con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-SB-9 (1-3)
Sampled: 3/20/2016 11:30
Sample ID: 16C0970-19
Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	6000	2.6	2.2	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:03	AME
Antimony	ND	2.6	0.98	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:03	AME
Arsenic	6.8	2.6	0.48	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:03	AME
Barium	77	2.6	0.82	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:03	AME
Beryllium	0.69	0.26	0.21	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:03	AME
Cadmium	0.94	0.26	0.12	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:03	AME
Calcium	8500	7.9	4.7	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/28/16 21:17	AME
Chromium	16	0.53	0.25	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:03	AME
Cobalt	7.7	2.6	0.81	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:03	AME
Copper	62	0.53	0.19	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:03	AME
Iron	17000	2.6	1.4	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:03	AME
Lead	75	0.79	0.28	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/28/16 21:17	AME
Magnesium	3500	7.9	4.0	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:03	AME
Manganese	300	0.53	0.37	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:03	AME
Mercury	0.10	0.028	0.0047	mg/Kg dry	1		SW-846 7471B	3/22/16	3/23/16 15:41	TGW
Nickel	14	0.53	0.15	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:03	AME
Potassium	620	110	14	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:03	AME
Selenium	ND	5.3		mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:03	AME
Silver	ND	0.53	0.42	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:03	AME
Sodium	120	110	37	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:03	AME
Thallium	ND	2.6	1.7	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:03	AME
Vanadium	23	1.1	0.31	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:03	AME
Zinc	120	1.1	0.86	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:03	AME

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Project Location: 450Q
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Date Received: 3/21/2016
Field Sample #: TRC-SB-9 (1-3)
Sampled: 3/20/2016 11:30
Sample ID: 16C0970-19
Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	91.1			% Wt	1		SM 2540G	3/22/16	3/23/16 8:20	MRL

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Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-SB-9 (10-12)
Sampled: 3/20/2016 11:35
Sample ID: 16C0970-20
Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.095	0.022	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Benzene	ND	0.0019	0.00066	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Bromochloromethane	ND	0.0019	0.0013	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Bromodichloromethane	ND	0.0019	0.00057	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Bromoform	ND	0.0019	0.0013	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Bromomethane	ND	0.0095	0.0016	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
2-Butanone (MEK)	ND	0.038	0.017	mg/Kg dry	1	V-05	SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Carbon Disulfide	ND	0.0057	0.0033	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Carbon Tetrachloride	ND	0.0019	0.00076	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Chlorobenzene	ND	0.0019	0.00066	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Chlorodibromomethane	ND	0.00095	0.00066	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Chloroethane	ND	0.019	0.0014	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Chloroform	ND	0.0038	0.00066	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Chloromethane	ND	0.0095	0.00085	mg/Kg dry	1	L-04, V-05	SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Cyclohexane	ND	0.0019	0.00076	mg/Kg dry	1	V-05	SW-846 8260C	3/23/16	3/23/16 22:14	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0019	0.0010	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
1,2-Dibromoethane (EDB)	ND	0.00095	0.00095	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
1,2-Dichlorobenzene	ND	0.0019	0.00066	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
1,3-Dichlorobenzene	ND	0.0019	0.00066	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
1,4-Dichlorobenzene	ND	0.0019	0.00076	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.019	0.0012	mg/Kg dry	1	R-05	SW-846 8260C	3/23/16	3/23/16 22:14	MFF
1,1-Dichloroethane	ND	0.0019	0.00066	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
1,2-Dichloroethane	ND	0.0019	0.0012	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
1,1-Dichloroethylene	ND	0.0038	0.0010	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
cis-1,2-Dichloroethylene	ND	0.0019	0.00076	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
trans-1,2-Dichloroethylene	ND	0.0019	0.00085	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
1,2-Dichloropropane	ND	0.0019	0.0012	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
cis-1,3-Dichloropropene	ND	0.00095	0.00066	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
trans-1,3-Dichloropropene	ND	0.00095	0.00066	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Ethylbenzene	ND	0.0019	0.00076	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
2-Hexanone (MBK)	ND	0.019	0.010	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Isopropylbenzene (Cumene)	ND	0.0019	0.00066	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Methyl Acetate	ND	0.0019	0.0015	mg/Kg dry	1	V-05	SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0038	0.00085	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Methyl Cyclohexane	ND	0.0019	0.00095	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Methylene Chloride	ND	0.019	0.0067	mg/Kg dry	1	V-05	SW-846 8260C	3/23/16	3/23/16 22:14	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.019	0.0072	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Styrene	ND	0.0019	0.00057	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
1,1,2,2-Tetrachloroethane	ND	0.00095	0.00085	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Tetrachloroethylene	ND	0.0019	0.0012	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Toluene	ND	0.0019	0.00076	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
1,2,3-Trichlorobenzene	ND	0.0019	0.00057	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
1,2,4-Trichlorobenzene	ND	0.0019	0.00076	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
1,1,1-Trichloroethane	ND	0.0019	0.00095	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF

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Date Received: 3/21/2016
Field Sample #: TRC-SB-9 (10-12)
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Sample ID: 16C0970-20
Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,1,2-Trichloroethane	ND	0.0019	0.0011	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Trichloroethylene	ND	0.0019	0.00095	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0095	0.0010	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0095	0.00085	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Vinyl Chloride	ND	0.0095	0.0010	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
m+p Xylene	ND	0.0038	0.0016	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
o-Xylene	ND	0.0019	0.00066	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF
Xylenes (total)	ND	0.0057		mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:14	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	101	70-130		3/23/16 22:14
Toluene-d8	92.9	70-130		3/23/16 22:14
4-Bromofluorobenzene	96.3	70-130		3/23/16 22:14

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Tentatively Identified Compounds - Volatile Compounds (ESTIMATED VALUES REPORTED)

Analyte	Results	Units	Response	RT	DF	CAS #	Q#	Method	Date Prepared	Date/Time Analyzed	Analyst
No TICs Found	0.0	mg/Kg dry			1			SW-846 8260C	3/23/16	3/23/16 22:14	MFF

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Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Atrazine	ND	0.76	0.64	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Benzaldehyde	ND	0.39	0.37	mg/Kg dry	1	V-20	SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Biphenyl	ND	0.76	0.48	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Caprolactam	ND	0.39	0.29	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Acenaphthene	0.12	0.19	0.058	mg/Kg dry	1	J	SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Acenaphthylene	ND	0.19	0.065	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Acetophenone	ND	0.39	0.076	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Anthracene	0.25	0.19	0.056	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Benzo(a)anthracene	0.48	0.19	0.051	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Benzo(a)pyrene	0.41	0.19	0.060	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Benzo(b)fluoranthene	0.47	0.19	0.055	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Benzo(g,h,i)perylene	0.21	0.19	0.086	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Benzo(k)fluoranthene	0.20	0.19	0.060	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Bis(2-chloroethoxy)methane	ND	0.39	0.074	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Bis(2-chloroethyl)ether	ND	0.39	0.076	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Bis(2-chloroisopropyl)ether	ND	0.39	0.083	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Bis(2-Ethylhexyl)phthalate	0.18	0.39	0.15	mg/Kg dry	1	J	SW-846 8270D	3/23/16	3/26/16 19:19	CMR
4-Bromophenylphenylether	ND	0.39	0.065	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Butylbenzylphthalate	ND	0.39	0.092	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Carbazole	0.11	0.19	0.050	mg/Kg dry	1	J	SW-846 8270D	3/23/16	3/26/16 19:19	CMR
4-Chloroaniline	ND	0.75	0.089	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
4-Chloro-3-methylphenol	ND	0.75	0.083	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
2-Chloronaphthalene	ND	0.39	0.073	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
2-Chlorophenol	ND	0.39	0.070	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
4-Chlorophenylphenylether	ND	0.39	0.065	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Chrysene	0.40	0.19	0.060	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Dibenz(a,h)anthracene	ND	0.19	0.12	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Dibenzofuran	0.11	0.39	0.067	mg/Kg dry	1	J	SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Di-n-butylphthalate	ND	0.39	0.084	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
3,3-Dichlorobenzidine	ND	0.19	0.059	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
2,4-Dichlorophenol	ND	0.39	0.066	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Diethylphthalate	ND	0.39	0.070	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
2,4-Dimethylphenol	ND	0.39	0.072	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Dimethylphthalate	ND	0.39	0.068	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
4,6-Dinitro-2-methylphenol	ND	0.39	0.37	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
2,4-Dinitrophenol	ND	0.75	0.22	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
2,4-Dinitrotoluene	ND	0.39	0.063	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
2,6-Dinitrotoluene	ND	0.39	0.068	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Di-n-octylphthalate	ND	0.39	0.20	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Fluoranthene	0.91	0.19	0.064	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Fluorene	0.13	0.19	0.063	mg/Kg dry	1	J	SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Hexachlorobenzene	ND	0.39	0.068	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Hexachlorobutadiene	ND	0.39	0.068	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Hexachlorocyclopentadiene	ND	0.39	0.082	mg/Kg dry	1	V-05	SW-846 8270D	3/23/16	3/26/16 19:19	CMR

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Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachloroethane	ND	0.39	0.078	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Indeno(1,2,3-cd)pyrene	0.22	0.19	0.14	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Isophorone	ND	0.39	0.075	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
2-Methylnaphthalene	0.087	0.19	0.067	mg/Kg dry	1	J	SW-846 8270D	3/23/16	3/26/16 19:19	CMR
2-Methylphenol	ND	0.39	0.097	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
3/4-Methylphenol	ND	0.39	0.12	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Naphthalene	0.17	0.19	0.099	mg/Kg dry	1	J	SW-846 8270D	3/23/16	3/26/16 19:19	CMR
2-Nitroaniline	ND	0.39	0.065	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
3-Nitroaniline	ND	0.39	0.056	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
4-Nitroaniline	ND	0.39	0.065	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Nitrobenzene	ND	0.39	0.073	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
2-Nitrophenol	ND	0.39	0.10	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
4-Nitrophenol	ND	0.75	0.084	mg/Kg dry	1	V-20	SW-846 8270D	3/23/16	3/26/16 19:19	CMR
N-Nitrosodiphenylamine	ND	0.39	0.080	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
N-Nitrosodi-n-propylamine	ND	0.39	0.080	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Pentachlorophenol	ND	0.39	0.094	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Phenanthrene	0.94	0.19	0.10	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Phenol	ND	0.39	0.066	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
Pyrene	1.0	0.19	0.064	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
1,2,4,5-Tetrachlorobenzene	ND	0.39	0.070	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
2,4,5-Trichlorophenol	ND	0.39	0.088	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR
2,4,6-Trichlorophenol	ND	0.39	0.065	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 19:19	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	64.2	30-130		3/26/16 19:19
Phenol-d6	70.3	30-130		3/26/16 19:19
Nitrobenzene-d5	76.5	30-130		3/26/16 19:19
2-Fluorobiphenyl	73.6	30-130		3/26/16 19:19
2,4,6-Tribromophenol	64.2	30-130		3/26/16 19:19
p-Terphenyl-d14	86.0	30-130		3/26/16 19:19

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-SB-9 (10-12)
Sampled: 3/20/2016 11:35
Sample ID: 16C0970-20
Sample Matrix: Soil

Tentatively Identified Compounds - SV Compounds (ESTIMATED VALUES REPORTED)

Analyte	Results	Units	Response	RT	DF	CAS #	Q#	Method	Date Prepared	Date/Time Analyzed	Analyst
No TICs Found	0.0	mg/Kg dry			1			SW-846 8270D	3/23/16	3/26/16 19:19	BGL

