-75-5	2-Nitrophenol	C2013-6893	36.1	36.1	ug/Kg	U
106-44-5	3+4-Methylphenol	C2013-6893	36.7	36.7	ug/Kg	U
91-94-1	3,3'-Dichlorobenzidine	C2013-6893	57.2	57.2	ug/Kg	U
99-09-2	3-Nitroaniline	C2013-6893	20.4	20.4	ug/Kg	U
534-52-1	4,6-Dinitro-2-methylphenol	C2013-6893	518	518	ug/Kg	U
101-55-3	4-Bromophenyl phenyl ether	C2013-6893	53.9	53.9	ug/Kg	U
59-50-7	4-Chloro-3-methylphenol	C2013-6893	44.2	44.2	ug/Kg	U
106-47-8	4-Chloroaniline	C2013-6893	45.2	45.2	ug/Kg	U
7005-72-3	4-Chlorophenyl phenyl ether	C2013-6893	46.1	46.1	ug/Kg	U
100-01-6	4-Nitroaniline	C2013-6893	116	116	ug/Kg	U
100-02-7	4-Nitrophenol	C2013-6893	791	791	ug/Kg	U
83-32-9	Acenaphthene	C2013-6893	49.9	49.9	ug/Kg	U
208-96-8	Acenaphthylene	C2013-6893	40.8	40.8	ug/Kg	U
62-53-3	Aniline	C2013-6893	36.9	36.9	ug/Kg	U
120-12-7	Anthracene	C2013-6893	52.8	52.8	ug/Kg	U

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04/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0804503-13
Client Sample ID: SB-6
Matrix: Soil
Type: Grab
Collected: 04/18/2008 15:30
% Solid: 84.3%
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
92-87-5	Benzidine	C2013-6893	1040	1040	ug/Kg	U
56-55-3	Benzo(a)anthracene	C2013-6893	50.2	50.2	ug/Kg	U
50-32-8	Benzo(a)pyrene	C2013-6893	61.8	61.8	ug/Kg	U
205-99-2	Benzo(b)fluoranthene	C2013-6893	49.2	49.2	ug/Kg	U
191-24-2	Benzo(g,h,i)perylene	C2013-6893	90.6	90.6	ug/Kg	U
207-08-9	Benzo(k)fluoranthene	C2013-6893	90.3	90.3	ug/Kg	U
65-85-0	Benzoic acid	C2013-6893	6950	6950	ug/Kg	U
100-51-6	Benzyl alcohol	C2013-6893	70.0	70.0	ug/Kg	U
111-91-1	bis(2-Chloroethoxy)methane	C2013-6893	49.1	49.1	ug/Kg	U
111-44-4	bis(2-Chloroethyl)ether	C2013-6893	56.1	56.1	ug/Kg	U
108-60-1	bis(2-Chloroisopropyl)ether	C2013-6893	43.5	43.5	ug/Kg	U
117-81-7	bis(2-Ethylhexyl)phthalate	C2013-6893	77.7	77.7	ug/Kg	U
85-68-7	Butyl benzyl phthalate	C2013-6893	62.6	62.6	ug/Kg	U
86-74-8	Carbazole	C2013-6893	68.3	68.3	ug/Kg	U
218-01-9	Chrysene	C2013-6893	62.8	62.8	ug/Kg	U
	Cresols	C2013-6893	79.2	79.2	ug/Kg	U
84-74-2	Di-n-butyl phthalate	C2013-6893	66.8	66.8	ug/Kg	U
117-84-0	Di-n-octyl phthalate	C2013-6893	58.4	58.4	ug/Kg	U
53-70-3	Dibenz(a,h)anthracene	C2013-6893	66.2	66.2	ug/Kg	U
132-64-9	Dibenzofuran	C2013-6893	39.6	39.6	ug/Kg	U
84-66-2	Diethyl phthalate	C2013-6893	77.6	77.6	ug/Kg	U
131-11-3	Dimethyl phthalate	C2013-6893	57.3	57.3	ug/Kg	U
206-44-0	Fluoranthene	C2013-6893	65.4	65.4	ug/Kg	U
86-73-7	Fluorene	C2013-6893	47.7	47.7	ug/Kg	U
118-74-1	Hexachlorobenzene	C2013-6893	50.8	50.8	ug/Kg	U
87-68-3	Hexachlorobutadiene	C2013-6893	47.4	47.4	ug/Kg	U
77-47-4	Hexachlorocyclopentadiene	C2013-6893	367	367	ug/Kg	U
67-72-1	Hexachloroethane	C2013-6893	52.8	52.8	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2013-6893	54.8	54.8	ug/Kg	U
78-59-1	Isophorone	C2013-6893	54.2	54.2	ug/Kg	U
621-64-7	N-Nitrosodi-n-propylamine	C2013-6893	35.8	35.8	ug/Kg	U
62-75-9	N-Nitrosodimethylamine	C2013-6893	75.3	75.3	ug/Kg	U
86-30-6	N-Nitrosodiphenylamine	C2013-6893	64.7	64.7	ug/Kg	U

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04/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0804503-13
Client Sample ID: SB-6
Matrix: Soil
Type: Grab
Collected: 04/18/2008 15:30
% Solid: 84.3%
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
91-20-3	Naphthalene	C2013-6893	47.7	47.7	ug/Kg	U
98-95-3	Nitrobenzene	C2013-6893	45.9	45.9	ug/Kg	U
87-86-5	Pentachlorophenol	C2013-6893	450	450	ug/Kg	U
85-01-8	Phenanthrene	C2013-6893	54.0	54.0	ug/Kg	U
108-95-2	Phenol	C2013-6893	31.0	31.0	ug/Kg	U
129-00-0	Pyrene	C2013-6893	43.9	43.9	ug/Kg	U
110-86-1	Pyridine	C2013-6893	68.0	68.0	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2013-6893	86.1 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2013-6893	89.0 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2013-6893	70.7 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2013-6893	71.0 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2013-6893	76.4 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2013-6893	88.8 %	(18 - 137)	

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04/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0804503-14
Client Sample ID: SB-22
Matrix: Soil
Type: Grab
Collected: 04/18/2008 15:35
% Solid: 85.3%
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
120-82-1	1,2,4-Trichlorobenzene	C2013-6894	48.8	48.8	ug/Kg	U
95-50-1	1,2-Dichlorobenzene	C2013-6894	36.2	36.2	ug/Kg	U
122-66-7	1,2-Diphenylhydrazine	C2013-6894	35.4	35.4	ug/Kg	U
541-73-1	1,3-Dichlorobenzene	C2013-6894	39.4	39.4	ug/Kg	U
106-46-7	1,4-Dichlorobenzene	C2013-6894	38.2	38.2	ug/Kg	U
58-90-2	2,3,4,6-Tetrachlorophenol	C2013-6894	46.4	46.4	ug/Kg	U
95-95-4	2,4,5-Trichlorophenol	C2013-6894	25.4	25.4	ug/Kg	U
88-06-2	2,4,6-Trichlorophenol	C2013-6894	44.1	44.1	ug/Kg	U
120-83-2	2,4-Dichlorophenol	C2013-6894	38.5	38.5	ug/Kg	U
105-67-9	2,4-Dimethylphenol	C2013-6894	49.0	49.0	ug/Kg	U
51-28-5	2,4-Dinitrophenol	C2013-6894	413	413	ug/Kg	U
121-14-2	2,4-Dinitrotoluene	C2013-6894	70.3	70.3	ug/Kg	U
606-20-2	2,6-Dinitrotoluene	C2013-6894	48.3	48.3	ug/Kg	U
91-58-7	2-Chloronaphthalene	C2013-6894	56.5	56.5	ug/Kg	U
95-57-8	2-Chlorophenol	C2013-6894	56.5	56.5	ug/Kg	U
91-57-6	2-Methylnaphthalene	C2013-6894	46.5	46.5	ug/Kg	U
95-48-7	2-Methylphenol	C2013-6894	42.0	42.0	ug/Kg	U
88-74-4	2-Nitroaniline	C2013-6894	61.1	61.1	ug/Kg	U
88-75-5	2-Nitrophenol	C2013-6894	35.6	35.6	ug/Kg	U
106-44-5	3+4-Methylphenol	C2013-6894	36.2	36.2	ug/Kg	U
91-94-1	3,3'-Dichlorobenzidine	C2013-6894	56.5	56.5	ug/Kg	U
99-09-2	3-Nitroaniline	C2013-6894	20.2	20.2	ug/Kg	U
534-52-1	4,6-Dinitro-2-methylphenol	C2013-6894	512	512	ug/Kg	U
101-55-3	4-Bromophenyl phenyl ether	C2013-6894	53.2	53.2	ug/Kg	U
59-50-7	4-Chloro-3-methylphenol	C2013-6894	43.7	43.7	ug/Kg	U
106-47-8	4-Chloroaniline	C2013-6894	44.7	44.7	ug/Kg	U
7005-72-3	4-Chlorophenyl phenyl ether	C2013-6894	45.6	45.6	ug/Kg	U
100-01-6	4-Nitroaniline	C2013-6894	115	115	ug/Kg	U
100-02-7	4-Nitrophenol	C2013-6894	782	782	ug/Kg	U
83-32-9	Acenaphthene	C2013-6894	49.4	49.4	ug/Kg	U
208-96-8	Acenaphthylene	C2013-6894	40.3	40.3	ug/Kg	U
62-53-3	Aniline	C2013-6894	36.5	36.5	ug/Kg	U
120-12-7	Anthracene	C2013-6894	52.2	52.2	ug/Kg	U

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04/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0804503-14
Client Sample ID: SB-22
Matrix: Soil
Type: Grab
Collected: 04/18/2008 15:35
% Solid: 85.3%
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
92-87-5	Benzidine	C2013-6894	1030	1030	ug/Kg	U
56-55-3	Benzo(a)anthracene	C2013-6894	49.6	49.6	ug/Kg	U
50-32-8	Benzo(a)pyrene	C2013-6894	61.1	61.1	ug/Kg	U
205-99-2	Benzo(b)fluoranthene	C2013-6894	48.7	48.7	ug/Kg	U
191-24-2	Benzo(g,h,i)perylene	C2013-6894	89.6	89.6	ug/Kg	U
207-08-9	Benzo(k)fluoranthene	C2013-6894	89.2	89.2	ug/Kg	U
65-85-0	Benzoic acid	C2013-6894	6870	6870	ug/Kg	U
100-51-6	Benzyl alcohol	C2013-6894	69.2	69.2	ug/Kg	U
111-91-1	bis(2-Chloroethoxy)methane	C2013-6894	48.5	48.5	ug/Kg	U
111-44-4	bis(2-Chloroethyl)ether	C2013-6894	55.5	55.5	ug/Kg	U
108-60-1	bis(2-Chloroisopropyl)ether	C2013-6894	43.0	43.0	ug/Kg	U
117-81-7	bis(2-Ethylhexyl)phthalate	C2013-6894	76.8	76.8	ug/Kg	U
85-68-7	Butyl benzyl phthalate	C2013-6894	61.9	61.9	ug/Kg	U
86-74-8	Carbazole	C2013-6894	67.5	67.5	ug/Kg	U
218-01-9	Chrysene	C2013-6894	62.0	62.0	ug/Kg	U
	Cresols	C2013-6894	78.2	78.2	ug/Kg	U
84-74-2	Di-n-butyl phthalate	C2013-6894	66.0	66.0	ug/Kg	U
117-84-0	Di-n-octyl phthalate	C2013-6894	57.7	57.7	ug/Kg	U
53-70-3	Dibenz(a,h)anthracene	C2013-6894	65.4	65.4	ug/Kg	U
132-64-9	Dibenzofuran	C2013-6894	39.2	39.2	ug/Kg	U
84-66-2	Diethyl phthalate	C2013-6894	76.7	76.7	ug/Kg	U
131-11-3	Dimethyl phthalate	C2013-6894	56.6	56.6	ug/Kg	U
206-44-0	Fluoranthene	C2013-6894	64.6	64.6	ug/Kg	U
86-73-7	Fluorene	C2013-6894	47.1	47.1	ug/Kg	U
118-74-1	Hexachlorobenzene	C2013-6894	50.2	50.2	ug/Kg	U
87-68-3	Hexachlorobutadiene	C2013-6894	46.9	46.9	ug/Kg	U
77-47-4	Hexachlorocyclopentadiene	C2013-6894	362	362	ug/Kg	U
67-72-1	Hexachloroethane	C2013-6894	52.2	52.2	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2013-6894	54.2	54.2	ug/Kg	U
78-59-1	Isophorone	C2013-6894	53.6	53.6	ug/Kg	U
621-64-7	N-Nitrosodi-n-propylamine	C2013-6894	35.4	35.4	ug/Kg	U
62-75-9	N-Nitrosodimethylamine	C2013-6894	74.4	74.4	ug/Kg	U
86-30-6	N-Nitrosodiphenylamine	C2013-6894	63.9	63.9	ug/Kg	U

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208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

Semivolatile Compounds - EPA 8270C

Sample: 0804503-14
Client Sample ID: SB-22
Matrix: Soil
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Type: Grab

Collected: 04/18/2008 15:35
% Solid: 85.3%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
91-20-3	Naphthalene	C2013-6894	47.1	47.1	ug/Kg	U
98-95-3	Nitrobenzene	C2013-6894	45.4	45.4	ug/Kg	U
87-86-5	Pentachlorophenol	C2013-6894	444	444	ug/Kg	U
85-01-8	Phenanthrene	C2013-6894	53.3	53.3	ug/Kg	U
108-95-2	Phenol	C2013-6894	30.6	30.6	ug/Kg	U
129-00-0	Pyrene	C2013-6894	43.4	43.4	ug/Kg	U
110-86-1	Pyridine	C2013-6894	67.2	67.2	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2013-6894	79.5 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2013-6894	88.6 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2013-6894	71.4 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2013-6894	71.6 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2013-6894	76.2 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2013-6894	87.6 %	(18 - 137)	

Environmental Testing Laboratories, Inc. Page G-532
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

SCDOH Semivolatile Compounds

Sample: 0804503-1
Client Sample ID: 9-PLP
Matrix: Sludge Type: Grab
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Collected: 04/18/2008 13:25
% Solid: 60.9%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
83-32-9	Acenaphthene	C2013-6899	69.1	**137**	ug/Kg	J
120-12-7	Anthracene	C2013-6899	73.1	73.1	ug/Kg	U
56-55-3	Benzo[a]anthracene	C2013-6899	69.5	69.5	ug/Kg	U
50-32-8	Benzo[a]pyrene	C2013-6899	85.6	85.6	ug/Kg	U
205-99-2	Benzo[b]fluoranthene	C2013-6899	68.1	68.1	ug/Kg	U
191-24-2	Benzo[g,h,i]perylene	C2013-6899	125	125	ug/Kg	U
207-08-9	Benzo[k]fluoranthene	C2013-6899	125	125	ug/Kg	U
218-01-9	Chrysene	C2013-6899	86.9	86.9	ug/Kg	U
53-70-3	Dibenz[a,h]anthracene	C2013-6899	91.6	91.6	ug/Kg	U
206-44-0	Fluoranthene	C2013-6899	90.5	**117**	ug/Kg	J
86-73-7	Fluorene	C2013-6899	66.0	**117**	ug/Kg	J
193-39-5	Indeno(1,2,3-cd)pyrene	C2013-6899	75.9	75.9	ug/Kg	U
85-01-8	Phenanthrene	C2013-6899	74.7	**372**	ug/Kg	J
129-00-0	Pyrene	C2013-6899	60.8	**150**	ug/Kg	J

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2013-6899	80.4 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2013-6899	37.8 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2013-6899	57.4 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2013-6899	55.9 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2013-6899	59.1 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2013-6899	45.9 %	(18 - 137)	

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04/28/2008

SCDOH Semivolatile Compounds

Sample: 0804503-2
Client Sample ID: 10-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 10:15
% Solid: 73.7%
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
83-32-9	Acenaphthene	C2013-6900	57.1	**118**	ug/Kg	J
120-12-7	Anthracene	C2013-6900	60.4	**105**	ug/Kg	J
56-55-3	Benzo[a]anthracene	C2013-6900	57.4	**223**	ug/Kg	J
50-32-8	Benzo[a]pyrene	C2013-6900	70.7	**153**	ug/Kg	J
205-99-2	Benzo[b]fluoranthene	C2013-6900	56.3	**139**	ug/Kg	J
191-24-2	Benzo[g,h,i]perylene	C2013-6900	104	104	ug/Kg	U
207-08-9	Benzo[k]fluoranthene	C2013-6900	103	**164**	ug/Kg	J
218-01-9	Chrysene	C2013-6900	71.8	**223**	ug/Kg	J
53-70-3	Dibenz[a,h]anthracene	C2013-6900	75.7	75.7	ug/Kg	U
206-44-0	Fluoranthene	C2013-6900	74.8	**382**	ug/Kg	J
86-73-7	Fluorene	C2013-6900	54.5	**144**	ug/Kg	J
193-39-5	Indeno(1,2,3-cd)pyrene	C2013-6900	62.7	62.7	ug/Kg	U
85-01-8	Phenanthrene	C2013-6900	61.7	**518**	ug/Kg	J
129-00-0	Pyrene	C2013-6900	50.2	**320**	ug/Kg	J

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2013-6900	88.6 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2013-6900	60.8 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2013-6900	59.2 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2013-6900	56.4 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2013-6900	60.5 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2013-6900	69.2 %	(18 - 137)	

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04/28/2008

SCDOH Semivolatile Compounds

Sample: 0804503-3
Client Sample ID: 12-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 10:50
% Solid: 35.6%
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
83-32-9	Acenaphthene	C2013-6901	118	**218**	ug/Kg	J
120-12-7	Anthracene	C2013-6901	125	**199**	ug/Kg	J
56-55-3	Benzo[a]anthracene	C2013-6901	119	**295**	ug/Kg	J
50-32-8	Benzo[a]pyrene	C2013-6901	146	**210**	ug/Kg	J
205-99-2	Benzo[b]fluoranthene	C2013-6901	117	**240**	ug/Kg	J
191-24-2	Benzo[g,h,i]perylene	C2013-6901	215	215	ug/Kg	U
207-08-9	Benzo[k]fluoranthene	C2013-6901	214	**230**	ug/Kg	J
218-01-9	Chrysene	C2013-6901	149	**367**	ug/Kg	J
53-70-3	Dibenz[a,h]anthracene	C2013-6901	157	157	ug/Kg	U
206-44-0	Fluoranthene	C2013-6901	155	**800**	ug/Kg	J
86-73-7	Fluorene	C2013-6901	113	113	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2013-6901	130	130	ug/Kg	U
85-01-8	Phenanthrene	C2013-6901	128	**1140**	ug/Kg	J
129-00-0	Pyrene	C2013-6901	104	**760**	ug/Kg	J

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2013-6901	57.7 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2013-6901	49.0 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2013-6901	46.2 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2013-6901	43.9 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2013-6901	50.6 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2013-6901	64.1 %	(18 - 137)	

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04/28/2008

SCDOH Semivolatile Compounds

Sample: 0804503-4
Client Sample ID: 13-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 11:25
% Solid: 77.6%
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
83-32-9	Acenaphthene	C2013-6897	54.3	54.3	ug/Kg	U
120-12-7	Anthracene	C2013-6897	57.3	57.3	ug/Kg	U
56-55-3	Benzo[a]anthracene	C2013-6897	54.5	54.5	ug/Kg	U
50-32-8	Benzo[a]pyrene	C2013-6897	67.1	67.1	ug/Kg	U
205-99-2	Benzo[b]fluoranthene	C2013-6897	53.5	53.5	ug/Kg	U
191-24-2	Benzo[g,h,i]perylene	C2013-6897	98.5	98.5	ug/Kg	U
207-08-9	Benzo[k]fluoranthene	C2013-6897	98.1	98.1	ug/Kg	U
218-01-9	Chrysene	C2013-6897	68.2	68.2	ug/Kg	U
53-70-3	Dibenz[a,h]anthracene	C2013-6897	71.9	71.9	ug/Kg	U
206-44-0	Fluoranthene	C2013-6897	71.0	71.0	ug/Kg	U
86-73-7	Fluorene	C2013-6897	51.8	51.8	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2013-6897	59.5	59.5	ug/Kg	U
85-01-8	Phenanthrene	C2013-6897	58.6	**87.0**	ug/Kg	J
129-00-0	Pyrene	C2013-6897	47.7	**49.1**	ug/Kg	J

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2013-6897	97.4 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2013-6897	69.7 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2013-6897	62.7 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2013-6897	60.8 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2013-6897	67.4 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2013-6897	75.4 %	(18 - 137)	

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04/28/2008

SCDOH Semivolatile Compounds

Sample: 0804503-5
Client Sample ID: 11-PLP
Matrix: Sludge Type: Grab
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Collected: 04/18/2008 11:55
% Solid: 71.7%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
83-32-9	Acenaphthene	C2013-6902	58.7	58.7	ug/Kg	U
120-12-7	Anthracene	C2013-6902	62.1	62.1	ug/Kg	U
56-55-3	Benzo[a]anthracene	C2013-6902	59.0	**144**	ug/Kg	J
50-32-8	Benzo[a]pyrene	C2013-6902	72.7	**143**	ug/Kg	J
205-99-2	Benzo[b]fluoranthene	C2013-6902	57.9	**94.7**	ug/Kg	J
191-24-2	Benzo[g,h,i]perylene	C2013-6902	107	107	ug/Kg	U
207-08-9	Benzo[k]fluoranthene	C2013-6902	106	106	ug/Kg	U
218-01-9	Chrysene	C2013-6902	73.8	**143**	ug/Kg	J
53-70-3	Dibenz[a,h]anthracene	C2013-6902	77.8	77.8	ug/Kg	U
206-44-0	Fluoranthene	C2013-6902	76.8	**192**	ug/Kg	J
86-73-7	Fluorene	C2013-6902	56.1	**77.5**	ug/Kg	J
193-39-5	Indeno(1,2,3-cd)pyrene	C2013-6902	64.4	64.4	ug/Kg	U
85-01-8	Phenanthrene	C2013-6902	63.5	**258**	ug/Kg	J
129-00-0	Pyrene	C2013-6902	51.6	**164**	ug/Kg	J

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2013-6902	81.8 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2013-6902	62.4 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2013-6902	60.3 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2013-6902	54.1 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2013-6902	65.0 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2013-6902	57.9 %	(18 - 137)	

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04/28/2008

SCDOH Semivolatile Compounds

Sample: 0804503-6
Client Sample ID: 8-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 12:20
% Solid: 35.7%
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
83-32-9	Acenaphthene	C2013-6904	118	**138**	ug/Kg	J
120-12-7	Anthracene	C2013-6904	125	125	ug/Kg	U
56-55-3	Benzo[a]anthracene	C2013-6904	118	**232**	ug/Kg	J
50-32-8	Benzo[a]pyrene	C2013-6904	146	**166**	ug/Kg	J
205-99-2	Benzo[b]fluoranthene	C2013-6904	116	**153**	ug/Kg	J
191-24-2	Benzo[g,h,i]perylene	C2013-6904	214	214	ug/Kg	U
207-08-9	Benzo[k]fluoranthene	C2013-6904	213	213	ug/Kg	U
218-01-9	Chrysene	C2013-6904	148	**294**	ug/Kg	J
53-70-3	Dibenz[a,h]anthracene	C2013-6904	156	156	ug/Kg	U
206-44-0	Fluoranthene	C2013-6904	154	**515**	ug/Kg	J
86-73-7	Fluorene	C2013-6904	113	113	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2013-6904	129	129	ug/Kg	U
85-01-8	Phenanthrene	C2013-6904	127	**1400**	ug/Kg	J
129-00-0	Pyrene	C2013-6904	104	**531**	ug/Kg	J

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2013-6904	57.6 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2013-6904	38.4 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2013-6904	50.8 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2013-6904	64.0 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2013-6904	53.2 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2013-6904	50.9 %	(18 - 137)	

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04/28/2008

SCDOH Semivolatile Compounds

Sample: 0804503-7
Client Sample ID: Bd2-SW
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 12:35
% Solid: 84.9%
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
83-32-9	Acenaphthene	C2013-6903	49.6	49.6	ug/Kg	U
120-12-7	Anthracene	C2013-6903	52.4	52.4	ug/Kg	U
56-55-3	Benzo[a]anthracene	C2013-6903	49.8	49.8	ug/Kg	U
50-32-8	Benzo[a]pyrene	C2013-6903	61.4	61.4	ug/Kg	U
205-99-2	Benzo[b]fluoranthene	C2013-6903	48.9	48.9	ug/Kg	U
191-24-2	Benzo[g,h,i]perylene	C2013-6903	90.0	90.0	ug/Kg	U
207-08-9	Benzo[k]fluoranthene	C2013-6903	89.6	89.6	ug/Kg	U
218-01-9	Chrysene	C2013-6903	62.3	62.3	ug/Kg	U
53-70-3	Dibenz[a,h]anthracene	C2013-6903	65.7	65.7	ug/Kg	U
206-44-0	Fluoranthene	C2013-6903	64.9	64.9	ug/Kg	U
86-73-7	Fluorene	C2013-6903	47.3	47.3	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2013-6903	54.4	54.4	ug/Kg	U
85-01-8	Phenanthrene	C2013-6903	53.6	**57.1**	ug/Kg	J
129-00-0	Pyrene	C2013-6903	43.6	43.6	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2013-6903	88.0 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2013-6903	71.7 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2013-6903	61.1 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2013-6903	59.7 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2013-6903	65.9 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2013-6903	73.9 %	(18 - 137)	

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04/28/2008

SCDOH Semivolatile Compounds

Sample: 0804503-8
Client Sample ID: 14A-PLP
Matrix: Sludge Type: Grab
Remarks:
Analyzed Date: 04/25/2008
Preparation Date(s) : 04/24/2008

Collected: 04/18/2008 13:00
% Solid: 79%

Analytical Results

Cas No	Analyte	File ID	MDL	Concentration*	Units	Q
83-32-9	Acenaphthene	C2013-6898	53.3	53.3	ug/Kg	U
120-12-7	Anthracene	C2013-6898	56.3	56.3	ug/Kg	U
56-55-3	Benzo[a]anthracene	C2013-6898	53.5	53.5	ug/Kg	U
50-32-8	Benzo[a]pyrene	C2013-6898	65.9	65.9	ug/Kg	U
205-99-2	Benzo[b]fluoranthene	C2013-6898	52.5	52.5	ug/Kg	U
191-24-2	Benzo[g,h,i]perylene	C2013-6898	96.7	96.7	ug/Kg	U
207-08-9	Benzo[k]fluoranthene	C2013-6898	96.3	96.3	ug/Kg	U
218-01-9	Chrysene	C2013-6898	67.0	67.0	ug/Kg	U
53-70-3	Dibenz[a,h]anthracene	C2013-6898	70.6	70.6	ug/Kg	U
206-44-0	Fluoranthene	C2013-6898	69.7	69.7	ug/Kg	U
86-73-7	Fluorene	C2013-6898	50.9	50.9	ug/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	C2013-6898	58.5	58.5	ug/Kg	U
85-01-8	Phenanthrene	C2013-6898	57.6	57.6	ug/Kg	U
129-00-0	Pyrene	C2013-6898	46.8	46.8	ug/Kg	U

* Results are reported on a dry weight basis

Surrogate Results

Cas No	Analyte	File ID	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	C2013-6898	88.6 %	(19 - 122)	
321-60-8	2-FLUOROBIPHENYL	C2013-6898	54.6 %	(30 - 115)	
367-12-4	2-FLUOROPHENOL	C2013-6898	57.1 %	(25 - 121)	
4165-60-0	NITROBENZENE-D5	C2013-6898	57.5 %	(23 - 120)	
13127-88-3	PHENOL-D6	C2013-6898	58.0 %	(24 - 113)	
1718-51-0	TERPHENYL-D14	C2013-6898	52.0 %	(18 - 137)	

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04/28/2008

Mercury by SW846 7470/7471/EPA 245.1

Sample: 0804503-1
Client Sample ID: 9-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 13:25
% Solid: 60.9%
Remarks:
Analyzed Date: 04/19/2008
Preparation Date(s) : 04/19/2008

Analytical Results

Cas No	Analyte	MDL	Concentration*	Units	Q
7439-97-6	Mercury	0.0024	**1.01**	mg/Kg	

* Results are reported on a dry weight basis

Sample: 0804503-2
Client Sample ID: 10-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 10:15
% Solid: 73.7%
Remarks:
Analyzed Date: 04/19/2008
Preparation Date(s) : 04/19/2008

Analytical Results

Cas No	Analyte	MDL	Concentration*	Units	Q
7439-97-6	Mercury	0.029	**54.1**	mg/Kg	

* Results are reported on a dry weight basis

Sample: 0804503-3
Client Sample ID: 12-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 10:50
% Solid: 35.6%
Remarks:
Analyzed Date: 04/19/2008
Preparation Date(s) : 04/19/2008

Analytical Results

Cas No	Analyte	MDL	Concentration*	Units	Q
7439-97-6	Mercury	0.0042	**3.14**	mg/Kg	

* Results are reported on a dry weight basis

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04/28/2008

Mercury by SW846 7470/7471/EPA 245.1

Sample: 0804503-4
Client Sample ID: 13-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 11:25
% Solid: 77.6%
Remarks:
Analyzed Date: 04/19/2008
Preparation Date(s) : 04/19/2008

Analytical Results

Cas No	Analyte	MDL	Concentration*	Units	Q
7439-97-6	Mercury	0.0018	**0.019**	mg/Kg	

* Results are reported on a dry weight basis

Sample: 0804503-5
Client Sample ID: 11-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 11:55
% Solid: 71.7%
Remarks:
Analyzed Date: 04/19/2008
Preparation Date(s) : 04/19/2008

Analytical Results

Cas No	Analyte	MDL	Concentration*	Units	Q
7439-97-6	Mercury	0.0020	**0.45**	mg/Kg	

* Results are reported on a dry weight basis

Sample: 0804503-6
Client Sample ID: 8-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 12:20
% Solid: 35.7%
Remarks:
Analyzed Date: 04/19/2008
Preparation Date(s) : 04/19/2008

Analytical Results

Cas No	Analyte	MDL	Concentration*	Units	Q
7439-97-6	Mercury	0.0043	**5.08**	mg/Kg	

* Results are reported on a dry weight basis

Environmental Testing Laboratories, Inc. Page G-542
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

Mercury by SW846 7470/7471/EPA 245.1

Sample: 0804503-7
Client Sample ID: Bd2-SW
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 12:35
% Solid: 84.9%
Remarks:
Analyzed Date: 04/19/2008
Preparation Date(s) : 04/19/2008

Analytical Results

Cas No	Analyte	MDL	Concentration*	Units	Q
7439-97-6	Mercury	0.0016	**0.030**	mg/Kg	

* Results are reported on a dry weight basis

Sample: 0804503-8
Client Sample ID: 14A-PLP
Matrix: Sludge
Type: Grab
Collected: 04/18/2008 13:00
% Solid: 79%
Remarks:
Analyzed Date: 04/19/2008
Preparation Date(s) : 04/19/2008

Analytical Results

Cas No	Analyte	MDL	Concentration*	Units	Q
7439-97-6	Mercury	0.0017	**0.030**	mg/Kg	

* Results are reported on a dry weight basis

Environmental Testing Laboratories, Inc. Page G-543
208 Route 109, Farmingdale NY 11735
Phone - 631-249-1456 Fax - 631-249-8344

04/28/2008

Suffolk County Metals by SW846 6010/EPA 200.7

Sample: 0804503-1
Client Sample ID: 9-PLP
Matrix: Sludge Type: Grab
Remarks:
Analyzed Date: 04/23/2008
Preparation Date(s) : 04/19/2008 04/21/2008
Collected: 04/18/2008 13:25
% Solid: 60.9%

Analytical Results

Cas No	Analyte	MDL	Concentration*	Units	Q
7440-38-2	Arsenic	1.55	1.55	mg/Kg	U
7440-41-7	Beryllium	0.032	0.032	mg/Kg	U
7440-43-9	Cadmium	0.11	**30.9**	mg/Kg	
7440-47-3	Chromium	0.16	**7.95**	mg/Kg	
7440-50-8	Copper	0.50	**203**	mg/Kg	
7439-92-1	Lead	0.38	**94.9**	mg/Kg	
7440-02-0	Nickel	0.27	0.27	mg/Kg	U
7440-22-4	Silver	0.048	**145**	mg/Kg	
7440-66-6	Zinc	0.93	**113**	mg/Kg	