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Field Sample #: TRC-SB-9 (10-12)
Sampled: 3/20/2016 11:35
Sample ID: 16C0970-20
Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
alpha-Chlordane [1]	ND	0.0057	0.00032	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 11:59	PJG
gamma-Chlordane [1]	ND	0.0057	0.00032	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 11:59	PJG
Alachlor [1]	ND	0.023	0.0013	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 11:59	PJG
Aldrin [1]	ND	0.0057	0.00034	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 11:59	PJG
alpha-BHC [1]	ND	0.0057	0.00046	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 11:59	PJG
beta-BHC [1]	ND	0.0057	0.00057	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 11:59	PJG
delta-BHC [1]	ND	0.0057	0.00046	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 11:59	PJG
gamma-BHC (Lindane) [1]	ND	0.0023	0.00057	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 11:59	PJG
Chlordane [1]	ND	0.023	0.0066	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 11:59	PJG
4,4'-DDD [2]	ND	0.0046	0.00046	mg/Kg dry	1	V-20	SW-846 8081B	3/22/16	3/25/16 11:59	PJG
4,4'-DDE [1]	ND	0.0046	0.00034	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 11:59	PJG
4,4'-DDT [2]	ND	0.0046	0.00046	mg/Kg dry	1	V-20	SW-846 8081B	3/22/16	3/25/16 11:59	PJG
Dieldrin [1]	ND	0.0046	0.00034	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 11:59	PJG
Endosulfan I [1]	ND	0.0057	0.00046	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 11:59	PJG
Endosulfan II [1]	ND	0.0091	0.00034	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 11:59	PJG
Endosulfan sulfate [1]	ND	0.0091	0.0015	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 11:59	PJG
Endrin [1]	ND	0.0091	0.00034	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 11:59	PJG
Endrin aldehyde [1]	ND	0.0091	0.0014	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 11:59	PJG
Endrin ketone [1]	ND	0.0091	0.00046	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 11:59	PJG
Heptachlor [1]	ND	0.0057	0.00057	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 11:59	PJG
Heptachlor epoxide [1]	ND	0.0057	0.00046	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 11:59	PJG
Hexachlorobenzene [2]	ND	0.0068	0.00080	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 11:59	PJG
Methoxychlor [1]	ND	0.057	0.00068	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 11:59	PJG
Toxaphene [1]	ND	0.11	0.049	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 11:59	PJG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	81.4	30-150		3/25/16 11:59
Decachlorobiphenyl [2]	94.8	30-150		3/25/16 11:59
Tetrachloro-m-xylene [1]	73.1	30-150		3/25/16 11:59
Tetrachloro-m-xylene [2]	72.3	30-150		3/25/16 11:59

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Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-SB-9 (10-12)
Sampled: 3/20/2016 11:35
Sample ID: 16C0970-20
Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	0.068	mg/Kg dry	5		SW-846 8082A	3/22/16	3/24/16 22:15	BJH
Aroclor-1221 [1]	ND	0.11	0.074	mg/Kg dry	5		SW-846 8082A	3/22/16	3/24/16 22:15	BJH
Aroclor-1232 [1]	ND	0.11	0.051	mg/Kg dry	5		SW-846 8082A	3/22/16	3/24/16 22:15	BJH
Aroclor-1242 [1]	ND	0.11	0.057	mg/Kg dry	5		SW-846 8082A	3/22/16	3/24/16 22:15	BJH
Aroclor-1248 [1]	ND	0.11	0.068	mg/Kg dry	5		SW-846 8082A	3/22/16	3/24/16 22:15	BJH
Aroclor-1254 [1]	ND	0.11	0.074	mg/Kg dry	5		SW-846 8082A	3/22/16	3/24/16 22:15	BJH
Aroclor-1260 [1]	ND	0.11	0.080	mg/Kg dry	5		SW-846 8082A	3/22/16	3/24/16 22:15	BJH
Aroclor-1262 [1]	ND	0.11	0.057	mg/Kg dry	5		SW-846 8082A	3/22/16	3/24/16 22:15	BJH
Aroclor-1268 [1]	ND	0.11	0.046	mg/Kg dry	5		SW-846 8082A	3/22/16	3/24/16 22:15	BJH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	83.5	30-150		3/24/16 22:15
Decachlorobiphenyl [2]	91.5	30-150		3/24/16 22:15
Tetrachloro-m-xylene [1]	87.4	30-150		3/24/16 22:15
Tetrachloro-m-xylene [2]	101	30-150		3/24/16 22:15

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Project Location: 450Q | Sample Description: | Work Order: 16C0970

Date Received: 3/21/2016

Field Sample #: TRC-SB-9 (10-12) | Sampled: 3/20/2016 11:35

Sample ID: 16C0970-20

Sample Matrix: Soil

Herbicides by GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2,4-D [2]	ND	29	9.5	µg/kg dry	1		SW-846 8151A	3/23/16	3/27/16 16:02	JMB
2,4,5-TP (Silvex) [2]	ND	2.9	1.8	µg/kg dry	1		SW-846 8151A	3/23/16	3/27/16 16:02	JMB
2,4,5-T [2]	ND	2.9	1.3	µg/kg dry	1		SW-846 8151A	3/23/16	3/27/16 16:02	JMB
Dalapon [2]	ND	71	11	µg/kg dry	1	V-20	SW-846 8151A	3/23/16	3/27/16 16:02	JMB
Dicamba [2]	ND	2.9	1.4	µg/kg dry	1		SW-846 8151A	3/23/16	3/27/16 16:02	JMB

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2,4-Dichlorophenylacetic acid [1]	105	30-150		3/27/16 16:02
2,4-Dichlorophenylacetic acid [2]	108	30-150		3/27/16 16:02

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Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-SB-9 (10-12)
Sampled: 3/20/2016 11:35
Sample ID: 16C0970-20
Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	5800	2.7	2.3	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:09	AME
Antimony	ND	2.7	1.0	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:09	AME
Arsenic	1.5	2.7	0.50	mg/Kg dry	1	J	SW-846 6010C-D	3/22/16	3/25/16 16:09	AME
Barium	21	2.7	0.85	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:09	AME
Beryllium	0.52	0.27	0.22	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:09	AME
Cadmium	0.23	0.27	0.13	mg/Kg dry	1	J	SW-846 6010C-D	3/22/16	3/25/16 16:09	AME
Calcium	850	8.2	4.9	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/28/16 21:21	AME
Chromium	10	0.55	0.26	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:09	AME
Cobalt	5.1	2.7	0.84	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:09	AME
Copper	13	0.55	0.20	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:09	AME
Iron	8700	2.7	1.5	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:09	AME
Lead	5.2	0.82	0.29	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/28/16 21:21	AME
Magnesium	2200	8.2	4.1	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:09	AME
Manganese	250	0.55	0.38	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:09	AME
Mercury	0.011	0.029	0.0049	mg/Kg dry	1	J	SW-846 7471B	3/22/16	3/23/16 15:43	TGW
Nickel	15	0.55	0.16	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:09	AME
Potassium	480	110	15	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:09	AME
Selenium	ND	5.5		mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:09	AME
Silver	ND	0.55	0.43	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:09	AME
Sodium	63	110	38	mg/Kg dry	1	J	SW-846 6010C-D	3/22/16	3/25/16 16:09	AME
Thallium	ND	2.7	1.8	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:09	AME
Vanadium	13	1.1	0.32	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:09	AME
Zinc	22	1.1	0.90	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/25/16 16:09	AME

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Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-SB-9 (10-12)
Sampled: 3/20/2016 11:35
Sample ID: 16C0970-20
Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	87.7			% Wt	1		SM 2540G	3/22/16	3/23/16 8:20	MRL

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Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: DUP-1
Sampled: 3/19/2016 10:05
Sample ID: 16C0970-21
Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.095	0.022	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Benzene	ND	0.0019	0.00067	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Bromochloromethane	ND	0.0019	0.0013	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Bromodichloromethane	ND	0.0019	0.00057	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Bromoform	ND	0.0019	0.0013	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Bromomethane	ND	0.0095	0.0016	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
2-Butanone (MEK)	ND	0.038	0.017	mg/Kg dry	1	V-05	SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Carbon Disulfide	ND	0.0057	0.0033	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Carbon Tetrachloride	ND	0.0019	0.00076	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Chlorobenzene	ND	0.0019	0.00067	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Chlorodibromomethane	ND	0.00095	0.00067	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Chloroethane	ND	0.019	0.0014	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Chloroform	ND	0.0038	0.00067	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Chloromethane	ND	0.0095	0.00086	mg/Kg dry	1	L-04, V-05	SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Cyclohexane	ND	0.0019	0.00076	mg/Kg dry	1	V-05	SW-846 8260C	3/23/16	3/23/16 22:42	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0019	0.0010	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
1,2-Dibromoethane (EDB)	ND	0.00095	0.00095	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
1,2-Dichlorobenzene	ND	0.0019	0.00067	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
1,3-Dichlorobenzene	ND	0.0019	0.00067	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
1,4-Dichlorobenzene	ND	0.0019	0.00076	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.019	0.0012	mg/Kg dry	1	R-05	SW-846 8260C	3/23/16	3/23/16 22:42	MFF
1,1-Dichloroethane	ND	0.0019	0.00067	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
1,2-Dichloroethane	ND	0.0019	0.0012	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
1,1-Dichloroethylene	ND	0.0038	0.0010	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
cis-1,2-Dichloroethylene	ND	0.0019	0.00076	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
trans-1,2-Dichloroethylene	ND	0.0019	0.00086	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
1,2-Dichloropropane	ND	0.0019	0.0012	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
cis-1,3-Dichloropropene	ND	0.00095	0.00067	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
trans-1,3-Dichloropropene	ND	0.00095	0.00067	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Ethylbenzene	ND	0.0019	0.00076	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
2-Hexanone (MBK)	ND	0.019	0.010	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Isopropylbenzene (Cumene)	ND	0.0019	0.00067	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Methyl Acetate	ND	0.0019	0.0015	mg/Kg dry	1	V-05	SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0038	0.00086	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Methyl Cyclohexane	ND	0.0019	0.00095	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Methylene Chloride	ND	0.019	0.0068	mg/Kg dry	1	V-05	SW-846 8260C	3/23/16	3/23/16 22:42	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.019	0.0072	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Styrene	ND	0.0019	0.00057	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
1,1,2,2-Tetrachloroethane	ND	0.00095	0.00086	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Tetrachloroethylene	ND	0.0019	0.0012	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Toluene	ND	0.0019	0.00076	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
1,2,3-Trichlorobenzene	ND	0.0019	0.00057	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
1,2,4-Trichlorobenzene	ND	0.0019	0.00076	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
1,1,1-Trichloroethane	ND	0.0019	0.00095	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: DUP-1
Sampled: 3/19/2016 10:05
Sample ID: 16C0970-21
Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,1,2-Trichloroethane	ND	0.0019	0.0011	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Trichloroethylene	ND	0.0019	0.00095	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Trichlorofluoromethane (Freon 11)	ND	0.0095	0.0010	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.0095	0.00086	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Vinyl Chloride	ND	0.0095	0.0010	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
m+p Xylene	ND	0.0038	0.0016	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
o-Xylene	ND	0.0019	0.00067	mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF
Xylenes (total)	ND	0.0057		mg/Kg dry	1		SW-846 8260C	3/23/16	3/23/16 22:42	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	104	70-130		3/23/16 22:42
Toluene-d8	92.2	70-130		3/23/16 22:42
4-Bromofluorobenzene	95.4	70-130		3/23/16 22:42

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: DUP-1
Sampled: 3/19/2016 10:05
Sample ID: 16C0970-21
Sample Matrix: Soil

Tentatively Identified Compounds - Volatile Compounds (ESTIMATED VALUES REPORTED)

Analyte	Results	Units	Response	RT	DF	CAS #	Q#	Method	Date Prepared	Date/Time Analyzed	Analyst
No TICs Found	0.0	mg/Kg dry			1			SW-846 8260C	3/23/16	3/23/16 22:42	MFF