* Results are reported on a dry weight basis

Sample: 0804503-2
Client Sample ID: 10-PLP
Matrix: Sludge Type: Grab
Remarks:
Analyzed Date: 04/23/2008
Preparation Date(s) : 04/19/2008 04/21/2008
Collected: 04/18/2008 10:15
% Solid: 73.7%

Analytical Results

Cas No	Analyte	MDL	Concentration*	Units	Q
7440-38-2	Arsenic	1.32	1.32	mg/Kg	U
7440-41-7	Beryllium	0.027	0.027	mg/Kg	U
7440-43-9	Cadmium	0.095	**5.04**	mg/Kg	
7440-47-3	Chromium	0.14	**47.7**	mg/Kg	
7440-50-8	Copper	0.42	**505**	mg/Kg	
7439-92-1	Lead	0.33	**304**	mg/Kg	
7440-02-0	Nickel	0.23	**20.5**	mg/Kg	
7440-22-4	Silver	0.041	0.041	mg/Kg	U
7440-66-6	Zinc	0.79	**441**	mg/Kg	

* Results are reported on a dry weight basis

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04/28/2008

Suffolk County Metals by SW846 6010/EPA 200.7

Sample: 0804503-3
Client Sample ID: 12-PLP
Matrix: Sludge Type: Grab
Remarks:
Analyzed Date: 04/23/2008
Preparation Date(s) : 04/19/2008 04/21/2008
Collected: 04/18/2008 10:50
% Solid: 35.6%

Analytical Results

Cas No	Analyte	MDL	Concentration*	Units	Q
7440-38-2	Arsenic	2.75	2.75	mg/Kg	U
7440-41-7	Beryllium	0.057	0.057	mg/Kg	U
7440-43-9	Cadmium	0.20	**5.96**	mg/Kg	
7440-47-3	Chromium	0.28	**77.1**	mg/Kg	
7440-50-8	Copper	0.88	**811**	mg/Kg	
7439-92-1	Lead	0.68	**170**	mg/Kg	
7440-02-0	Nickel	0.48	0.48	mg/Kg	U
7440-22-4	Silver	0.085	0.085	mg/Kg	U
7440-66-6	Zinc	1.65	**827**	mg/Kg	

* Results are reported on a dry weight basis

Sample: 0804503-4
Client Sample ID: 13-PLP
Matrix: Sludge Type: Grab
Remarks:
Analyzed Date: 04/23/2008
Preparation Date(s) : 04/19/2008 04/21/2008
Collected: 04/18/2008 11:25
% Solid: 77.6%

Analytical Results

Cas No	Analyte	MDL	Concentration*	Units	Q
7440-38-2	Arsenic	1.25	1.25	mg/Kg	U
7440-41-7	Beryllium	0.026	0.026	mg/Kg	U
7440-43-9	Cadmium	0.090	0.090	mg/Kg	U
7440-47-3	Chromium	0.13	**2.69**	mg/Kg	
7440-50-8	Copper	0.40	**42.9**	mg/Kg	
7439-92-1	Lead	0.31	**2.70**	mg/Kg	
7440-02-0	Nickel	0.22	0.22	mg/Kg	U
7440-22-4	Silver	0.039	0.039	mg/Kg	U
7440-66-6	Zinc	0.75	**23.4**	mg/Kg	

* Results are reported on a dry weight basis

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04/28/2008

Suffolk County Metals by SW846 6010/EPA 200.7

Sample: 0804503-5
Client Sample ID: 11-PLP
Matrix: Sludge Type: Grab
Remarks:
Analyzed Date: 04/23/2008
Preparation Date(s) : 04/19/2008 04/21/2008
Collected: 04/18/2008 11:55
% Solid: 71.7%

Analytical Results

Cas No	Analyte	MDL	Concentration*	Units	Q
7440-38-2	Arsenic	1.32	1.32	mg/Kg	U
7440-41-7	Beryllium	0.027	0.027	mg/Kg	U
7440-43-9	Cadmium	0.095	0.095	mg/Kg	U
7440-47-3	Chromium	0.14	**6.50**	mg/Kg	
7440-50-8	Copper	0.42	**81.0**	mg/Kg	
7439-92-1	Lead	0.33	**199**	mg/Kg	
7440-02-0	Nickel	0.23	0.23	mg/Kg	U
7440-22-4	Silver	0.041	0.041	mg/Kg	U
7440-66-6	Zinc	0.79	**157**	mg/Kg	

* Results are reported on a dry weight basis

Sample: 0804503-6
Client Sample ID: 8-PLP
Matrix: Sludge Type: Grab
Remarks:
Analyzed Date: 04/23/2008
Preparation Date(s) : 04/19/2008 04/21/2008
Collected: 04/18/2008 12:20
% Solid: 35.7%

Analytical Results

Cas No	Analyte	MDL	Concentration*	Units	Q
7440-38-2	Arsenic	2.67	2.67	mg/Kg	U
7440-41-7	Beryllium	0.055	0.055	mg/Kg	U
7440-43-9	Cadmium	0.19	**17.0**	mg/Kg	
7440-47-3	Chromium	0.28	**162**	mg/Kg	
7440-50-8	Copper	0.85	**305**	mg/Kg	
7439-92-1	Lead	0.66	**335**	mg/Kg	
7440-02-0	Nickel	0.47	**25.8**	mg/Kg	
7440-22-4	Silver	0.083	0.083	mg/Kg	U
7440-66-6	Zinc	1.60	**1350**	mg/Kg	

* Results are reported on a dry weight basis

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04/28/2008

Suffolk County Metals by SW846 6010/EPA 200.7

Sample: 0804503-7
Client Sample ID: Bd2-SW
Matrix: Sludge Type: Grab
Remarks:
Analyzed Date: 04/23/2008
Preparation Date(s) : 04/19/2008 04/21/2008
Collected: 04/18/2008 12:35
% Solid: 84.9%

Analytical Results

Cas No	Analyte	MDL	Concentration*	Units	Q
7440-38-2	Arsenic	1.15	1.15	mg/Kg	U
7440-41-7	Beryllium	0.024	0.024	mg/Kg	U
7440-43-9	Cadmium	0.083	0.083	mg/Kg	U
7440-47-3	Chromium	0.12	**13.7**	mg/Kg	
7440-50-8	Copper	0.37	**10.3**	mg/Kg	
7439-92-1	Lead	0.29	**15.4**	mg/Kg	
7440-02-0	Nickel	0.20	0.20	mg/Kg	U
7440-22-4	Silver	0.036	0.036	mg/Kg	U
7440-66-6	Zinc	0.69	**76.2**	mg/Kg	

* Results are reported on a dry weight basis

Sample: 0804503-8
Client Sample ID: 14A-PLP
Matrix: Sludge Type: Grab
Remarks:
Analyzed Date: 04/23/2008
Preparation Date(s) : 04/19/2008 04/21/2008
Collected: 04/18/2008 13:00
% Solid: 79%

Analytical Results

Cas No	Analyte	MDL	Concentration*	Units	Q
7440-38-2	Arsenic	1.24	1.24	mg/Kg	U
7440-41-7	Beryllium	0.025	0.025	mg/Kg	U
7440-43-9	Cadmium	0.089	0.089	mg/Kg	U
7440-47-3	Chromium	0.13	**4.86**	mg/Kg	
7440-50-8	Copper	0.39	**15.6**	mg/Kg	
7439-92-1	Lead	0.31	**5.48**	mg/Kg	
7440-02-0	Nickel	0.22	0.22	mg/Kg	U
7440-22-4	Silver	0.038	0.038	mg/Kg	U
7440-66-6	Zinc	0.74	**26.8**	mg/Kg	

* Results are reported on a dry weight basis

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04/28/2008

Case Narrative

EPA 8260 VOLATILE ANALYSIS:

The following compounds were calibrated at 25, 50, 100,
150 and 200 ppb levels in the initial calibration curve:
Acetone
2-Butanone
4-Methyl-2-pentanone
2-Hexanone

M&P-Xylenes and 2-Chloroethylvinylether were calibrated at 10, 40, 100, 200 and
300 ppb levels.
Acrolein/Acrylonitrile were calibrated at 50,100,150,200 and 250 ppb levels.
Tert Butyl Alcohol (TBA) was calibrated at 50,200,500,1000 and 1500 ppb levels.

All other compounds were calibrated at 5, 20, 50, 100 and 150 ppb levels.

0804503-2,3,5,8
Methylene Chloride, a common laboratory contaminant, was detected in method blank VBLK-80 at a concentration of 1.25 ppb. The concentration of Methylene Chloride in the associated samples was greater than 10x (5x for non-common) the concentration in the method blank, which is within QC limits, therefore, no further laboratory action was required.
0804503-6: This sample was analyzed at a 1:5 dilution with results inconclusive due to high interferences of non-target compounds present in the sample. This sample was re-analyzed at a medium level soil dilution of 1:125 with good chromatography and target compound identification.
0804503-2 was analyzed at a 1:2 dilution with non-target compound interfering with analysis chromatography. This sample was re-analyzed and reported at a 1:5 dilution.

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04/28/2008

ORGANIC METHOD QUALIFIERS

Q - Qualifier - specified entries and their meanings are as follows:

U - The analytical result is not detected above the Method Detection Limit (MDL). All MDL's are lower than the lowest calibration standard concentration.

J - Indicates an estimated value. The concentration reported was between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).

B - The analyte was found in the associated method blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E - The concentration of the analyte exceeded the calibration range of the instrument.

D - This flag indicates a system monitoring compound diluted out.

INORGANIC METHOD QUALIFIERS

C - (Concentration) qualifiers are as follows:

B - Entered if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL).

U - Entered when the analyte was analyzed for, but not detected above the Method Detection Limit (MDL) which is less than the lowest calibration standard concentration.

Q - Qualifier specific entries and their meanings are as follows:

E - Reported value is estimated because of the presence of interferences.

M - (Method) qualifiers are as follows:

A - Flame AA
AS - Semi-automated Spectrophotometric
AV - Automated Cold Vapor AA
C - Manual Spectrophotometric
F - Furnace AA
P - ICP
T - Titrimetric

OTHER QUALIFIERS

ND - Not Detected

REDEVELOPMENT PROJECT
Gyrodyne Property
Saint James, New York

PWGC Project No. GCA0602

SOIL MANAGEMENT PLAN
June 4, 2007

Submitted to:

Town of Smithtown, Office of the Building Department

Prepared for:

Gyrodyne Company of America, Inc.
1 Flowerfield
Saint James, NY 11780

Prepared by:

PWGC
Strategic Environmental & Engineering Solutions

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PWGC
Strategic Environmental Engineering Solutions

SOIL MANAGEMENT PLAN
Gyrodyne Property, Saint James, NY

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PWGC
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1.0 INTRODUCTION

P.W. Grosser Consulting, Inc. (PWGC) has prepared this Soil Management Plan (SMP) on for the Gyrodyne Company of America, Inc. (Gyrodyne) for its property in Saint James, New York, known as Flowerfield. This SMP has been prepared to support the proposed re-development of the site and details the best management processes to be employed during construction, based on data collected during soil investigations performed in 2006 and 2007, for the handling of contaminated soils.

During soil investigations performed at the site in 2006 and 2007, it was determined that impact is limited to the metal arsenic. Arsenic was detected at levels slightly elevated above background concentrations.

1.1 Site History

The subject property consists of 62.4 acres and is bordered by North Country Road, Mills Pond Road, and the Long Island Railroad tracks (Port Jefferson line) in Saint James, New York. The site is currently undeveloped and is reported to have formerly been used for agricultural purposes. A site location map is included as **Figure 1**. Existing site conditions are depicted in **Figure 2**.

1.2 Proposed Development Plan

Planned development includes an adult living community with 300 residential units, a pool, tennis courts, clubhouse, and walking and biking trails. Gyrodyne is seeking a Change of Zone to the Town of Smithtown. The proposed development plan is illustrated in **Figure 3**.

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2.0 SOIL INVESTIGATION SUMMARY

In accordance with the Suffolk County Department of Health Services (SCDHS) guidance document "Standard Operating Procedures for Subdivisions, Developments, or Other Construction Projects with Potential Contaminated Soils (Draft February 2006)", PWGC performed a soil investigation in September 2006, October 2006, and April 2007 to address potential areas of environmental impact from the site's former agricultural use prior to development of the site.

PWGC installed twenty-eight (28) soil borings, at which fifty-one (51) soil samples were collected, forty-seven (47) of which were submitted to a New York State Department of Health (NYSDOH) certified laboratory for analysis. All 47 samples were analyzed for metals. Surface samples collected from 0 to 2 inches below grade (28 samples total) were submitted for chlorinated pesticide analysis. **Figure 4** shows the soil boring locations; **Table 1** identifies the sample depth and analyses performed.

Table 1 – Soil Sample Collection Summary

Number of Samples Collected	Depth (inches below grade)	Metals Analysis	Polychlorinated Pesticides Analysis
28	0"- 2"	X	X
4	4"- 6"	X	
11	12"- 16"	X	
4	24"- 28"	X	

Since impacts relating to former agricultural uses are typically concentrated in the surface soils, PWGC utilized the shallow 0 to 2 inch samples to determine the horizontal extent of impact. Subsequent deeper samples were collected to determine the vertical extent of impact. Since elevated levels of pesticides were not encountered in the shallow 0 to 2 inch samples, pesticide analysis was not warranted in the subsequent deeper samples. Metals analysis, however, identified elevated levels of arsenic in shallow samples, warranting analysis of deeper samples.

Soil samples were collected utilizing a stainless steel hand auger. The hand auger and any non-disposable sampling equipment were decontaminated with a detergent solution followed by a potable water rinse. Boring locations were selected to provide adequate coverage of the entire site and

targeted low lying areas, as well as covering specific areas that were identified to pose an environmental risk including former barns, storage areas, and greenhouses. Individual sampling events are summarized as follows:

2.1 Soil Investigation - September 2006

Eight soil borings (SB-1 through SB-8) were installed in September 2006. At each location, PWGC collected a surface soil sample (0 to 2 inches below grade) and submitted it for pesticides and metals analysis. PWGC also collected samples from 4 to 6 inches below grade from each boring. Based on the results of the surface soil samples, PWGC submitted four of the eight deeper soil samples (SB-1 through SB-4) for metals analysis.

2.2 Soil Investigation - October 2006

Twenty (20) soil borings (SB-9 through SB-28) were installed in October 2006. At each location, PWGC collected a surface soil sample (0 to 2 inches below grade). All 20 soil samples were submitted for chlorinated pesticides and metals analyses.

2.3 Soil Investigation - April 2007

Fifteen (15) additional soil samples were collected in April 2007 from soil boring locations SB-3, 4, 9, 11, 13, 14, 15, 17, 18, 23, and 26. At all locations, PWGC collected soil sample from 12 to 16 inches below grade. At locations SB-4, SB-11, SB-13, and SB-17 PWGC also collected a deeper soil sample (24 to 28 inches below grade). All 15 soil samples were submitted for arsenic analysis only, since based upon the previous data, this was the only compound of concern.

2.4 Soil Sample Results

As per the SCDHS guidance document "Standard Operating Procedures for Subdivisions, Developments, or Other Construction Projects with Potential Contaminated Soils (Draft February 2006)", soil sample analytical results were compared to the Soil Screening Levels (SSLs) identified in the United States Environmental Protection Agency (USEPA) document OSWER 9355.4-24 (December 2002) included as Appendix A of the SCDHS guidance document, with the exception of arsenic, which was compared to the Soil Screening Action Level (SSAL) of 4 parts per million (ppm)

specified by the SCDHS. This SSAL for arsenic is based upon SCDHS soil screening data for arsenic collected in 1995. In comparison, the New York State Department of Environmental Conservation (NYSDEC) recommended soil cleanup objective (RSCO) for arsenic is 7.5 ppm and the Eastern United States Background Level ranges from 3 to 12 ppm. Site analytical data is summarized in **Tables 2 and 3**.

As shown in **Table 2**, no pesticides were detected above their respective EPA SSL in the shallow soil samples. Since the shallow soils, where exposure is most likely, did not contain elevated levels of pesticides, further analysis of deeper soils for pesticides was not warranted (see the SCDHS document "Standard Operating Procedures for Subdivisions, Developments, or Other Construction Projects with Potential Contaminated Soils (Draft February 2006)").

Metals analytical data are summarized in **Table 3**. Arsenic was detected at concentrations exceeding its SSAL of 4 ppm in multiple soil samples collected from 0 to 2 inches below grade and 4 to 6 inches below grade. No other metals were detected at concentrations exceeding their respective SSLs in any of the samples submitted for analysis. Each detection of arsenic was within its Eastern United States background concentration range of 3 to 12 ppm. Arsenic was detected above its SSAL in only one of the deeper samples beyond 6 inches below grade (SB-4, 12 to 16 inches below grade). Since arsenic has been used as a pesticide in the past, and was detected primarily in surface soils at concentrations which just exceed its SCDHS SSAL, PWGC believes arsenic detected at the site is related to past agricultural use. No detections of arsenic above its SSAL were identified in any other deep samples (12 to 16 inches below grade and 24 to 28 inches below grade).

Based upon these findings, management of the site soils will be required to address the slightly elevated levels of arsenic detected in the surface soils at the property.

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3.0 SOIL MANAGEMENT

Gyrodyne's development plans for the property include an adult living community with over 300 residential units and recreational facilities. The property is primarily grassy with rolling hills and trees/shrubs. Regional groundwater flow beneath the subject site is in a generally northerly direction as obtained from groundwater contour maps developed by the SCDHS.

In order to properly protect the environment and public health from the small amount of arsenic which was detected in limited areas of surface soil at levels generally below Eastern United States background levels, soil management at the subject site will consist of the following:

- Site development, such as roads, parking areas, or homes will act as a physical barrier to prevent contact with the soils which were present in these areas. No other soil management procedures will be required in these areas. Areas of the property which are to remain naturally vegetated will not require soil management, since such management procedures would destroy the natural vegetation which was to be protected.
- In areas not included above, soil management will consist of Vertical Mixing. Vertical Mixing is the widely-accepted process of remediating contaminated surface soils by mechanically mixing them with cleaner soil found at greater depths. This method is listed as a potential mitigation option in the SCDHS guidance document and is based on the principle that the environmental and public health risk from arsenic is a function of the surface soil concentrations of arsenic to which a person is exposed; lowering concentrations of contaminants lowers the risk to the person exposed to them. Vertical Mixing will reduce contaminant concentrations in surface soil to below 4 ppm. Below this level, small amounts of arsenic are an acceptable environmental and public health risk, even in cases where exposure to the soil is continuous or over long periods. Vertical Mixing will consist of through mixing of the top two and an half feet of surface soils and may be performed by means of an excavator or by successive passes over the site with a scraper. The method used to perform the vertical mixing will be dependent upon the size of the work area.
- As an additional measure, areas where Vertical Mixing is performed will be landscaped so that grass/sod or vegetation will act as additional barrier.

To prevent tracking of potentially impacted soil into areas where neither remediation nor other risk management measures are planned, the following precautions will be taken:

- When possible, Vertical Mixing will be implemented after areas have been capped by development features.
- Access to areas in which Vertical Mixing has been completed will be limited by temporary barricade fencing until landscaping activities have been completed.
- Vehicles and equipment will be washed down prior to moving from impacted areas to areas in which soil mitigation is not necessary or has already been completed.
- Erosion controls (i.e. silt fencing or equivalent) will be installed to prevent runoff from impacted areas from entering areas in which soil mitigation is not necessary or has already been completed.

3.1 Endpoint Sample Collection

Since traces of arsenic are the sole reason for a soil management plan, post-management samples will be analyzed for arsenic only. PWGC will collect approximately twenty (20) endpoint soil samples after soil management measures are completed to determine whether surface soil concentrations of arsenic are below 4 ppm. Endpoint samples will be collected from similar locations as the initial samples so that the post-management samples can be compared to the initial screening samples. Soil samples will be collected from zero to two inches below grade using a stainless steel hand auger, and be submitted to a New York State Department of Health (NYSDOH) certified laboratory for analysis. In the unlikely event any sample shows a concentration of arsenic above 4 ppm, there will be further soil mixing in that area until endpoint sample results are below SSLs.

3.2 Dust Control

Dust from work activities could contain contaminants. The site safety officer will monitor dust levels and take immediate action when necessary. The site safety officer will implement the dust control plan (Section 3.3) if there is any actual or potential visible dust. Dust suppression measures will be employed in accordance with the NYSDEC Technical and Administrative Guidance Memorandum

(TAGM) #4031, *Fugitive Dust Suppression and Particulate Monitoring Program*. The primary sources of dust will be equipment, vehicular traffic, and construction activities.

3.3 Dust Control Plan/Monitoring

If there is dust or the potential for dust, the site safety officer will direct that the area be wet down. Calcium chloride may be used if the problem cannot be controlled with water. Dust control measures include the following:

- Water applied to designated work areas prior to any clearing, mixing, or other earth moving operations.
- At a minimum, water will be applied to all disturbed work areas at least four times per day during dry weather periods.
- The disturbed areas will be sprayed down at the end of each day to form a thin crust. This is in addition to the required minimum of four times per day.
- No earth moving activities will be performed if the wind at the site steadily exceeds 15 miles per hour.
- All unpaved haul roads and equipment paths will be watered on a sufficient basis to prevent dust emissions. An alternative to frequent watering may be to pour a 4-inch thick layer of gravel.
- Transportation of soils on-site will be performed in a covered vehicle, or the soils must be sufficiently watered to prevent dust emissions.
- Vehicle speeds must not exceed 10 miles per hour and the site must be posted with speed signs.
- Parking areas shall be designated and will be sufficiently watered or gravel lined to prevent dust emissions.

If elevated dust levels persist, the site safety officer will employ dust monitoring using a particulate monitor (Miniram or equivalent). If monitoring detects concentrations greater than 150 $\mu g/m^3$ over daily background, the site safety officer will take corrective actions as defined herein, including the use of water for dust suppression and if this is not effective, requiring workers to wear APRs with high efficiency particulate air filter (HEPA) cartridges.

Absorption pathways for dust and direct contact with soils will be cut off by the required use of latex gloves, hand washing and decontamination exercises when necessary.

The designated site safety officer will record air monitoring data. The site safety officer or delegate must insure that air monitoring instruments are calibrated and maintained in accordance with the manufacturer's specifications. Instruments will be zeroed daily and checked for accuracy. Monitoring results will be recorded daily on the log included as **Attachment A**.

The following action levels will be used:

- Total Respirable Dust at background in breathing zone: continue.
- Total Respirable Dust at 150 mg/m^3 in breathing zone: Level C PPE - HEPA filters.

The site safety officer can require personal protective equipment upgrades based on visual dust without metering total respirable dust.

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4.0 REPORTING

Upon completion of Vertical Mixing and endpoint sampling, a Soil Management Plan Completion Report will document the completion of the effort. The report will certify that required soil was managed in accordance with this plan and endpoint sample results indicate that the surface soils do not contain concentrations of metals or chlorinated pesticides above their respective SSLs. The Completion Report will be submitted to the Town of Smithtown, Office of the Building Department.

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FIGURES

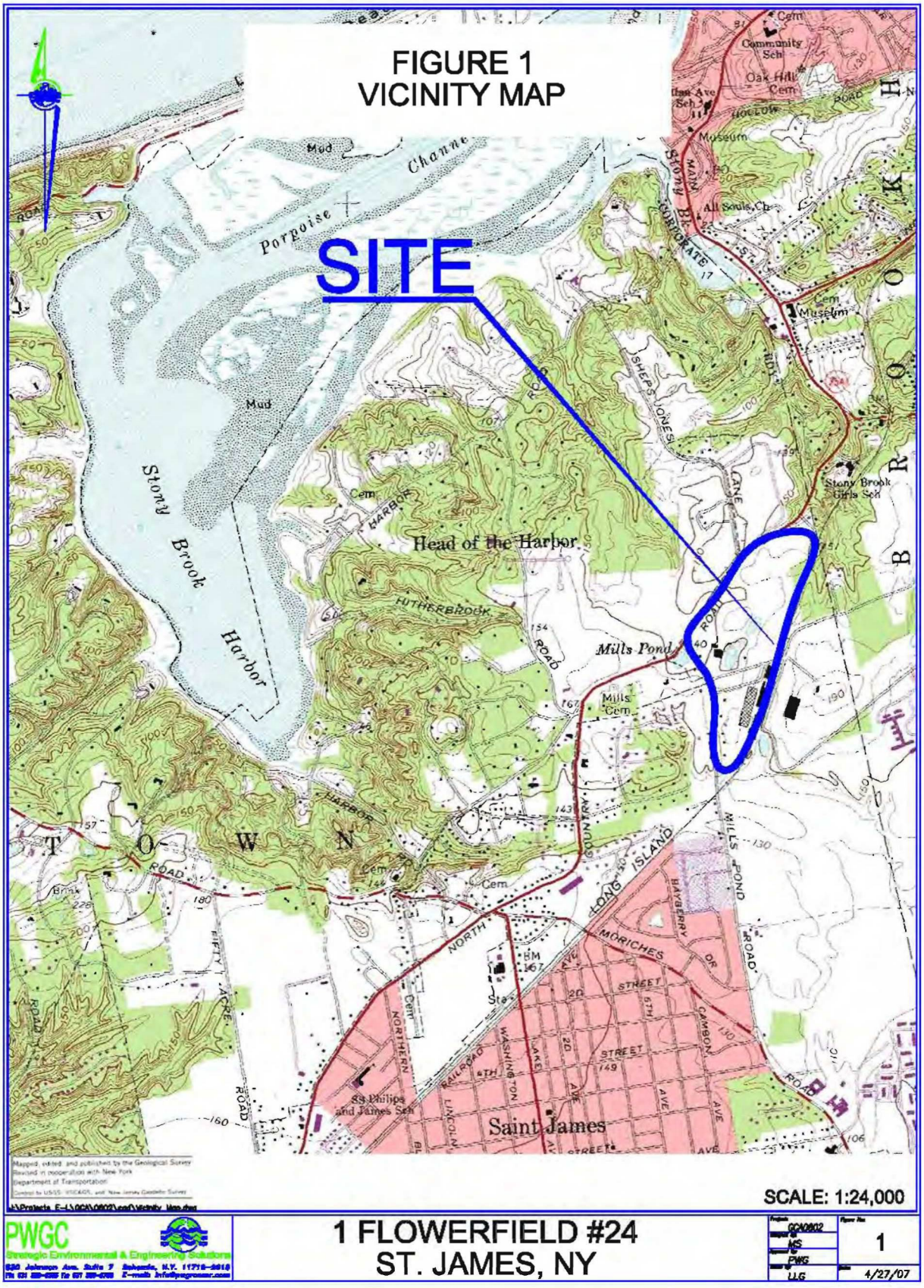
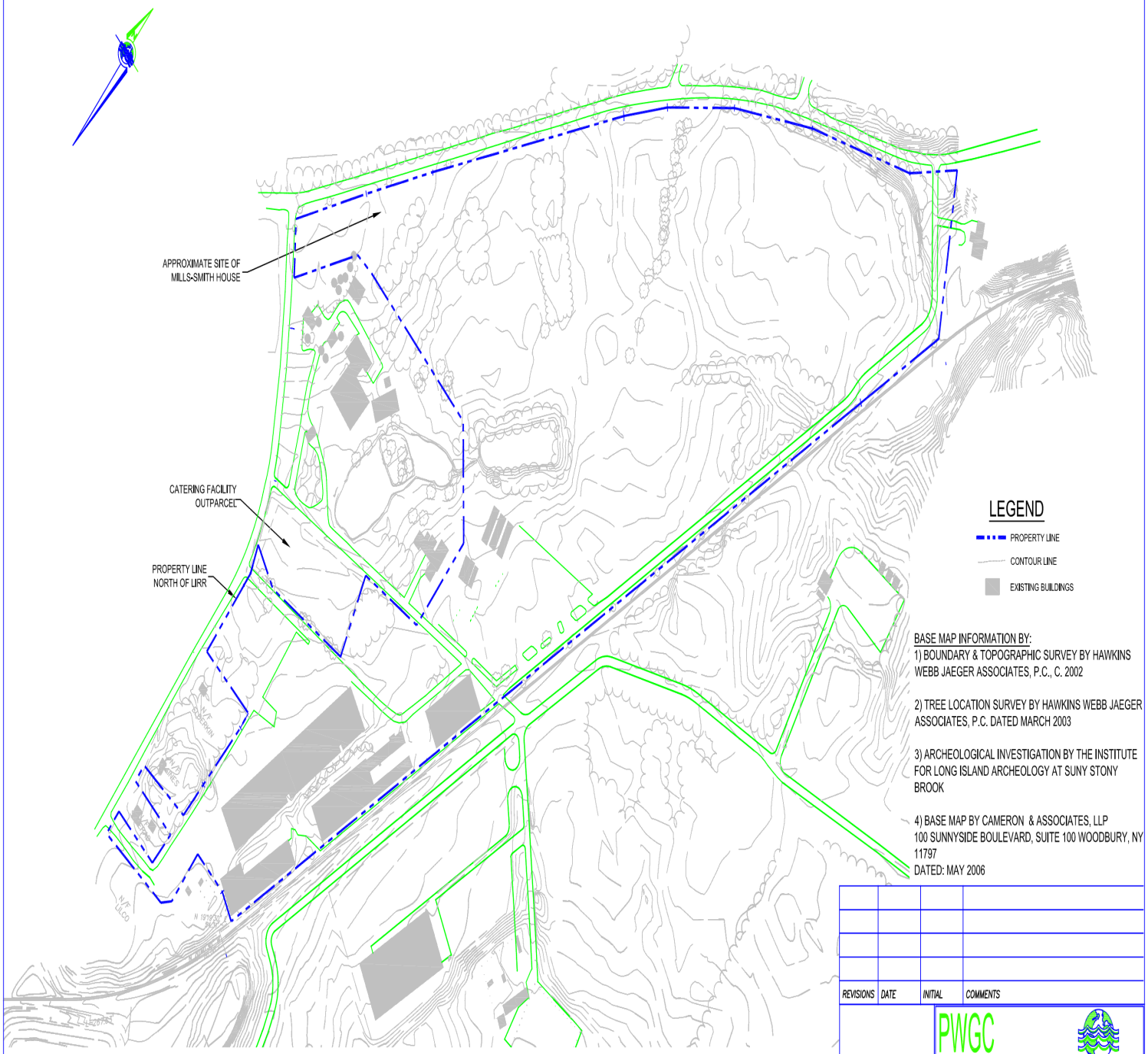


FIGURE 1
VICINITY MAP
SITE
Porpoise Channel
Mud
Stony Brook Harbor
Head of the Harbor
Mills Pond
Mills Cem
Saint James
St Philips and James Sch
Stony Brook Girls Sch
Community Sch
Oak Hill Cem
Museum
All Souls Ch
Cem
HARBOR ROAD
MAIN ST
SHEPS JONES LANE
LUTHERBROOK ROAD
NORTH COUNTRY ROAD
LONG ISLAND
MORICHES STREET
GAMSON AVE
WASHINGTON AVE
LINCOLN AVE
RAILROAD
NORTHERN
MILLS POND ROAD
BAYBERRY DR
FIFTY ACRE ROAD
T O W N
SCALE: 1:24,000
PWGC
Strategic Environmental & Engineering Solutions
1 FLOWERFIELD #24
ST. JAMES, NY
GCA0802
MS
PWG
LLG
1
4/27/07

FIGURE 2
GYRODYNE COMPANY OF AMERICA EXISTING SITE CONDITIONS



BASE MAP INFORMATION BY:
1) BOUNDARY & TOPOGRAPHIC SURVEY BY HAWKINS WEBB JAEGER ASSOCIATES, P.C., C. 2002

2) TREE LOCATION SURVEY BY HAWKINS WEBB JAEGER ASSOCIATES, P.C. DATED MARCH 2003

3) ARCHEOLOGICAL INVESTIGATION BY THE INSTITUTE FOR LONG ISLAND ARCHEOLOGY AT SUNY STONY BROOK

4) BASE MAP BY CAMERON & ASSOCIATES, LLP
100 SUNNYSIDE BOULEVARD, SUITE 100 WOODBURY, NY 11797
DATED: MAY 2006

REVISIONS	DATE	INITIAL	COMMENTS

1 FLOWERFIELD #24
ST.JAMES, NY

300 0 300 600
SCALE: 1"=300'