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: DUP-1
Sampled: 3/19/2016 10:05
Sample ID: 16C0970-21
Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Atrazine	ND	0.72	0.61	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Benzaldehyde	ND	0.37	0.35	mg/Kg dry	1	V-20	SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Biphenyl	ND	0.72	0.46	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Caprolactam	ND	0.37	0.28	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Acenaphthene	ND	0.18	0.055	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Acenaphthylene	ND	0.18	0.061	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Acetophenone	ND	0.37	0.072	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Anthracene	ND	0.18	0.053	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Benzo(a)anthracene	ND	0.18	0.048	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Benzo(a)pyrene	ND	0.18	0.057	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Benzo(b)fluoranthene	0.052	0.18	0.052	mg/Kg dry	1	J	SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Benzo(g,h,i)perylene	ND	0.18	0.081	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Benzo(k)fluoranthene	ND	0.18	0.057	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Bis(2-chloroethoxy)methane	ND	0.37	0.070	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Bis(2-chloroethyl)ether	ND	0.37	0.072	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Bis(2-chloroisopropyl)ether	ND	0.37	0.079	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Bis(2-Ethylhexyl)phthalate	ND	0.37	0.14	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
4-Bromophenylphenylether	ND	0.37	0.061	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Butylbenzylphthalate	ND	0.37	0.087	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Carbazole	ND	0.18	0.047	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
4-Chloroaniline	ND	0.71	0.084	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
4-Chloro-3-methylphenol	ND	0.71	0.079	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
2-Chloronaphthalene	ND	0.37	0.069	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
2-Chlorophenol	ND	0.37	0.066	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
4-Chlorophenylphenylether	ND	0.37	0.061	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Chrysene	ND	0.18	0.057	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Dibenz(a,h)anthracene	ND	0.18	0.11	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Dibenzofuran	ND	0.37	0.064	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Di-n-butylphthalate	ND	0.37	0.080	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
3,3-Dichlorobenzidine	ND	0.18	0.056	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
2,4-Dichlorophenol	ND	0.37	0.062	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Diethylphthalate	ND	0.37	0.066	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
2,4-Dimethylphenol	ND	0.37	0.068	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Dimethylphthalate	ND	0.37	0.065	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
4,6-Dinitro-2-methylphenol	ND	0.37	0.35	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
2,4-Dinitrophenol	ND	0.71	0.21	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
2,4-Dinitrotoluene	ND	0.37	0.059	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
2,6-Dinitrotoluene	ND	0.37	0.065	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Di-n-octylphthalate	ND	0.37	0.19	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Fluoranthene	0.094	0.18	0.060	mg/Kg dry	1	J	SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Fluorene	ND	0.18	0.059	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Hexachlorobenzene	ND	0.37	0.065	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Hexachlorobutadiene	ND	0.37	0.065	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Hexachlorocyclopentadiene	ND	0.37	0.078	mg/Kg dry	1	V-05	SW-846 8270D	3/23/16	3/26/16 18:06	CMR

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: DUP-1
Sampled: 3/19/2016 10:05
Sample ID: 16C0970-21
Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachloroethane	ND	0.37	0.073	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Indeno(1,2,3-cd)pyrene	ND	0.18	0.13	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Isophorone	ND	0.37	0.071	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
2-Methylnaphthalene	ND	0.18	0.064	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
2-Methylphenol	ND	0.37	0.091	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
3/4-Methylphenol	ND	0.37	0.12	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Naphthalene	ND	0.18	0.094	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
2-Nitroaniline	ND	0.37	0.061	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
3-Nitroaniline	ND	0.37	0.053	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
4-Nitroaniline	ND	0.37	0.061	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Nitrobenzene	ND	0.37	0.069	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
2-Nitrophenol	ND	0.37	0.097	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
4-Nitrophenol	ND	0.71	0.080	mg/Kg dry	1	V-20	SW-846 8270D	3/23/16	3/26/16 18:06	CMR
N-Nitrosodiphenylamine	ND	0.37	0.075	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
N-Nitrosodi-n-propylamine	ND	0.37	0.075	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Pentachlorophenol	ND	0.37	0.088	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Phenanthrene	ND	0.18	0.095	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Phenol	ND	0.37	0.062	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
Pyrene	0.088	0.18	0.060	mg/Kg dry	1	J	SW-846 8270D	3/23/16	3/26/16 18:06	CMR
1,2,4,5-Tetrachlorobenzene	ND	0.37	0.066	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
2,4,5-Trichlorophenol	ND	0.37	0.083	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR
2,4,6-Trichlorophenol	ND	0.37	0.061	mg/Kg dry	1		SW-846 8270D	3/23/16	3/26/16 18:06	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	56.2	30-130		3/26/16 18:06
Phenol-d6	60.9	30-130		3/26/16 18:06
Nitrobenzene-d5	64.1	30-130		3/26/16 18:06
2-Fluorobiphenyl	64.8	30-130		3/26/16 18:06
2,4,6-Tribromophenol	65.8	30-130		3/26/16 18:06
p-Terphenyl-d14	69.7	30-130		3/26/16 18:06

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Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: DUP-1
Sampled: 3/19/2016 10:05
Sample ID: 16C0970-21
Sample Matrix: Soil

Tentatively Identified Compounds - SV Compounds (ESTIMATED VALUES REPORTED)

Analyte	Results	Units	Response	RT	DF	CAS #	Q#	Method	Date Prepared	Date/Time Analyzed	Analyst
No TICs Found	0.0	mg/Kg dry			1			SW-846 8270D	3/23/16	3/26/16 18:06	BGL

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: DUP-1
Sampled: 3/19/2016 10:05
Sample ID: 16C0970-21
Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
alpha-Chlordane [1]	ND	0.0054	0.00030	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 12:22	PJG
gamma-Chlordane [1]	ND	0.0054	0.00030	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 12:22	PJG
Alachlor [1]	ND	0.022	0.0012	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 12:22	PJG
Aldrin [1]	ND	0.0054	0.00032	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 12:22	PJG
alpha-BHC [1]	ND	0.0054	0.00043	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 12:22	PJG
beta-BHC [1]	ND	0.0054	0.00054	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 12:22	PJG
delta-BHC [1]	ND	0.0054	0.00043	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 12:22	PJG
gamma-BHC (Lindane) [1]	ND	0.0022	0.00054	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 12:22	PJG
Chlordane [1]	ND	0.022	0.0062	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 12:22	PJG
4,4'-DDD [2]	ND	0.0043	0.00043	mg/Kg dry	1	V-20	SW-846 8081B	3/22/16	3/25/16 12:22	PJG
4,4'-DDE [1]	0.00041	0.0043	0.00032	mg/Kg dry	1	J, P-01, V-24	SW-846 8081B	3/22/16	3/25/16 12:22	PJG
4,4'-DDT [1]	ND	0.0043	0.00043	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 12:22	PJG
Dieldrin [1]	ND	0.0043	0.00032	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 12:22	PJG
Endosulfan I [1]	ND	0.0054	0.00043	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 12:22	PJG
Endosulfan II [1]	ND	0.0086	0.00032	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 12:22	PJG
Endosulfan sulfate [1]	ND	0.0086	0.0014	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 12:22	PJG
Endrin [1]	ND	0.0086	0.00032	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 12:22	PJG
Endrin aldehyde [1]	ND	0.0086	0.0013	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 12:22	PJG
Endrin ketone [1]	ND	0.0086	0.00043	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 12:22	PJG
Heptachlor [1]	ND	0.0054	0.00054	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 12:22	PJG
Heptachlor epoxide [1]	ND	0.0054	0.00043	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 12:22	PJG
Hexachlorobenzene [2]	ND	0.0065	0.00075	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 12:22	PJG
Methoxychlor [1]	ND	0.054	0.00065	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 12:22	PJG
Toxaphene [1]	ND	0.11	0.046	mg/Kg dry	1		SW-846 8081B	3/22/16	3/25/16 12:22	PJG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	72.7	30-150		3/25/16 12:22
Decachlorobiphenyl [2]	85.2	30-150		3/25/16 12:22
Tetrachloro-m-xylene [1]	64.6	30-150		3/25/16 12:22
Tetrachloro-m-xylene [2]	63.5	30-150		3/25/16 12:22

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Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: DUP-1
Sampled: 3/19/2016 10:05
Sample ID: 16C0970-21
Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.11	0.065	mg/Kg dry	5		SW-846 8082A	3/22/16	3/24/16 22:28	BJH
Aroclor-1221 [1]	ND	0.11	0.070	mg/Kg dry	5		SW-846 8082A	3/22/16	3/24/16 22:28	BJH
Aroclor-1232 [1]	ND	0.11	0.048	mg/Kg dry	5		SW-846 8082A	3/22/16	3/24/16 22:28	BJH
Aroclor-1242 [1]	ND	0.11	0.054	mg/Kg dry	5		SW-846 8082A	3/22/16	3/24/16 22:28	BJH
Aroclor-1248 [1]	ND	0.11	0.065	mg/Kg dry	5		SW-846 8082A	3/22/16	3/24/16 22:28	BJH
Aroclor-1254 [1]	ND	0.11	0.070	mg/Kg dry	5		SW-846 8082A	3/22/16	3/24/16 22:28	BJH
Aroclor-1260 [1]	ND	0.11	0.075	mg/Kg dry	5		SW-846 8082A	3/22/16	3/24/16 22:28	BJH
Aroclor-1262 [1]	ND	0.11	0.054	mg/Kg dry	5		SW-846 8082A	3/22/16	3/24/16 22:28	BJH
Aroclor-1268 [1]	ND	0.11	0.043	mg/Kg dry	5		SW-846 8082A	3/22/16	3/24/16 22:28	BJH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	84.5	30-150		3/24/16 22:28
Decachlorobiphenyl [2]	87.4	30-150		3/24/16 22:28
Tetrachloro-m-xylene [1]	86.0	30-150		3/24/16 22:28
Tetrachloro-m-xylene [2]	97.3	30-150		3/24/16 22:28

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: DUP-1
Sampled: 3/19/2016 10:05
Sample ID: 16C0970-21
Sample Matrix: Soil

Herbicides by GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2,4-D [2]	ND	27	8.9	µg/kg dry	1		SW-846 8151A	3/23/16	3/27/16 16:41	JMB
2,4,5-TP (Silvex) [2]	ND	2.7	1.6	µg/kg dry	1		SW-846 8151A	3/23/16	3/27/16 16:41	JMB
2,4,5-T [2]	ND	2.7	1.2	µg/kg dry	1		SW-846 8151A	3/23/16	3/27/16 16:41	JMB
Dalapon [2]	ND	67	10	µg/kg dry	1	V-20	SW-846 8151A	3/23/16	3/27/16 16:41	JMB
Dicamba [2]	ND	2.7	1.3	µg/kg dry	1		SW-846 8151A	3/23/16	3/27/16 16:41	JMB

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2,4-Dichlorophenylacetic acid [1]	69.0	30-150		3/27/16 16:41
2,4-Dichlorophenylacetic acid [2]	61.9	30-150		3/27/16 16:41

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: DUP-1
Sampled: 3/19/2016 10:05
Sample ID: 16C0970-21
Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	7600	2.7	2.2	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/23/16 13:55	AME
Antimony	2.0	2.7	0.99	mg/Kg dry	1	J	SW-846 6010C-D	3/22/16	3/23/16 14:53	AME
Arsenic	ND	2.7	0.49	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/23/16 14:53	AME
Barium	39	2.7	0.83	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/23/16 14:53	AME
Beryllium	ND	0.27	0.21	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/23/16 14:53	AME
Cadmium	ND	0.27	0.12	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/23/16 14:53	AME
Calcium	1900	8.0	4.8	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/23/16 14:53	AME
Chromium	14	0.53	0.25	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/23/16 14:53	AME
Cobalt	6.2	2.7	0.82	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/23/16 14:53	AME
Copper	13	0.53	0.19	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/23/16 14:53	AME
Iron	11000	2.7	1.4	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/23/16 14:53	AME
Lead	3.9	0.80	0.28	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/23/16 14:53	AME
Magnesium	3400	8.0	4.0	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/23/16 14:53	AME
Manganese	250	0.53	0.37	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/23/16 14:53	AME
Mercury	0.0067	0.028	0.0047	mg/Kg dry	1	J	SW-846 7471B	3/22/16	3/23/16 15:44	TGW
Nickel	11	0.53	0.16	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/23/16 14:53	AME
Potassium	1300	110	15	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/23/16 14:53	AME
Selenium	ND	5.3		mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/23/16 14:53	AME
Silver	ND	0.53	0.42	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/23/16 14:53	AME
Sodium	76	110	37	mg/Kg dry	1	J	SW-846 6010C-D	3/22/16	3/23/16 14:53	AME
Thallium	ND	2.7	1.7	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/23/16 14:53	AME
Vanadium	21	1.1	0.31	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/23/16 13:55	AME
Zinc	34	1.1	0.88	mg/Kg dry	1		SW-846 6010C-D	3/22/16	3/23/16 14:53	AME