PWGC
Strategic Environmental & Engineering Solutions
630 Johnson Ave. Suite 7 Bohemia, N.Y. 11716-2618
Ph: 631 589-6353 Fx: 631 589-8705 E-mail: info@pwgrosser.com

Project:	Designed By:	Figure No:
GCA0602	MS	2
CADD Operator: LLG	Approved By: PWG	Date: 4/27/07

FIGURE 3
GYRODYNE COMPANY OF AMERICA PROPOSED DEVELOPMENT PLAN

1 FLOWERFIELD #24
ST.JAMES, NY

NOT TO SCALE

REVISIONS	DATE	INITIAL	COMMENTS

PWGC
Strategic Environmental & Engineering Solutions
630 Johnson Ave. Suite 7 Bohemia, N.Y. 11716-2618
Ph: 631 589-6353 Fx: 631 589-8705 E-mail: info@pwgrosser.com

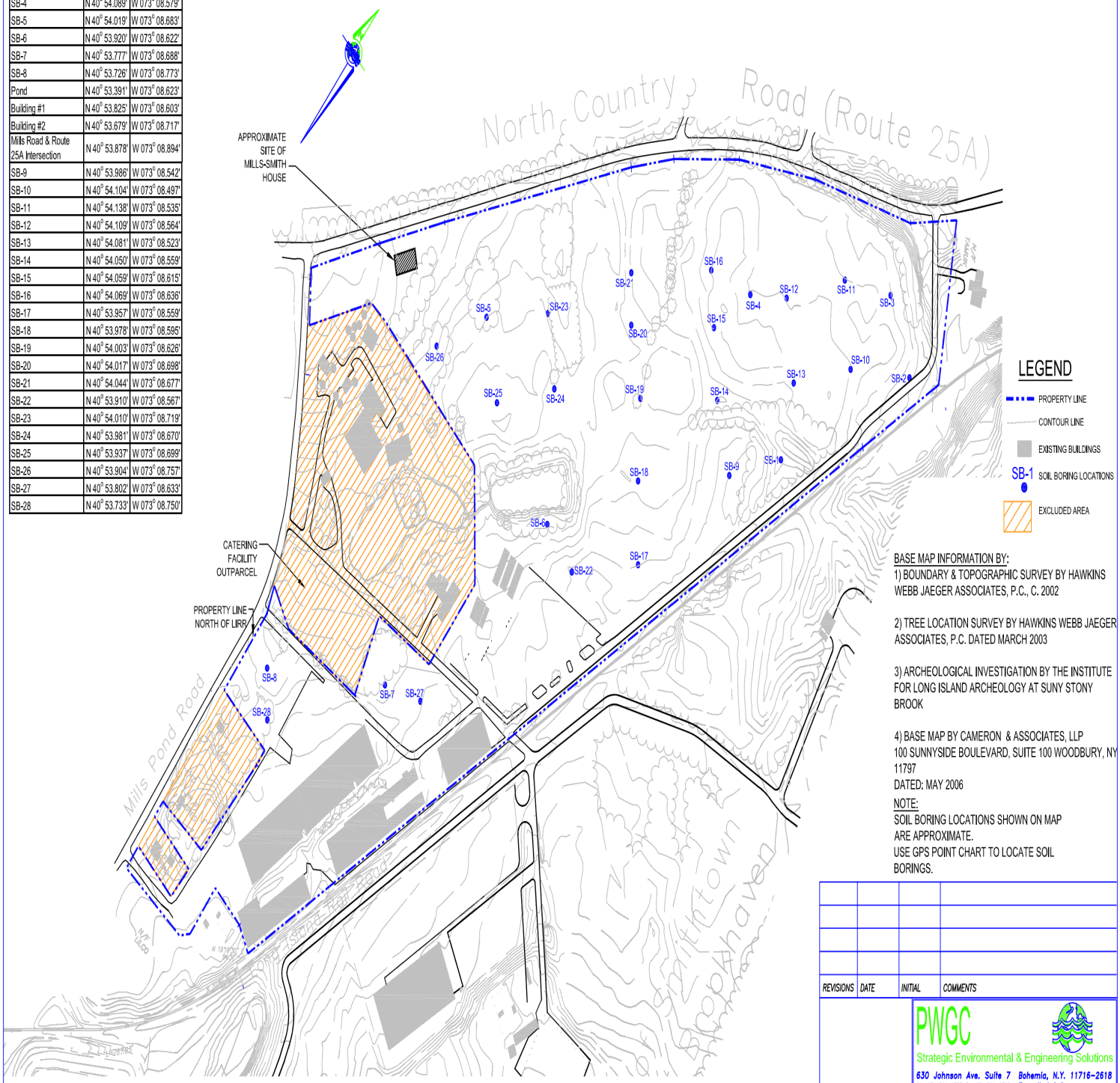
Project: GCA0602	Designed By: MS	Figure No: 3
CADD Operator: LLG	Approved By: PWG	Date: 4/27/07

DRAWING PROVIDED BY:
CAMERON ENGINEERING & ASSOCIATES LLP
100 SUNNYSIDE BLVD. SUITE 100
WOODBURY, NY 11797

J:\PROJECTS E-L\GCA\0602\CADD\Fig. 3 6-4-07.DWG

FIGURE 4
GYRODYNE COMPANY OF AMERICA SOIL BORING LOCATIONS

Soil Boring Location	Latitude	Longitude
SB-1	N 40° 54.053'	W 073° 08.498'
SB-2	N 40° 54.127'	W 073° 08.452'
SB-3	N 40° 54.155'	W 073° 08.512'
SB-4	N 40° 54.089'	W 073° 08.579'
SB-5	N 40° 54.019'	W 073° 08.683'
SB-6	N 40° 53.920'	W 073° 08.622'
SB-7	N 40° 53.777'	W 073° 08.688'
SB-8	N 40° 53.726'	W 073° 08.773'
Pond	N 40° 53.391'	W 073° 08.623'
Building #1	N 40° 53.825'	W 073° 08.603'
Building #2	N 40° 53.679'	W 073° 08.717'
Mills Road & Route 25A Intersection	N 40° 53.878'	W 073° 08.894'
SB-9	N 40° 53.986'	W 073° 08.542'
SB-10	N 40° 54.104'	W 073° 08.497'
SB-11	N 40° 54.138'	W 073° 08.535'
SB-12	N 40° 54.109'	W 073° 08.564'
SB-13	N 40° 54.081'	W 073° 08.523'
SB-14	N 40° 54.050'	W 073° 08.559'
SB-15	N 40° 54.059'	W 073° 08.615'
SB-16	N 40° 54.069'	W 073° 08.636'
SB-17	N 40° 53.957'	W 073° 08.559'
SB-18	N 40° 53.978'	W 073° 08.595'
SB-19	N 40° 54.003'	W 073° 08.626'
SB-20	N 40° 54.017'	W 073° 08.698'
SB-21	N 40° 54.044'	W 073° 08.677'
SB-22	N 40° 53.910'	W 073° 08.567'
SB-23	N 40° 54.010'	W 073° 08.719'
SB-24	N 40° 53.981'	W 073° 08.670'
SB-25	N 40° 53.937'	W 073° 08.699'
SB-26	N 40° 53.904'	W 073° 08.757'
SB-27	N 40° 53.802'	W 073° 08.633'
SB-28	N 40° 53.733'	W 073° 08.750'



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4) BASE MAP BY CAMERON & ASSOCIATES, LLP
100 SUNNYSIDE BOULEVARD, SUITE 100 WOODBURY, NY 11797
DATED: MAY 2006

NOTE:
SOIL BORING LOCATIONS SHOWN ON MAP ARE APPROXIMATE.
USE GPS POINT CHART TO LOCATE SOIL BORINGS.

REVISIONS	DATE	INITIAL	COMMENTS

1 FLOWERFIELD #24
ST.JAMES, NY

PWGC
Strategic Environmental & Engineering Solutions
630 Johnson Ave. Suite 7 Bohemia, N.Y. 11716-2618
Ph: 631 589-6353 Fx: 631 589-8705 E-mail: info@pwgrosser.com

Project: GCA0602	Designed By: BAD	Figure No: 4
CADD Operator: TC/LLG	Approved By: PWG	Date: 09/29/06

PWGC
Strategic Environmental Engineering Solutions

TABLES

Table 2
Soil Analytical Data - Pesticides
Gyrodyne
Saint James, New York

Compound	Ingestion	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6	SB-7	SB-8	SB-9	SB-10	SB-11	SB-12	SB-13	SB-14
		0-2"	0-2"	0-2"	0-2"	0-2"	0-2"	0-2"	0-2"	0-2"	0-2"	0-2"	0-2"	0-2"	0-2"
		9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	9/28/2006	10/16/2006	10/16/2006	10/16/2006	10/16/2006	10/16/2006	10/16/2006
Pesticides mg/kg															
Aldrin	0.04 (2)	<0.0023	<0.0024	<0.0023	<0.0024	<0.0024	<0.0024	<0.0024	<0.0024	<0.0024	<0.0023	<0.0025	<0.0024	<0.0024	<0.0024
alpha-BHC	0.1 (2)	<0.0023	<0.0024	<0.0023	<0.0024	<0.0024	<0.0024	<0.0024	<0.0024	<0.0024	<0.0023	<0.0025	<0.0024	<0.0024	<0.0024
beta-BHC	0.4 (2)	<0.0023	<0.0024	<0.0023	<0.0024	<0.0024	<0.0024	<0.0024	<0.0024	<0.0024	<0.0023	<0.0025	<0.0024	<0.0024	<0.0024
gamma-BHC (Lindane)	0.5 (2)	<0.0023	<0.0024	<0.0023	<0.0024	<0.0024	<0.0024	<0.0024	<0.0024	<0.0024	<0.0023	<0.0025	<0.0024	<0.0024	<0.0024
Chlordane	0.5 (2)	<0.0093	<0.0096	<0.0092	<0.0098	<0.0096	<0.0098	<0.0094	<0.0094	<0.0098	<0.0092	<0.0099	<0.0095	<0.0098	<0.0095
4,4-DDD	3 (2)	<0.0023	<0.0024	0.011	0.0077	0.007	<0.0024	<0.0024	<0.0024	0.013	0.011	0.0064	0.0081	0.01	0.005
4,4-DDE	2 (2)	0.027	0.047	0.16	0.11	0.06	0.0033	0.021	0.0065	0.11	0.091	0.081	0.086	0.074	0.043
4,4-DDT	2 (2)	0.011	0.027	0.068	0.078	0.031	<0.0024	0.0086	0.0047	0.094	0.092	0.044	0.083	0.089	0.045
Dieldrin	0.04 (2)	<0.0023	<0.0024	0.021	<0.0024	<0.0024	<0.0024	<0.0024	<0.0024	0.024	0.024	0.016	0.021	0.015	0.0067
Endosulfan Total	470 (6)	<0.0047	<0.0048	<0.0046	<0.0049	<0.0048	<0.0049	<0.0047	<0.0047	<0.0098	<0.0092	<0.0098	<0.0096	<0.0098	<0.0096
Endosulfan Sulfate	NA	<0.014	<0.014	<0.014	<0.015	<0.014	<0.015	<0.014	<0.014	<0.015	<0.014	<0.015	<0.014	<0.015	<0.014
Endrin	23 (6)	<0.0023	0.0031	0.069	0.049	0.0046	<0.0024	<0.0024	<0.0024	0.016	0.026	0.052	0.046	0.024	0.018
Endrin Aldehyde	NA	<0.014	<0.014	<0.014	<0.015	<0.014	<0.015	<0.014	<0.014	<0.015	<0.014	<0.015	<0.014	<0.015	<0.014
Heptachlor	0.1 (2)	<0.0023	<0.0024	<0.0023	<0.0024	<0.0024	<0.0024	<0.0024	<0.0024	<0.0024	<0.0023	<0.0025	<0.0024	<0.0024	<0.0024
Heptachlor Epoxide	0.07 (2)	<0.0023	<0.0024	<0.0023	<0.0024	<0.0024	<0.0024	<0.0024	<0.0024	<0.0024	<0.0023	<0.0025	<0.0024	<0.0024	<0.0024
Methoxychlor	390 (6)	<0.0047	<0.0048	<0.0046	<0.0049	<0.0048	<0.0049	<0.0047	<0.0047	<0.0049	<0.0046	<0.0049	<0.0048	<0.0049	<0.0048
Toxaphene	0.6 (2)	<0.047	<0.048	<0.046	<0.049	<0.048	<0.049	<0.047	<0.047	<0.049	<0.046	<0.049	<0.048	<0.049	<0.048

Compound	Ingestion	SB-15	SB-16	SB-17	SB-18	SB-19	SB-20	SB-21	SB-22	SB-23	SB-24	SB-25	SB-26	SB-27	SB-28
		0-2"	0-2"	0-2"	0-2"	0-2"	0-2"	0-2"	0-2"	0-2"	0-2"	0-2"	0-2"	0-2"	0-2"
		10/16/2006	10/16/2006	10/16/2006	10/16/2006	10/16/2006	10/16/2006	10/16/2006	10/16/2006	10/16/2006	10/16/2006	10/16/2006	10/16/2006	10/16/2006	10/16/2006
Pesticides mg/kg															
Aldrin	0.04 (2)	<0.0024	<0.0023	<0.0024	<0.0025	<0.0025	<0.0024	<0.0025	<0.0025	<0.0029	<0.0023	<0.0023	<0.0025	<0.0024	<0.0024
alpha-BHC	0.1 (2)	<0.0024	<0.0023	<0.0024	<0.0025	<0.0025	<0.0024	<0.0025	<0.0025	<0.0029	<0.0023	<0.0023	<0.0025	<0.0024	<0.0024
beta-BHC	0.4 (2)	<0.0024	<0.0023	<0.0024	<0.0025	<0.0025	<0.0024	<0.0025	<0.0025	<0.0029	<0.0023	<0.0023	<0.0025	<0.0024	<0.0024
gamma-BHC (Lindane)	0.5 (2)	<0.0024	<0.0023	<0.0024	<0.0025	<0.0025	<0.0024	<0.0025	<0.0025	<0.0029	<0.0023	<0.0023	<0.0025	<0.0024	<0.0024
Chlordane	0.5 (2)	<0.0098	<0.0092	<0.0095	<0.0099	<0.0099	<0.0096	<0.0099	<0.010	<0.011	<0.0091	<0.0092	<0.010	<0.0096	<0.0096
4,4-DDD	3 (2)	0.0057	0.0059	0.052	0.012	0.0056	0.0096	0.011	0.015	0.021	0.05	0.014	0.0059	<0.0024	<0.0024
4,4-DDE	2 (2)	0.048	0.044	0.51	0.1	0.046	0.08	0.084	0.14	0.2	0.16	0.18	0.024	0.037	0.009
4,4-DDT	2 (2)	0.05	0.055	0.29	0.085	0.025	0.045	0.098	0.098	0.14	0.075	0.087	0.035	0.023	0.0082
Dieldrin	0.04 (2)	0.0087	0.006	0.03	0.015	<0.0025	0.017	0.016	0.0089	0.011	0.018	0.0087	0.0061	<0.0024	<0.0024
Endosulfan Total	470 (6)	<0.0098	<0.0092	<0.0096	<0.0098	<0.0098	<0.0098	<0.0098	<0.010	<0.0114	<0.0090	<0.0092	<0.0102	<0.0096	<0.0096
Endosulfan Sulfate	NA	<0.015	<0.014	<0.014	<0.015	<0.015	<0.014	<0.015	<0.015	<0.017	<0.014	<0.014	<0.015	<0.014	<0.014
Endrin	23 (6)	0.013	0.025	0.0083	0.014	<0.0025	0.0066	0.0085	<0.0025	<0.0029	0.0082	<0.0023	<0.0025	<0.0024	<0.0024
Endrin Aldehyde	NA	<0.015	<0.014	<0.014	<0.015	<0.015	<0.014	<0.015	<0.015	<0.017	<0.014	<0.014	<0.015	<0.014	<0.014
Heptachlor	0.1 (2)	<0.0024	<0.0023	<0.0024	<0.0025	<0.0025	<0.0024	<0.0025	<0.0025	<0.0029	<0.0023	<0.0023	<0.0025	<0.0024	<0.0024
Heptachlor Epoxide	0.07 (2)	<0.0024	<0.0023	<0.0024	<0.0025	<0.0025	<0.0024	<0.0025	<0.0025	<0.0029	<0.0023	<0.0023	<0.0025	<0.0024	<0.0024
Methoxychlor	390 (6)	<0.0049	<0.0046	<0.0048	<0.0049	<0.0049	<0.0048	<0.0049	<0.0050	<0.0057	<0.0045	<0.0046	<0.0051	<0.0048	<0.0048
Toxaphene	0.6 (2)	<0.049	<0.046	<0.048	<0.049	<0.049	<0.048	<0.049	<0.050	<0.057	<0.045	<0.046	<0.051	<0.048	<0.048

Notes:
(1) - Dilution and attenuation factor
(2) - Calculated values correspond to a cancer risk level of 1 in 1,000,000
(3) - Level is at or below Contract Laboratory Program (CLP) required quantitation limit for Regular Analytical Services (RAS)
(4) - Chemical-specific properties are such that this pathway is not of concern at any soil contaminant concentration.
(5) - No toxicity criteria available for that route of exposure
(6) - Calculated values correspond to a noncancer hazard quotient of 1

Table 3
Soil Analytical Data - Metals

Gyrodyne
Saint James, New York

Compound	Ingestion - Dermal	Eastern USA Background Concentrations	SB-1 0-2" 9/28/2006	SB-1 4"-6" 10/16/2006	SB-2 0-2" 9/28/2006	SB-2 4"-6" 10/16/2006	SB-3 0-2" 9/28/2006	SB-3 4"-6" 10/16/2006	SB-3 12"-16" 4/10/2007	SB-4 0-2" 9/28/2006	SB-4 4"-6" 10/16/2006	SB-4 12"-16" 4/10/2007	SB-4 24"-28" 4/10/2007	SB-5 0-2" 9/28/2006	SB-6 0-2" 9/28/2006	SB-7 0-2" 9/28/2006	SB-8 0-2" 9/28/2006	SB-9 0-2" 10/16/2006	SB-9 12"-16" 4/10/2007	SB-10 0-2" 10/16/2006	SB-11 0-2" 10/16/2006	SB-11 12"-16" 4/10/2007	SB-11 24"-28" 4/10/2007	SB-12 0-2" 10/16/2006	SB-13 0-2" 10/16/2006	SB-13 12"-16" 4/10/2007
Priority Pollutant Metals mg/kg																											
Arsenic	4 [2]	3.0 - 12	**4.4**	3.8	**5.3**	4	**5.5**	**6.2**	2.33	**8.2**	**8.8**	**5.33**	2.65	3.9	2.3	3.3	3.6	**8.9**	2.42	**6.8**	**7.8**	2.97	2.3	**5.5**	2.57		
Beryllium	160 [3]	0.0 - 1.75	0.6	0.87	0.36	0.27	0.39	0.39	NA	0.54	0.51	NA	NA	0.45	0.34	0.54	0.59	0.4	NA	0.34	0.41	NA	NA	0.42	0.51	NA	
Cadmium	70 [5] [6]	0.1 - 1	<0.58	0.62	<0.60	<0.56	<0.57	<0.56	NA	<0.61	<0.61	NA	NA	<0.60	<0.61	<0.59	<0.59	<0.61	NA	<0.57	<0.62	NA	NA	<0.6	<0.61	NA	
Chromium	230 [5]	1.5 - 40	13	20	11	8.6	10	11	NA	12	12	NA	NA	10	9.9	11	10	8.7	NA	10	11	NA	NA	11	13	NA	
Copper	NA	1.0 - 50	12	7.3	12	10	13	13	NA	20	18	NA	NA	11	9.6	9.5	14	12	NA	14	17	NA	NA	14	15	NA	
Lead	400 [7]	4.0 - 61	30	9.5	27	8.8	30	18	NA	39	34	NA	NA	18	46	33	34	22	NA	25	27	NA	NA	26	27	NA	
Mercury	23 [5] [8]	0.001 - 0.2	0.093	0.57	0.072	0.093	0.056	0.039	NA	0.096	0.093	NA	NA	0.057	0.038	0.072	0.065	0.15	NA	0.041	0.044	NA	NA	0.043	0.045	NA	
Nickel	1,600 [5]	0.5 - 25	9.3	12	7.3	6.3	6.9	7	NA	8	8.2	NA	NA	7.2	8.9	9.3	9.4	5.4	NA	5.9	5.9	NA	NA	6.7	8.5	NA	
Silver	390 [5]	NS	<0.58	<0.61	<0.60	<0.56	<0.57	<0.56	NA	<0.61	<0.61	NA	NA	<0.60	<0.61	<0.59	<0.59	<0.61	NA	<0.57	<0.62	NA	NA	<0.6	<0.61	NA	

Compound	Ingestion - Dermal	Eastern USA Background Concentrations	SB-13 24"-28" 4/10/2007	SB-14 0-2" 10/16/2006	SB-14 12"-16" 4/10/2007	SB-15 0-2" 10/16/2006	SP-15 12"-16" 4/10/2007	SB-16 0-2" 10/16/2006	SB-17 0-2" 10/16/2006	SB-17 12"-16" 4/10/2007	SB-17 24"-28" 4/10/2007	SB-18 0-2" 10/16/2006	SB-18 12"-16" 4/10/2007	SB-19 0-2" 10/16/2006	SB-20 0-2" 10/16/2006	SB-21 0-2" 10/16/2006	SB-22 0-2" 10/16/2006	SB-23 0-2" 10/16/2006	SB-23 12"-16" 4/10/2007	SB-24 0-2" 10/16/2006	SB-25 0-2" 10/16/2006	SB-26 0-2" 10/16/2006	SB-26 12"-16" 4/10/2007	SB-27 0-2" 10/16/2006	SB-28 0-2" 10/16/2006
Priority Pollutant Metals mg/kg																									
Arsenic	4 [2]	3.0 - 12	<1.65	**7.5**	1.71	**7.1**	2.2	**6.2**	**9.2**	3.5	<1.65	**10**	2.2	**6.8**	**4.6**	**5.1**	**5.1**	**8.6**	<1.65	**5.5**	**4.5**	**7.2**	<1.65	3.6	1.4
Beryllium	160 [3]	0.0 - 1.75	ND	0.45	NA	0.41	NA	0.41	0.51	NA	ND	0.59	NA	0.75	0.46	0.52	0.34	0.84	NA	0.43	0.47	0.71	NA	0.54	0.12
Cadmium	70 [5] [6]	0.1 - 1	ND	<0.6	NA	<0.61	NA	<0.57	<0.6	NA	ND	<0.62	NA	<0.62	<0.6	<0.62	<0.63	<0.71	NA	<0.57	<0.57	<0.63	NA	<0.6	<0.6
Chromium	230 [5]	1.5 - 40	ND	12	NA	9.9	NA	11	13	NA	ND	14	NA	15	10	12	8.8	19	NA	11	10	19	NA	9.8	2.2
Copper	NA	1.0 - 50	ND	12	NA	12	NA	11	15	NA	ND	17	NA	14	11	12	18	21	NA	15	8.9	22	NA	**11**	2.5
Lead	400 [7]	4.0 - 61	ND	25	NA	21	NA	20	27	NA	ND	26	NA	28	20	21	33	30	NA	17	24	27	NA	37	12
Mercury	23 [5] [8]	0.001 - 0.2	ND	0.061	NA	0.12	NA	0.089	0.073	NA	ND	0.086	NA	0.086	0.04	0.046	0.094	0.12	NA	0.049	0.11	0.061	NA	0.077	0.16
Nickel	1,600 [5]	0.5 - 25	ND	7.4	NA	6.3	NA	6.8	7.1	NA	ND	8.5	NA	10	7.3	8.1	6.4	13	NA	8.4	6.3	**11**	NA	8.3	2.2
Silver	390 [5]	NS	ND	<0.6	NA	<0.61	NA	<0.57	<0.6	NA	ND	<0.62	NA	<0.62	<0.6	<0.62	<0.63	<0.71	NA	<0.57	<0.57	<0.63	NA	<0.6	<0.6

Notes:
(2) - Dilution and attenuation factor
(3) - Suffolk County Department of Health Services (SCDHS) has determined typical background levels to be between <1 and 4 mg/kg and may exceed the EPA SSL.
(4) - Calculated values correspond to a cancer risk level of 1 in 1,000,000
(5) - SSL for pH of 6.8
(6) - Calculated values correspond to a noncancer hazard quotient of 1
(7) - SSL is based on dietary RfD
(8) - A screening level of 400 mg/kg has been set for lead based on *Revised Interin soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities* (U.S. EPA, 1994)
(9) - SSL is based on RfD for mercuric chloride (CAS No. 007487-94-7)
- No toxicity criteria available for that route of exposure

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APPENDIX A
SCDHS GUIDANCE DOCUMENT

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY

PROCEDURES FOR MUNICIPALITIES TO EVALUATE THE NEED FOR SOIL SAMPLING AND SOIL MANAGEMENT AT SUBDIVISIONS OR OTHER CONSTRUCTION PROJECTS WITH POTENTIALLY CONTAMINATED SOILS
(*Draft February 2006*)

1.0 Background & Purpose

Over the past few years, municipal planning agencies have referred proposed residential and commercial/industrial construction projects that may contain potentially contaminated soils to the Suffolk County Department of Health Services (SCDHS) for review and approval. Although not required by the sanitary code, SCDHS reviewed the projects as a courtesy to the municipality, but will no longer be able to provide this service. This document has been generated, with input from the New York State Department of Health, to provide guidance to municipalities for reviewing soil sampling plans, evaluating soil sample results and approving Soil Management Plans (SMP) if they are deemed necessary. Sampling and analysis protocols, soil screening levels, and remedial strategies are included in this guidance document.

2.0 Applicability

Determinations of applicability of this document should be based on the historic use of the parcel of land, on actual soil sample data, and/or on any other factors that the municipality deems relevant to the likelihood that residual contamination is present in soils on the tract. This document applies only to direct exposure pathways, such as dermal exposure, ingestion and inhalation. At present the county uses New York State Department of Environmental Conservation's Technical and Administrative Guidance Memorandum (TAGM) HWR-94-4046 to evaluate the potential for volatile organic compounds (VOCs) to contaminate the groundwater.

This guidance document applies only to tracts of land with non-hazardous soils, which are defined as soils that do not contain hazardous wastes or substances, as defined by 6 NYSCRR Part 371.1(d) or other relevant New York State codes. Data on sites that prove to contain hazardous soils or that may be sources of groundwater contamination should be referred to the New York State Department of Environmental Conservation or other appropriate agency for regulatory action.

3.0 Sampling Surveys

If soil evaluation is required by a municipality, based on historical use of the site, the owner of a realty subdivision or other development project should conduct a sampling program of surface and/or subsurface soils on the subject tract in conformance with **Appendix B** of this document. **Appendix B** provides guidance on the development of a soil sampling plan including the recommended number of sampling locations, based on past and future use, sample collection protocols, and sample analysis protocols.

The soil sampling plan should normally consist of collection of soils at each subdivision lot, and any locations known or suspected to be chemical mixing areas, chemical disposal or

spill areas, greenhouses, barns, drainage structures, floor drains, leaching pools, or runoff sites including sumps or swales, or areas of disturbed vegetation. Reduced sampling may be appropriate at sites consisting wholly of prior uniform use (e.g., a single agricultural field), and may be sampled at fewer representative locations. Said samples should be collected from the low point on the subdivided parcel (or subdivision lot), or from any other location that is likely to be the settling point for fine-grained sediments, and/or proposed rear yard area of lots within residential subdivisions.

A. Sampling Protocols

Soil samples should be collected in accordance with New York State Department of Health (NYSDOH) protocols and analyzed at an Environmental Laboratory Approval Program (ELAP), or National Environmental Laboratory Approval Program (NELAP) approved laboratory. Composite samples from multiple locations and/or depths should not be used. Appropriate sample collection procedures and containers should be obtained from the laboratory performing the analyses. The analytical results should be reported on a dry weight basis.

It is recommended that at least 2 sets of soil samples be taken from each collection point; the first from the surface to a depth of two to three inches, and a second sample from a depth of three to six inches. Deeper samples may also be warranted at some sites. Analysis of the surface sample should be reviewed to determine the need for a SMP using the EPA Soil Screening levels (SSLs) provided in **Appendix A**. Analysis of the deeper samples can be delayed until the need for a SMP is determined. These samples can provide additional information that may be necessary in evaluating the SMP strategies.

B. Laboratory Analysis Protocols

All analyses should be conducted by a laboratory that is certified for the required analytical methods through either ELAP or NELAP programs. Results should be reported on a dry weight basis. At a minimum, it is recommended that soils from former agricultural sites be analyzed for metals and chlorinated pesticides. Analyses for chlorphenoxy acid, organophosphate, or other pesticides and chemicals should be considered based on site-specific conditions. At a minimum, the following analytes should be required for soils at former agricultural sites:

Metals	Chlorinated Pesticides	
arsenic	aldrin	endosulfan I & II
beryllium	alpha-BHC	endosulfan sulfate
cadmium	beta-BHC	endrin
chromium	gamma-BHC	endrin aldehyde
copper	chlordane	heptachlor
lead	4,4-DDD	heptachlor epoxide
mercury	4,4-DDE	methoxychlor
nickel	4,4-DDT	toxaphene
silver	dieldrin	

C. Soil Screening Levels

The need to develop a soil management plan should be based on USEPA generic soil screening levels (SSLs contained in **Appendix A**) for residential, commercial / industrial scenarios or other relevant screening levels. The attached SSLs are taken from EPA document OSWER 9355.4-24 December 2002 (Appendix A / Exhibit A-1) (http://www.epa.gov/superfund/resources/soil/ssg_appa-c.pdf)

Most SSLs are attainable on Long Island, but it is important to note that typical background levels of arsenic in non-agricultural soils in Suffolk County range from <1-4 ppm and may exceed the EPA SSL (unpublished SCDHS data and Sanok et al, 1995). Therefore, to account for natural or background arsenic concentrations in Suffolk County soils, it is recommended that a soil screening action level of 4 ppm be applied. (This level corresponds to a cancer risk of 1/100,000 according to the USEPA Generic SSL guidance document.)

D. Soil Management Plan

When a surficial soil sample or samples exceed an applicable SSL, analysis should be performed of the deeper samples to determine the vertical extent of the contamination. Based on these analyses, a soil management plan (SMP) that addresses the areas of elevated contamination should be developed and submitted to the municipality for review and approval. An SMP should be designed to minimize or prevent dermal contact, ingestion, or inhalation of contaminated soils by future site residents or workers, and be protective of ground and surface waters. An SMP should mitigate contamination so as to achieve SSLs, or get as close to SSLs as practicable.

The SMP should be based upon contaminant concentrations detected in surficial and deeper samples and may include the collection and analysis of additional samples. Mitigation measures may include options such as: removal and proper off-site disposal of contaminated soils, vertical mixing, where it can be demonstrated that cleaner soils are present below the surface; on-site stockpiling, e.g., in landscape berms, and revegetation at a portion of the site that will remain as undeveloped open space (i.e., buffer areas, not playgrounds or ball fields). On-site burial in excavated areas, or disposal below paving or an impervious cap may also be considered, depending on contaminant concentrations, where potential groundwater and surface water impacts are not issues. Post remediation (end point) samples should be included as part of the SMP to demonstrate adequate reductions in soil concentrations.

E. Confirmatory End Point Samples

Post remediation/management samples should be collected in approximately the same locations as the initial elevated samples for contaminants of concern. Such samples should be collected and analyzed as specified in Sections A and B, above, or as specified in the approved SMP. Depending on initial contaminant concentrations, it may be possible to limit post SMP analysis to the specific contaminants identified in the initial sampling. Sampling of any soils to be brought onto the site may also be prudent to ensure the quality of the fill material.

APPENDIX A

GENERIC SSLs FOR THE RESIDENTIAL AND COMMERCIAL/INDUSTRIAL SCENARIOS

This appendix provides generic SSLs for 109 chemicals under residential and non-residential (i.e., commercial/industrial) exposure scenarios. Exhibit A-1 presents updated generic SSLs for the residential exposure scenario. The generic SSLs for three of the pathways in this exhibit — inhalation of volatiles in outdoor air, inhalation of fugitive dust, and migration to ground water — were calculated using the same equations and default values for exposure assumptions found in the 1996 *SSG* (and reproduced in Appendix B of this document). However, they incorporate updated values for dispersion factors, for toxicity, and for other chemical-specific parameters presented in Appendix C. The exhibit also presents new SSLs for concurrent exposures via soil ingestion and dermal absorption that are based, in part, on a new quantitative approach for evaluating dermal absorption. SSLs for combined direct ingestion and dermal absorption exposures to contaminants were calculated according to the method described in Section 3.2.1 of this document. The generic residential SSLs in Exhibit A-1 supersede those published in the 1996 *SSG*.

Exhibits A-2 and A-3 present commercial/industrial SSLs for the outdoor worker and indoor worker receptors, respectively. These SSLs have been calculated using the equations and the default values for exposure assumptions and other input parameters presented in Section 4.2.3 of this guidance document. All generic SSLs presented in this appendix, both residential and commercial/industrial, are rounded to two significant figures, with the exception of values less than 10 mg/kg, which are rounded to one significant figure.

As noted above, the values in this Appendix are based on chemical-specific physical and toxicological parameters presented in Appendix C. The values in Appendix C represent the most recent values available and are current as of the date of publication of this guidance. However, physical/chemical and toxicological data are subject to revision and should therefore be confirmed before referencing screening levels in the following tables. Trichloroethylene, in particular, is based on a draft risk assessment, and because the document is still undergoing review, the health benchmark values should be considered provisional.

EPA does not present generic SSLs for the construction exposure scenario because the complexity and variability of exposure conditions for construction activities precludes the development of such values. For information on developing SSLs for exposures during construction activities, users should refer to Chapter 5 or Appendix E of the guidance document.

The generic residential and non-residential SSLs are not necessarily protective of all known human exposure pathways or ecological threats. Before applying SSLs, it is therefore necessary to compare the conceptual site model (developed in Step 1 of the soil screening process) with the assumptions underlying the generic SSLs to ensure that site conditions and exposure pathways are consistent with these assumptions (See Exhibit A-4.) If this comparison indicates that the site is more complex than the generic SSL scenario, or that there are significant exposure pathways not accounted for by the SSL scenario, then generic SSLs alone are **not** sufficient to evaluate the site, and additional, more detailed site-specific investigation is necessary.

In each exhibit, the first column presents SSLs based on the combined soil ingestion and dermal absorption exposure pathway. When data on dermal absorption from soil are unavailable, these SSLs are based on ingestion exposures only. SSLs for this pathway may be updated in the future as dermal absorption data become available for other contaminants.

The second column in Exhibits A-1 and A-2 presents SSLs for the outdoor inhalation of volatiles pathway. Although residential receptors and indoor workers are potentially exposed to volatiles in indoor air as well, EPA has not calculated generic SSLs for migration of volatiles into indoor air because it is very difficult to identify suitable standardized default values for inputs such as dimensions of commercial buildings and the distance between contamination and a building's foundation. EPA provides spreadsheet models that can be used to calculate SSLs for this pathway using the simple site-specific or detailed site-specific approaches.[1] The third column in Exhibit A-1 and A-2 lists SSLs for the inhalation of fugitive dusts pathway. Because inhalation of fugitive dust is typically not a concern for organic compounds, SSLs for this pathway are presented only for inorganic compounds, which are listed at the end of each exhibit. Conversely, with the exception of mercury, no SSLs for the inhalation of volatiles pathway are provided for inorganic compounds because these chemicals exhibit extremely low volatility.

The user should note that several of the generic SSLs for the inhalation of volatiles pathway are determined by the chemical-specific soil saturation limit (C_{sat}) which is used to screen for the presence of non-aqueous phase liquids (NAPLs). As indicated in Section 4.2.3, in situations where the residual concentration of a compound that is a liquid at ambient soil temperature exceeds C_{sat}, the compound may exist as free-phase liquid (see Exhibit C-3 in Appendix C for a list of those compounds present in liquid phase at typical ambient soil temperatures). In these cases, further investigation will be required.

The final two columns in Exhibits A-1 through A-3 present generic SSLs for the migration to ground water pathway. The generic commercial/industrial SSLs for this pathway are the same as those for residential use and are unchanged from the 1996 *SSG*. As discussed in Section 4.2.3, this approach protects potential potable ground water resources that may be present beneath sites with commercial/industrial uses and protects off-site residents who may ingest ground water contaminated by the site. The migration to ground water SSLs are back-calculated from an acceptable target soil leachate concentration using a dilution-attenuation factor (DAF). The first of the two columns of SSLs for this pathway presents levels calculated using a DAF of 20 to account for reductions in contaminant concentration due to natural processes occurring in the subsurface. The second column presents SSL values for the migration to ground water pathway calculated assuming a DAF of one (i.e., no dilution or attenuation between the source and the receptor well). These levels should be used at sites where little or no dilution or attenuation of soil leachate concentrations is expected; this will be the case at sites with characteristics such as shallow water tables, fractured media, karst topography, or source size greater than 30 acres.

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[1] The vapor intrusion spreadsheets can be found on EPA's web site at http://www.epa.gov/superfund/programs/risk/airmodel/johnson_ettinger.htm.

After all possible SSLs for all potential receptors at a site have been identified from the tables in Exhibits A-1 through A-3, the site manager should select the lowest applicable SSL for each exposure pathway to be used for comparison to site contaminant concentrations in soil. Generally, where the relevant SSL for a given pathway of concern is not exceeded, the user may eliminate the pathway from further investigation. If all pathways of concern are eliminated for an area of the site based on comparison with residential SSLs, that area can be eliminated from further investigation. However, if commercial/industrial SSLs are used in soil screening evaluations, elimination of an area from further consideration is contingent on an analysis of institutional control options. Users should consult Section 4.3.2 of the guidance document for more information.

The final exhibit in this appendix (Exhibit A-4) presents the default values for physical site characteristics that are used in calculating SSLs (both residential and commercial/industrial) for the inhalation and migration to ground water pathways. These values describe the nature of the contaminant source area, the characteristics of site soil, meteorologic conditions, and hydrogeologic characteristics, and serve either as direct input parameters for SSL equations or as assumptions for developing input parameters for the equations.

This appendix does not include SSLs for lead, dioxin, or PCBs, because EPA has issued separate documents that specify risk-based concentrations for these contaminants in soil. For guidance on addressing soil contaminated with lead, dioxin, or PCBs, please refer to the following sources:

Lead:

C U.S. EPA, 1994. *Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities*, EPA/540/F-94/043, Office of Solid Waste and Emergency Response, Washington, D.C. Directive 9355.4-12.

C U.S. EPA, 1996. *Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil*, Technical Review Workgroup for Lead (TRW), Washington, D.C.

C US EPA, 1999. *Frequently Asked Questions on the Adult Lead Model: Guidance Document*. Technical Review Workgroup for Lead (TRW), Washington, D.C. http://www.epa.gov/oerrpage/superfund/programs/lead/adfaqs.htm

PCBs:

C US EPA, 1990. *Guidance on Remedial Actions for Superfund Sites with PCB Contamination*. Office of Solid Waste and Emergency Response, Washington, D.C. NTIS PB91-921206CDH. (Currently being updated by the EPA PCB work group.)

Dioxin:

C U.S. EPA. 1998. *Approach for Addressing Dioxin in Soil at CERCLA and RCRA Sites*. OSWER Directive 9200.4-26.

C U.S. EPA. 2000. *Draft Exposure and Human Health Reassessment of 2,3,7,8-Tetrachlorodibenzo*-p-*Dioxin (TCDD) and Related Compounds*. Office of Research and Development, Washington, D.C. EPA/600/P-00/001Bg. September.

Analysis of Effects of Source Size on Generic SSLs

The generic SSLs presented have been developed assuming an infinite source and a 0.5 acre source size. For an analysis of the sensitivity of generic SSLs to changes in source size and the depths to which infinite source SSLs are protective at larger sites, please refer to Attachment A and Table A-3 in the *Technical Background Document* of the 1996 *SSG*. Additional detail is also provided in the guidance documents specifically addressing screening levels for soils contaminated with lead, dioxin, or PCBs (listed above).

Exhibit A-1

GENERIC SSLs FOR RESIDENTIAL SCENARIO[a]

Compound	CAS No.	Ingestion-Dermal (mg/kg)	Inhalation of Volatiles (mg/kg)	Inhalation of Fugitive Particulates (mg/kg)	Migration to Ground Water	
					DAF=20 (mg/kg)	DAF=1 (mg/kg)
Organics						
Acenaphthene	83-32-9	3,400 [b]	--- [c]	---	570 [b]	29 [b]
Acetone (2-Propanone)	67-64-1	7,800 [b,c]	--- [c]	---	16 [b]	0.8 [b]
Aldrin	309-00-2	0.04 [c,e]	3 [e]	---	0.5 [e]	0.02 [e]
Anthracene	120-12-7	17,000 [b]	--- [c]	---	12,000 [b]	590 [b]
Benz(a)anthracene	56-55-3	0.6 [e]	--- [c]	---	2 [e]	0.08 [e,f]
Benzene	71-43-2	12 [c,e]	0.8 [e]	---	0.03	0.002 [f]
Benzo(b)fluoranthene	205-99-2	0.6 [e]	--- [c]	---	5 [e]	0.2 [e,f]
Benzo(k)fluoranthene	207-08-9	6 [e]	--- [c]	---	49 [e]	2 [e]
Benzoic acid	65-85-0	310,000 [b,c]	--- [c]	---	400 [b,k]	20 [b,k]
Benzo(a)pyrene	50-32-8	0.06 [e,f]	--- [c]	---	8	0.4
Bis(2-chloroethyl)ether	111-44-4	0.4 [e]	0.2 [e,f]	---	0.0004 [e,f]	0.00002 [e,f]
Bis(2-ethylhexyl)phthalate	117-81-7	35 [e]	--- [c]	---	3,600	180
Bromodichloromethane	75-27-4	10 [c,e]	--- [c]	---	0.6	0.03
Bromoform (tribromomethane)	75-25-2	81 [c,e]	52 [e]	---	0.8	0.04
Butanol	71-36-3	7,800 [b,c]	--- [c]	---	17 [b]	0.9 [b]
Butyl benzyl phthalate	85-68-7	12,000 [b]	--- [c]	---	930 [d]	810 [b]
Carbazole	86-74-8	24 [e]	--- [c]	---	0.6 [e]	0.03 [e,f]
Carbon disulfide	75-15-0	7,800 [b,c]	720 [d]	---	32 [b]	2 [b]
Carbon tetrachloride	56-23-5	5 [c,e]	0.3 [e]	---	0.07	0.003 [f]
Chlordane	57-74-9	2 [e]	72 [e]	---	10	0.5
p-Chloroaniline	106-47-8	240 [b]	--- [c]	---	0.7 [b]	0.03 [b,f]
Chlorobenzene	108-90-7	1,600 [b,c]	380 [b]	---	1	0.07
Chlorodibromomethane	124-48-1	8 [c,e]	--- [c]	---	0.4	0.02
Chloroform	67-66-3	780 [b,c]	--- [c]	---	0.6	0.03
2-Chlorophenol	95-57-8	310 [b]	--- [c]	---	4 [b,k]	0.2 [b,f,k]
Chrysene	218-01-9	62 [e]	--- [c]	---	160 [e]	8 [e]
DDD	72-54-8	3 [c,e]	--- [c]	---	16 [e]	0.8 [e]
DDE	72-55-9	2 [c,e]	--- [c]	---	54 [e]	3 [e]
DDT	50-29-3	2 [e]	--- [g]	---	32 [e]	2 [e]
Dibenz(a,h)anthracene	53-70-3	0.06 [e,f]	--- [c]	---	2 [e]	0.08 [e,f]
Di-n-butyl phthalate	84-74-2	6,100 [b]	--- [c]	---	2,300 [d]	270 [b]
1,2-Dichlorobenzene	95-50-1	5,500 [b]	600 [d]	---	17	0.9
1,4-Dichlorobenzene	106-46-7	20 [e]	--- [g]	---	2	0.1 [f]
3,3-Dichlorobenzidine	91-94-1	1 [e]	--- [c]	---	0.007 [e,f]	0.0003 [e,f]
1,1-Dichloroethane	75-34-3	7,800 [b,c]	1,200 [b]	---	23 [b]	1 [b]
1,2-Dichloroethane	107-06-2	7 [c,e]	0.4 [e]	---	0.02	0.001 [f]
1,1-Dichloroethylene	75-35-4	3900 [b,c]	290 [b]	---	0.06	0.003 [f]
cis-1,2-Dichloroethylene	156-59-2	780 [b,c]	--- [c]	---	0.4	0.02
trans-1,2-Dichloroethylene	156-60-5	1,600 [b,c]	--- [c]	---	0.7	0.03
2,4-Dichlorophenol	120-83-2	180 [b]	--- [c]	---	1 [b,k]	0.05 [b,f,k]
2,4-Dichlorophenoxy-acetic acid	94-75-7	690 [b]	--- [c]	---	0.4 [b,k]	0.02 [b,k]
1,2-Dichloropropane	78-87-5	9 [c,e]	15 [b]	---	0.03	0.001 [f]
1,3-Dichloropropene	542-75-6	6 [c,e]	1 [e]	---	0.004 [e]	0.0002 [e]

Exhibit A-1 (continued)

GENERIC SSLs FOR RESIDENTIAL SCENARIO[a]

Compound	CAS No.	Ingestion-Dermal (mg/kg)	Inhalation of Volatiles (mg/kg)	Inhalation of Fugitive Particulates (mg/kg)	Migration to Ground Water	
					DAF=20 (mg/kg)	DAF=1 (mg/kg)
Organics (continued)						
Dieldrin	60-57-1	0.04 [c,e]	1 [e]	---	0.004 [e]	0.0002 [e,f]
Diethylphthalate	84-66-2	49,000 [b]	--- [c]	---	470 [b]	23 [b]
2,4-Dimethylphenol	105-67-9	1,200 [b]	--- [c]	---	9 [b]	0.4 [b]
2,4-Dinitrophenol	51-28-5	120 [b]	--- [c]	---	0.2 [b,f,k]	0.008 [b,f,k]
2,4-Dinitrotoluene	121-14-2	0.7 [e]	--- [c]	---	0.0008 [e,f]	0.00004 [e,f]
2,6-Dinitrotoluene	606-20-2	0.7 [e]	--- [c]	---	0.0007 [e,f]	0.00003 [e,f]
Di-n-octyl phthalate	117-84-0	1,200 [b]	--- [c]	---	10,000 [d]	10,000 [d]
Endosulfan	115-29-7	470 [b,c]	--- [c]	---	18 [b]	0.9 [b]
Endrin	72-20-8	23 [b,c]	--- [c]	---	1	0.05
Ethylbenzene	100-41-4	7,800 [b,c]	400 [d]	---	13	0.7
Fluoranthene	206-44-0	2,300 [b]	--- [c]	---	4,300 [b]	210 [b]
Fluorene	86-73-7	2,300 [b]	--- [c]	---	560 [b]	28 [b]
Heptachlor	76-44-8	0.1 [c,e]	4 [e]	---	23	1
Heptachlor Epoxide	1024-57-3	0.07 [c,e]	5 [e]	---	0.7	0.03
Hexachlorobenzene	118-74-1	0.3 [e]	1 [e]	---	2	0.1 [f]
Hexachloro-1,3-butadiene	87-68-3	6 [e]	8 [e]	---	2	0.1 [f]
α-HCH (α-BHC)	319-84-6	0.1 [c,e]	0.7 [e]	---	0.0005 [e,f]	0.00003 [e,f]
β-HCH(β-BHC)	319-85-7	0.4 [c,e]	6 [e]	---	0.003 [e]	0.0001 [e,f]
γ-HCH(Lindane)	58-89-9	0.4 [e]	--- [c]	---	0.009	0.0005 [f]
Hexachlorocyclopentadiene	77-47-4	370 [b]	29 [b]	---	400	20
Hexachloroethane	67-72-1	35 [e]	54 [e]	---	0.5 [e]	0.02 [e,f]
Indeno(1,2,3-cd)pyrene	193-39-5	0.6 [e]	--- [c]	---	14 [e]	0.7 [e]
Isophorone	78-59-1	510 [e]	--- [c]	---	0.5 [e]	0.03 [e,f]
Methoxychlor	72-43-5	390 [b,c]	--- [c]	---	160	8
Methyl bromide	74-83-9	110 [b,c]	9 [b]	---	0.2 [b]	0.01 [b,f]
Methylene chloride	75-09-2	85 [c,e]	13 [e]	---	0.02 [e]	0.001 [e,f]
2-Methylphenol (o-cresol)	95-48-7	3,100 [b]	--- [c]	---	15 [b]	0.8 [b]
Naphthalene	91-20-3	1,100 [b]	170 [c]	---	84 [b]	4 [b]
Nitrobenzene	98-95-3	31 [b]	90 [b]	---	0.1 [b,f]	0.007 [b,f]
N-Nitrosodiphenylamine	86-30-6	99 [e]	--- [c]	---	1 [e]	0.06 [e,f]
N-Nitrosodi-n-propylamine	621-64-7	0.07 [e,f]	--- [c]	---	0.0000 [e,f]	0.000002 [e,f]
Pentachlorophenol	87-86-5	3 [e]	--- [c]	---	0.03 [f,k]	0.001 [f,k]
Phenol	108-95-2	18,000 [b]	--- [c]	---	100 [b]	5 [b]
Pyrene	129-00-0	1,700 [b]	--- [c]	---	4,200 [b]	210 [b]
Styrene	100-42-5	16,000 [b,c]	1,500 [d]	---	4	0.2
1,1,2,2-Tetrachloroethane	79-34-5	3 [c,e]	0.6 [e]	---	0.003 [e,f]	0.0002 [e,f]
Tetrachloroethylene	127-18-4	1 [c,e]	1 [e]	---	0.06	0.003 [f]
Toluene	108-88-3	16,000 [b,c]	650 [d]	---	12	0.6
Toxaphene	8001-35-2	0.6 [c,e]	87 [e]	---	31	2
1,2,4-Trichlorobenzene	120-82-1	610 [b]	3,200 [d]	---	5	0.3 [f]
1,1,1-Trichloroethane	71-55-6	--- [c]	1,200 [d]	---	2	0.1
1,1,2-Trichloroethane	79-00-5	11 [c,e]	1 [e]	---	0.02	0.0009 [f]
Trichloroethylene[⊥]	79-01-6	2 [c,e]	0.07 [e]	---	0.06	0.003 [f]
2,4,5-Trichlorophenol	95-95-4	6,100 [b]	--- [c]	---	270 [b,k]	14 [b,k]
2,4,6-Trichlorophenol	88-06-2	44 [e]	200 [e]	---	0.2 [e,f,k]	0.008 [e,f,k]

Exhibit A-1 (continued)

GENERIC SSLs FOR RESIDENTIAL SCENARIO[a]

Compound	CAS No.	Ingestion-Dermal (mg/kg)	Inhalation of Volatiles (mg/kg)	Inhalation of Fugitive Particulates (mg/kg)	Migration to Ground Water	
					DAF=20 (mg/kg)	DAF=1 (mg/kg)
Organics (continued)						
Vinyl acetate	108-05-4	78,000 [b,c]	980 [b]	---	170 [b]	8 [b]
Vinyl chloride (chloroethene)	75-01-4	0.4 [c,e,h]	0.6 [e,i]	---	0.01 [f,k,l]	0.0007 [f,i]
m-Xylene	108-38-3	160,000 [b,c]	--- [c]	---	210	10
o-Xylene	95-47-6	160,000 [b,c]	--- [c]	---	190	9
p-Xylene	106-42-3	160,000 [b,c]	--- [c]	---	200	10
Inorganics						
Antimony	7440-36-0	31 [b,c]	---	--- [c]	5	0.3
Arsenic	7440-38-2	0.4 [e]	---	770 [e]	29 [k]	1 [k]
Barium	7440-39-3	5,500 [b,c]	---	710,000 [b]	1,600 [k]	82 [k]
Beryllium	7440-41-7	160 [c,e]	---	1,400 [e]	63 [k]	3 [k]
Cadmium	7440-43-9	70 [b,j]	---	1,800 [e]	8 [k]	0.4 [k]
Chromium (total)	7440-47-3	230 [b,c]	---	280 [e]	38 [k]	2 [k]
Chromium (III)	16065-83-1	120,000 [b,c]	---	--- [c]	--- [g]	--- [g]
Chromium (VI)	18540-29-9	230 [b,c]	---	280 [e]	38 [k]	2 [k]
Cyanide (amenable)	57-12-5	1,600 [b,c]	---	--- [c]	40	2
Mercury	7439-97-6	23 [b,c,l]	10 [b,k]	---	2 [k]	0.1 [k]
Nickel	7440-02-0	1,600 [b,c]	---	14,000 [e]	130 [k]	7 [k]
Selenium	7782-49-2	390 [b,c]	---	--- [c]	5 [k]	0.3 [k]
Silver	7440-22-4	390 [b,c]	---	--- [c]	34 [b,k]	2 [b,k]
Thallium	7440-28-0	6 [b,c,m]	---	--- [c]	0.7 [k]	0.04 [k]
Vanadium	7440-62-2	550 [b,c]	---	--- [c]	6,000 [b]	300 [b]
Zinc	7440-66-6	23,000 [b,c]	---	--- [c]	12,000 [b,k]	620 [b,k]

DAF = Dilution Attenuation Factor

[a] Screening level based on human health criteria only

[b] Calculated values correspond to a noncancer hazard quotient of 1. For exposure to multiple non-carcinogens, EPA evaluates contaminants according to their critical effect. See section 2.3 for further discussion.

[c] Ingestion-Dermal pathway: no dermal absorption data available; calculated based on ingestion data only. Inhalation of volatiles pathway: no toxicity criteria available

[d] Soil Saturation Limit (Csat)

[e] Calculated values correspond to a cancer risk of 1 in 1,000,000. For multiple carcinogens, EPA believes values will accumulate to be within acceptable risk levels. See section 2.3 for further discussion.

[f] Level is at or below Contract Laboratory Program required quantification limit for Regular Analytical Services (RAS)

[g] Chemical-specific properties are such that this pathway is not of concern at any soil contaminant concentration

[h] SSL is based on continuous exposure to vinyl chloride over a lifetime.

[i] SSL is based on continuous exposure to vinyl chloride during adulthood.

[j] SSL is based on dietary RfD for Cadmium

[k] SSL for pH of 6.8

[l] SSL is based on RfD for mercuric chloride (CAS No. 007847-94-7)

[m] SSL is based on RfD for thallium chloride (CAS No. 7791-12-0)

[⊥] Health benchmark values are based on NCEA's *Trichloroethylene Health Risk Assessment: Synthesis and Characterization - External Review Draft* (ORD, August, 2001). The trichloroethylene draft risk assessment is still under review. As a result, the health benchmark values are subject to change.

Exhibit A-2

GENERIC SSLs FOR COMMERCIAL/INDUSTRIAL SCENARIO: OUTDOOR WORKER RECEPTOR[a]

Compound				Inhalation of Fugitive Particulates (mg/kg)	Migration to Ground Water	
Organics	CAS No.	Ingestion-Dermal (mg/kg)	Inhalation of Volatiles (mg/kg)		DAF=20 (mg/kg)	DAF=1 (mg/kg)
Acenaphthene	83-32-9	37,000 [b]	--- [c]	---	570 [b]	29 [b]
Acetone (2-Propanone)	67-64-1	110,000 [b,c]	--- [c]	---	16 [b]	0.8 [b]
Aldrin	309-00-2	0.2 [c,e]	6 [e]	---	0.5 [e]	0.02 [e]
Anthracene	120-12-7	180,000 [b]	--- [c]	---	12,000 [b]	590 [b]
Benz(a)anthracene	56-55-3	2 [e]	--- [c]	---	2 [e]	0.08 [e,f]
Benzene	71-43-2	58 [c,e]	1 [e]	---	0.03	0.002 [f]
Benzo(b)fluoranthene	205-99-2	2 [e]	--- [c]	---	5 [e]	0.2 [e,f]
Benzo(k)fluoranthene	207-08-9	23 [e]	--- [c]	---	49 [e]	2 [e]
Benzoic acid	65-85-0	1,000,000 [b,c]	--- [c]	---	400 [b,j]	20 [b,j]
Benzo(a)pyrene	50-32-8	0.2 [e]	--- [c]	---	8	0.4
Bis(2-chloroethyl)ether	111-44-4	2 [e]	0.4 [e]	---	0.0004 [e,f]	0.00002 [e,f]
Bis(2-ethylhexyl)phthalate	117-81-7	140 [e]	--- [c]	---	3,600	180
Bromodichloromethane	75-27-4	51 [c,e]	--- [c]	---	0.6	0.03
Bromoform (tribromomethane)	75-25-2	400 [c,e]	88 [e]	---	0.8	0.04
Butanol	71-36-3	110,000 [b,c]	--- [c]	---	17 [b]	0.9 [b]
Butyl benzyl phthalate	85-68-7	140,000 [b]	--- [c]	---	930 [d]	810 [b]
Carbazole	86-74-8	96 [e]	--- [c]	---	0.6 [e]	0.03 [e,f]
Carbon disulfide	75-15-0	110,000 [b,c]	720 [d]	---	32 [b]	2 [b]
Carbon tetrachloride	56-23-5	24 [c,e]	0.6 [e]	---	0.07	0.003 [f]
Chlordane	57-74-9	7 [e]	120 [e]	---	10	0.5
p-Chloroaniline	106-47-8	2,700 [b]	--- [c]	---	0.7 [b]	0.03 [b,f]
Chlorobenzene	108-90-7	23,000 [b,c]	540 [b]	---	1	0.07
Chlorodibromomethane	124-48-1	38 [c,e]	--- [c]	---	0.4	0.02
Chloroform	67-66-3	11,000 [b,c]	--- [c]	---	0.6	0.03
2-Chlorophenol	95-57-8	3,400 [b]	--- [c]	---	4 [b,j]	0.2 [b,f,j]
Chrysene	218-01-9	230 [e]	--- [c]	---	160 [e]	8 [e]
DDD	72-54-8	13 [c,e]	--- [c]	---	16 [e]	0.8 [e]
DDE	72-55-9	9 [c,e]	--- [c]	---	54 [e]	3 [e]
DDT	50-29-3	8 [e]	--- [g]	---	32 [e]	2 [e]
Dibenz(a,h)anthracene	53-70-3	0.2 [e]	--- [c]	---	2 [e]	0.08 [e,f]
Di-n-butyl phthalate	84-74-2	68,000 [b]	--- [c]	---	2,300 [d]	270 [b]
1,2-Dichlorobenzene	95-50-1	62,000 [b]	600 [d]	---	17	0.9
1,4-Dichlorobenzene	106-46-7	80 [e]	--- [g]	---	2	0.1 [f]
3,3-Dichlorobenzidine	91-94-1	4 [e]	--- [c]	---	0.007 [e,f]	0.0003 [e,f]
1,1-Dichloroethane	75-34-3	110,000 [b,c]	1,700 [d]	---	23 [b]	1 [b]
1,2-Dichloroethane	107-06-2	35 [c,e]	0.6 [e]	---	0.02	0.001 [f]
1,1-Dichloroethylene	75-35-4	57,000 [b,c]	410 [b]	---	0.06	0.003 [f]
cis-1,2-Dichloroethylene	156-59-2	11,000 [b,c]	--- [c]	---	0.4	0.02
trans-1,2-Dichloroethylene	156-60-5	23,000 [b,c]	--- [c]	---	0.7	0.03
2,4-Dichlorophenol	120-83-2	2,100 [b]	--- [c]	---	1 [b,j]	0.05 [b,f,j]
2,4-Dichlorophenoxy-acetic acid	94-75-7	8,500 [b]	--- [c]	---	0.4 [b,j]	0.02 [b,j]
1,2-Dichloropropane	78-87-5	47 [c,e]	21 [b]	---	0.03	0.001 [f]
1,3-Dichloropropene	542-75-6	32 [c,e]	2 [e]	---	0.004 [e]	0.0002 [e]

Exhibit A-2 (continued)

GENERIC SSLs FOR COMMERCIAL/INDUSTRIAL SCENARIO: OUTDOOR WORKER RECEPTOR[a]

Compound	CAS No.	Ingestion-Dermal (mg/kg)	Inhalation of Volatiles (mg/kg)	Inhalation of Fugitive Particulates (mg/kg)	Migration to Ground Water	
					DAF=20 (mg/kg)	DAF=1 (mg/kg)
***Organics* (continued)**						
Dieldrin	60-57-1	0.2 [c,e]	2 [e]	---	0.004 [e]	0.0002 [e,f]
Diethylphthalate	84-66-2	550,000 [b]	--- [c]	---	470 [b]	23 [b]
2,4-Dimethylphenol	105-67-9	14,000 [b]	--- [c]	---	9 [b]	0.4 [b]
2,4-Dinitrophenol	51-28-5	1,400 [b]	--- [c]	---	0.2 [b,f,j]	0.008 [b,f,j]
2,4-Dinitrotoluene	121-14-2	3 [e]	--- [c]	---	0.0008 [e,f]	0.00004 [e,f]
2,6-Dinitrotoluene	606-20-2	3 [e]	--- [c]	---	0.0007 [e,f]	0.00003 [e,f]
Di-n-octyl phthalate	117-84-0	14,000 [b]	--- [c]	---	10,000 [d]	10,000 [d]
Endosulfan	115-29-7	6,800 [b,c]	--- [c]	---	18 [b]	0.9 [b]
Endrin	72-20-8	340 [b,c]	--- [c]	---	1	0.05
Ethylbenzene	100-41-4	110,000 [b,c]	400 [d]	---	13	0.7
Fluoranthene	206-44-0	24,000 [b]	--- [c]	---	4,300 [b]	210 [b]
Fluorene	86-73-7	24,000 [b]	--- [c]	---	560 [b]	28 [b]
Heptachlor	76-44-8	0.7 [c,e]	7 [e]	---	23	1
Heptachlor Epoxide	1024-57-3	0.3 [c,e]	8 [e]	---	0.7	0.03
Hexachlorobenzene	118-74-1	1 [e]	2 [e]	---	2	0.1 [f]
Hexachloro-1,3-butadiene	87-68-3	25 [e]	13 [e]	---	2	0.1 [f]
α-HCH (α-BHC)	319-84-6	0.5 [c,e]	1 [e]	---	0.0005 [e,f]	0.00003 [e,f]
β-HCH(β-BHC)	319-85-7	2 [c,e]	--- [g]	---	0.003 [e]	0.0001 [e,f]
γ-HCH(Lindane)	58-89-9	2 [e]	--- [c]	---	0.009	0.0005 [f]
Hexachlorocyclopentadiene	77-47-4	4,100 [b]	41 [b]	---	400	20
Hexachloroethane	67-72-1	140 [e]	92 [e]	---	0.5 [e]	0.02 [e,f]
Indeno(1,2,3-cd)pyrene	193-39-5	2 [e]	--- [c]	---	14 [e]	0.7 [e]
Isophorone	78-59-1	2,000 [e]	--- [c]	---	0.5 [e]	0.03 [e,f]
Methoxychlor	72-43-5	5,700 [b,c]	--- [c]	---	160	8
Methyl bromide	74-83-9	1,600 [b,c]	13 [b]	---	0.2 [b]	0.01 [b,f]
Methylene chloride	75-09-2	420 [c,e]	22 [e]	---	0.02 [e]	0.001 [e,f]
2-Methylphenol (o-cresol)	95-48-7	34,000 [b]	--- [c]	---	15 [b]	0.8 [b]
Naphthalene	91-20-3	12,000 [b]	240 [b]	---	84 [b]	4 [b]
Nitrobenzene	98-95-3	340 [b]	130 [b]	---	0.1 [b,f]	0.007 [b,f]
N-Nitrosodiphenylamine	86-30-6	390 [e]	--- [c]	---	1 [e]	0.06 [e,f]
N-Nitrosodi-n-propylamine	621-64-7	0.3 [e]	--- [c]	---	0.00005 [e,f]	0.000002 [e,f]
Pentachlorophenol	87-86-5	10 [e]	--- [c]	---	0.03 [f,j]	0.001 [f,j]
Phenol	108-95-2	210,000 [b]	--- [c]	---	100 [b]	5 [b]
Pyrene	129-00-0	18,000 [b]	--- [c]	---	4,200 [b]	210 [b]
Styrene	100-42-5	230,000 [b,c]	1,500 [d]	---	4	0.2
1,1,2,2-Tetrachloroethane	79-34-5	16 [c,e]	1 [e]	---	0.003 [e,f]	0.0002 [e,f]
Tetrachloroethylene	127-18-4	6 [c,e]	2 [e]	---	0.06	0.003 [f]
Toluene	108-88-3	230,000 [b,c]	650 [d]	---	12	0.6
Toxaphene	8001-35-2	3 [c,e]	150 [e]	---	31	2
1,2,4-Trichlorobenzene	120-82-1	6,800 [b]	3,200 [d]	---	5	0.3 [f]
1,1,1-Trichloroethane	71-55-6	--- [c]	1,200 [d]	---	2	0.1
1,1,2-Trichloroethane	79-00-5	56 [c,e]	2 [e]	---	0.02	0.0009 [f]
Trichloroethylene[⊥]	79-01-6	8 [c,e]	0.1 [e]	---	0.06	0.003 [f]
2,4,5-Trichlorophenol	95-95-4	68,000 [b]	--- [c]	---	270 [b,j]	14 [b,j]
2,4,6-Trichlorophenol	88-06-2	170 [e]	340 [e]	---	0.2 [e,f,j]	0.008 [e,f,j]