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: DUP-1
Sampled: 3/19/2016 10:05
Sample ID: 16C0970-21
Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	92.9			% Wt	1		SM 2540G	3/22/16	3/23/16 8:20	MRL

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-1
Sampled: 3/19/2016 13:30
Sample ID: 16C0970-22
Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	4.9	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Benzene	ND	1.0	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Bromochloromethane	ND	1.0	0.22	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Bromodichloromethane	ND	0.50	0.088	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Bromoform	ND	1.0	0.21	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Bromomethane	ND	2.0	0.94	µg/L	1	R-05	SW-846 8260C	3/24/16	3/24/16 16:39	EEH
2-Butanone (MEK)	ND	20	2.4	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Carbon Disulfide	ND	4.0	1.0	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Carbon Tetrachloride	ND	5.0	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Chlorobenzene	ND	1.0	0.16	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Chlorodibromomethane	ND	0.50	0.10	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Chloroethane	ND	2.0	0.28	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Chloroform	ND	2.0	0.22	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Chloromethane	ND	2.0	0.32	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Cyclohexane	ND	5.0	0.25	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.34	µg/L	1	V-05	SW-846 8260C	3/24/16	3/24/16 16:39	EEH
1,2-Dibromoethane (EDB)	ND	0.50	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
1,2-Dichlorobenzene	ND	1.0	0.17	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
1,3-Dichlorobenzene	ND	1.0	0.17	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
1,4-Dichlorobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.18	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
1,2-Dichloroethane	ND	1.0	0.19	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
1,1-Dichloroethylene	ND	1.0	0.21	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
trans-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
1,2-Dichloropropane	ND	1.0	0.13	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
trans-1,3-Dichloropropene	ND	0.50	0.11	µg/L	1	V-05	SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Ethylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
2-Hexanone (MBK)	ND	10	1.5	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Isopropylbenzene (Cumene)	ND	1.0	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Methyl Acetate	ND	1.0	0.42	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.090	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Methyl Cyclohexane	ND	1.0	0.63	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Methylene Chloride	ND	5.0	3.2	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	1.5	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Styrene	ND	1.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	0.16	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Tetrachloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Toluene	ND	1.0	0.17	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
1,2,4-Trichlorobenzene	ND	1.0	0.19	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
1,1,1-Trichloroethane	ND	1.0	0.094	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-1
Sampled: 3/19/2016 13:30
Sample ID: 16C0970-22
Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,1,2-Trichloroethane	ND	1.0	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Trichloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.14	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Vinyl Chloride	ND	2.0	0.13	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
m+p Xylene	ND	2.0	0.25	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
o-Xylene	ND	1.0	0.13	µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH
Xylenes (total)	ND	3.0		µg/L	1		SW-846 8260C	3/24/16	3/24/16 16:39	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	109	70-130		3/24/16 16:39
Toluene-d8	100	70-130		3/24/16 16:39
4-Bromofluorobenzene	92.4	70-130		3/24/16 16:39

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970

Date Received: 3/21/2016

Field Sample #: TRC-GW-1
Sampled: 3/19/2016 13:30

Sample ID: 16C0970-22

Sample Matrix: Ground Water

Tentatively Identified Compounds - Volatile Compounds (ESTIMATED VALUES REPORTED)

Analyte	Results	Units	Response	RT	DF	CAS #	Q#	Method	Date Prepared	Date/Time Analyzed	Analyst
No TICs Found	0.0	µg/L			1			SW-846 8260C	3/24/16	3/24/16 16:39	EEH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-1
Sampled: 3/19/2016 13:30
Sample ID: 16C0970-22
Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Atrazine	ND	19	15	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Benzaldehyde	ND	9.3	8.1	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Biphenyl	ND	19	9.8	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Caprolactam	ND	9.3	2.2	µg/L	1	L-04, R-05	SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Acenaphthene (low)	ND	0.28	0.056	µg/L	1		SW-846 8270D	3/23/16	3/24/16 12:42	CJM
Acenaphthylene (low)	ND	0.28	0.047	µg/L	1		SW-846 8270D	3/23/16	3/24/16 12:42	CJM
Acetophenone	ND	9.3	3.7	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Anthracene (low)	ND	0.19	0.037	µg/L	1		SW-846 8270D	3/23/16	3/24/16 12:42	CJM
Benzo(a)anthracene (low)	ND	0.047	0.047	µg/L	1		SW-846 8270D	3/23/16	3/24/16 12:42	CJM
Benzo(a)pyrene (low)	0.043	0.093	0.037	µg/L	1	J	SW-846 8270D	3/23/16	3/24/16 12:42	CJM
Benzo(b)fluoranthene (low)	0.079	0.047	0.019	µg/L	1		SW-846 8270D	3/23/16	3/24/16 12:42	CJM
Benzo(g,h,i)perylene (low)	ND	0.47	0.065	µg/L	1		SW-846 8270D	3/23/16	3/24/16 12:42	CJM
Benzo(k)fluoranthene (low)	ND	0.19	0.093	µg/L	1		SW-846 8270D	3/23/16	3/24/16 12:42	CJM
Bis(2-chloroethoxy)methane	ND	9.3	4.4	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Bis(2-chloroethyl)ether	ND	9.3	3.9	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Bis(2-chloroisopropyl)ether	ND	9.3	2.8	µg/L	1	R-05, V-20	SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Bis(2-Ethylhexyl)phthalate	ND	9.3	4.4	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
4-Bromophenylphenylether	ND	9.3	1.9	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Butylbenzylphthalate	ND	9.3	2.8	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Carbazole	ND	9.3	4.1	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
4-Chloroaniline	ND	9.3	3.6	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:00	BGL
4-Chloro-3-methylphenol	ND	9.3	4.5	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
2-Chloronaphthalene	ND	9.3	2.7	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
2-Chlorophenol	ND	9.3	1.5	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:00	BGL
4-Chlorophenylphenylether	ND	9.3	4.4	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Chrysene (low)	0.075	0.19	0.028	µg/L	1	J	SW-846 8270D	3/23/16	3/24/16 12:42	CJM
Dibenz(a,h)anthracene (low)	ND	0.093	0.037	µg/L	1		SW-846 8270D	3/23/16	3/24/16 12:42	CJM
Dibenzofuran	ND	4.7	4.4	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Di-n-butylphthalate	ND	9.3	4.4	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
3,3-Dichlorobenzidine	ND	9.3	2.1	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
2,4-Dichlorophenol	ND	9.3	4.2	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Diethylphthalate	ND	9.3	4.0	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
2,4-Dimethylphenol	ND	9.3	2.2	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Dimethylphthalate	ND	9.3	4.3	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
4,6-Dinitro-2-methylphenol	ND	9.3	5.2	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
2,4-Dinitrophenol	ND	9.3	6.2	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
2,4-Dinitrotoluene	ND	9.3	4.8	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
2,6-Dinitrotoluene	ND	9.3	4.5	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Di-n-octylphthalate	ND	9.3	4.0	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Fluoranthene (low)	0.18	0.47	0.028	µg/L	1	J	SW-846 8270D	3/23/16	3/24/16 12:42	CJM
Fluorene (low)	ND	0.93	0.037	µg/L	1		SW-846 8270D	3/23/16	3/24/16 12:42	CJM
Hexachlorobenzene	ND	9.3	4.3	µg/L	1	V-05	SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Hexachlorobutadiene	ND	9.3	1.7	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Hexachlorocyclopentadiene	ND	9.3	5.6	µg/L	1	V-05	SW-846 8270D	3/23/16	3/24/16 18:00	BGL

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-1
Sampled: 3/19/2016 13:30
Sample ID: 16C0970-22
Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachloroethane	ND	9.3	1.4	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Indeno(1,2,3-cd)pyrene (low)	ND	0.19	0.074	µg/L	1		SW-846 8270D	3/23/16	3/24/16 12:42	CJM
Isophorone	ND	9.3	1.7	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
2-Methylnaphthalene (low)	ND	0.93	0.074	µg/L	1		SW-846 8270D	3/23/16	3/24/16 12:42	CJM
2-Methylphenol	ND	9.3	2.4	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:00	BGL
3/4-Methylphenol	ND	9.3	3.9	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Naphthalene (low)	0.32	0.93	0.065	µg/L	1	J	SW-846 8270D	3/23/16	3/24/16 12:42	CJM
2-Nitroaniline	ND	9.3	5.9	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
3-Nitroaniline	ND	9.3	4.0	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
4-Nitroaniline	ND	9.3	3.4	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Nitrobenzene	ND	9.3	4.0	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
2-Nitrophenol	ND	9.3	1.9	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
4-Nitrophenol	ND	9.3	2.2	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
N-Nitrosodiphenylamine	ND	9.3	1.8	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
N-Nitrosodi-n-propylamine	ND	9.3	4.3	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Pentachlorophenol	ND	9.3	3.1	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Phenanthrene (low)	0.18	0.047	0.037	µg/L	1		SW-846 8270D	3/23/16	3/24/16 12:42	CJM
Phenol	ND	9.3	2.4	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:00	BGL
Pyrene (low)	0.13	0.93	0.028	µg/L	1	J	SW-846 8270D	3/23/16	3/24/16 12:42	CJM
1,2,4,5-Tetrachlorobenzene	ND	9.3	1.9	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
2,4,5-Trichlorophenol	ND	9.3	3.7	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL
2,4,6-Trichlorophenol	ND	9.3	3.5	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:00	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	48.1	15-110		3/24/16 18:00
Phenol-d6	31.5	15-110		3/24/16 18:00
Nitrobenzene-d5	95.9	30-130		3/24/16 18:00
Nitrobenzene-d5 (low)	61.1	30-130		3/24/16 12:42
2-Fluorobiphenyl	80.4	30-130		3/24/16 18:00
2-Fluorobiphenyl (low)	57.2	30-130		3/24/16 12:42
2,4,6-Tribromophenol	78.6	15-110		3/24/16 18:00
p-Terphenyl-d14	77.0	30-130		3/24/16 18:00
p-Terphenyl-d14 (low)	45.0	30-130		3/24/16 12:42

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-1
Sampled: 3/19/2016 13:30
Sample ID: 16C0970-22
Sample Matrix: Ground Water

Tentatively Identified Compounds - SV Compounds (ESTIMATED VALUES REPORTED)

Analyte	Results	Units	Response	RT	DF	CAS #	Q#	Method	Date Prepared	Date/Time Analyzed	Analyst
No TICs Found	0.0	µg/L			1			SW-846 8270D	3/23/16	3/24/16 18:00	BGL

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970

Date Received: 3/21/2016

Field Sample #: TRC-GW-1
Sampled: 3/19/2016 13:30

Sample ID: 16C0970-22

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	22	0.050	0.043	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:08	AME
Antimony	ND	5.0	0.69	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:08	MJH
Arsenic	5.1	2.0	1.5	µg/L	5	R-04	SW-846 6020A-B	3/26/16	3/29/16 16:08	MJH
Barium	900	50	1.9	µg/L	5	MS-07	SW-846 6020A-B	3/26/16	3/30/16 9:52	MJH
Beryllium	3.2	2.0	0.30	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:08	MJH
Cadmium	2.2	2.5	0.085	µg/L	5	J	SW-846 6020A-B	3/26/16	3/29/16 16:08	MJH
Calcium	180	0.15	0.019	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:08	AME
Chromium	240	5.0	2.2	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:08	MJH
Cobalt	200	5.0	0.12	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:08	MJH
Copper	350	25	0.94	µg/L	5	MS-07	SW-846 6020A-B	3/26/16	3/30/16 9:52	MJH
Iron	41	0.050	0.013	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:08	AME
Lead	130	5.0	0.27	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:08	MJH
Magnesium	79	0.15	0.034	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:08	AME
Manganese	8600	5.0	0.57	µg/L	5	MS-19	SW-846 6020A-B	3/26/16	3/30/16 9:52	MJH
Mercury	ND	0.00010	0.000019	mg/L	1		SW-846 7470A	3/23/16	3/24/16 13:25	TGW
Nickel	220	25	4.0	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:08	MJH
Potassium	5.9	2.0	0.18	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:08	AME
Selenium	9.6	25	3.8	µg/L	5	J	SW-846 6020A-B	3/26/16	3/29/16 16:08	MJH
Silver	ND	2.5	0.57	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:08	MJH
Sodium	54	2.0	0.092	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:08	AME
Thallium	0.84	1.0	0.32	µg/L	5	J	SW-846 6020A-B	3/26/16	3/29/16 16:08	MJH
Vanadium	160	25	9.3	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:08	MJH
Zinc	450	50	17	µg/L	5	MS-07	SW-846 6020A-B	3/26/16	3/30/16 9:52	MJH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-1
Sampled: 3/19/2016 13:30
Sample ID: 16C0970-22
Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	ND	0.050	0.043	mg/L	1		SW-846 6010C-D	3/26/16	3/28/16 12:50	AME
Antimony	ND	5.0	0.69	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:35	MJH
Arsenic	ND	2.0	1.5	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:35	MJH
Barium	74	50	1.9	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:35	MJH
Beryllium	ND	2.0	0.30	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:35	MJH
Cadmium	ND	2.5	0.085	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:35	MJH
Calcium	110	0.15	0.019	mg/L	1		SW-846 6010C-D	3/26/16	3/28/16 12:50	AME
Chromium	9.7	5.0	2.2	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:35	MJH
Cobalt	1.3	5.0	0.12	µg/L	5	J	SW-846 6020A-B	3/22/16	3/23/16 14:35	MJH
Copper	1.7	25	0.94	µg/L	5	J	SW-846 6020A-B	3/22/16	3/23/16 14:35	MJH
Iron	0.018	0.050	0.013	mg/L	1	J	SW-846 6010C-D	3/26/16	3/28/16 12:50	AME
Lead	ND	5.0	0.27	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:35	MJH
Magnesium	46	0.15	0.034	mg/L	1		SW-846 6010C-D	3/26/16	3/28/16 12:50	AME
Manganese	140	5.0	0.57	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:35	MJH
Mercury	ND	0.00010	0.000019	mg/L	1		SW-846 7470A	3/23/16	3/24/16 13:52	TGW
Nickel	5.3	25	4.0	µg/L	5	J	SW-846 6020A-B	3/22/16	3/23/16 14:35	MJH
Potassium	3.7	2.0	0.18	mg/L	1		SW-846 6010C-D	3/26/16	3/28/16 12:50	AME
Selenium	8.4	25	3.8	µg/L	5	J	SW-846 6020A-B	3/22/16	3/23/16 14:35	MJH
Silver	ND	2.5	0.57	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:35	MJH
Sodium	62	2.0	0.092	mg/L	1		SW-846 6010C-D	3/29/16	3/30/16 12:07	AME
Thallium	ND	1.0	0.32	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:35	MJH
Vanadium	ND	25	9.3	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:35	MJH
Zinc	ND	50	17	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:35	MJH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-3
Sampled: 3/19/2016 14:10
Sample ID: 16C0970-23
Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	4.9	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Benzene	ND	1.0	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Bromochloromethane	ND	1.0	0.22	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Bromodichloromethane	ND	0.50	0.088	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Bromoform	ND	1.0	0.21	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Bromomethane	ND	2.0	0.94	µg/L	1	R-05	SW-846 8260C	3/24/16	3/24/16 17:06	EEH
2-Butanone (MEK)	ND	20	2.4	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Carbon Disulfide	ND	4.0	1.0	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Carbon Tetrachloride	ND	5.0	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Chlorobenzene	ND	1.0	0.16	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Chlorodibromomethane	ND	0.50	0.10	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Chloroethane	ND	2.0	0.28	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Chloroform	ND	2.0	0.22	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Chloromethane	ND	2.0	0.32	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Cyclohexane	ND	5.0	0.25	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.34	µg/L	1	V-05	SW-846 8260C	3/24/16	3/24/16 17:06	EEH
1,2-Dibromoethane (EDB)	ND	0.50	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
1,2-Dichlorobenzene	ND	1.0	0.17	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
1,3-Dichlorobenzene	ND	1.0	0.17	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
1,4-Dichlorobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.18	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
1,2-Dichloroethane	ND	1.0	0.19	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
1,1-Dichloroethylene	ND	1.0	0.21	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
trans-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
1,2-Dichloropropane	ND	1.0	0.13	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
trans-1,3-Dichloropropene	ND	0.50	0.11	µg/L	1	V-05	SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Ethylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
2-Hexanone (MBK)	ND	10	1.5	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Isopropylbenzene (Cumene)	ND	1.0	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Methyl Acetate	ND	1.0	0.42	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Methyl tert-Butyl Ether (MTBE)	0.58	1.0	0.090	µg/L	1	J	SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Methyl Cyclohexane	ND	1.0	0.63	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Methylene Chloride	ND	5.0	3.2	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	1.5	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Styrene	ND	1.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	0.16	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Tetrachloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Toluene	ND	1.0	0.17	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
1,2,4-Trichlorobenzene	ND	1.0	0.19	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
1,1,1-Trichloroethane	ND	1.0	0.094	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-3
Sampled: 3/19/2016 14:10
Sample ID: 16C0970-23
Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,1,2-Trichloroethane	ND	1.0	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Trichloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.14	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Vinyl Chloride	ND	2.0	0.13	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
m+p Xylene	ND	2.0	0.25	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
o-Xylene	ND	1.0	0.13	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH
Xylenes (total)	ND	3.0		µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:06	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	107	70-130		3/24/16 17:06
Toluene-d8	101	70-130		3/24/16 17:06
4-Bromofluorobenzene	94.2	70-130		3/24/16 17:06

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-3
Sampled: 3/19/2016 14:10
Sample ID: 16C0970-23
Sample Matrix: Ground Water

Tentatively Identified Compounds - Volatile Compounds (ESTIMATED VALUES REPORTED)

Analyte	Results	Units	Response	RT	DF	CAS #	Q#	Method	Date Prepared	Date/Time Analyzed	Analyst
No TICs Found	0.0	µg/L			1			SW-846 8260C	3/24/16	3/24/16 17:06	EEH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-3
Sampled: 3/19/2016 14:10
Sample ID: 16C0970-23
Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Atrazine	ND	20	16	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Benzaldehyde	ND	10	8.7	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Biphenyl	ND	20	10	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Caprolactam	ND	10	2.4	µg/L	1	L-04, R-05	SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Acenaphthene (low)	ND	0.30	0.060	µg/L	1		SW-846 8270D	3/23/16	3/24/16 13:41	CJM
Acenaphthylene (low)	ND	0.30	0.050	µg/L	1		SW-846 8270D	3/23/16	3/24/16 13:41	CJM
Acetophenone	ND	10	4.0	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Anthracene (low)	ND	0.20	0.040	µg/L	1		SW-846 8270D	3/23/16	3/24/16 13:41	CJM
Benzo(a)anthracene (low)	ND	0.050	0.050	µg/L	1		SW-846 8270D	3/23/16	3/24/16 13:41	CJM
Benzo(a)pyrene (low)	ND	0.10	0.040	µg/L	1		SW-846 8270D	3/23/16	3/24/16 13:41	CJM
Benzo(b)fluoranthene (low)	ND	0.050	0.020	µg/L	1		SW-846 8270D	3/23/16	3/24/16 13:41	CJM
Benzo(g,h,i)perylene (low)	ND	0.50	0.070	µg/L	1		SW-846 8270D	3/23/16	3/24/16 13:41	CJM
Benzo(k)fluoranthene (low)	ND	0.20	0.10	µg/L	1		SW-846 8270D	3/23/16	3/24/16 13:41	CJM
Bis(2-chloroethoxy)methane	ND	10	4.8	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Bis(2-chloroethyl)ether	ND	10	4.2	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Bis(2-chloroisopropyl)ether	ND	10	3.0	µg/L	1	R-05, V-20	SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Bis(2-Ethylhexyl)phthalate	ND	10	4.7	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
4-Bromophenylphenylether	ND	10	2.0	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Butylbenzylphthalate	ND	10	3.0	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Carbazole	ND	10	4.5	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
4-Chloroaniline	ND	10	3.9	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:26	BGL
4-Chloro-3-methylphenol	ND	10	4.9	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
2-Chloronaphthalene	ND	10	2.9	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
2-Chlorophenol	ND	10	1.6	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:26	BGL
4-Chlorophenylphenylether	ND	10	4.7	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Chrysene (low)	ND	0.20	0.030	µg/L	1		SW-846 8270D	3/23/16	3/24/16 13:41	CJM
Dibenz(a,h)anthracene (low)	ND	0.10	0.040	µg/L	1		SW-846 8270D	3/23/16	3/24/16 13:41	CJM
Dibenzofuran	ND	5.0	4.7	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Di-n-butylphthalate	ND	10	4.7	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
3,3-Dichlorobenzidine	ND	10	2.2	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
2,4-Dichlorophenol	ND	10	4.6	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Diethylphthalate	ND	10	4.2	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
2,4-Dimethylphenol	ND	10	2.4	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Dimethylphthalate	ND	10	4.6	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
4,6-Dinitro-2-methylphenol	ND	10	5.6	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
2,4-Dinitrophenol	ND	10	6.7	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
2,4-Dinitrotoluene	ND	10	5.2	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
2,6-Dinitrotoluene	ND	10	4.9	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Di-n-octylphthalate	ND	10	4.3	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Fluoranthene (low)	ND	0.50	0.030	µg/L	1		SW-846 8270D	3/23/16	3/24/16 13:41	CJM
Fluorene (low)	ND	1.0	0.040	µg/L	1		SW-846 8270D	3/23/16	3/24/16 13:41	CJM
Hexachlorobenzene	ND	10	4.6	µg/L	1	V-05	SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Hexachlorobutadiene	ND	10	1.8	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Hexachlorocyclopentadiene	ND	10	6.0	µg/L	1	V-05	SW-846 8270D	3/23/16	3/24/16 18:26	BGL

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-3
Sampled: 3/19/2016 14:10
Sample ID: 16C0970-23
Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachloroethane	ND	10	1.5	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Indeno(1,2,3-cd)pyrene (low)	ND	0.20	0.080	µg/L	1		SW-846 8270D	3/23/16	3/24/16 13:41	CJM
Isophorone	ND	10	1.8	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
2-Methylnaphthalene (low)	ND	1.0	0.080	µg/L	1		SW-846 8270D	3/23/16	3/24/16 13:41	CJM
2-Methylphenol	ND	10	2.6	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:26	BGL
3/4-Methylphenol	ND	10	4.1	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Naphthalene (low)	0.11	1.0	0.070	µg/L	1	J	SW-846 8270D	3/23/16	3/24/16 13:41	CJM
2-Nitroaniline	ND	10	6.3	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
3-Nitroaniline	ND	10	4.3	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
4-Nitroaniline	ND	10	3.7	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Nitrobenzene	ND	10	4.3	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
2-Nitrophenol	ND	10	2.0	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
4-Nitrophenol	ND	10	2.3	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
N-Nitrosodiphenylamine	ND	10	1.9	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
N-Nitrosodi-n-propylamine	ND	10	4.6	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Pentachlorophenol	ND	10	3.4	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Phenanthrene (low)	0.044	0.050	0.040	µg/L	1	J	SW-846 8270D	3/23/16	3/24/16 13:41	CJM
Phenol	ND	10	2.5	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:26	BGL
Pyrene (low)	ND	1.0	0.030	µg/L	1		SW-846 8270D	3/23/16	3/24/16 13:41	CJM
1,2,4,5-Tetrachlorobenzene	ND	10	2.1	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
2,4,5-Trichlorophenol	ND	10	4.0	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL
2,4,6-Trichlorophenol	ND	10	3.7	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:26	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	42.0	15-110		3/24/16 18:26
Phenol-d6	28.0	15-110		3/24/16 18:26
Nitrobenzene-d5	87.8	30-130		3/24/16 18:26
Nitrobenzene-d5 (low)	61.9	30-130		3/24/16 13:41
2-Fluorobiphenyl	79.6	30-130		3/24/16 18:26
2-Fluorobiphenyl (low)	59.5	30-130		3/24/16 13:41
2,4,6-Tribromophenol	80.4	15-110		3/24/16 18:26
p-Terphenyl-d14	86.6	30-130		3/24/16 18:26
p-Terphenyl-d14 (low)	55.0	30-130		3/24/16 13:41