Exhibit A-2 (continued)

GENERIC SSLs FOR COMMERCIAL/INDUSTRIAL SCENARIO: OUTDOOR WORKER RECEPTOR[a]

Compound	CAS No.	Ingestion-Dermal (mg/kg)	Inhalation of Volatiles (mg/kg)	Inhalation of Fugitive Particulates (mg/kg)	Migration to Ground Water	
					DAF=20 (mg/kg)	DAF=1 (mg/kg)
***Organics* (continued)**						
Vinyl acetate	108-05-4	1,000,000 [b,c]	1,400 [b]	---	170 [b]	8 [b]
Vinyl chloride (chloroethene)	75-01-4	4 [c,e,h]	1 [e,h]	---	0.01 [f,h,j]	0.0007 [f,h]
m-Xylene	108-38-3	1,000,000 [b,c]	--- [c]	---	210	10
o-Xylene	95-47-6	1,000,000 [b,c]	--- [c]	---	190	9
p-Xylene	106-42-3	1,000,000 [b,c]	--- [c]	---	200	10
Inorganics						
Antimony	7440-36-0	450 [b,c]	---	--- [c]	5	0.3
Arsenic	7440-38-2	2 [e]	---	1,400 [e]	29 [j]	1 [j]
Barium	7440-39-3	79,000 [b,c]	---	1,000,000 [b]	1,600 [j]	82 [j]
Beryllium	7440-41-7	2,300 [c,e]	---	2,600 [e]	63 [j]	3 [j]
Cadmium	7440-43-9	900 [b,i]	---	3,400 [e]	8 [j]	0.4 [j]
Chromium (total)	7440-47-3	3,400 [b,c]	---	510 [e]	38 [j]	2 [j]
Chromium (III)	16065-83-1	1,000,000 [b,c]	---	--- [c]	--- [g]	--- [g]
Chromium (VI)	18540-29-9	3,400 [b,c]	---	510 [e]	38 [j]	2 [j]
Cyanide (amenable)	57-12-5	23,000 [b,c]	---	--- [c]	40	2
Mercury	7439-97-6	340 [b,c,k]	14 [b,k]	---	2 [j]	0.1 [j]
Nickel	7440-02-0	23,000 [b,c]	---	26,000 [e]	130 [j]	7 [j]
Selenium	7782-49-2	5,700 [b,c]	---	--- [c]	5 [j]	0.3 [j]
Silver	7440-22-4	5,700 [b,c]	---	--- [c]	34 [b,j]	2 [b,j]
Thallium	7440-28-0	91 [b,c,l]	---	--- [c]	0.7 [j]	0.04 [j]
Vanadium	7440-62-2	7,900 [b,c]	---	--- [c]	6,000 [b]	300 [b]
Zinc	7440-66-6	340,000 [b,c]	---	--- [c]	12,000 [b,j]	620 [b,j]

DAF = Dilution Attenuation Factor

[a] Screening level based on human health criteria only

[b] Calculated values correspond to a noncancer hazard quotient of 1. For exposure to multiple non-carcinogens, EPA evaluates contaminants according to their critical effect. See section 2.3 for further discussion.

[c] Ingestion-Dermal pathway: no dermal absorption data available; calculated based on ingestion data only. Inhalation of volatiles pathway: no toxicity criteria available

[d] Soil Saturation Limit (Csat)

[e] Calculated values correspond to a cancer risk of 1 in 1,000,000. For multiple carcinogens, EPA believes values will accumulate to be within acceptable risk levels. See section 2.3 for further discussion.

[f] Level is at or below Contract Laboratory Program required quantification limit for Regular Analytical Services (RAS)

[g] Chemical-specific properties are such that this pathway is not of concern at any soil contaminant concentration

[h] SSL is based on continuous exposure to vinyl chloride during adulthood.

[i] SSL is based on dietary RfD for Cadmium

[j] SSL for pH of 6.8

[k] SSL is based on RfD for mercuric chloride (CAS No. 007847-94-7)

[l] SSL is based on RfD for thallium chloride (CAS No. 7791-12-0)

[⊥] Health benchmark values are based on NCEA's *Trichloroethylene Health Risk Assessment: Synthesis and Characterization - External Review Draft* (ORD, August, 2001). The trichloroethylene draft risk assessment is still under review. As a result, the health benchmark values are subject to change.

Exhibit A-3

GENERIC SSLs FOR COMMERCIAL/INDUSTRIAL SCENARIO: INDOOR WORKER RECEPTOR[a]

Compound	CAS No.	Ingestion-Dermal* (mg/kg)	Migration to Ground Water	
			DAF=20 (mg/kg)	DAF=1 (mg/kg)
Organics				
Acenaphthene	83-32-9	120,000 [b]	570 [b]	29 [b]
Acetone (2-Propanone)	67-64-1	200,000 [b]	16 [b]	0.8 [b]
Aldrin	309-00-2	0.3 [e]	0.5 [e]	0.02 [e]
Anthracene	120-12-7	610,000 [b]	12,000 [b]	590 [b]
Benz(a)anthracene	56-55-3	8 [e]	2 [e]	0.08 [e,f]
Benzene	71-43-2	100 [e]	0.03	0.002 [f]
Benzo(b)fluoranthene	205-99-2	8 [e]	5 [e]	0.2 [e,f]
Benzo(k)fluoranthene	207-08-9	78 [e]	49 [e]	2 [e]
Benzoic acid	65-85-0	1,000,000 [b]	400 [b,j]	20 [b,j]
Benzo(a)pyrene	50-32-8	0.8 [e]	8	0.4
Bis(2-chloroethyl)ether	111-44-4	5 [e]	0.0004 [e,f]	0.00002 [e,f]
Bis(2-ethylhexyl)phthalate	117-81-7	410 [e]	3,600	180
Bromodichloromethane	75-27-4	92 [e]	0.6	0.03
Bromoform (tribromomethane)	75-25-2	720 [e]	0.8	0.04
Butanol	71-36-3	200,000 [b]	17 [b]	0.9 [b]
Butyl benzyl phthalate	85-68-7	410,000 [b]	930 [d]	810 [b]
Carbazole	86-74-8	290 [e]	0.6 [e]	0.03 [e,f]
Carbon disulfide	75-15-0	200,000 [b]	32 [b]	2 [b]
Carbon tetrachloride	56-23-5	44 [e]	0.07	0.003 [f]
Chlordane	57-74-9	16 [e]	10	0.5
p-Chloroaniline	106-47-8	8,200 [b]	0.7 [b]	0.03 [b,f]
Chlorobenzene	108-90-7	41,000 [b]	1	0.07
Chlorodibromomethane	124-48-1	68 [e]	0.4	0.02
Chloroform	67-66-3	20,000 [b]	0.6	0.03
2-Chlorophenol	95-57-8	10,000 [b]	4 [b,j]	0.2 [b,f,j]
Chrysene	218-01-9	780 [e]	160 [e]	8 [e]
DDD	72-54-8	24 [e]	16 [e]	0.8 [e]
DDE	72-55-9	17 [e]	54 [e]	3 [e]
DDT	50-29-3	17 [e]	32 [e]	2 [e]
Dibenz(a,h)anthracene	53-70-3	0.8 [e]	2 [e]	0.08 [e,f]
Di-n-butyl phthalate	84-74-2	200,000 [b]	2,300 [d]	270 [b]
1,2-Dichlorobenzene	95-50-1	180,000 [b]	17	0.9
1,4-Dichlorobenzene	106-46-7	240 [e]	2	0.1 [f]
3,3-Dichlorobenzidine	91-94-1	13 [e]	0.007 [e,f]	0.0003 [e,f]
1,1-Dichloroethane	75-34-3	200,000 [b]	23 [b]	1 [b]
1,2-Dichloroethane	107-06-2	63 [e]	0.02	0.001 [f]
1,1-Dichloroethylene	75-35-4	100,000 [b]	0.06	0.003 [f]
cis-1,2-Dichloroethylene	156-59-2	20,000 [b]	0.4	0.02
trans-1,2-Dichloroethylene	156-60-5	41,000 [b]	0.7	0.03
2,4-Dichlorophenol	120-83-2	6,100 [b]	1 [b,j]	0.05 [b,f,j]
2,4-Dichlorophenoxy-acetic acid	94-75-7	20,000 [b]	0.4 [b]	0.02 [b,j]

Exhibit A-3 (continued)

GENERIC SSLs FOR COMMERCIAL/INDUSTRIAL SCENARIO: INDOOR WORKER RECEPTOR[a]

Compound			Migration to Ground Water	
Organics(continued)	CAS No.	Ingestion-Dermal* (mg/kg)	DAF=20 (mg/kg)	DAF=1 (mg/kg)
1,2-Dichloropropane	78-87-5	84 [e]	0.03	0.001 [f]
1,3-Dichloropropene	542-75-6	57 [e]	0.004 [e]	0.0002 [e]
Dieldrin	60-57-1	0.4 [e]	0.004 [e]	0.0002 [e,f]
Diethylphthalate	84-66-2	1,000,000 [b]	470 [b]	23 [b]
2,4-Dimethylphenol	105-67-9	41,000 [b]	9 [b]	0.4 [b]
2,4-Dinitrophenol	51-28-5	4,100 [b]	0.2 [b,f,j]	0.008 [b,f,j]
2,4-Dinitrotoluene	121-14-2	8 [e]	0.0008 [e,f]	0.00004 [e,f]
2,6-Dinitrotoluene	606-20-2	8 [e]	0.0007 [e,f]	0.00003 [e,f]
Di-n-octyl phthalate	117-84-0	41,000 [b]	10,000 [d]	10,000 [d]
Endosulfan	115-29-7	12,000 [b]	18 [b]	0.9 [b]
Endrin	72-20-8	610 [b]	1	0.05
Ethylbenzene	100-41-4	200,000 [b]	13	0.7
Fluoranthene	206-44-0	82,000 [b]	4,300 [b]	210 [b]
Fluorene	86-73-7	82,000 [b]	560 [b]	28 [b]
Heptachlor	76-44-8	1 [e]	23	1
Heptachlor Epoxide	1024-57-3	0.6 [e]	0.7	0.03
Hexachlorobenzene	118-74-1	4 [e]	2	0.1 [f]
Hexachloro-1,3-butadiene	87-68-3	73 [e]	2	0.1 [f]
∀-HCH (∀-BHC)	319-84-6	0.9 [e]	0.0005 [e,f]	0.00003 [e,f]
∃-HCH(∃-BHC)	319-85-7	3 [e]	0.003 [e]	0.0001 [e,f]
(-HCH(Lindane)	58-89-9	4 [e]	0.009	0.0005 [f]
Hexachlorocyclopentadiene	77-47-4	12,000 [b]	400	20
Hexachloroethane	67-72-1	410 [e]	0.5 [e]	0.02 [e,f]
Indeno(1,2,3-cd)pyrene	193-39-5	8 [e]	14 [e]	0.7 [e]
Isophorone	78-59-1	6,000 [e]	0.5 [e]	0.03 [e,f]
Methoxychlor	72-43-5	10,000 [b]	160	8
Methyl bromide	74-83-9	2,900 [b]	0.2 [b]	0.01 [b,f]
Methylene chloride	75-09-2	760 [e]	0.02 [e]	0.001 [e,f]
2-Methylphenol (o-cresol)	95-48-7	100,000 [b]	15 [b]	0.8 [b]
Naphthalene	91-20-3	41,000 [b]	84 [b]	4 [b]
Nitrobenzene	98-95-3	1,000 [b]	0.1 [b,f]	0.007 [b,f]
N-Nitrosodiphenylamine	86-30-6	1,200 [e]	1 [e]	0.06 [e,f]
N-Nitrosodi-n-propylamine	621-64-7	0.8 [e]	0.00005 [e,f]	0.000002 [e,f]
Pentachlorophenol	87-86-5	48 [e]	0.03 [f,j]	0.001 [f,j]
Phenol	108-95-2	610,000 [b]	100 [b]	5 [b]
Pyrene	129-00-0	61,000 [b]	4,200 [b]	210 [b]
Styrene	100-42-5	410,000 [b]	4	0.2
1,1,2,2-Tetrachloroethane	79-34-5	29 [e]	0.003 [e,f]	0.0002 [e,f]
Tetrachloroethylene	127-18-4	11 [e]	0.06	0.003 [f]
Toluene	108-88-3	410,000 [b]	12	0.6
Toxaphene	8001-35-2	5 [e]	31	2
1,2,4-Trichlorobenzene	120-82-1	20,000 [b]	5	0.3 [f]
1,1,1-Trichloroethane	71-55-6	--- [c]	2	0.1
1,1,2-Trichloroethane	79-00-5	100 [e]	0.02	0.0009 [f]
Trichloroethylene[⊥]	79-01-6	14 [e]	0.06	0.003 [f]
2,4,5-Trichlorophenol	95-95-4	200,000 [b]	270 [b,j]	14 [b,j]

Exhibit A-3 (continued)

GENERIC SSLs FOR COMMERCIAL/INDUSTRIAL SCENARIO: INDOOR WORKER RECEPTOR[a]

Compound	CAS No.	Ingestion-Dermal* (mg/kg)	Migration to Ground Water	
			DAF=20 (mg/kg)	DAF=1 (mg/kg)
Organics(continued)				
2,4,6-Trichlorophenol	88-06-2	520 [e]	0.2 [e,f,j]	0.008 [e,f,j]
Vinyl acetate	108-05-4	1,000,000 [b,c]	170 [b]	8 [b]
Vinyl chloride (chloroethene)	75-01-4	8 [e,h]	0.01 [f,h,j]	0.0007 [f,h]
m-Xylene	108-38-3	1,000,000 [b]	210	10
o-Xylene	95-47-6	1,000,000 [b]	190	9
p-Xylene	106-42-3	1,000,000 [b]	200	10
Inorganics				
Antimony	7440-36-0	820 [b]	5	0.3
Arsenic	7440-38-2	4 [e]	29 [j]	1 [j]
Barium	7440-39-3	140,000 [b]	1,600 [j]	82 [j]
Beryllium	7440-41-7	4,100 [b]	63 [j]	3 [j]
Cadmium	7440-43-9	2,000 [b,i]	8 [j]	0.4 [j]
Chromium (total)	7440-47-3	6,100 [b]	38 [j]	2 [j]
Chromium (III)	16065-83-1	1,000,000 [b]	--- [g]	--- [g]
Chromium (VI)	18540-29-9	6,100 [b]	38 [j]	2 [j]
Cyanide (amenable)	57-12-5	41,000 [b]	40	2
Mercury	7439-97-6	610 [b,k]	2 [j]	0.1 [j]
Nickel	7440-02-0	41,000 [b]	130 [j]	7 [j]
Selenium	7782-49-2	10,000 [b]	5 [j]	0.3 [j]
Silver	7440-22-4	10,000 [b]	34 [b,j]	2 [b,j]
Thallium	7440-28-0	160 [b,l]	0.7 [j]	0.04 [j]
Vanadium	7440-62-2	14,000 [b]	6,000 [b]	300 [b]
Zinc	7440-66-6	610,000 [b]	12,000 [b,j]	620 [b,j]

DAF = Dilution Attenuation Factor

* No dermal absorption data available for indoor worker receptor; calculated based on ingestion data only

[a] Screening level based on human health criteria only

[b] Calculated values correspond to a noncancer hazard quotient of 1

[c] Ingestion-Dermal pathway: no dermal absorption data available; calculated based on ingestion data only. Inhalation of volatiles pathway: no toxicity criteria available

[d] Soil Saturation Limit (Csat)

[e] Calculated values correspond to a cancer risk of 1 in 1,000,000

[f] Level is at or below Contract Laboratory Program required quantification limit for Regular Analytical Services (RAS)

[g] Chemical-specific properties are such that this pathway is not of concern at any soil contaminant concentration

[h] SSL is based on continuous exposure to vinyl chloride during adulthood.

[i] SSL is based on dietary RfD for Cadmium

[j] SSL for pH of 6.8

[k] SSL is based on RfD for mercuric chloride (CAS No. 007847-94-7)

[l] SSL is based on RfD for thallium chloride (CAS No. 7791-12-0)

[⊥] Health benchmark values are based on NCEA's *Trichloroethylene Health Risk Assessment: Synthesis and Characterization - External Review Draft* (ORD, August, 2001). The trichloroethylene draft risk assessment is still under review. As a result, the health benchmark values are subject to change.

Exhibit A-4

GENERIC SSLs: DEFAULT VALUES FOR PARAMETERS DESCRIBING SITE CONDITIONS - INHALATION AND MIGRATION TO GROUND WATER PATHWAYS

Parameter	SSL Pathway: Inhalation	SSL Pathway: Migration to Ground Water	Method
Source Characteristics			
Continuous vegetative cover	!		50 percent
Roughness height	∀		0.5 cm for open terrain; used to derive $U_{t,7}$
Source area (A)	!	∀	0.5 acres (2,024m^2); used to derive L for GW
Source length (L)		!	45 m (assumes square source)
Source depth		∀	Extends to water table (i.e., no attenuation in unsaturated zone)
Soil Characteristics			
Soil texture	∀	∀	Loam; defines soil characteristics/parameters
Dry soil bulk density (Δ_b)	!	!	1.5 kg/L
Soil porosity (n)	!	∀	0.43
Vol. soil water content (θ_w)	!	!	0.15 (INH); 0.30 (GW; Indoor INH)*
Vol. soil air content (θ_a)	!	!	0.28 (INH); 0.13 (GW; Indoor INH)*
Soil organic carbon (f_{oc})	!	!	0.006 (0.6%, INH); 0.002 (0.2%, GW)
Soil pH	∀	∀	6.8; used to determine pH-specific K_d (metals) and K_{OC} (ionizable organics)
Mode soil aggregate size	∀		0.5 mm; used to derive $U_{t,7}$
Threshold windspeed @ 7 m ($U_{t,7}$)	!		11.32 m/s
Meteorological Data			
Mean annual windspeed (U_m)	!		4.69 m/s (Minneapolis, MN)
Air dispersion factor (Q/C)	!		90th percentile conterminous U.S.
Volatilization Q/C	!		68.18; Los Angeles, CA; 0.5-acre source
Fugitive particulate Q/C	!		93.77; Minneapolis, MN; 0.5-acre source
Hydrogeologic Characteristics (DAF)			
Hydrogeologic setting		∀	Generic (national); surficial aquifer
Dilution/attenuation factor (DAF)		!	20 or 1

! Indicates parameters used directly in the SSL equations.
∀ Indicates parameters/assumptions used to develop input parameters for SSL equations.
INH = Inhalation pathway.
GW = Migration to ground water pathway.
Indoor INH = Inhalation of volatiles in indoor air pathway.
* The inhalation of volatiles in indoor air pathway is evaluated using subsurface soil defaults for θ_w and θ_a. The model's default parameters assume contamination located directly beneath a basement floor that is two meters below the ground surface.

Appendix B

Generic Guidance for Evaluating Surface Soils on Properties Being Converted to Residential or Public Uses[1]

1. Issues related to managing soils on a property should be evaluated in conjunction with engineering design issues related to water supplies, sewage disposal systems and erosion and dust control measures that might be affected by certain soil management options.

2. If a municipality determines that soil sampling is appropriate, NYSDOH suggests that the municipality advise the applicant to collect soil samples from the surface to a depth of two or three inches, to represent potential exposures to soil contaminants when children play in and incidentally ingest soil. If contaminant levels in surface soil exceed Soil Screening Levels and background ranges, the applicant should prepare a soil management plan (SMP) to address the areas of elevated contamination. The scope of a SMP is related to the goals of the developer, the nature of the site and the extent of elevated levels, but does not necessarily involve the removal of material from the site.

   Six-inch deep soil samples can be collected at the same time as the surface samples, saving the bottom interval of the samples for analysis pending the results of the surface samples. Analytical results from this second interval are often useful for determining the vertical extent of contamination and for evaluating various options proposed by the developer or his agent for addressing areas with elevated contaminant levels during the normal course of on-site activities. In addition, the results from the upper and lower intervals can be combined to reflect the potential for exposure to contaminated soils during gardening activities.

3. If the municipality determines that sampling is appropriate, they may want the sampling plan to take into account the proposed development plan and the likely mechanism of exposure (e.g., gardening, children playing, etc.). Initial sampling efforts should be focused on areas that are likely to have accumulated the highest contaminant levels (such as suspected pesticide mixing areas) and that reflect the areas that are most likely to be frequented by children once the development is complete (such as residential yards, play areas and common areas). Collecting samples from areas that are proposed to be paved over or from which soil is intended to be removed to establish final grades is less important. Similarly, sampling can be less important in areas that will be under building, driveways, parking lots or other features that make it unlikely that young children could come into contact with these soils. However, notification mechanisms such as deed restrictions may be appropriate for these areas, if left unsampled or if contamination is not addressed, to prevent excavation of contaminated soils during future construction or maintenance activities.

4. If the municipality determines that sampling is appropriate, they may want to consider having the samples analyzed for lead, arsenic and DDT and its metabolites, because these were widely used and are persistent. It is appropriate to substitute or supplement these analyses based on the extent of knowledge of the property and its potential past uses on the part of the landowner or developer. Samples should be analyzed by a laboratory that is certified through the State Health Department's Environmental Laboratory Approval Program (ELAP), or the National Environmental Approval Program (NELAP).

5. If the municipality determines that sampling is appropriate, it is recommended that discrete samples, rather than composite samples, be collected. Compositing samples from a large area or from disparate areas makes interpreting the results more difficult. This difficulty is increased as the number of locations composited into a single sample is increased and as the locations composited are further apart.

[1] *Guidance based on recommendations from New York State Department of Health-Bureau of Toxic Substance Assessment – April 14, 1998*

PWGC
Strategic Environmental Engineering Solutions

APPENDIX B
DAILY AIR MONITORING RECORD FORM

PWGC
Strategic Environmental Engineering Solutions

DAILY AIR MONITORING RECORD FORM

Date: _____ Site Safety Officer

Printed Name: _____

Signature: _____

Time: _____ Air Monitor: _____

Tasks of day / Location: _____

_____

Remarks: _____

_____

Weather Condition – Wind Direction: _____ Sky Cover: _____

Station Number	PID	DUST	LEL	H2S
Perimeter Monitoring Points					

Dust suppressant necessary: Yes or No

Calibration (date & background level): _____

Instruments used including model & serial number

PID	Model #	Serial #
Dust Meter	Model #	Serial #
4-Gas Meter	Model #	Serial #

Monitoring Results & Comments: _____

_____

_____

P.W. GROSSER CONSULTING

October 3, 2006

Peter Pitsiokos, Esq.
Gyrodyne Company of America
1 Flowerfield
St James, NY 11780

Re: Surface Soil Sampling – Gyrodyne Property, St. James, New York

PWGC Job#: GCA0601

Dear Mr. Pitsiokos:

P.W. Grosser Consulting, Inc. (PWGC) has prepared the following report to document the results of the surface soil sampling conducted at the Gyrodyne Property located in St. James, New York.

BACKGROUND

The subject property consists of an approximate 62.4 acre parcel. The property is reported to have a former agricultural use prior to 1945. Since a portion of the property may be redeveloped as senior housing, the soil conditions with respect to the former agricultural use will need to be assessed as per the Town of Smithtown. The Suffolk County Department of Health Services (SCDHS) has prepared the document "Standard Operating Procedures for Subdivisions, Developments, or Other Construction Projects With Potential Contaminated Soils (draft 4/24/03)" and the Town of Smithtown may follow this draft document.

SCOPE OF WORK

As per the above mentioned SCDHS document, samples are to be collected from areas which were former barns, storage areas, greenhouses as well as one sample per building lot in former farm field areas. Since the current building plans are being developed, and the extent of the former farm fields is currently unknown, PWGC collected soil samples from eight locations in the areas which are to be redeveloped. These samples are to be used as a screening tool to provide insight to whether the subject area have been impacted by agricultural use and the relative degree of impact from pesticides and heavy metals.

A total of eight samples were collected. Soil sampling locations are shown on the attached Figure 1. Global positioning system (GPS) coordinates for each boring are also included on Figure 1. Sample locations were chosen to target low areas as well as obtain coverage across the area to be redeveloped. At each location, PWGC collected a surface soil sample (zero to two inches below grade) utilizing a stainless steel hand auger. Each of these samples were submitted to a New York State Department of Health certified laboratory for analysis. PWGC also collected a sample a deeper sample (four to six inches below grade) from each boring. The deeper sample was retained for future use should further analysis be required. Each of the submitted samples were analyzed for chlorinated pesticides and metals as per the above refrenced SCDHS document.

P.W. Grosser Consulting, Inc • P.W. Grosser Consulting Engineer & Hydrogeologist, PC
630 Johnson Avenue, Suite 7 • Bohemia, NY 11716 • Branch Location - Seattle, WA
PH 631.589.6353 • FX 631.589.8705 • www.pwgrosser.com

PWGC
Strategic Environmental Engineering Solutions

SOIL SAMPLING AND ANALYTICAL RESULTS

Surface soil sampling results are summarized on Tables 1 (Pesticides) and 2 (Metals). As per the SCDHS document, the analytical results were compared to the Soil Screening Levels (SSLs) identified in the Untied States Department of Environmental Protection (USEPA) document OSWER 9355.4-24 (March 2001), with the exception of arsenic, which was compared to the 4ppm screening level identified in the SCDHS document.

As shown in Table 1, only one pesticide compound, Dieldrin was detected above its respective EPA SSL. Dieldrin was detected above its respective groundwater protection SSL in boring SB-3. The SSL level for groundwater protection used in the table is a default value calculated by the USEPA for typical conditions. Due to the substantial distance to groundwater (estimated at 100 feet below grade), PWGC believes that the USEPA SSL used is overly conservative and the observed detection of Dieldrin over the groundwater protection SSL would not require further investigation.

As shown in Table 2, two metals compounds were detected in excess of their respective SSL. Beryllium was detected in each of the samples in excess of its respective ingestion SSL. The concentrations of beryllium detected in each of the samples were generally quite consistent between the samples and each of the beryllium detections are well within their respective eastern USA background concentrations. Based upon these findings, PWGC believes that the detected concentrations of beryllium represent background conditions and are no indicative of impacts from past uses of the property. Elevated levels of arsenic which exceeded the SCDHS screening level of 4 mg/kg were detected in four of the eight samples collected. Based upon these result, PWGC believes that a soil management plan will be required to address the elevated levels of arsenic detected in samples SB-1 through SB-4 which are located in the eastern portion of the property. In order to prepare such plan, additional sampling of the eastern portion of the property would likely be required. The additional sampling would include analysis of the previously collected samples from four to six inches below grade at the above locations to determine the vertical extent of arsenic impact as well as samples from additional hand auger locations in the eastern portion of the property.

If you have any questions concerning the findings of these soil screening samples, please don't hesitate to contact either of the undersigned.

Sincerely yours,
P.W. Grosser Consulting, Inc

Bryan A Devaux
Project Manager

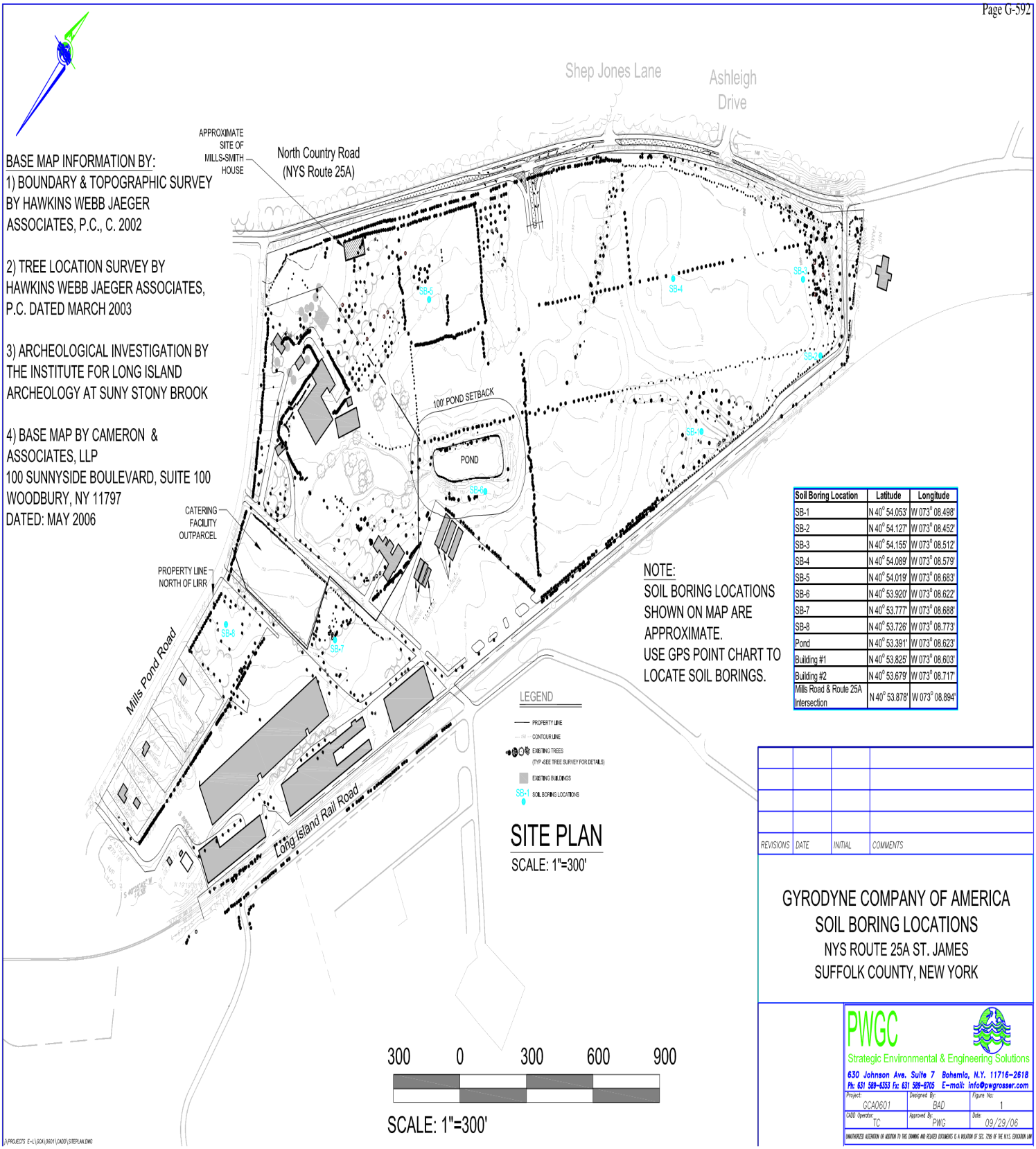
James P. Rhodes, CPG
Vice President

BASE MAP INFORMATION BY:
1) BOUNDARY & TOPOGRAPHIC SURVEY BY HAWKINS WEBB JAEGER ASSOCIATES, P.C., C. 2002

2) TREE LOCATION SURVEY BY HAWKINS WEBB JAEGER ASSOCIATES, P.C. DATED MARCH 2003

3) ARCHEOLOGICAL INVESTIGATION BY THE INSTITUTE FOR LONG ISLAND ARCHEOLOGY AT SUNY STONY BROOK

4) BASE MAP BY CAMERON & ASSOCIATES, LLP
100 SUNNYSIDE BOULEVARD, SUITE 100
WOODBURY, NY 11797
DATED: MAY 2006



SITE PLAN
SCALE: 1"=300'

NOTE:
SOIL BORING LOCATIONS SHOWN ON MAP ARE APPROXIMATE.
USE GPS POINT CHART TO LOCATE SOIL BORINGS.