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-3
Sampled: 3/19/2016 14:10
Sample ID: 16C0970-23
Sample Matrix: Ground Water

Tentatively Identified Compounds - SV Compounds (ESTIMATED VALUES REPORTED)

Analyte	Results	Units	Response	RT	DF	CAS #	Q#	Method	Date Prepared	Date/Time Analyzed	Analyst
No TICs Found	0.0	µg/L			1			SW-846 8270D	3/23/16	3/24/16 18:26	BGL

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970

Date Received: 3/21/2016

Field Sample #: TRC-GW-3
Sampled: 3/19/2016 14:10

Sample ID: 16C0970-23

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	5.5	0.050	0.043	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:14	AME
Antimony	ND	5.0	0.69	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:12	MJH
Arsenic	4.8	2.0	1.5	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:12	MJH
Barium	1100	50	1.9	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:12	MJH
Beryllium	2.3	2.0	0.30	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:12	MJH
Cadmium	1.4	2.5	0.085	µg/L	5	J	SW-846 6020A-B	3/26/16	3/29/16 16:12	MJH
Calcium	670	0.15	0.019	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:14	AME
Chromium	160	5.0	2.2	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:12	MJH
Cobalt	150	5.0	0.12	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:12	MJH
Copper	180	25	0.94	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:12	MJH
Iron	8.6	0.050	0.013	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:14	AME
Lead	48	5.0	0.27	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:12	MJH
Magnesium	170	0.15	0.034	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:14	AME
Manganese	7000	5.0	0.57	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:12	MJH
Mercury	ND	0.00010	0.000019	mg/L	1		SW-846 7470A	3/23/16	3/24/16 13:27	TGW
Nickel	180	25	4.0	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:12	MJH
Potassium	12	2.0	0.18	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:14	AME
Selenium	6.9	25	3.8	µg/L	5	J	SW-846 6020A-B	3/26/16	3/29/16 16:12	MJH
Silver	ND	2.5	0.57	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:12	MJH
Sodium	69	2.0	0.092	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:14	AME
Thallium	1.3	1.0	0.32	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:12	MJH
Vanadium	160	25	9.3	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:12	MJH
Zinc	260	50	17	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:12	MJH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-3
Sampled: 3/19/2016 14:10
Sample ID: 16C0970-23
Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	1.7	0.050	0.043	mg/L	1		SW-846 6010C-D	3/26/16	3/28/16 12:55	AME
Antimony	ND	5.0	0.69	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:38	MJH
Arsenic	ND	2.0	1.5	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:38	MJH
Barium	190	50	1.9	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:38	MJH
Beryllium	ND	2.0	0.30	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:38	MJH
Cadmium	ND	2.5	0.085	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:38	MJH
Calcium	220	0.15	0.019	mg/L	1		SW-846 6010C-D	3/26/16	3/28/16 12:55	AME
Chromium	2.8	5.0	2.2	µg/L	5	J	SW-846 6020A-B	3/22/16	3/23/16 14:38	MJH
Cobalt	13	5.0	0.12	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:38	MJH
Copper	5.2	25	0.94	µg/L	5	J	SW-846 6020A-B	3/22/16	3/23/16 14:38	MJH
Iron	3.2	0.050	0.013	mg/L	1		SW-846 6010C-D	3/26/16	3/28/16 12:55	AME
Lead	1.1	5.0	0.27	µg/L	5	J	SW-846 6020A-B	3/22/16	3/23/16 14:38	MJH
Magnesium	74	0.15	0.034	mg/L	1		SW-846 6010C-D	3/26/16	3/28/16 12:55	AME
Manganese	490	5.0	0.57	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:38	MJH
Mercury	ND	0.00010	0.000019	mg/L	1		SW-846 7470A	3/23/16	3/24/16 13:53	TGW
Nickel	15	25	4.0	µg/L	5	J	SW-846 6020A-B	3/22/16	3/23/16 14:38	MJH
Potassium	7.6	2.0	0.18	mg/L	1		SW-846 6010C-D	3/26/16	3/28/16 12:55	AME
Selenium	6.0	25	3.8	µg/L	5	J	SW-846 6020A-B	3/22/16	3/23/16 14:38	MJH
Silver	ND	2.5	0.57	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:38	MJH
Sodium	68	2.0	0.092	mg/L	1	MS-19	SW-846 6010C-D	3/29/16	3/30/16 12:02	AME
Thallium	ND	1.0	0.32	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:38	MJH
Vanadium	ND	25	9.3	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:38	MJH
Zinc	ND	50	17	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:38	MJH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-4
Sampled: 3/19/2016 15:40
Sample ID: 16C0970-24
Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	4.9	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Benzene	ND	1.0	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Bromochloromethane	ND	1.0	0.22	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Bromodichloromethane	ND	0.50	0.088	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Bromoform	ND	1.0	0.21	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Bromomethane	ND	2.0	0.94	µg/L	1	R-05	SW-846 8260C	3/24/16	3/24/16 17:33	EEH
2-Butanone (MEK)	ND	20	2.4	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Carbon Disulfide	ND	4.0	1.0	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Carbon Tetrachloride	ND	5.0	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Chlorobenzene	ND	1.0	0.16	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Chlorodibromomethane	ND	0.50	0.10	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Chloroethane	ND	2.0	0.28	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Chloroform	1.4	2.0	0.22	µg/L	1	J	SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Chloromethane	ND	2.0	0.32	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Cyclohexane	ND	5.0	0.25	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.34	µg/L	1	V-05	SW-846 8260C	3/24/16	3/24/16 17:33	EEH
1,2-Dibromoethane (EDB)	ND	0.50	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
1,2-Dichlorobenzene	ND	1.0	0.17	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
1,3-Dichlorobenzene	ND	1.0	0.17	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
1,4-Dichlorobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.18	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
1,2-Dichloroethane	ND	1.0	0.19	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
1,1-Dichloroethylene	ND	1.0	0.21	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
trans-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
1,2-Dichloropropane	ND	1.0	0.13	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
trans-1,3-Dichloropropene	ND	0.50	0.11	µg/L	1	V-05	SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Ethylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
2-Hexanone (MBK)	ND	10	1.5	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Isopropylbenzene (Cumene)	ND	1.0	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Methyl Acetate	ND	1.0	0.42	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.090	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Methyl Cyclohexane	ND	1.0	0.63	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Methylene Chloride	ND	5.0	3.2	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	1.5	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Styrene	ND	1.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	0.16	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Tetrachloroethylene	0.82	1.0	0.17	µg/L	1	J	SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Toluene	ND	1.0	0.17	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
1,2,4-Trichlorobenzene	ND	1.0	0.19	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
1,1,1-Trichloroethane	ND	1.0	0.094	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-4
Sampled: 3/19/2016 15:40
Sample ID: 16C0970-24
Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,1,2-Trichloroethane	ND	1.0	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Trichloroethylene	0.69	1.0	0.20	µg/L	1	J	SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.14	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Vinyl Chloride	ND	2.0	0.13	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
m+p Xylene	ND	2.0	0.25	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
o-Xylene	ND	1.0	0.13	µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH
Xylenes (total)	ND	3.0		µg/L	1		SW-846 8260C	3/24/16	3/24/16 17:33	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	108	70-130		3/24/16 17:33
Toluene-d8	101	70-130		3/24/16 17:33
4-Bromofluorobenzene	92.3	70-130		3/24/16 17:33

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-4
Sampled: 3/19/2016 15:40
Sample ID: 16C0970-24
Sample Matrix: Ground Water

Tentatively Identified Compounds - Volatile Compounds (ESTIMATED VALUES REPORTED)

Analyte	Results	Units	Response	RT	DF	CAS #	Q#	Method	Date Prepared	Date/Time Analyzed	Analyst
No TICs Found	0.0	µg/L			1			SW-846 8260C	3/24/16	3/24/16 17:33	EEH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-4
Sampled: 3/19/2016 15:40
Sample ID: 16C0970-24
Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Atrazine	ND	20	16	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Benzaldehyde	ND	10	8.7	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Biphenyl	ND	20	10	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Caprolactam	ND	10	2.4	µg/L	1	L-04, R-05	SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Acenaphthene (low)	0.21	0.30	0.060	µg/L	1	J	SW-846 8270D	3/23/16	3/24/16 14:10	CJM
Acenaphthylene (low)	ND	0.30	0.050	µg/L	1		SW-846 8270D	3/23/16	3/24/16 14:10	CJM
Acetophenone	ND	10	4.0	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Anthracene (low)	0.22	0.20	0.040	µg/L	1		SW-846 8270D	3/23/16	3/24/16 14:10	CJM
Benzo(a)anthracene (low)	0.051	0.050	0.050	µg/L	1		SW-846 8270D	3/23/16	3/24/16 14:10	CJM
Benzo(a)pyrene (low)	ND	0.10	0.040	µg/L	1		SW-846 8270D	3/23/16	3/24/16 14:10	CJM
Benzo(b)fluoranthene (low)	0.032	0.050	0.020	µg/L	1	J	SW-846 8270D	3/23/16	3/24/16 14:10	CJM
Benzo(g,h,i)perylene (low)	ND	0.50	0.070	µg/L	1		SW-846 8270D	3/23/16	3/24/16 14:10	CJM
Benzo(k)fluoranthene (low)	ND	0.20	0.10	µg/L	1		SW-846 8270D	3/23/16	3/24/16 14:10	CJM
Bis(2-chloroethoxy)methane	ND	10	4.8	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Bis(2-chloroethyl)ether	ND	10	4.2	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Bis(2-chloroisopropyl)ether	ND	10	3.0	µg/L	1	R-05, V-20	SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Bis(2-Ethylhexyl)phthalate	ND	10	4.7	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
4-Bromophenylphenylether	ND	10	2.0	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Butylbenzylphthalate	ND	10	3.0	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Carbazole	ND	10	4.5	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
4-Chloroaniline	ND	10	3.9	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:54	BGL
4-Chloro-3-methylphenol	ND	10	4.9	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
2-Chloronaphthalene	ND	10	2.9	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
2-Chlorophenol	ND	10	1.6	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:54	BGL
4-Chlorophenylphenylether	ND	10	4.7	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Chrysene (low)	0.050	0.20	0.030	µg/L	1	J	SW-846 8270D	3/23/16	3/24/16 14:10	CJM
Dibenz(a,h)anthracene (low)	ND	0.10	0.040	µg/L	1		SW-846 8270D	3/23/16	3/24/16 14:10	CJM
Dibenzofuran	ND	5.0	4.7	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Di-n-butylphthalate	ND	10	4.7	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
3,3-Dichlorobenzidine	ND	10	2.2	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
2,4-Dichlorophenol	ND	10	4.6	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Diethylphthalate	ND	10	4.2	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
2,4-Dimethylphenol	ND	10	2.4	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Dimethylphthalate	ND	10	4.6	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
4,6-Dinitro-2-methylphenol	ND	10	5.6	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
2,4-Dinitrophenol	ND	10	6.7	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
2,4-Dinitrotoluene	ND	10	5.2	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
2,6-Dinitrotoluene	ND	10	4.9	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Di-n-octylphthalate	ND	10	4.3	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Fluoranthene (low)	0.45	0.50	0.030	µg/L	1	J	SW-846 8270D	3/23/16	3/24/16 14:10	CJM
Fluorene (low)	0.26	1.0	0.040	µg/L	1	J	SW-846 8270D	3/23/16	3/24/16 14:10	CJM
Hexachlorobenzene	ND	10	4.6	µg/L	1	V-05	SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Hexachlorobutadiene	ND	10	1.8	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Hexachlorocyclopentadiene	ND	10	6.0	µg/L	1	V-05	SW-846 8270D	3/23/16	3/24/16 18:54	BGL