Soil Boring Location	Latitude	Longitude
SB-1	N 40° 54.053'	W 073° 08.498'
SB-2	N 40° 54.127'	W 073° 08.452'
SB-3	N 40° 54.155'	W 073° 08.512'
SB-4	N 40° 54.089'	W 073° 08.579'
SB-5	N 40° 54.019'	W 073° 08.683'
SB-6	N 40° 53.920'	W 073° 08.622'
SB-7	N 40° 53.777'	W 073° 08.688'
SB-8	N 40° 53.726'	W 073° 08.773'
Pond	N 40° 53.391'	W 073° 08.623'
Building #1	N 40° 53.825'	W 073° 08.603'
Building #2	N 40° 53.679'	W 073° 08.717'
Mills Road & Route 25A Intersection	N 40° 53.878'	W 073° 08.894'

REVISIONS	DATE	INITIAL	COMMENTS

GYRODYNE COMPANY OF AMERICA
SOIL BORING LOCATIONS
NYS ROUTE 25A ST. JAMES
SUFFOLK COUNTY, NEW YORK

PWGC
Strategic Environmental & Engineering Solutions
630 Johnson Ave. Suite 7 Bohemia, N.Y. 11716-2618
Ph: 631 589-6353 Fx: 631 589-6705 E-mail: info@pwgrosser.com

Project: GCA0601	Designed By: BAD	Figure No: 1
CADD Operator: TC	Approved By: PWG	Date: 09/29/06

J:\PROJECTS E-L\GCA\0601\CADD\SITEPLAN.DWG

Table 1
Gyrodyne
1 Flowerfield
Saint James, New York

Soil Analytical Data for Pesticides

Compound	Ingestion	Inhalation	20 DAF [1]	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6	SB-7	SB-8
Pesticides mg/kg											
Aldrin	0.04 [2]	3 [2]	0.5 [2]	<0.0023	<0.0024	<0.0023	<0.0024	<0.0024	<0.0024	<0.0024	<0.0024
alpha-BHC	0.1 [2]	0.8 [2]	0.0005 [2] [3]	<0.0023	<0.0024	<0.0023	<0.0024	<0.0024	<0.0024	<0.0024	<0.0024
beta-BHC	0.4 [2]	-- [4]	0.003 [2]	<0.0023	<0.0024	<0.0023	<0.0024	<0.0024	<0.0024	<0.0024	<0.0024
gamma-BHC (Lindane)	0.5 [2]	-- [5]	0.009	<0.0023	<0.0024	<0.0023	<0.0024	<0.0024	<0.0024	<0.0024	<0.0024
Chlordane	0.5 [2]	20 [2]	10	<0.0093	<0.0096	<0.0092	<0.0098	<0.0096	<0.0098	<0.0094	<0.0094
4,4-DDD	3 [2]	-- [5]	16 [2]	<0.0023	<0.0024	0.011	0.0077	0.007	<0.0024	<0.0024	<0.0024
4,4-DDE	2 [2]	-- [5]	54 [2]	0.027	0.047	0.16	0.11	0.06	0.0033	0.021	0.0065
4,4-DDT	2 [2]	-- [4]	32 [2]	0.011	0.027	0.068	0.078	0.031	<0.0024	0.0086	0.0047
Dieldrin	0.04 [2]	1 [2]	0.004 [2]	<0.0023	<0.0024	0.021	<0.0024	<0.0024	<0.0024	<0.0024	<0.0024
Endosulfan Total	470 [6]	-- [5]	18 [6]	<0.0047	<0.0048	<0.0046	<0.0049	<0.0048	<0.0049	<0.0047	<0.0047
Endosulfan Sulfate	NA	NA	NA	<0.014	<0.014	<0.014	<0.015	<0.014	<0.015	<0.014	<0.014
Endrin	23 [6]	-- [5]	1	<0.0023	0.0031	0.069	0.049	0.0046	<0.0024	<0.0024	<0.0024
Endrin Aldehyde	NA	NA	NA	<0.014	<0.014	<0.014	<0.015	<0.014	<0.015	<0.014	<0.014
Heptachlor	0.1 [2]	4 [2]	23	<0.0023	<0.0024	<0.0023	<0.0024	<0.0024	<0.0024	<0.0024	<0.0024
Heptachlor Epoxide	0.07 [2]	5 [2]	0.7	<0.0023	<0.0024	<0.0023	<0.0024	<0.0024	<0.0024	<0.0024	<0.0024
Methoxychlor	390 [6]	-- [5]	160	<0.0047	<0.0048	<0.0046	<0.0049	<0.0048	<0.0049	<0.0047	<0.0047
Toxaphene	0.6 [2]	89 [2]	31	<0.047	<0.048	<0.046	<0.049	<0.048	<0.049	<0.047	<0.047

Notes:

(1) - Dilution and attenuation factor

(2) - Calculated values correspond to a cancer risk level of 1 in 1,000,000

(3) - Level is at or below Contract Laboratory Program (CLP) required quantitation limit for Regular Analytical Services (RAS)

(4) - Chemical-specific properties are such that this pathway is not of concern at any soil contaminant concentration.

(5) - No toxicity criteria available for that route of exposure

(6) - Calculated values correspond to a noncancer hazard quotient of 1

Table 2
Gyrodyne
1 Flowerfield
Saint James, New York

Soil Analytical Data for Metals

Compound	Ingestion	Inhalation	20 DAF [1]	Eastern USA Background Concentrations	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6	SB-7	SB-8
Priority Pollutant Metals mg/kg												
Arsenic	4 [2]	750 [3]	29	3.0 - 12	4.4	5.3	5.5	8.2	3.9	2.3	3.3	3.6
Beryllium	0.1 [3]	1,300 [3]	63 [4]	0.0 - 1.75	0.6	0.36	0.39	0.54	0.45	0.34	0.54	0.59
Cadmium	78 [5] [6]	1,800 [3]	8 [4]	0.1 - 1	<0.58	<0.60	<0.57	<0.61	<0.60	<0.61	<0.59	<0.59
Chromium	390 [5]	270 [3]	38 [4]	1.5 - 40	13	11	10	12	10	9.9	11	10
Copper	NA	NA	NA	1.0 - 50	12	12	13	20	11	9.6	9.5	14
Lead	400 [7]	400 [7]	400 [7]	4.0 - 61	30	27	30	39	18	46	33	34
Mercury	23 [5] [8]	10 [4] [5]	2 [4]	0.001 - 0.2	0.093	0.072	0.056	0.096	0.057	0.038	0.072	0.065
Nickel	1,600 [5]	13,000 [3]	130 [4]	0.5 - 25	9.3	7.3	6.9	8	7.2	8.9	9.3	9.4
Silver	390 [5]	-- [9]	34 [4] [5]	NS	<0.58	<0.60	<0.57	<0.61	<0.60	<0.61	<0.59	<0.59

Notes:

(1) - Dilution and attenuation factor

(2) - Suffolk County Department of Health Services (SCDHS) has determined typical background levels to be between <1 and 4 mg/kg and may exceed the EPA SSL.

(3) - Calculated values correspond to a cancer risk level of 1 in 1,000,000

(4) - SSL for pH of 6.8

(5) - Calculated values correspond to a noncancer hazard quotient of 1

(6) - SSL is based on dietary RfD

(7) - A screening level of 400 mg/kg has been set for lead based on Revised Interin soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities (U.S. EPA, 1994)

(8) - SSL is based on RfD for mercuric chloride (CAS No. 007487-94-7)

(9) - No toxicity criteria available for that route of exposure

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.263780.01 10/02/06

P.W. Grosser Engineer & Hydrogeologist
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Bryan Devaux PO#:

SOURCE OF SAMPLE: St. James
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:09/28/06 RECEIVED:09/28/06
TIME COL'D:1005
MATRIX:Soil SAMPLE: SB-1

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Lindane	ug/Kg	< 2.3		09/30/06	2.3255	EPA8081
Heptachlor	ug/Kg	< 2.3		09/30/06	2.3255	EPA8081
Aldrin	ug/Kg	< 2.3		09/30/06	2.3255	EPA8081
Heptachlor Epoxide	ug/Kg	< 2.3		09/30/06	2.3255	EPA8081
p,p-DDE	ug/Kg	27		09/30/06	2.3255	EPA8081
Dieldrin	ug/Kg	< 2.3		09/30/06	2.3255	EPA8081
Endrin	ug/Kg	< 2.3		09/30/06	2.3255	EPA8081
p,p-DDD	ug/Kg	< 2.3		09/30/06	2.3255	EPA8081
p,p-DDT	ug/Kg	11		09/30/06	4.6511	EPA8081
Chlordane	ug/Kg	< 9.3		09/30/06	9.3023	EPA8081
Toxaphene	ug/Kg	< 47		09/30/06	46.511	EPA8081
Endrin Aldehyde	ug/Kg	< 14		09/30/06	13.953	EPA8081
a BHC	ug/Kg	< 2.3		09/30/06	2.3255	EPA8081
b BHC	ug/Kg	< 2.3		09/30/06	2.3255	EPA8081
d BHC	ug/Kg	< 2.3		09/30/06	2.3255	EPA8081
Endosulfan 1	ug/Kg	< 4.7		09/30/06	4.6511	EPA8081
Endosulfan 2	ug/Kg	< 4.7		10/01/06	4.6511	EPA8081
Endosulfan Sulfate	ug/Kg	< 14		10/01/06	13.953	EPA8081
Methoxychlor	ug/Kg	< 4.7		09/30/06	4.6511	EPA8081

cc:

LRL=laboratory Reporting Limit

REMARKS: Revised report.

DIRECTOR

rn = 27136 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.263780.02 10/02/06

P.W. Grosser Engineer & Hydrogeologist
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Bryan Devaux PO#:

SOURCE OF SAMPLE: St. James
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:09/28/06 RECEIVED:09/28/06
TIME COL'D:1015
MATRIX:Soil SAMPLE: SB-2

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Lindane	ug/Kg	< 2.4		09/30/06	2.4096	EPA8081
Heptachlor	ug/Kg	< 2.4		09/30/06	2.4096	EPA8081
Aldrin	ug/Kg	< 2.4		09/30/06	2.4096	EPA8081
Heptachlor Epoxide	ug/Kg	< 2.4		09/30/06	2.4096	EPA8081
p,p-DDE	ug/Kg	47		09/30/06	2.4096	EPA8081
Dieldrin	ug/Kg	< 2.4		09/30/06	2.4096	EPA8081
Endrin	ug/Kg	3.1	*	09/30/06	2.4096	EPA8081
p,p-DDD	ug/Kg	< 2.4		09/30/06	2.4096	EPA8081
p,p-DDT	ug/Kg	27		09/30/06	4.8192	EPA8081
Chlordane	ug/Kg	< 9.6		09/30/06	9.6385	EPA8081
Toxaphene	ug/Kg	< 48		09/30/06	48.192	EPA8081
Endrin Aldehyde	ug/Kg	< 14		09/30/06	14.457	EPA8081
a BHC	ug/Kg	< 2.4		09/30/06	2.4096	EPA8081
b BHC	ug/Kg	< 2.4		09/30/06	2.4096	EPA8081
d BHC	ug/Kg	< 2.4		09/30/06	2.4096	EPA8081
Endosulfan 1	ug/Kg	< 4.8		09/30/06	4.8192	EPA8081
Endosulfan 2	ug/Kg	< 4.8		10/01/06	4.8192	EPA8081
Endosulfan Sulfate	ug/Kg	< 14		10/01/06	14.457	EPA8081
Methoxychlor	ug/Kg	< 4.8		09/30/06	4.8192	EPA8081

cc:

LRL=laboratory Reporting Limit

REMARKS: *Endrin breakdown was above QC limit.(18% versus limit 15%)
Revised report.

DIRECTOR

rn = 27138 NYSDOH ID # 10320

Ecotest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.263780.03 10/02/06

P.W. Grosser Engineer & Hydrogeologist
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Bryan Devaux PO#:

SOURCE OF SAMPLE: St. James
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:09/28/06 RECEIVED:09/28/06
TIME COL'D:1030

MATRIX:Soil SAMPLE: SB-3

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Lindane	ug/Kg	< 2.3		09/30/06	2.2988	EPA8081
Heptachlor	ug/Kg	< 2.3		09/30/06	2.2988	EPA8081
Aldrin	ug/Kg	< 2.3		09/30/06	2.2988	EPA8081
Heptachlor Epoxide	ug/Kg	< 2.3		09/30/06	2.2988	EPA8081
p,p-DDE	ug/Kg	160		10/01/06	6.8965	EPA8081
Dieldrin	ug/Kg	21		09/30/06	2.2988	EPA8081
Endrin	ug/Kg	69	*	09/30/06	2.2988	EPA8081
p,p-DDD	ug/Kg	11		09/30/06	2.2988	EPA8081
p,p-DDT	ug/Kg	68		09/30/06	4.5977	EPA8081
Chlordane	ug/Kg	< 9.2		09/30/06	9.1954	EPA8081
Toxaphene	ug/Kg	< 46		09/30/06	45.977	EPA8081
Endrin Aldehyde	ug/Kg	< 14		09/30/06	13.793	EPA8081
a BHC	ug/Kg	< 2.3		09/30/06	2.2988	EPA8081
b BHC	ug/Kg	< 2.3		09/30/06	2.2988	EPA8081
d BHC	ug/Kg	< 2.3		09/30/06	2.2988	EPA8081
Endosulfan 1	ug/Kg	< 4.6		09/30/06	4.5977	EPA8081
Endosulfan 2	ug/Kg	< 4.6		09/30/06	4.5977	EPA8081
Endosulfan Sulfate	ug/Kg	< 14		09/30/06	13.793	EPA8081
Methoxychlor	ug/Kg	< 4.6		09/30/06	4.5977	EPA8081

cc:

LRL=laboratory Reporting Limit

REMARKS; *Endrin breakdown was above QC limit.(18% versus limit 15%)
Revised report.

DIRECTOR

rn = 27140 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.263780.04 10/02/06

P.W. Grosser Engineer & Hydrogeologist
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Bryan Devaux PO#:

SOURCE OF SAMPLE: St. James
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:09/28/06 RECEIVED:09/28/06
TIME COL'D:1035
MATRIX:Soil SAMPLE: SB-4

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Lindane	ug/Kg	< 2.4		09/30/06	2.4390	EPA8081
Heptachlor	ug/Kg	< 2.4		09/30/06	2.4390	EPA8081
Aldrin	ug/Kg	< 2.4		09/30/06	2.4390	EPA8081
Heptachlor Epoxide	ug/Kg	< 2.4		09/30/06	2.4390	EPA8081
p,p-DDE	ug/Kg	110		10/01/06	4.8780	EPA8081
Dieldrin	ug/Kg	< 2.4		09/30/06	2.4390	EPA8081
Endrin	ug/Kg	49	*	09/30/06	2.4390	EPA8081
p,p-DDD	ug/Kg	7.7		09/30/06	2.4390	EPA8081
p,p-DDT	ug/Kg	78		09/30/06	9.7560	EPA8081
Chlordane	ug/Kg	< 9.8		09/30/06	9.7560	EPA8081
Toxaphene	ug/Kg	< 49		09/30/06	48.780	EPA8081
Endrin Aldehyde	ug/Kg	< 15		09/30/06	14.634	EPA8081
a BHC	ug/Kg	< 2.4		09/30/06	2.4390	EPA8081
b BHC	ug/Kg	< 2.4		09/30/06	2.4390	EPA8081
d BHC	ug/Kg	< 2.4		09/30/06	2.4390	EPA8081
Endosulfan 1	ug/Kg	< 4.9		09/30/06	4.8780	EPA8081
Endosulfan 2	ug/Kg	< 4.9		10/01/06	4.8780	EPA8081
Endosulfan Sulfate	ug/Kg	< 15		10/01/06	14.634	EPA8081
Methoxychlor	ug/Kg	< 4.9		09/30/06	4.8780	EPA8081

cc:

LRL=laboratory Reporting Limit

REMARKS: *Endrin breakdown was above QC limit.(18% versus limit 15%)
Revised report.

DIRECTOR

rn = 27142 NYSDOH ID # 10320

Ecotest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.263780.05 10/02/06

P.W. Grosser Engineer & Hydrogeologist
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Bryan Devaux PO#:

SOURCE OF SAMPLE: St. James
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:09/28/06 RECEIVED:09/28/06
TIME COL'D:1056
MATRIX:Soil SAMPLE: SB-5

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Lindane	ug/Kg	< 2.4		09/30/06	2.4096	EPA8081
Heptachlor	ug/Kg	< 2.4		09/30/06	2.4096	EPA8081
Aldrin	ug/Kg	< 2.4		09/30/06	2.4096	EPA8081
Heptachlor Epoxide	ug/Kg	< 2.4		09/30/06	2.4096	EPA8081
p,p-DDE	ug/Kg	60		10/01/06	2.4096	EPA8081
Dieldrin	ug/Kg	< 2.4		09/30/06	2.4096	EPA8081
Endrin	ug/Kg	4.6	*	09/30/06	2.4096	EPA8081
p,p-DDD	ug/Kg	7.0		09/30/06	2.4096	EPA8081
p,p-DDT	ug/Kg	31		09/30/06	4.8192	EPA8081
Chlordane	ug/Kg	< 9.6		09/30/06	9.6385	EPA8081
Toxaphene	ug/Kg	< 48		09/30/06	48.192	EPA8081
Endrin Aldehyde	ug/Kg	< 14		09/30/06	14.457	EPA8081
a BHC	ug/Kg	< 2.4		09/30/06	2.4096	EPA8081
b BHC	ug/Kg	< 2.4		09/30/06	2.4096	EPA8081
d BHC	ug/Kg	< 2.4		09/30/06	2.4096	EPA8081
Endosulfan 1	ug/Kg	< 4.8		09/30/06	4.8192	EPA8081
Endosulfan 2	ug/Kg	< 4.8		09/30/06	4.8192	EPA8081
Endosulfan Sulfate	ug/Kg	< 14		09/30/06	14.457	EPA8081
Methoxychlor	ug/Kg	< 4.8		09/30/06	4.8192	EPA8081

cc:

LRL=laboratory Reporting Limit

REMARKS: *Endrin breakdown was above QC limit.(18% versus limit 15%)
Revised report.

DIRECTOR

rn = 27144 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon. NY 11703
631 422-5777

LAB NO.263780.06 10/02/06

P.W. Grosser Engineer & Hydrogeologist
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Bryan Devaux PO#:

SOURCE OF SAMPLE: St. James
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:09/28/06 RECEIVED:09/28/06
TIME COL'D:1105
MATRIX:Soil SAMPLE: SB-6

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Lindane	ug/Kg	< 2.4		09/30/06	2.4390	EPA8081
Heptachlor	ug/Kg	< 2.4		09/30/06	2.4390	EPA8081
Aldrin	ug/Kg	< 2.4		09/30/06	2.4390	EPA8081
Heptachlor Epoxide	ug/Kg	< 2.4		09/30/06	2.4390	EPA8081
p,p-DDE	ug/Kg	3.3		10/01/06	2.4390	EPA8081
Dieldrin	ug/Kg	< 2.4		09/30/06	2.4390	EPA8081
Endrin	ug/Kg	< 2.4		09/30/06	2.4390	EPA8081
p,p-DDD	ug/Kg	< 2.4		09/30/06	2.4390	EPA8081
p,p-DDT	ug/Kg	< 2.4		09/30/06	4.8780	EPA8081
Chlordane	ug/Kg	< 9.8		09/30/06	9.7560	EPA8081
Toxaphene	ug/Kg	< 49		09/30/06	48.780	EPA8081
Endrin Aldehyde	ug/Kg	< 15		09/30/06	14.634	EPA8081
a BHC	ug/Kg	< 2.4		09/30/06	2.4390	EPA8081
b BHC	ug/Kg	< 2.4		09/30/06	2.4390	EPA8081
d BHC	ug/Kg	< 2.4		09/30/06	2.4390	EPA8081
Endosulfan 1	ug/Kg	< 4.9		09/30/06	4.8780	EPA8081
Endosulfan 2	ug/Kg	< 4.9		09/30/06	4.8780	EPA8081
Endosulfan Sulfate	ug/Kg	< 15		09/30/06	14.634	EPA8081
Methoxychlor	ug/Kg	< 4.9		09/30/06	4.8780	EPA8081

cc:

LRL=laboratory Reporting Limit

REMARKS:
Revised report.

DIRECTOR

rn = 27146 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.263780.07 10/02/06

P.W. Grosser Engineer & Hydrogeologist
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Bryan Devaux PO#:

SOURCE OF SAMPLE: St. James
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:09/28/06 RECEIVED:09/28/06
TIME COL'D:1140

MATRIX:Soil SAMPLE: SB-7

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Lindane	ug/Kg	< 2.4		09/30/06	2.3529	EPA8081
Heptachlor	ug/Kg	< 2.4		09/30/06	2.3529	EPA8081
Aldrin	ug/Kg	< 2.4		09/30/06	2.3529	EPA8081
Heptachlor Epoxide	ug/Kg	< 2.4		09/30/06	2.3529	EPA8081
p,p-DDE	ug/Kg	21		10/01/06	2.3529	EPA8081
Dieldrin	ug/Kg	< 2.4		09/30/06	2.3529	EPA8081
Endrin	ug/Kg	< 2.4		09/30/06	2.3529	EPA8081
p,p-DDD	ug/Kg	< 2.4		09/30/06	2.3529	EPA8081
p,p-DDT	ug/Kg	8.6		09/30/06	4.7058	EPA8081
Chlordane	ug/Kg	< 9.4		09/30/06	9.4117	EPA8081
Toxaphene	ug/Kg	< 47		09/30/06	47.058	EPA8081
Endrin Aldehyde	ug/Kg	< 14		09/30/06	14.117	EPA8081
a BHC	ug/Kg	< 2.4		09/30/06	2.3529	EPA8081
b BHC	ug/Kg	< 2.4		09/30/06	2.3529	EPA8081
d BHC	ug/Kg	< 2.4		09/30/06	2.3529	EPA8081
Endosulfan 1	ug/Kg	< 4.7		09/30/06	4.7058	EPA8081
Endosulfan 2	ug/Kg	< 4.7		10/01/06	4.7058	EPA8081
Endosulfan Sulfate	ug/Kg	< 14		10/01/06	14.117	EPA8081
Methoxychlor	ug/Kg	< 4.7		09/30/06	4.7058	EPA8081

cc:

LRL=laboratory Reporting Limit

REMARKS: Revised report.

DIRECTOR

rn = 27148 NYSDOH ID # 10320

EcoTest Laboratories Inc
377 Sheffield Ave
North Babylon, NY 11703
631 422-5777

LAB NO.263780.08 10/02/06

P.W. Grosser Engineer & Hydrogeologist
630 Johnson Avenue, Suite 7
Bohemia, NY 11716-2618
ATTN: Bryan Devaux PO#:

SOURCE OF SAMPLE: St. James
SOURCE OF SAMPLE:
COLLECTED BY: Client DATE COL'D:09/28/06 RECEIVED:09/28/06
TIME COL'D:1150
MATRIX:Soil SAMPLE: SB-8

Results reported on a dry weight basis

ANALYTICAL PARAMETERS	UNITS	RESULT	FLAG	DATE OF ANALYSIS	LRL	ANALYTICAL METHOD
Lindane	ug/Kg	< 2.4		09/30/06	2.3529	EPA8081
Heptachlor	ug/Kg	< 2.4		09/30/06	2.3529	EPA8081
Aldrin	ug/Kg	< 2.4		09/30/06	2.3529	EPA8081
Heptachlor Epoxide	ug/Kg	< 2.4		09/30/06	2.3529	EPA8081
p,p-DDE	ug/Kg	6.5		10/01/06	2.3529	EPA8081
Dieldrin	ug/Kg	< 2.4		09/30/06	2.3529	EPA8081
Endrin	ug/Kg	< 2.4		09/30/06	2.3529	EPA8081
p,p-DDD	ug/Kg	< 2.4		09/30/06	2.3529	EPA8081
p,p-DDT	ug/Kg	4.7		09/30/06	4.7058	EPA8081
Chlordane	ug/Kg	< 9.4		09/30/06	9.4117	EPA8081
Toxaphene	ug/Kg	< 47		09/30/06	47.058	EPA8081
Endrin Aldehyde	ug/Kg	< 14		09/30/06	14.117	EPA8081
a BHC	ug/Kg	< 2.4		09/30/06	2.3529	EPA8081
b BHC	ug/Kg	< 2.4		09/30/06	2.3529	EPA8081
d BHC	ug/Kg	< 2.4		09/30/06	2.3529	EPA8081
Endosulfan 1	ug/Kg	< 4.7		09/30/06	4.7058	EPA8081
Endosulfan 2	ug/Kg	< 4.7		09/30/06	4.7058	EPA8081
Endosulfan Sulfate	ug/Kg	< 14		09/30/06	14.117	EPA8081
Methoxychlor	ug/Kg	< 4.7		09/30/06	4.7058	EPA8081

cc:

LRL=laboratory Reporting Limit

REMARKS: Revised report.

DIRECTOR

rn = 27150 NYSDOH ID # 10320

Standard Operating Procedure For The Administration Of Article 12 Of The Suffolk County Sanitary Code

SOP No. 9-95 - *Pumpout And Soil Cleanup Criteria*

(January 7, 1999)

Statement of Purpose:

Article 12 of the Suffolk County Sanitary Code, requires the owner, operator or any other person in possession or control of an industrial facility to report to the Department of Health Services (the Department) any unauthorized discharge, leak or spill of toxic or hazardous material within two hours of knowledge of that discharge, leak or spill. Knowledge includes information generated during Phase I and Phase II Environmental Assessments, such as results from groundwater and soil sampling. In addition, Article 12 requires the owner, or any other person in possession or control of the source of the discharge, and/or the owner of the property onto which the discharge has occurred, to immediately cease the discharge and to reclaim, recover and dispose of the discharged material and to restore the environment to the condition that existed prior to the discharge. Since it is not always possible to achieve pre-discharge conditions, this document was generated to provide guidance when evaluating the potential impact of a discharge on the environment and to provide assistance when determining if, and to what extent, contaminated liquids and/or solids must be removed from sanitary systems, storm drains, the surface of the ground, or other locations at a facility. It was generated to be applicable to most situations; however, the Department reserves the right to apply additional requirements when warranted by conditions encountered at a particular site.

This document is not meant to represent approval by the Department of any remedial activities, or to represent the Department's determination that a site either does or does not require remediation. All spills, leaks, or discharges of toxic or hazardous materials, as defined by §760-1203 of the Sanitary Code, must be reported to the Office of Pollution Control, which will have the sole authority to make the determination as to what, if any, cleanup will be required. When assessing the need for cleanup at a specific site, the Department will consider all human health and environmental factors that are available. In many cases, site specific cleanup criteria may vary from the values listed in this SOP. Be advised that, in addition to meeting the Suffolk County Department of Health Services (SCDHS) requirements, the responsible party must meet the requirements of the New York State Department of Environmental Conservation (NYSDEC) and the United States Environmental Protection Agency (USEPA).

Criteria:

Table 1 lists Action Levels and Cleanup Objectives for Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (Semi-VOCs) and heavy metals commonly found in both liquid and solid samples. When the concentration of a single contaminant, or a class of contaminants such as total petroleum hydrocarbons, meets or exceeds the "Action Level", a cleanup, or other action, is required.

As stated in the Sanitary Code, the goal of any remedial action required by this Department, is to return the site to pre-discharge conditions. If this is not possible, at a minimum, the cleanup must ensure reasonable protection for public health and the drinking water supply. Therefore, under most conditions, the contaminant concentration in the soil after a cleanup, should not exceed the values indicated in the "Cleanup Objective" column.

Table 1. Cleanup Criteria

SAMPLE TYPE	CONTAMINANT	ACTION LEVEL	CLEANUP OBJECTIVE
Liquid	Volatile Organics (VOCs) or Metals*	100 x Discharge Standard or 1000 ppb Total VOCs	(1)
Soil/Sludge	Volatile Organics (VOCs)	Appendix A or 15,000 ppb total VOCs.	Appendix A or 10,000 ppb total VOCs
	Metals*	Appendix B	Appendix B
	TPH	500 ppm (2)	500 ppm (2)
	Semi-VOCs	Appendix A	Appendix A

* Laboratory analysis for heavy metals must be performed by acid digestion for "total metals". TCLP, or other extraction methods, are not to be used for this purpose.

(1) - *Liquid Endpoint Samples*
Liquid endpoint samples must be collected when groundwater is encountered during a cleanup operation. If the concentration of VOCs, or metals, in the sample meets, or exceeds 100 times the discharge standard for a specific parameter, or the total VOC concentration meets, or exceeds 1000 ppb, a groundwater sample must be collected immediately downgradient of the point of contamination to determine if there has been an impact on the groundwater. If significant groundwater contamination is found, a more extensive groundwater investigation will be required. The Department reserves the right to require the installation of monitoring well(s) at lower contaminant levels based on the type of contaminant encountered and other site specific conditions.

(2) - Remediation Based on Total Petroleum Hydrocarbon (TPH) Concentration.

Although the analysis is not normally required by this Department, if TPH analysis is performed on a sample where all VOC and heavy metal parameters are within guidance values, and the TPH concentration is greater than, or equal to, 500 ppm, the responsible party must provide the Department with a semi-volatile (base/neutral) analysis of the effected soil. The results of this analysis will then be compared with the semi-volatile organic values listed in Appendix A, subject to a maximum allowable total semi-volatile concentration of 500 ppm. In summation, soil containing a TPH concentration below 500 ppm will normally be allowed to remain in place if no individual constituent meets, or exceeds its guidance value listed in either Appendix A or B, the total VOC concentration does not equal, or exceed 10 ppm and the material does not exhibit a petroleum odor.

NOTE: In order to perform an adequate environmental evaluation, the Department may, in certain instances, require additional analysis to be performed based on the chemicals stored, or in use, at a site. This can include TPH, cyanides, phenols, PCBs, pesticides and/or a more extensive list of heavy metals, VOCs and/or Semi-VOCs.

Other factors to be considered when evaluating a site :

In many instances, additional information is available which the Department will utilize when establishing cleanup goals, or action levels, for a specific site. Some factors that are considered when reviewing site specific conditions to decide if cleanup goals should be set higher or lower than the guidance values listed in this document include, but are not be limited to:

Site history - Past discharge practices, as well as the extent and type of discharge, should be evaluated.

Site location - If the facility is in a water sensitive area, more stringent cleanup goals may be warranted.

Distance to groundwater - This guidance document assumes a 100 fold reduction in contaminant concentration between the source area and the drinking water supply. If the distance between the contamination and the groundwater is less than three feet, or a drinking water supply well is located nearby, the guidance values listed may not provide adequate protection for the water supply.

Impact of discharge - If the Magothy aquifer, shallow drinking water wells or sensitive surface waters may be effected, more stringent cleanup criteria may be necessary.

TCLP analysis - If the listed cleanup objectives can not be obtained, TCLP analysis may provide assistance in determining site specific conditions and/or cleanup goals.

Monitoring well data - If groundwater degradation can be attributed to the contamination, more conservative cleanup goals should be established.

Future use of site - Although it is not this department's policy to allow pockets of contamination to remain in the ground throughout the county, in certain cases, where the cleanup objectives listed in this document can not be achieved, higher concentrations of contaminants may be allowed to remain in place if the site is to be stabilized in a manner acceptable to the Office of Pollution Control. In these instances, land, or deed, restrictions may be required.

APPENDIX A
CLEANUP OBJECTIVES AND ACTION LEVELS FOR VOLATILE ORGANICS (UG/KG)
(see note A-1)

Contaminant	Action Levels (ppb)	Cleanup Objectives (ppb)
Acetone	**	**
Benzene	120	60
Bromobenzene	1,600	800
Bromochloromethane	400	200
Bromodichloromethane	600	300
Bromoform	1000	500
n-Butylbenzene	6,800	3,400
sec-Butylbenzene	10,000	5,000
tert-Butylbenzene	6,800	3,400
CarbonTetrachloride	1,200	600
Chlorobenzene	3,400	1,700
Chloroethane	400	200
Chloroform	600	300
Chlorotoluene(s)	3,600	1,800
Dibromochloromethane	600	300
1,2-Dibromo-3-chloropropane	1,000	500
1,2-Dibromoethane	600	300
Dibromomethane	400	200

o-(1,2)-Dichlorobenzene	15,000	8,000
m-(1,3)-Dichlorobenzene	3,200	1,600
p-(1,4)-Dichlorobenzene	15,000	8,000
Dichlorodifluoromethane	600	300
1,1-Dichloroethane	400	200
1,2-Dichloroethane	200	100
1,1-Dichloroethene	800	400
cis-1,2-Dichloroethene	600	300
trans-1,2-Dichloroethene	600	300
1,2-Dichloropropane	600	300
1,3-Dichloropropane	600	300
2,2-Dichloropropane	600	300
1,1-Dichloropropene	600	300
cis-1,3-Dichloropropene	600	300
trans-1,3-Dichloropropene	600	300
p-Diethylbenzene	7,600	3,800
Ethylbenzene	11,000	5,500
p-Ethyltoluene	3,600	1,800
Freon113	12,000	6,000
Hexachlorobutadiene	15,000	10,000
Isopropylbenzene	5,200	2,600
p-Isopropyltoluene	7,800	3,900
MethyleneChloride	200	100
(MTBE)tert-Butylmethylether	1,200	600
Methylethylketone	600	300
Methylisobutylketone	2,000	1,000
Naphthalene	15,000	10,000
n-Propylbenzene	5,000	2,500
Styrene	2,000	1,000
1,1,1,2-Tetrachloroethane	600	300
1,1,2,2-Tetrachloroethane	1,200	600
Tetrachloroethene	2,800	1,400
1,2,4,5-Tetramethylbenzene	15,000	10,000
Toluene	3,000	1,500

1,2,3-Trichlorobenzene	6,800	3,400
1,2,4-Trichlorobenzene	6,800	3,400
1,1,1-Trichloroethane	1,600	800
1,1,2-Trichloroethane	600	300
Trichloroethene	1,400	700
Trichlorofluoromethane	1,600	800
1,2,3-Trichloropropane	800	400
1,2,4-Trimethylbenzene	4,800	2,400
1,3,5-Trimethylbenzene	5,200	2,600
VinylChloride	400	200
Xylene(s)	2,400	1,200

Semi-Volatile Organics

Contaminant	Action Levels (ppb)	Cleanup Objectives (ppb)
Acenaphthene	75,000	50,000
Anthracene	75,000	50,000
Benzo(a)anthracene	6,000*	3,000*
Benzo(b)fluoranthene	2,200*	1,100*
Benzo(k)fluoranthene	2,200*	1,100*
Benzo(g, h, i)perylene	75,000	50,000
Benzo(a)pyrene	22,000*	11,000*
Chrysene	800	400
Dibenzo(a,h)anthracene	75,000*	50,000*
Fluoranthene	75,000	50,000
Fluorene	75,000	50,000
Indeno(1,2,3-cd)pyrene	6,400	3,200
Phenanthrene	75,000	50,000
Pyrene	75,000	50,000

**If direct human exposure from ingestion or inhalation is a concern, the human health guidance values published by the USEPA should be used to formulate a cleanup goal, if that value is lower than the "Cleanup Objective" listed in this document.*

*** Due to its relatively short half life in nature, if acetone is the only contaminant of concern in a sample, the primary response should be to determine and*

eliminate the source of the acetone discharge. The requirement to perform a remediation will be determined on a case by case basis.

Note A-1: Organic contaminants were evaluated in a manner consistent with the New York State Department of Environmental Conservation's Technical and Administrative Guidance Memorandum, (TAGM) HWR-94-4046. Cleanup objectives were calculated using the following relationship, subject to maximum contaminant concentrations of 10 ppm for total VOCs, 50 ppm for individual semi-VOCs and 500 ppm total semi-VOCs. Action levels were generally set at twice the cleanup objective, subject to maximum contaminant concentrations:

$C_s = (D)(f)(C_w)(K_{oc})$

Where:

C_s = Allowable Soil Concentrations (ppb)

D = Dilution Attenuation Factor of 100

f = organic fraction in soil (assumed to be 1%, or 0.01)

C_w = Water Quality Value (6NYCCR 703.5, or TOGS 1.1.1) in ppb

K_{oc} = Organic Carbon Partition Coefficient (an approximation of the propensity of a compound to adsorb to organic matter in the soil)

APPENDIX B

SOIL CLEANUP OBJECTIVES AND ACTION LEVELS FOR HEAVY METALS (MG/KG)

(see Note B-1)

Contaminant	Action Levels	Cleanup Objective	Background Concentrations Eastern USA
Arsenic	25.0	7.5	3.0 - 12
Beryllium	8.0	1.6	0.0 - 1.75
Cadmium	10.0	1.0	0.1 - 1
Chromium	100.0	10.0	1.5 - 40
Copper	500.0	25.0	1.0 - 50
Lead	400.0	100.0	4.0 - 61
Mercury	2.0	0.1	0.001 - 0.2
Nickel	1000.0	13.0	0.5 - 25
Silver	100.0	5.0	N/A

Note B-1: Certain metals, such as aluminum, iron and manganese, appear naturally in Long Island soils and are not considered to be significant under most conditions. Other metals will be evaluated on a case by case basis.

Appendix H: The Impact of Commercial Development on Surrounding Residential Property Values

THE IMPACT OF COMMERCIAL DEVELOPMENT ON SURROUNDING RESIDENTIAL PROPERTY VALUES

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THE IMPACT OF COMMERCIAL DEVELOPMENT ON SURROUNDING RESIDENTIAL PROPERTY VALUES

Executive Summary

This study examines the impact of commercial development on surrounding residential property values. The topic is explored utilizing an innovative approach that combines multiple data sources for the Atlanta, Georgia metropolitan area. Residential transaction prices in the neighborhood immediately surrounding a new commercial development are evaluated using a matched sample methodology and hedonic pricing models. Georgia MLS data – totaling over 1.5 million transactions of single-family detached properties – is merged with a registry of commercial property deliveries collected from CoStar Market Reports for Atlanta. CoStar Reports account for project delivery dates and property characteristics, such as property type, building size, category, and precise location.

Development impacts are evaluated at the .5, .75 and 1 mile radius surrounding the site. For each observation of a transaction that occurs within the specified radius, a matched sample is constructed that consists of all transactions from that calendar quarter in the same zip code (but outside the radius) for properties that have the same number of bedrooms, same number of bathrooms and were constructed within five years of the subject property. Only transactions that occur under normal sale conditions are considered. In doing so, the empirical results relate housing values for highly similar assets that are sold inside the radius to those that are sold just outside the radius but in the same zip code, and this comparison is made at all possible points in time relative to the project completion date. Valuation differences for properties sold inside the radius are

available as early as 20 years prior to and up to eight years following development completion. Fixed effects variables are applied to control for differences in submarkets, market timing within submarkets, property-specific physical attributes, and transaction-specific financial conditions – attempting to isolate the component of relative house price change that can be attributed to the introduction of a new commercial development.

Property types for new development considered in this study include industrial, office and retail spanning the period 2006 to 2014. Interactions between housing markets and commercial developments are revealed in the analysis, with project completions treated as an event study. Sites targeted for new industrial development exist in neighborhoods where values are relatively lower and already experiencing a downward trend in advance of the project completion. While price compression continues in the post-completion period, the trajectory is not significantly different than the counterfactual projection (supposing no industrial development had occurred). Industrial is one of the least desirable land uses, so it is not surprising to observe industrial development rights allocated in localities where housing values are on the decline. In close proximity to industrial development sites, a localized contraction in house prices appears during the predevelopment period and this may be the market response to a zoning change that allows the new project to be constructed. However, the focus in this study is on the impact of development completions and, lacking additional information about the particular timing of permitting and approvals, it is difficult to disentangle whether zoning changes cause prices to decline. Or, instead, do zoning changes that favor industrial development occur in areas that already have declining housing values? The sample of industrial developments includes a disproportionate count of large-scale projects (e.g.,

those delivering more than 150,000 square feet of gross leasable area), yet the existing trend is largely unaffected in the period that follows an industrial development completion.

By comparison, site selection for office development occurs in neighborhoods that are relatively more expensive, and at times when values are recently increasing. Post-completion, the trend stabilizes at elevated price points in recipient neighborhoods for new office buildings, yet the valuation spread is no longer increasing. Out of 273 new office developments identified for Atlanta during 2006 to 2014, a total of 252 are classified as either small projects (less than 100,000 square feet of building area) or suburban office (not located in Downtown, Midtown, Buckhead or Central Perimeter). The findings are heavily influenced by small projects and suburban office, rather than high-rise CBD office towers. Housing values appear largely unchanged by new office deliveries over the long-horizon.

In the immediate vicinity of retail development site, home prices are relatively lower than the surrounding area during the period leading up to the development. While the trend is trivial prior to completion, it is significantly impacted in the period immediately following a new retail delivery. Home prices inside the radius are initially relatively lower (even more so than before), but set on a path that is steadily increasing relative to comparables in the surrounding area. It takes only a couple of years for the initial reduction to be more than offset, and – within a few years after that – home prices inside the radius even surpass those in the surrounding area (when previously they were significantly lower). Of the three commercial real estate product types considered, proximity to retail development is the most likely to be considered a neighborhood

amenity and an important aspect to community revitalization – although it can take a few years for the submarket to fully incorporate positive price effects following the completion of a new shopping center.

Perhaps most surprising is the lack of evidence for negative and significant impacts of commercial developments on housing values. Scores of political arguments to the contrary are voiced at local debates across the nation, yet this research does not find substantive evidence of a negative interaction.

Background & Synthesis of Relevant Literature

Numerous neighborhood externalities have been evaluated for their impact on residential property values, including rail transit stations (Grass, 1992; Gatzlaff and Smith, 1993; Bowes and Ihlanfeldt, 2001; Debrezion, Pels and Rietveld, 2007), greenbelts and open spaces (Correll, Lillydahl and Singell, 1978; Bolitzer and Netusil, 2000; Irwin, 2002; Anderson and West, 2006), brownfields (Kaufman and Cloutier, 2006), airport noise (Espey and Lopez, 2000), churches (Carroll, Clauretie and Jensen, 1996), and landfills (Reichert, Small and Mohanty, 1992). The noted advantage from the existence of this extensive literature is in the existence of an established framework for estimating localized externality effects on residential property values. However, few studies consider the impact of commercial property development on residential property values. Yet, commercial development proposals arguably represent a very large component of policy debate in many jurisdictions across the nation, and NIMBY (not-in-my-backyard) is a recent addition to the modern vocabulary – even though it is not a recent concept.

Other studies discuss the political environment associated with commercial development proposals, including Feinerman, Finkelshtain and Kan (2004), Van der Horst (2007), and Schively (2007). The most closely related studies to the topic of a commercial development interaction tend to focus on the impact from very specific and niche products, such as Superfund sites (Kiel and Williams, 2007), livestock facilities (Herriges, Secchi and Babcock, 2005), oil and gas facilities (Boxall, Chan and McMillan, 2005), or new urbanism (Song and Knaap, 2003). This study aims to address the topic using a unified framework and consistent methodology to explore the outcome for surrounding residential property values resulting from new retail, office and industrial development for a major U.S. metropolitan market.

Hypothesis 1: *The delivery of new industrial development has no impact on surrounding residential property values.*

Industrial development, by comparison to the other two property types, is typically an unpopular land use, associated with increased pollution and trucking traffic. Industrial development is commonly horizontal on a single-story, rather than vertical, and the number of employees per square foot of building area is the lowest of the three commercial property types discussed in this proposal (e.g., typically 1 to 1.5 employees per 1,000 square feet of building area). Some industrial uses are resource-intensive and can place an excessive burden on the community's access to water and electricity.

Hypothesis 2: *The delivery of new office development has no impact on surrounding residential property values.*

New office development is typically the recipient of the highest property tax assessments (e.g., on both a value per square foot and value per acre basis). As a

consequence, new office buildings generally make positive contributions to a community's resources and infrastructure in excess of the resources absorbed. The disadvantage is that office buildings are highly-densified vertical land uses, increasing traffic flow and parking demand. Office buildings have also been accused of creating dark canyons or solar shadows as negative neighborhood externalities. If parking and traffic are not properly accommodated during the adjustments for development impact, then increased congestion will result as an undesirable consequence of new office construction. The advantage to office development is its ability to attract employers to the community who offer jobs in the business and professional services sectors. Residents seeking to minimize commute times may be attracted to neighborhoods that receive new office development.

Hypothesis 3: *The delivery of new retail development has no impact on surrounding residential property values.*

From a revenue perspective, retail development tends to be a jurisdictional favorite due to higher property tax assessments combined with additional cash flows sourced from local-option retail sales taxes. In the context of the surrounding housing market, whether retail development is net beneficial or detrimental depends on the outcome from competing effects. On the downside, new retail development often increases traffic volume, adds stress to public transportation systems, and attracts retail employees to the community who may seek low-income housing. A political argument is sometimes made to the effect that low-income residents decrease the quality of public education options. On the other hand, the quality and quantity of retail is commonly

ranked as one of the most desirable neighborhood attributes and new shopping and restaurants can attract residents to the community, increasing local housing demand.

If either the favorable or detrimental outcomes associated with any of the property types listed above are offset by the other, then Hypotheses 1, 2 or 3 will be rejected in favor of the alternative that commercial development of that property type *does* have a significant impact on the surrounding residential property values.

Summary of Data & Methods

This study combines market information from two important real estate events: new commercial real estate developments and single-family residential transactions. All empirical estimations in this study consider the values of single-family homes, as proxied by transaction prices. The series of residential transactions are for the metro Atlanta market area, generously provided by Georgia MLS, including a sample of 1,571,479 residential observations during the period 1985Q4-2014Q4. After deleting observations for listing status other than "Sold", transactions occurring under special sale conditions (e.g., foreclosure, short sale), homes under construction at time of sale, reported transaction prices of $0 or $1, homes reported to have zero bedrooms or zero bathrooms, and those with missing information about the date of sale, year built or listing price, the useable sample is reduced to 664,556 observations.

Longitude and latitude coordinates are necessary in order to evaluate the impact of residential transactions that occur in close proximity to new commercial development. However, the Georgia MLS data does not include information about the longitude and latitude of the property sold. To collect this information, the entire residential transaction

series is submitted through the Census Geocoder tool to convert property address to longitude-latitude coordinates. The Geocoder returns unavailable information for 53,971 observations (about 8 percent of the sample), further reducing the final sample to 610,585 observations.

Figure 1 shows the pattern of single-family residential home prices in the Atlanta metro and corresponding transaction volume over the period 1985Q4Q1 thru 2014Q4. During 2006-2007, average home prices in Atlanta peak over $230,000, approaching $250,000. By 2009Q1, the average home price was under $190,000 – down more than 24 percent from the peak. By 2014Q2, those losses had largely been recovered as home prices once again steadied with averages over $250,000. Transaction volume displays a high degree of seasonality, peaking in Q2 of every year. Over 16,000 transactions occurred during 2006Q2, and never more than 9,000 in any quarter during 2008 to 2012. While prices have recovered, transaction volume remains below the height of activity.

The specific focus of this research is to estimate the relative impact on housing values in close proximity to new commercial developments. The list of new commercial development projects includes industrial, office and retail property types, collected from the CoStar Property database – based on year of completion. In total, there were 193 industrial, 273 office and 467 retail projects completed since 2006 in the Atlanta metro area.

Figure 2 shows the commercial development completions over a time series. Industrial development accounts for the largest amount of total space delivered at over 26.6 million square feet, with nearly one-third of that delivered during 2006 alone. Industrial deliveries drop to around 1 million square feet per year during the five year

period from 2009 to 2013; although it appears to have begun a sharp comeback by 2014. By comparison, office and retail development fall to near extinction during 2009 to 2013. All three categories of commercial real estate development display dramatic cyclic behavior.

Figure 3 presents the breakdown of new commercial developments by property type, sub-type and project size. For industrial, warehousing facilities represent the greatest number of new projects (in project count observations). Distribution centers constitute the second largest category, and are generally larger projects (typically over 75,000 square feet). Office buildings are often designed with flexibility to accommodate a variety of possible tenants, and general purpose office buildings represent the largest portion of new product. Medical office buildings are typically smaller (less than 50,000 square feet) and represent the second largest component of new office development. The largest category of new retail development observations is general retail, second is strip centers, and third is neighborhood shopping centers. The number of observations for new retail development types is inversely proportionate to shopping center size.

CoStar data already includes longitude-latitude coordinates for each new delivery. Using these coordinates, the relative distance between each development site and every residential transaction in the sample is calculated in nautical miles (measuring distance "as the crow flies") using the haversine formula and solving for distance:

$$\text{Distance} = 2r \cdot \arcsin\left(\sqrt{\sin^2\left(\frac{\phi_2-\phi_1}{2}\right)+\cos(\phi_1)\cos(\phi_2)\sin^2\left(\frac{\lambda_2-\lambda_1}{2}\right)}\right),$$

where ϕ_1 and ϕ_2 are the latitudes, and λ_1 and λ_2 are the longitudes of points 1 and 2. r is the radius of the earth: 3963.17 miles. The distance measures are used to create the Close

indicator variable, identifying residential transactions that occur within the following radii of a new commercial development: .5 mile, .75 mile, and 1 mile. The objective is to identify relative valuation effects for the surrounding residential area pre- vs. post-completion. Observations located within radius of more than one new development for a commercial property type are removed from the analysis.

Table 1 describes the sample of residential transactions. The average home is 27 years old and sold for over $202,000. The most common home sold has three bedrooms (47 percent of the sample), two bathrooms (65 percent of the sample), and no half-bath (55 percent of the sample). Properties located close to new industrial developments are significantly lower priced (average price of $134,000), as are those close to new retail development (average price of $164,000). By comparison, homes close to new office development are more expensive (average price of $223,000).

To provide a more careful comparison, this study utilizes a matched sample methodology whereby for each Close transaction observation, a matched sample is constructed for transactions of "comparable" properties that are sold in the same calendar quarter, located in the same zip code (but outside the radius), having the same number of bedrooms, same number of bathrooms, and constructed within five years of the Close observation. All properties are single-family detached and sold under normal sale conditions. On average, each observation of a Close transaction corresponds to a matched sample comprised of seven to nine comparables. Observations that do not have at least one comparable transaction are excluded from the analysis.

Observations that are neither identified as Close, nor comparable are omitted from the respective estimation. In doing so, the empirical findings relate the percentage

difference in transactions prices for Close properties relative to comparable properties sold in the same quarter and zip code only – but outside the radius for development impact. The specification is akin to a difference-in-difference approach, attempting to compare effects for the subject group of observations close to a new development to effects for a control group of highly similar observations. The comparison is made at all possible points in time, before and after the development completion. In doing so, the technique attempts to resolve concerns that new commercial developments are neither randomly assigned to submarkets nor evenly distributed over a time series, and instead may respond to locally endogenous conditions such as population and economic growth.

The appropriateness of this method relies on its underlying assumptions. First, it assumes that neighborhood characteristics do not differ significantly between the area depicted by the radius that receives the new development and area in the same zip code that does not. Second, it assumes that the trend in property values beyond the radius but in the same zip code are representative of the trend in property values that would have occurred inside the radius had commercial development activity not taken place. The empirical analysis evaluates both assumptions by measuring the trend within the radius relative to comparable properties in the remaining zip code before development, after development, as well as counterfactually – supposing no development.

A hedonic model is used to specify valuation effects, which assumes that the value of a property is a function of physical, financial, locational, and market timing attributes. The basic model to be estimated is written as:

$$\ln(\text{Sale price}) = \beta_0 + \beta_1 \cdot \ln(\text{Age}) + \beta_2 \cdot 1 \text{ bedroom} + \beta_3 \cdot 2 \text{ bedrooms} + \beta_4 \cdot 4 \text{ bedrooms} + \beta_5 \cdot >4 \text{ bedrooms} + \beta_6 \cdot 1 \text{ bathroom} + \beta_7 \cdot 3 \text{ bathrooms} + \beta_8 \cdot 4 \text{ bathrooms}$$

$$+\beta_9 \cdot >4 \text{ bathrooms} +\beta_{10} \cdot 1 \text{ half-bath} +\beta_{11} \cdot 2 \text{ half-baths} +\beta_{12} \cdot >2 \text{ half-baths}$$
$$+\beta_{13} \cdot \text{Close} +\beta_{14} \cdot \text{Close*After} +\beta_{15} \cdot \text{Close*After*Trend}$$
$$+\sum_{i=1}^{15} \beta_{t+16} \cdot \text{Financing}_i +\sum_{j=1} \beta_{j+31} \cdot \text{Zip-quarter}_j +\varepsilon. \quad (1)$$

The dependent variable is the transaction price, logged. Variables measuring the physical characteristics include property Age, logged, along with indicator variables for the number of bedrooms, bathrooms and half-baths. Indicators for 3 bedrooms, 2 bathrooms, and 0 half-baths are suppressed – representing the largest categories and to avoid multicollinearity. Financing conditions are controlled through 15 indicator variables (e.g., all cash, conventional, 100 percent financing, seller financing). Time-varying differences in market conditions are controlled through calendar-quarter indicator variables for each zip code, represented by the Zip-quarter_j variables. This approach allows intra-market dispersion in real estate cycles and seasonality to be controlled at the zip code level.

The Close variable is an indicator for transaction observations located within the specified radius. After is an indicator variable for transactions that occur in the year following completion of a new commercial development. Trend measures years relative to development completion, {-20,-19,…,-1,0,+1, …,+8}, where 0 represents the year of completion. Given the log-linear and fixed-effects model specification, the parameter estimates for β_{13}, β_{14}, and β_{15} are the central focus of this estimation. The β_{13} coefficient (for Close) measures the constant pricing difference for observations within the radius relative to the remaining zip code over the full horizon. The β_{14} coefficient (for the Close*After interaction term) measures the constant change in the basis spread for the radius following the completion of a new development. The β_{15} coefficient (for the Close*After*Trend interaction term) measures the change per year in the trend for the radius relative to the remaining zip code following the completion of a new development.

A potential issue with the specification of Equation (1) is that the difference in property values within the radius relative to the remaining zip code may not be constant leading up to the development; rather values may be either relatively increasing or decreasing over time. In addition, the trend may have changed recently, altering the favorableness of conditions for development inside the radius. To evaluate these issues, two spline variables are added to the model. Equation (2) simply includes these two additional variables.

$$\begin{aligned}\ln(\text{Sale price}) = {} & \beta_0 + \beta_1 \cdot \ln(\text{Age}) + \beta_2 \cdot 1 \text{ bedroom} + \beta_3 \cdot 2 \text{ bedrooms} + \beta_4 \cdot 4 \text{ bedrooms} \\ & + \beta_5 \cdot >4 \text{ bedrooms} + \beta_6 \cdot 1 \text{ bathroom} + \beta_7 \cdot 3 \text{ bathrooms} + \beta_8 \cdot 4 \text{ bathrooms} \\ & + \beta_9 \cdot >4 \text{ bathrooms} + \beta_{10} \cdot 1 \text{ half-bath} + \beta_{11} \cdot 2 \text{ half-baths} + \beta_{12} \cdot >2 \text{ half-baths} \\ & + \beta_{13} \cdot \text{Close} + \beta_{14} \cdot \text{Close*After} + \beta_{15} \cdot \text{Close*After*Trend} + \beta_{16} \cdot \text{Spline 1} + \beta_{17} \cdot \text{Spline 2} \\ & + \sum_{i=1}^{15} \beta_{t+18} \cdot \text{Financing}_i + \sum_{j=1} \beta_{j+33} \cdot \text{Zip-quarter}_j + \varepsilon. \end{aligned} \quad (2)$$

Spline 1 is the same as the Trend variable, measuring years relative to development completion for observations inside the radius, {-20,-19,…,+8}, although not interacted with the After variable. Spline 1 measures the overall trend, or change in prices, within the radius relative to the remaining zip code – this measure is naïve with regard to development effects. Spline 2 is the same as the Trend variable, but interacted with an indicator variable for transactions that occur within five years prior to completion and beyond. Thus, Spline 2 introduces a knot-point in the trend line at -5 years relative to completion, and the Trend*After interaction term introduces a third knot-point at year +1 following completion. The coefficient on Spline 2 reveals whether the overall trend has changed recently in the pre-development period. The coefficient on the Trend*After interaction term is then measured relative the counterfactual trend implied by Spline 2. The spline regression approach, zip-quarter fixed effects, and exclusion of all remaining

market data that is not in the same zip code is consistent with the methodology applied by Ellen, Schill, Susin and Schwartz (2001), who evaluate development impacts of subsidized owner-occupied housing in New York City. The empirical results for the .5, .75 and 1 mile radii for industrial, office and retail property types are discussed in the next section.

Discussion of Results

Table 2 presents results from estimation of the base model, considering the relative impact on residential transactions within a .75 mile radius of new industrial, office, and retail developments in three separate estimations. The estimation is a fixed effects model, controlling for differences across Atlanta submarkets (defined by zip code) at the quarterly frequency. The estimated coefficient for Age is negative and significant; property values depreciate with age. Property values are generally increasing in the number of bedrooms, bathrooms and half-baths. The bedroom and bathroom coefficients are relatively large because they serve as proxies for the property size, since square footage is unavailable in the Georgia MLS data. Other studies tend to report lower estimated coefficients after controlling for property size. For conciseness, the estimated fixed-effect coefficients for Financing type and Zip-quarter indicator variables are unreported.

For new industrial developments, there were 4,272 transaction observations within a .75 mile radius over the sample period with at least one comparable observation that occurred outside the .75-mile radius, yet in the same zip code and calendar quarter. The 4,272 Close transactions along with the 34,191 observations of comparable

transactions appear in 1,350 distinct zip code-quarters. The coefficient for Close is estimated to be -0.01 and significant at the 10 percent level. Properties inside the .75 mile radius sell at a discount of 1 percent over the sample period, independent of the new development. This result suggests that neighborhood characteristics may vary to a limited extent for areas targeted for new industrial development. The coefficient for the Close*After interaction term is estimated at -0.044, and the coefficient for the Close*After*Trend variable is estimated to be -0.007. Following completion of a new industrial development, residential properties in the .75 mile radius are discounted an additional 4.4 percent relative to comparable properties outside the radius but inside the same zip code, and the discount widens by 0.7 percent per year following completion. This interpretation relies on the assumption that the basis difference in valuation for property values within the radius is constant and does not change over time – an assumption that is found to be inappropriate (discussed in results for Table 3).

For new office development, the estimated effect is zero. The 7,520 residential transactions that occur within the .75 mile radius of new office development are not sold at a significantly different price relative to the 51,505 transactions of comparable properties that are sold in the zip code and quarter, but located outside the radius. There is no significant difference in prices before or after the office development is completed, and no change in the trend for residential prices within the radius relative to prices outside the radius.

New retail development generally follows residential growth, and there is a much higher concentration of single-family transactions within the .75 mile radius. Properties inside the radius are discounted 2.3 percent relative the surrounding zip code. The

discount drops sharply following the new development, estimated at a 4.5 percent reduction, but prices subsequently rise by 1.3 percent per year relative to comparables outside the radius following the completion of the new development. If prices inside the radius are discounted 2.3 percent with no development, prices are discounted 5.5 percent in the year following development completion, 4.2 percent two years after, 2.9 percent after three years, and 1.6 percent after four years. Thus, the completion of new retail development has a negative impact in the immediate-term that is subsequently offset over a relatively short horizon. By the fourth year following completion of a new retail development, prices inside the radius are higher relative to outside the radius than they were pre-development and steadily increasing.

Table 3 presents a more complete evaluation of development effects. Recall the finding of negative post-development effects for the .75 mile radius following industrial completions. However, when the spline variables are included in the estimation, the coefficients for Close*After and Close*After*Trend are no longer significant, while the estimated coefficient for Spline 2 is negative and significant. This suggests that property values within the .75 mile radius had already begun to decline at a rate of 1.3 percent per year, and that the timing of the new industrial completion had no significant impact on this pace of decline. The same result obtains for the new industrial developments at the 1 mile radius.

Figure 4, Panel A illustrates the pattern for property values inside the .75 mile radius relative to a new industrial completion. During years -20 to -6 relative to the project completion, values within the radius experience a trivial (and insignificant from zero) decline relative to values outside the radius. Five years prior to the new industrial

development, there is a significant change in the trend with values inside the radius being temporarily 4 percent higher, but falling at a rate of 1.3 percent per year. The dashed line depicts the counterfactual projection for what would have occurred following this new trend. The actual change in trend following new industrial development is insignificant from the existing trend. That is, while property values are found to have declined following a new industrial completion, the direction and magnitude of the decline are consistent with what would have been expected for the area had no development activity occurred.

Results for new office development are also provided in Table 3. Inclusion of the spline variables reveals that property values inside the .75 mile radius for new office development are relatively higher valued than their outside radius counterparts, estimated at a location premium of 2.1 percent for the Close variable. During the five-year pre-development horizon, a positive trend appears within the radius with values appreciating 0.8 percent per year. In the period following the office development completion, the price appreciation trend reverts to zero (estimated coefficient of -0.008 for Close*After*Trend effectively cancels out coefficient of equal and opposite magnitude for Spline 2). This result is illustrated in Figure 4, Panel B. Sites selected for new office development are located in relatively higher priced residential neighborhood which had begun to experience an upward trend in prices. While prices inside the radius remain relatively higher in the post-development period, they are neither significantly different from pre-development values, nor appreciating at a rate that is significantly different from zero.

Findings for the impact of new retail development are largely unaffected by the addition of the spline variables, as shown in Table 3. New retail development occurs in

neighborhoods with significantly lower property values, estimated at 2.8 percent below comparable properties for the .75 mile radius. Following the completion of a new development, the initial impact is negative 2.5 percent (net of coefficients for Close*After and Close*After*Trend), followed by positive annual price appreciation at a rate of 1.5 percent. Figure 4, Panel C illustrates the impact of retail development on surrounding residential property values for the .75 mile radius. Properties close to the development site are discounted relative to similar properties that are outside the radius. Following completion of a new retail development, the basis drops but price appreciation adjusts sharply upward. The initial negative price impact following completion of a new retail development is more than offset by positive gains after a few years. Over a longer horizon, residential properties in the area targeted for new retail development ultimately sell at a significant premium to those located outside the radius.

In Table 3, the sensitivity of the results with respect to the choice of radius is provided. Choosing a narrowly-specified radius (such as .5 mile) establishes a more direct connection between the new commercial development and immediately surrounding property values, but the empirical test has less power since there are fewer transactions in a given period for the smaller radius. Table 3 illustrates this tradeoff. The volume of transactions in the 1 mile radius is considerably higher than the transaction volume in the .5 mile radius, leading to more accurate parameter estimates. However, observations that are 1 mile away from the new development are less likely to be as directly affected by the completion as observations that are within the .5 mile radius.