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-4
Sampled: 3/19/2016 15:40
Sample ID: 16C0970-24
Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachloroethane	ND	10	1.5	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Indeno(1,2,3-cd)pyrene (low)	ND	0.20	0.080	µg/L	1		SW-846 8270D	3/23/16	3/24/16 14:10	CJM
Isophorone	ND	10	1.8	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
2-Methylnaphthalene (low)	0.15	1.0	0.080	µg/L	1	J	SW-846 8270D	3/23/16	3/24/16 14:10	CJM
2-Methylphenol	ND	10	2.6	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:54	BGL
3/4-Methylphenol	ND	10	4.1	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Naphthalene (low)	0.24	1.0	0.070	µg/L	1	J	SW-846 8270D	3/23/16	3/24/16 14:10	CJM
2-Nitroaniline	ND	10	6.3	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
3-Nitroaniline	ND	10	4.3	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
4-Nitroaniline	ND	10	3.7	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Nitrobenzene	ND	10	4.3	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
2-Nitrophenol	ND	10	2.0	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
4-Nitrophenol	ND	10	2.3	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
N-Nitrosodiphenylamine	ND	10	1.9	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
N-Nitrosodi-n-propylamine	ND	10	4.6	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Pentachlorophenol	ND	10	3.4	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Phenanthrene (low)	1.3	0.050	0.040	µg/L	1		SW-846 8270D	3/23/16	3/24/16 14:10	CJM
Phenol	ND	10	2.5	µg/L	1	R-05	SW-846 8270D	3/23/16	3/24/16 18:54	BGL
Pyrene (low)	0.32	1.0	0.030	µg/L	1	J	SW-846 8270D	3/23/16	3/24/16 14:10	CJM
1,2,4,5-Tetrachlorobenzene	ND	10	2.1	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
2,4,5-Trichlorophenol	ND	10	4.0	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL
2,4,6-Trichlorophenol	ND	10	3.7	µg/L	1		SW-846 8270D	3/23/16	3/24/16 18:54	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	34.1	15-110		3/24/16 18:54
Phenol-d6	21.6	15-110		3/24/16 18:54
Nitrobenzene-d5	84.4	30-130		3/24/16 18:54
Nitrobenzene-d5 (low)	59.0	30-130		3/24/16 14:10
2-Fluorobiphenyl	77.5	30-130		3/24/16 18:54
2-Fluorobiphenyl (low)	60.2	30-130		3/24/16 14:10
2,4,6-Tribromophenol	72.0	15-110		3/24/16 18:54
p-Terphenyl-d14	80.6	30-130		3/24/16 18:54
p-Terphenyl-d14 (low)	48.9	30-130		3/24/16 14:10

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970

Date Received: 3/21/2016

Field Sample #: TRC-GW-4
Sampled: 3/19/2016 15:40

Sample ID: 16C0970-24

Sample Matrix: Ground Water

Tentatively Identified Compounds - SV Compounds (ESTIMATED VALUES REPORTED)

Analyte	Results	Units	Response	RT	DF	CAS #	Q#	Method	Date Prepared	Date/Time Analyzed	Analyst
No TICs Found	0.0	µg/L			1			SW-846 8270D	3/23/16	3/24/16 18:54	BGL

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970

Date Received: 3/21/2016

Field Sample #: TRC-GW-4
Sampled: 3/19/2016 15:40

Sample ID: 16C0970-24

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	7.3	0.050	0.043	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:19	AME
Antimony	ND	5.0	0.69	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:15	MJH
Arsenic	7.4	2.0	1.5	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:15	MJH
Barium	1100	50	1.9	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:15	MJH
Beryllium	2.5	2.0	0.30	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:15	MJH
Cadmium	2.3	2.5	0.085	µg/L	5	J	SW-846 6020A-B	3/26/16	3/29/16 16:15	MJH
Calcium	820	0.15	0.019	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:19	AME
Chromium	160	5.0	2.2	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:15	MJH
Cobalt	240	5.0	0.12	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:15	MJH
Copper	210	25	0.94	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:15	MJH
Iron	13	0.050	0.013	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:19	AME
Lead	130	5.0	0.27	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:15	MJH
Magnesium	170	0.15	0.034	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:19	AME
Manganese	12000	20	2.3	µg/L	20		SW-846 6020A-B	3/26/16	3/30/16 9:55	MJH
Mercury	ND	0.00010	0.000019	mg/L	1		SW-846 7470A	3/23/16	3/24/16 13:32	TGW
Nickel	190	25	4.0	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:15	MJH
Potassium	17	2.0	0.18	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:19	AME
Selenium	10	25	3.8	µg/L	5	J	SW-846 6020A-B	3/26/16	3/29/16 16:15	MJH
Silver	ND	2.5	0.57	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:15	MJH
Sodium	170	2.0	0.092	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:19	AME
Thallium	0.93	1.0	0.32	µg/L	5	J	SW-846 6020A-B	3/26/16	3/29/16 16:15	MJH
Vanadium	160	25	9.3	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:15	MJH
Zinc	310	50	17	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:15	MJH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-4
Sampled: 3/19/2016 15:40
Sample ID: 16C0970-24
Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	0.049	0.050	0.043	mg/L	1	J	SW-846 6010C-D	3/26/16	3/28/16 12:59	AME
Antimony	ND	5.0	0.69	µg/L	5		SW-846 6020A-B	3/24/16	3/29/16 14:23	MJH
Arsenic	ND	2.0	1.5	µg/L	5		SW-846 6020A-B	3/24/16	3/29/16 14:23	MJH
Barium	63	50	1.9	µg/L	5		SW-846 6020A-B	3/24/16	3/29/16 14:23	MJH
Beryllium	ND	2.0	0.30	µg/L	5		SW-846 6020A-B	3/24/16	3/29/16 14:23	MJH
Cadmium	ND	2.5	0.085	µg/L	5		SW-846 6020A-B	3/24/16	3/29/16 14:23	MJH
Calcium	210	0.15	0.019	mg/L	1		SW-846 6010C-D	3/26/16	3/28/16 12:59	AME
Chromium	ND	5.0	2.2	µg/L	5		SW-846 6020A-B	3/24/16	3/29/16 14:23	MJH
Cobalt	8.7	5.0	0.12	µg/L	5		SW-846 6020A-B	3/24/16	3/29/16 14:23	MJH
Copper	3.4	25	0.94	µg/L	5	J	SW-846 6020A-B	3/24/16	3/29/16 14:23	MJH
Iron	0.093	0.050	0.013	mg/L	1		SW-846 6010C-D	3/26/16	3/28/16 12:59	AME
Lead	ND	5.0	0.27	µg/L	5		SW-846 6020A-B	3/24/16	3/29/16 14:23	MJH
Magnesium	65	0.15	0.034	mg/L	1		SW-846 6010C-D	3/26/16	3/28/16 12:59	AME
Manganese	490	5.0	0.57	µg/L	5		SW-846 6020A-B	3/24/16	3/29/16 14:23	MJH
Mercury	ND	0.00010	0.000019	mg/L	1		SW-846 7470A	3/23/16	3/24/16 13:54	TGW
Nickel	11	25	4.0	µg/L	5	J	SW-846 6020A-B	3/24/16	3/29/16 14:23	MJH
Potassium	8.2	2.0	0.18	mg/L	1		SW-846 6010C-D	3/26/16	3/28/16 12:59	AME
Selenium	10	25	3.8	µg/L	5	J	SW-846 6020A-B	3/24/16	3/29/16 14:23	MJH
Silver	ND	2.5	0.57	µg/L	5		SW-846 6020A-B	3/24/16	3/30/16 9:45	MJH
Sodium	140	2.0	0.092	mg/L	1		SW-846 6010C-D	3/29/16	3/30/16 12:45	AME
Thallium	ND	1.0	0.32	µg/L	5		SW-846 6020A-B	3/24/16	3/29/16 14:23	MJH
Vanadium	ND	25	9.3	µg/L	5		SW-846 6020A-B	3/24/16	3/29/16 14:23	MJH
Zinc	ND	50	17	µg/L	5		SW-846 6020A-B	3/24/16	3/29/16 14:23	MJH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-5
Sampled: 3/20/2016 13:00
Sample ID: 16C0970-25
Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	4.9	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Benzene	ND	1.0	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Bromochloromethane	ND	1.0	0.22	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Bromodichloromethane	ND	0.50	0.088	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Bromoform	ND	1.0	0.21	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Bromomethane	ND	2.0	0.94	µg/L	1	R-05	SW-846 8260C	3/24/16	3/24/16 18:00	EEH
2-Butanone (MEK)	ND	20	2.4	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Carbon Disulfide	ND	4.0	1.0	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Carbon Tetrachloride	ND	5.0	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Chlorobenzene	ND	1.0	0.16	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Chlorodibromomethane	ND	0.50	0.10	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Chloroethane	ND	2.0	0.28	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Chloroform	0.57	2.0	0.22	µg/L	1	J	SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Chloromethane	ND	2.0	0.32	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Cyclohexane	ND	5.0	0.25	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.34	µg/L	1	V-05	SW-846 8260C	3/24/16	3/24/16 18:00	EEH
1,2-Dibromoethane (EDB)	ND	0.50	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
1,2-Dichlorobenzene	ND	1.0	0.17	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
1,3-Dichlorobenzene	ND	1.0	0.17	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
1,4-Dichlorobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.18	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
1,2-Dichloroethane	ND	1.0	0.19	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
1,1-Dichloroethylene	ND	1.0	0.21	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
trans-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
1,2-Dichloropropane	ND	1.0	0.13	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
trans-1,3-Dichloropropene	ND	0.50	0.11	µg/L	1	V-05	SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Ethylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
2-Hexanone (MBK)	ND	10	1.5	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Isopropylbenzene (Cumene)	ND	1.0	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Methyl Acetate	ND	1.0	0.42	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.090	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Methyl Cyclohexane	ND	1.0	0.63	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Methylene Chloride	ND	5.0	3.2	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	1.5	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Styrene	ND	1.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	0.16	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Tetrachloroethylene	2.4	1.0	0.17	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Toluene	ND	1.0	0.17	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
1,2,4-Trichlorobenzene	ND	1.0	0.19	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
1,1,1-Trichloroethane	ND	1.0	0.094	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-5
Sampled: 3/20/2016 13:00
Sample ID: 16C0970-25
Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,1,2-Trichloroethane	ND	1.0	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Trichloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.14	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Vinyl Chloride	ND	2.0	0.13	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
m+p Xylene	ND	2.0	0.25	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
o-Xylene	ND	1.0	0.13	µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH
Xylenes (total)	ND	3.0		µg/L	1		SW-846 8260C	3/24/16	3/24/16 18:00	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	109	70-130		3/24/16 18:00
Toluene-d8	102	70-130		3/24/16 18:00
4-Bromofluorobenzene	93.4	70-130		3/24/16 18:00