Comparing results across the select radii for industrial, the Spline 2 and Close coefficients are negative and increase in magnitude with proximity to the development

site. At the .5 mile radius, property values are lower by 5 percent, compared to 3.5 percent for the .75 mile radius and 2.5 percent for the 1 mile radius. The downward trend that begins in the predevelopment period is most acute for properties closest to the development site. Five years before development completion, property values begin to decline by 1.9 percent per year in the .5 mile radius, 1.3 percent in the .75 mile radius, and 0.5 percent in the 1 mile radius. These findings suggest that locally depressed and relatively declining property values are likely influence by proximity to the development site, although the impact is less likely a result of the project completion and more likely a consequence of events that occur during the predevelopment phase – such as zoning changes, project approval or entitlement (however these issues are not directly tested in this study).

Discussion of Policy Implications

The comprehensive approach adopted in this research study considers office, retail and industrial under a consistent framework and evaluates the impact of new commercial development for Atlanta, Georgia – a major U.S. metropolitan market. The results have the potential to be generalized to a broader audience, although some limiting factors should be noted. First, Georgia MLS data has some limitations including the lack of a square footage measure, which should increase the accuracy of the residential pricing estimation. Second, CoStar Market Reports provide information on select major developments, which typically includes the largest and most visible projects. However, there may be confounding factors that bias the results, including the presence of unobserved new developments or other unobservable factors. Third, this study makes use

of a matched sampling methodology which does not include the maximum data available, although alternative methods may be considered such as analysis of the full sample. Matched samples increase the precision of the comparison between subject and control group observations at the expense of lower statistical power (due to fewer observations). The results are noticeably sensitive with respect to choice of radius and matching criteria. Fourth, this study considers the Atlanta metro area, which is characterized by relatively loose permitting and entitlement. In unrestrictive markets, development impact fees may be insufficient to offset the actual impact from a community stakeholder perspective. Future research may consider more restrictive markets and compare the long-horizon impacts. Finally, the nature of the research question attempts to relate the occurrence of new commercial developments to changes in surrounding residential property values, although the connection between the two series may be indirect at best due to the time required for development externalities to be fully incorporated in housing values. Over a long horizon many factors can enter the picture which will affect property values, including changes in market conditions. In addition, the association becomes increasingly indirect as the distance between the residential observation and the development site increases. Notably, much of the commercial development activity occurred pre-2008, just before the Atlanta housing market experienced a significant downturn. Even though the empirical analysis attempts to account for these changes, post-development horizons are heavily comprised of observations from depressed market conditions.

This study applies a novel methodology for evaluating the impact of commercial development on surrounding residential property values, and this approach may serve as a foundation for future studies that investigate issues related to commercial development

externalities. It is possible that the findings are referenced in ongoing media discussion and policy debates at jurisdictional permitting and entitlement hearings as evidence in favor of or against new development proposals. From a legal standpoint, communities often seek development impact fees which invoke rational nexus and rough proportionality yardsticks. *Ex ante*, it can be very difficult to predict the actual impact that a singular new commercial development will cause. *Ex post*, industrial developments coincide with a preexisting downward trend in local housing values, yet the completion of an industrial development does not have a significant impact on the trend (at the .75 mile radius). Residential property values near office development sites experience an effect that essentially nets to zero upon completion. Retail developments, by comparison, have a positive and significant impact that differs from the existing trend – albeit over a longer horizon.

Perhaps most surprising is the lack of evidence for negative and significant impacts of commercial real estate development on residential property values. Volumes of political arguments to the contrary are voiced at local planning debates across the nation, yet this study does not provide substantive evidence of a negative interaction.

References

Anderson, S.E., and S.E. West. (2006). Open Space, Residential Property Values, and Spatial Context. *Regional Science and Urban Economics* 36:6, 773-789.

Bolitzer, B., and N.R. Netusil. (2000). The Impact of Open Spaces on Property Values in Portland, Oregon. *Journal of Environmental Management* 59:3, 185-193.

Bowes, D.R., and K.R. Ihlanfeldt. (2001). Identifying the Impacts of Rail Transit Stations on Residential Property Values. *Journal of Urban Economics* 50:1, 1-25.

Boxall, P.C., W.H. Chan, and M.L. McMillan. (2005). The Impact of Oil and Natural Gas Facilities on Rural Residential Property Values: A Spatial Hedonic Analysis. *Resource and Energy Economics* 27:3, 248-269.

Carroll, T.M., T.M. Clauretie, and J. Jensen. (1996). Living Next to Godliness: Residential Property Values and Churches. *Journal of Real Estate Finance and Economics* 12:3, 319-330.

Correll, M.R., J.H. Lillydahl, and L.D. Singell. (1978). The Effects of Greenbelts on Residential Property Values: Some Findings on the Political Economy of Open Space. *Land Economics* 54:2, 207-217.

Debrezion, G., E. Pels, and P. Rietveld. (2007). The Impact of Railway Stations on Residential and Commercial Property Value: A Meta-analysis. *Journal of Real Estate Finance and Economics* 35:2, 161-180.

Ellen, I.G., M.H. Schill, S. Susin, and A.E. Schwartz. (2001). Building Homes, Reviving Neighborhoods: Spillovers from Subsidized Construction of Owner-Occupied Housing in New York City. *Journal of Housing Research* 12:2, 185-216.

Espey, M., and H. Lopez. (2000). The Impact of Airport Noise and Proximity on Residential Property Values. *Growth and Change* 31:3, 408-419.

Feinerman, E., I. Finkelshtain, and I. Kan. (2004). On a Political Solution to the NIMBY Conflict. *American Economic Review* 94:1, 369-381.

Gatzlaff, D.H., and M.T. Smith. (1993). The Impact of Miami Metrorail on the Value of Residences near Station Locations. *Land Economics* 69:1, 54-66.

Grass, R.G. (1992). The Estimation of Residential Property Values around Transit Station Sites in Washington, D.C. *Journal of Economics and Finance* 16:2, 139-146.

Herriges, J.A., S. Secchi, and B.A. Babcock. (2005). Living with Hogs in Iowa: The Impact of Livestock Facilities on Rural Residential Property Values. *Land Economics* 81:4, 530-545.

Irwin, E.G. (2002). The Effects of Open Spaces on Residential Property Values. *Land Economics* 78:4, 465-480.

Kaufman, D.A., and N.R. Cloutier. (2006). The Impact of Small Brownfields and Greenspaces on Residential Property Values. *Journal of Real Estate Finance and Economics* 33:1, 19-30.

Kiel, K.A., and M. Williams. (2007). The Impact of Superfund Sites on Local Property Values: Are All Sites the Same? *Journal of Urban Economics* 61:1, 170-192.

Reichert, A.K., M. Small, and S. Mohanty. (1992). The Impact of Landfills on Residential Property Values. *Journal of Real Estate Research* 7:3, 297-314.

Schively, C. (2007). Understanding the NIMBY and LULU Phenomena: Reassessing Our Knowledge Base and Informing Future Research. *Journal of Planning Literature* 21:3, 255-266.

Song, Y., and G.-J. Knaap. (2003). New Urbanism and Housing Values: A Disaggregate Assessment. *Journal of Urban Economics* 54:2, 218-238.

Van der Horst, D. (2007). NIMBY or Not? Exploring the Relevance of Location and the Politics of Voiced Opinions in Renewable Energy Siting Controversies. *Energy Policy* 35:5, 2705-2714.

Tables & Figures for Empirical Results

Table 1. Sample of Single-family Residential Transactions

	Close to Industrial			Close to Office			Close to Retail			Full
Radius	*.5 mile*	*.75 mile*	*1 mile*	*.5 mile*	*.75 mile*	*1 mile*	*.5 mile*	*.75 mile*	*1 mile*	**Sample**
Observations	1,880	4,272	6,220	4,324	7,520	10,438	9,993	15,335	15,287	664,556
Variable	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean
Close	1	1	1	1	1	1	1	1	1	
Sale Price	$133,975	$129,485	$132,969	$222,778	$207,350	$188,234	$163,976	$161,183	$159,523	$202,014
Age	17.931	17.901	18.310	23.350	21.058	18.836	20.823	19.527	17.788	27.164
1 bedroom	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
2 bedrooms	0.029	0.040	0.032	0.044	0.035	0.025	0.031	0.023	0.023	0.031
4 bedrooms	0.260	0.257	0.265	0.306	0.308	0.329	0.275	0.300	0.306	0.348
>4 bedrooms	0.054	0.042	0.038	0.105	0.094	0.086	0.061	0.062	0.064	0.149
1 bathroom	0.118	0.147	0.126	0.089	0.074	0.067	0.113	0.114	0.105	0.059
3 bathrooms	0.122	0.108	0.102	0.202	0.177	0.163	0.137	0.149	0.149	0.210
4 bathrooms	0.018	0.008	0.005	0.062	0.051	0.038	0.026	0.022	0.025	0.063
>4 bathrooms	0.001	0.000	0.000	0.012	0.009	0.008	0.006	0.004	0.005	0.021
1 half-bath	0.420	0.426	0.418	0.437	0.458	0.475	0.384	0.404	0.408	0.434
2 half-baths	0.003	0.003	0.003	0.009	0.010	0.011	0.006	0.007	0.008	0.012
>2 half-baths	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.001
Matched samples										
	.5 mile	*.75 mile*	*1 mile*	*.5 mile*	*.5 mile*	*1 mile*	*.5 mile*	*.75 mile*	*1 mile*	
Observations	16,282	34,191	52,935	29,840	51,505	82,457	89,918	122,661	112,041	
Variable	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	
Close	0	0	0	0	0	0	0	0	0	
Sale Price	$140,456	$139,831	$141,037	$184,627	$174,039	$164,181	$152,740	$153,036	$151,758	

Notes: Table 1 presents summary statistics for the full sample of single-family residential transactions, along with the subsamples that are located in close proximity to new industrial, office and retail developments based on .5, .75 and 1 mile radii from the development site. Commercial developments are identified using the CoStar Property database for the period 2006-2014. During this period, there were 193 new industrial developments, 273 new office developments, and 467 new retail developments identified for the Atlanta (GA) metropolitan area. Residential transaction data are for the period 1985Q4-2014Q4 from the GA MLS database. Geographic distance is calculated in nautical miles based on longitude-latitude coordinates of the new commercial development and each residential transaction. The Observations row reports the number of residential transactions in the full sample and respective subsamples. The bottom panel reports the mean Sale Price and number of Observations for the matched samples of transactions that occur in the same calendar quarter and zip code as an observations located inside the specified radius, and have the same number of bedrooms, same number of bathrooms and were constructed within five years of the property that is inside the radius.

Variable definitions: Close is an indicator variable for observations that are located within the respective .5, .75 or 1 mile radius of a commercial development site, taking on a value of one for location inside the radius and zero otherwise. Sale Price is the transaction price paid at closing (in USD). Age measures the difference between the sale year and the year the residential single-family home was constructed. The 1, 2, 3, 4 and >4 bedroom [bathroom] variables are indicators for the number of bedrooms, taking on a value of one of the transaction was for a home that included a number of bedrooms [bathrooms] matching that category, and zero otherwise. Similarly, 0, 1, 2, and >2 half-bath variables are indicators for the number of half-bathrooms. Transactions reporting zero bedrooms or zero bathrooms are not considered in this sample.

Table 2. Base Model

Radius: .75 mile	**Industrial**		**Office**		**Retail**	
Variable	Coefficient	(*t*-stat)	Coefficient	(*t*-stat)	Coefficient	(*t*-stat)
Constant	12.217***	(60.7)	11.481***	(65.6)	11.252***	(59.4)
log(Age)	-0.133***	(-37.2)	-0.145***	(-46.8)	-0.143***	(-81.5)
1 bedroom			-0.276	(-1.1)	-0.258	(-1.3)
2 bedrooms	-0.071***	(-3.8)	-0.029	(-1.6)	-0.120***	(-10.3)
4 bedrooms	0.124***	(25.1)	0.116***	(26.9)	0.127***	(51.5)
>4 bedrooms	0.179***	(12.3)	0.173***	(17.7)	0.176***	(27.7)
1 bathroom	-0.258***	(-26.7)	-0.393***	(-33.4)	-0.313***	(-58.2)
3 bathrooms	0.249***	(30.0)	0.273***	(46.0)	0.252***	(70.9)
4 bathrooms	0.568***	(19.4)	0.623***	(49.7)	0.600***	(58.1)
>4 bathrooms	0.839***	(6.0)	0.792***	(23.8)	0.803***	(29.8)
1 half-bath	0.161***	(47.3)	0.187***	(63.9)	0.200***	(113.8)
2 half-baths	0.212***	(8.4)	0.367***	(24.2)	0.345***	(35.8)
>2 half-baths	-0.017	(-0.2)	0.292***	(4.0)	0.439***	(11.7)
Close	-0.010*	(-1.9)	0.007	(1.5)	-0.023***	(-8.6)
Close*After	-0.044**	(-2.4)	0.020	(1.3)	-0.045***	(-4.4)
Close*After*Trend	-0.007*	(-1.7)	0.000	(0.0)	0.013***	(6.0)
Financing indicators:	Included [15]		Included [15]		Included [15]	
Zip-quarter indicators:	Included [1350]		Included [2217]		Included [2834]	
R^2	76.9%		74.0%		75.5%	
Observations	38,463		59,025		137,996	

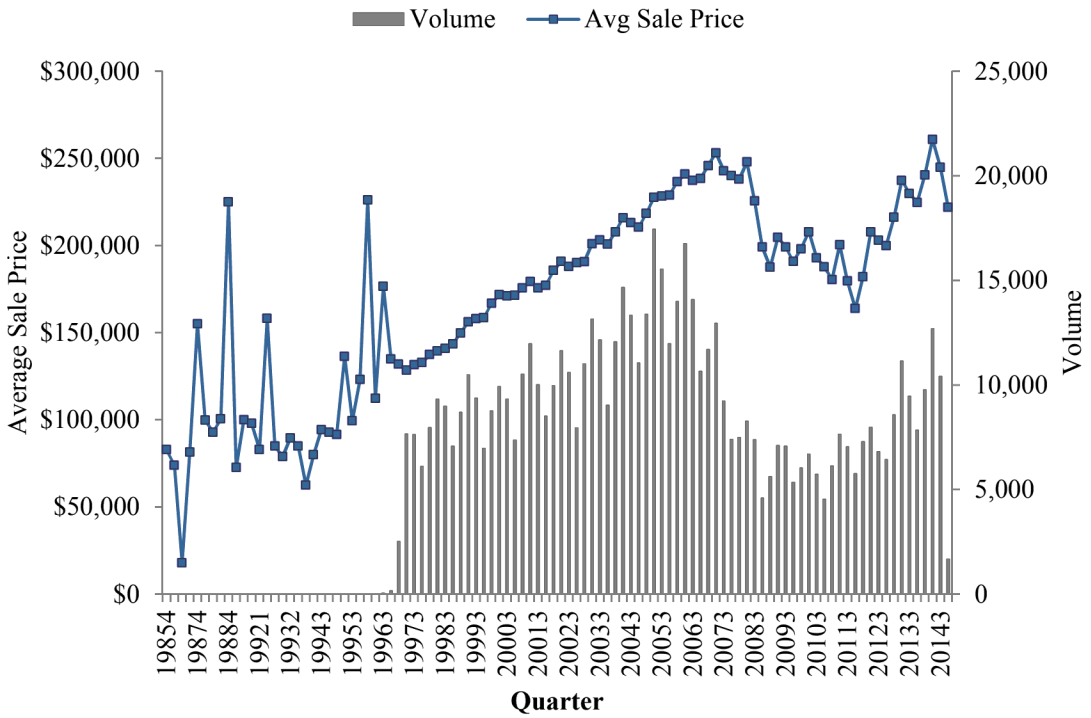
Notes: This table presents the results from three least squares estimations of Equation (1). The dependent variable is Sale Price, logged, which is the transaction price for each residential property in the sample. Close is an indicator variable for residential transactions that occur within the specified radius (.75 miles) of any new commercial real estate development during the sample period. Results for industrial, office and retail developments are presented in separate estimations, including the estimated Coefficient and corresponding *t*-statistic (*t*-stat) in parentheses. The interaction term Close*After is an indicator variable for residential transaction that occur within the specified radius and after the development project is completed. The interaction term Close*After*Trend takes on positive values counting the year since project completion for observations inside the radius that occur in the post-completion period, and values of zero otherwise. The estimations also include 15 indicator variables for transaction-specific financing conditions, as well as zip code-calendar quarter fixed effect indicators controlling for (unreported) geographic time-varying differences of the housing market. All other variables are defined in the notes to Table 1. The following variables are suppressed to prevent a linear combination: 3 bedrooms, 2 bathrooms, and 0 half-bath. ***, **, and * indicate statistical significance of estimated coefficients at the 1%, 5% and 10% levels of confidence respectively.

Table 3. Results by Distance, Spline Regressions

	Radius:	***.5 mile***		***.75 mile***		***1 mile***	
	Equation:	(1)	(2)	(1)	(2)	(1)	(2)
Panel A.	Industrial	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient
	Close	-0.015 **	-0.050 ***	-0.010 *	-0.035 ***	-0.006	-0.025 ***
	Close*After	-0.117 ***	-0.082 ***	-0.044 **	-0.017	-0.017	0.002
	Close*After*Trend	0.005	0.024 ***	-0.007 *	0.006	-0.007 **	-0.002
	Spline1		-0.003		-0.002		-0.003 ***
	Spline2		-0.019 ***		-0.013 ***		-0.005 *
	R^2	79.0%	79.0%	76.9%	76.9%	72.0%	72.0%
	Observations	18,162		38,463		59,155	
Panel B.	Office	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient
	Close	0.003	-0.009	0.007	0.021 **	0.000	0.007
	Close*After	0.019	0.031	0.020	0.005	0.015	0.007
	Close*After*Trend	-0.003	-0.005	0.000	-0.008 *	-0.002	-0.008 **
	Spline1		-0.005 ***		0.001		-0.001
	Spline2		0.002		0.008 **		0.006 **
	R^2	74.8%	74.8%	74.0%	74.0%	75.7%	75.7%
	Observations	34,164		59,025		92,895	
Panel C.	Retail	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient
	Close	-0.021 ***	-0.030 ***	-0.023 ***	-0.028 ***	-0.031 ***	-0.048 ***
	Close*After	-0.043 ***	-0.034 **	-0.045 ***	-0.040 ***	-0.035 ***	-0.019 *
	Close*After*Trend	0.013 ***	0.017 ***	0.013 ***	0.015 ***	0.013 ***	0.019 ***
	Spline1		-0.001		-0.001		-0.002 ***
	Spline2		-0.004		-0.001		-0.006 ***
	R^2	74.5%	74.5%	75.5%	75.5%	76.8%	76.8%
	Observations	99,911		137,996		127,328	

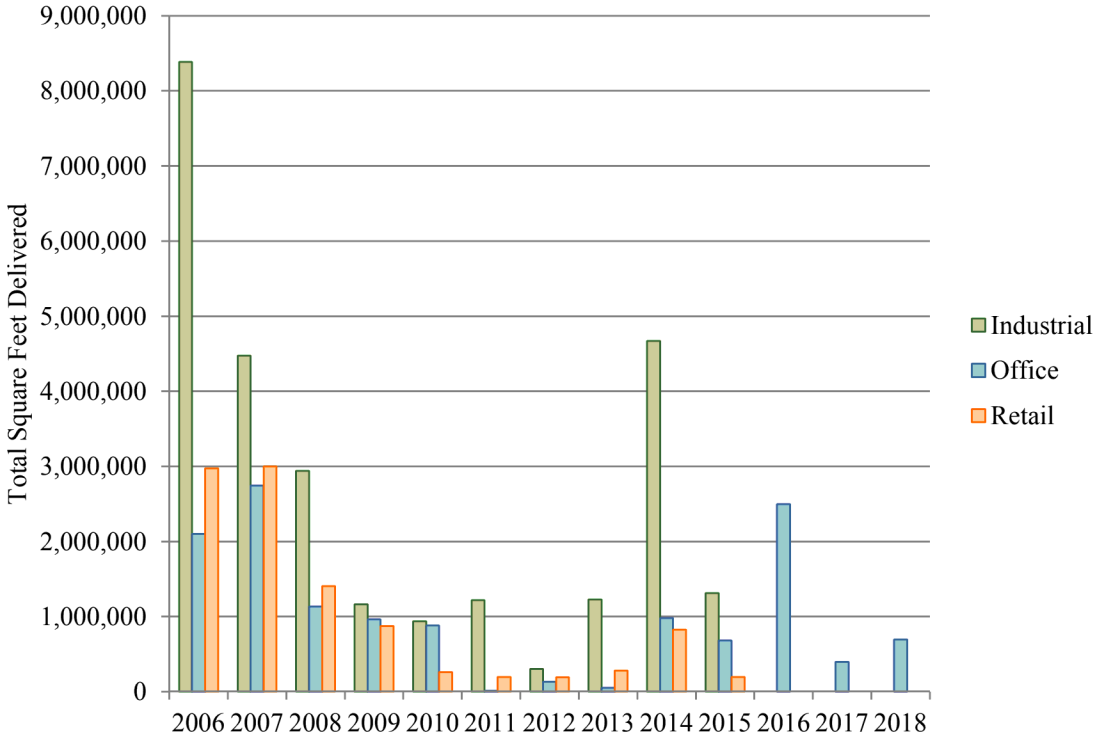
Notes: This table presents the results from the least squares estimations of Equations (1) and (2). The dependent variable is Sale Price, logged, which is the transaction price for each residential property in the sample. D_Close is an indicator variable for residential transactions that occur within the specified radius (.75 miles) of any new commercial real estate development during the sample period. Results for industrial, office and retail developments are presented in separate estimations, including the estimated Coefficient and corresponding *t*-statistic (*t*-stat) in parentheses. The interaction term Close*After is an indicator variable for residential transaction that occur within the specified radius and after the development project is completed. The interaction term Close*After*Trend takes on positive values counting the year since project completion for observations inside the radius that occur in the post-completion period, and values of zero otherwise. Spline 1 measures the year relative to development completion over the full horizon (i.e., beginning with year -20 thru year +8) for all observations inside the radius, while Spline 2 measures year relative to completion beginning in year -5, and takes on a value of zero for earlier years and for observations outside the radius. The estimations also include 15 indicator variables for transaction-specific financing conditions, as well as zip code-calendar quarter fixed effect indicator variables controlling for (unreported) geographic time-varying differences of the housing market. All other variables are defined in the notes to Table 1. The following variables are suppressed to prevent a linear combination: 3 bedrooms, 2 bathrooms, and 0 half-bath. ***, **, and * indicate statistical significance of estimated coefficients at the 1%, 5% and 10% levels of confidence respectively.

Figure 1. Atlanta Home Prices & Transaction Volume, 1985Q4-2014Q4



Notes: Figure 1 illustrates the average single-family residential transaction prices per quarter in the sample, during the period 1985Q4 to 2014Q4, using the blue line and corresponding to values on the left axis. Over the same period, the time-series distribution of residential transaction volume is depicted quarterly by the black bars, corresponding to values on the right axis.

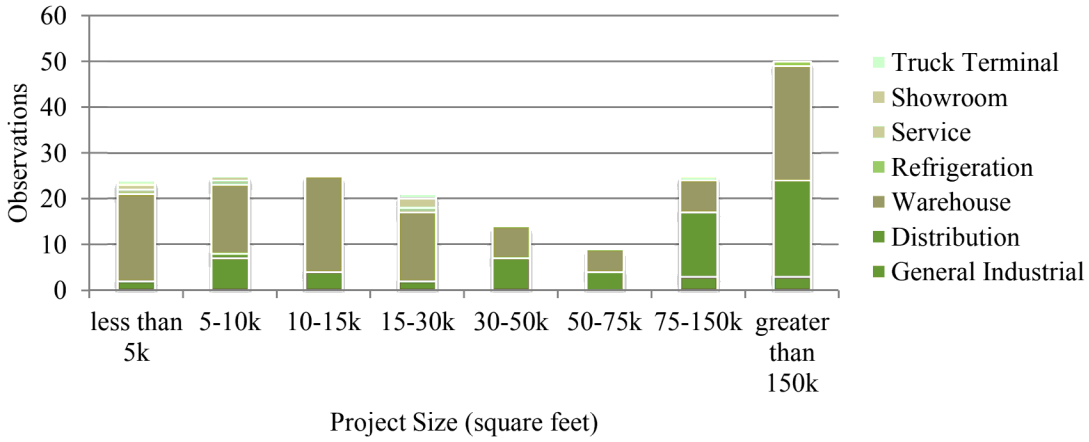
Figure 2. Commercial Real Estate Developments, 2006-2018



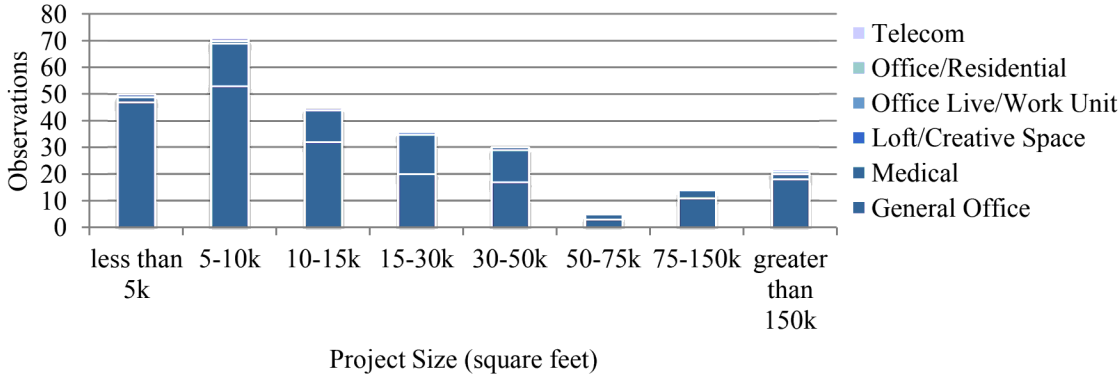
Notes: Figure 2 illustrates the time-series distribution of total square footage of new commercial real estate projects delivered annually, by property type, over the period 2006 to 2018 (using expected values for the period 2014 thru 2018). Industrial space delivered is represented by the green bars, office space by the blue bars, and retail by the orange bars.

Figure 3. Sample of Commercial Developments, by Property Size & Category

A. Sample of Industrial Developments



B. Sample of Office Developments



C. Sample of Retail Developments

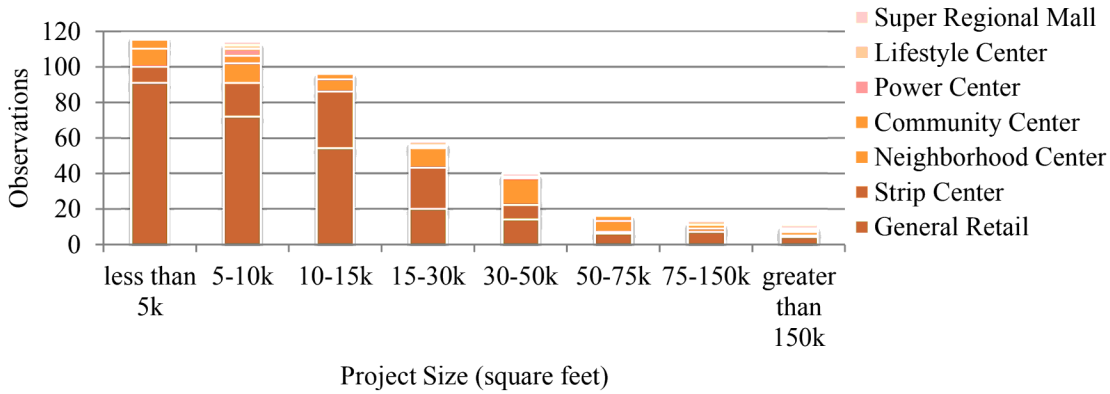
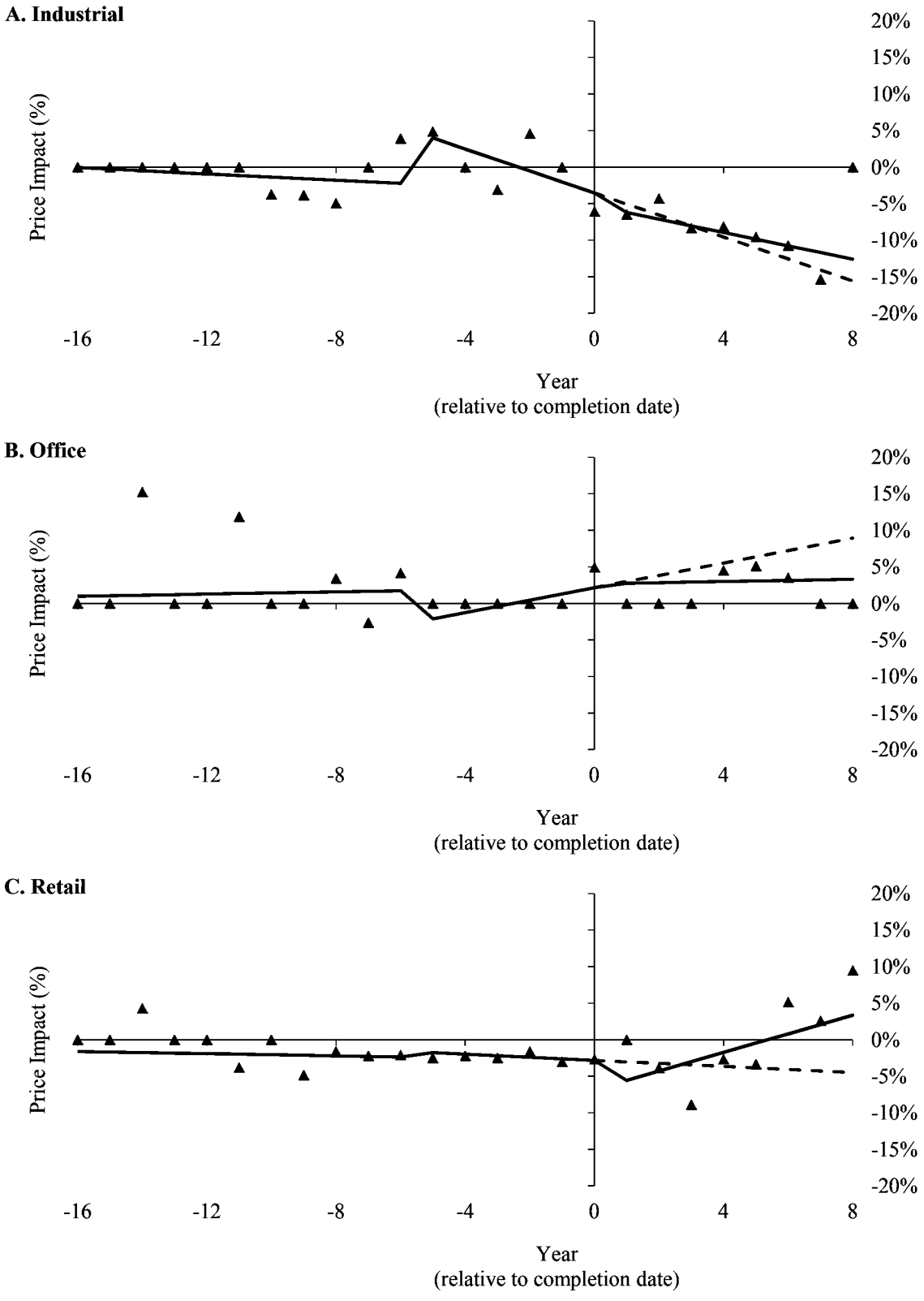


Figure 4. Estimated Price Impact following New Commercial Development



Notes: This figure presents the estimated price impact for single-family residential properties located within a .75 mile radius of a new industrial development (Panel A), office development (Panel B), and retail development (Panel C). Price impact is measured relative to a matched sample of single-family residential properties that have the same number of bedrooms, the same number of bathrooms, are built within 5 years, located in the same zip code (but outside the radius) and sold in the same calendar quarter of at least one subject property inside the radius. The grey triangles represent the estimated coefficients for each relative year interaction term for properties located inside the radius. Grey triangles take on a value of zero for coefficients that are statistically insignificant from zero at the 10% level. The solid black line depicts the trend from the spline regression with breakpoints at the -5 and +1 years relative to project completion. The dashed black line represents the counterfactual trend that would have been expected to occur for the .75 mile radius had the development not occurred.