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-5
Sampled: 3/20/2016 13:00
Sample ID: 16C0970-25
Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzene	ND	1.0	0.12	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
Bromodichloromethane	ND	2.0	0.088	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
Bromoform	ND	2.0	0.21	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
Bromomethane	ND	2.0	0.94	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
Carbon Tetrachloride	ND	2.0	0.12	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
Chlorobenzene	ND	2.0	0.16	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
Chlorodibromomethane	ND	2.0	0.10	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
Chloroethane	ND	2.0	0.28	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
2-Chloroethyl Vinyl Ether	ND	10	2.2	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
Chloroform	0.57	2.0	0.22	µg/L	1	J	EPA 624	3/24/16	3/24/16 18:00	EEH
Chloromethane	ND	2.0	0.32	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
1,2-Dichlorobenzene	ND	2.0	0.17	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
1,3-Dichlorobenzene	ND	2.0	0.17	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
1,4-Dichlorobenzene	ND	2.0	0.15	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
1,2-Dichloroethane	ND	2.0	0.19	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
1,1-Dichloroethane	ND	2.0	0.16	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
1,1-Dichloroethylene	ND	2.0	0.21	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
trans-1,2-Dichloroethylene	ND	2.0	0.15	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
1,2-Dichloropropane	ND	2.0	0.13	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
cis-1,3-Dichloropropene	ND	2.0	0.12	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
trans-1,3-Dichloropropene	ND	2.0	0.11	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
Ethylbenzene	ND	2.0	0.13	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
Methyl tert-Butyl Ether (MTBE)	ND	2.0	0.090	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
Methylene Chloride	ND	5.0	3.2	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
1,1,2,2-Tetrachloroethane	ND	2.0	0.16	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
Tetrachloroethylene	2.4	2.0	0.17	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
Toluene	ND	1.0	0.17	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
1,1,1-Trichloroethane	ND	2.0	0.094	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
1,1,2-Trichloroethane	ND	2.0	0.12	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
Trichloroethylene	ND	2.0	0.20	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	0.15	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
Vinyl Chloride	ND	2.0	0.13	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
m+p Xylene	ND	2.0	0.25	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH
o-Xylene	ND	2.0	0.13	µg/L	1		EPA 624	3/24/16	3/24/16 18:00	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	109	70-130		3/24/16 18:00
Toluene-d8	102	70-130		3/24/16 18:00
4-Bromofluorobenzene	93.4	70-130		3/24/16 18:00

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970

Date Received: 3/21/2016

Field Sample #: TRC-GW-5
Sampled: 3/20/2016 13:00

Sample ID: 16C0970-25

Sample Matrix: Ground Water

Tentatively Identified Compounds - Volatile Compounds (ESTIMATED VALUES REPORTED)

Analyte	Results	Units	Response	RT	DF	CAS #	Q#	Method	Date Prepared	Date/Time Analyzed	Analyst
No TICs Found	0.0	µg/L			1			SW-846 8260C	3/24/16	3/24/16 18:00	EEH

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-5
Sampled: 3/20/2016 13:00
Sample ID: 16C0970-25
Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Atrazine	ND	18	14	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Benzaldehyde	ND	8.9	7.8	µg/L	1	V-20	SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Biphenyl	ND	18	9.3	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Caprolactam	ND	8.9	2.1	µg/L	1	L-04	SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Acenaphthene (low)	ND	0.27	0.053	µg/L	1		SW-846 8270D	3/25/16	3/25/16 18:11	CJM
Acenaphthylene (low)	ND	0.27	0.044	µg/L	1		SW-846 8270D	3/25/16	3/25/16 18:11	CJM
Acetophenone	ND	8.9	3.5	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Anthracene (low)	ND	0.18	0.036	µg/L	1		SW-846 8270D	3/25/16	3/25/16 18:11	CJM
Benzo(a)anthracene (low)	ND	0.044	0.044	µg/L	1		SW-846 8270D	3/25/16	3/25/16 18:11	CJM
Benzo(a)pyrene (low)	ND	0.089	0.036	µg/L	1		SW-846 8270D	3/25/16	3/25/16 18:11	CJM
Benzo(b)fluoranthene (low)	ND	0.044	0.018	µg/L	1		SW-846 8270D	3/25/16	3/25/16 18:11	CJM
Benzo(g,h,i)perylene (low)	ND	0.44	0.062	µg/L	1		SW-846 8270D	3/25/16	3/25/16 18:11	CJM
Benzo(k)fluoranthene (low)	ND	0.18	0.089	µg/L	1		SW-846 8270D	3/25/16	3/25/16 18:11	CJM
Bis(2-chloroethoxy)methane	ND	8.9	4.2	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Bis(2-chloroethyl)ether	ND	8.9	3.7	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Bis(2-chloroisopropyl)ether	ND	8.9	2.6	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Bis(2-Ethylhexyl)phthalate	ND	8.9	4.2	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
4-Bromophenylphenylether	ND	8.9	1.8	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Butylbenzylphthalate	ND	8.9	2.7	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Carbazole	ND	8.9	4.0	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
4-Chloroaniline	ND	8.9	3.4	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
4-Chloro-3-methylphenol	ND	8.9	4.3	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
2-Chloronaphthalene	ND	8.9	2.6	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
2-Chlorophenol	ND	8.9	1.4	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
4-Chlorophenylphenylether	ND	8.9	4.2	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Chrysene (low)	ND	0.18	0.027	µg/L	1		SW-846 8270D	3/25/16	3/25/16 18:11	CJM
Dibenz(a,h)anthracene (low)	ND	0.089	0.036	µg/L	1		SW-846 8270D	3/25/16	3/25/16 18:11	CJM
Dibenzofuran	ND	4.4	4.2	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Di-n-butylphthalate	ND	8.9	4.2	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
3,3-Dichlorobenzidine	ND	8.9	2.0	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
2,4-Dichlorophenol	ND	8.9	4.1	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Diethylphthalate	ND	8.9	3.8	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
2,4-Dimethylphenol	ND	8.9	2.1	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Dimethylphthalate	ND	8.9	4.1	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
4,6-Dinitro-2-methylphenol	ND	8.9	5.0	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
2,4-Dinitrophenol	ND	8.9	5.9	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
2,4-Dinitrotoluene	ND	8.9	4.6	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
2,6-Dinitrotoluene	ND	8.9	4.3	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Di-n-octylphthalate	ND	8.9	3.8	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Fluoranthene (low)	0.031	0.44	0.027	µg/L	1	J	SW-846 8270D	3/25/16	3/25/16 18:11	CJM
Fluorene (low)	ND	0.89	0.036	µg/L	1		SW-846 8270D	3/25/16	3/25/16 18:11	CJM
Hexachlorobenzene	ND	8.9	4.1	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Hexachlorobutadiene	ND	8.9	1.6	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Hexachlorocyclopentadiene	ND	8.9	5.4	µg/L	1	V-05	SW-846 8270D	3/25/16	3/26/16 15:15	CMR

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-5
Sampled: 3/20/2016 13:00
Sample ID: 16C0970-25
Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachloroethane	ND	8.9	1.3	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Indeno(1,2,3-cd)pyrene (low)	ND	0.18	0.071	µg/L	1		SW-846 8270D	3/25/16	3/25/16 18:11	CJM
Isophorone	ND	8.9	1.6	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
2-Methylnaphthalene (low)	ND	0.89	0.071	µg/L	1		SW-846 8270D	3/25/16	3/25/16 18:11	CJM
2-Methylphenol	ND	8.9	2.3	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
3/4-Methylphenol	ND	8.9	3.7	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Naphthalene (low)	ND	0.89	0.062	µg/L	1		SW-846 8270D	3/25/16	3/25/16 18:11	CJM
2-Nitroaniline	ND	8.9	5.6	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
3-Nitroaniline	ND	8.9	3.8	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
4-Nitroaniline	ND	8.9	3.3	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Nitrobenzene	ND	8.9	3.8	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
2-Nitrophenol	ND	8.9	1.8	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
4-Nitrophenol	ND	8.9	2.1	µg/L	1	V-20	SW-846 8270D	3/25/16	3/26/16 15:15	CMR
N-Nitrosodiphenylamine	ND	8.9	1.7	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
N-Nitrosodi-n-propylamine	ND	8.9	4.1	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Pentachlorophenol	ND	8.9	3.0	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Phenanthrene (low)	0.078	0.044	0.036	µg/L	1		SW-846 8270D	3/25/16	3/25/16 18:11	CJM
Phenol	ND	8.9	2.2	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
Pyrene (low)	0.028	0.89	0.027	µg/L	1	J	SW-846 8270D	3/25/16	3/25/16 18:11	CJM
1,2,4,5-Tetrachlorobenzene	ND	8.9	1.8	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
2,4,5-Trichlorophenol	ND	8.9	3.5	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR
2,4,6-Trichlorophenol	ND	8.9	3.3	µg/L	1		SW-846 8270D	3/25/16	3/26/16 15:15	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	51.5	15-110		3/26/16 15:15
Phenol-d6	42.2	15-110		3/26/16 15:15
Nitrobenzene-d5	72.1	30-130		3/26/16 15:15
Nitrobenzene-d5 (low)	56.0	30-130		3/25/16 18:11
2-Fluorobiphenyl	73.7	30-130		3/26/16 15:15
2-Fluorobiphenyl (low)	49.2	30-130		3/25/16 18:11
2,4,6-Tribromophenol	89.8	15-110		3/26/16 15:15
p-Terphenyl-d14	82.2	30-130		3/26/16 15:15
p-Terphenyl-d14 (low)	50.3	30-130		3/25/16 18:11

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-5
Sampled: 3/20/2016 13:00
Sample ID: 16C0970-25
Sample Matrix: Ground Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	0.11	µg/L	1		EPA 608	3/24/16	3/24/16 21:04	PJG
Aroclor-1221 [1]	ND	0.20	0.12	µg/L	1		EPA 608	3/24/16	3/24/16 21:04	PJG
Aroclor-1232 [1]	ND	0.20	0.076	µg/L	1		EPA 608	3/24/16	3/24/16 21:04	PJG
Aroclor-1242 [1]	ND	0.20	0.11	µg/L	1		EPA 608	3/24/16	3/24/16 21:04	PJG
Aroclor-1248 [1]	ND	0.20	0.13	µg/L	1		EPA 608	3/24/16	3/24/16 21:04	PJG
Aroclor-1254 [1]	ND	0.20	0.14	µg/L	1		EPA 608	3/24/16	3/24/16 21:04	PJG
Aroclor-1260 [1]	ND	0.20	0.15	µg/L	1		EPA 608	3/24/16	3/24/16 21:04	PJG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	57.1	30-150		3/24/16 21:04
Decachlorobiphenyl [2]	58.6	30-150		3/24/16 21:04
Tetrachloro-m-xylene [1]	70.6	30-150		3/24/16 21:04
Tetrachloro-m-xylene [2]	73.2	30-150		3/24/16 21:04

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970

Date Received: 3/21/2016

Field Sample #: TRC-GW-5
Sampled: 3/20/2016 13:00

Sample ID: 16C0970-25

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	17	0.050	0.043	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:24	AME
Antimony	ND	5.0	0.69	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:18	MJH
Arsenic	2.8	2.0	1.5	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:18	MJH
Barium	3600	50	1.9	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:18	MJH
Beryllium	1.0	2.0	0.30	µg/L	5	J	SW-846 6020A-B	3/26/16	3/29/16 16:18	MJH
Cadmium	2.4	2.5	0.085	µg/L	5	J	SW-846 6020A-B	3/26/16	3/29/16 16:18	MJH
Calcium	1400	1.5	0.19	mg/L	10		SW-846 6010C-D	3/23/16	3/28/16 13:12	AME
Chromium	57	5.0	2.2	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:18	MJH
Cobalt	56	5.0	0.12	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:18	MJH
Copper	85	25	0.94	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:18	MJH
Iron	35	0.050	0.013	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:24	AME
Lead	23	5.0	0.27	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:18	MJH
Magnesium	110	0.15	0.034	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:24	AME
Manganese	7600	5.0	0.57	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:18	MJH
Mercury	ND	0.00010	0.000019	mg/L	1		SW-846 7470A	3/23/16	3/24/16 13:33	TGW
Nickel	110	25	4.0	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:18	MJH
Potassium	27	2.0	0.18	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:24	AME
Selenium	8.0	25	3.8	µg/L	5	J	SW-846 6020A-B	3/26/16	3/29/16 16:18	MJH
Silver	ND	2.5	0.57	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:18	MJH
Sodium	300	2.0	0.092	mg/L	1		SW-846 6010C-D	3/23/16	3/24/16 18:24	AME
Thallium	0.65	1.0	0.32	µg/L	5	J	SW-846 6020A-B	3/26/16	3/29/16 16:18	MJH
Vanadium	85	25	9.3	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:18	MJH
Zinc	120	50	17	µg/L	5		SW-846 6020A-B	3/26/16	3/29/16 16:18	MJH

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970

Date Received: 3/21/2016

Field Sample #: TRC-GW-5
Sampled: 3/20/2016 13:00

Sample ID: 16C0970-25

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aluminum	0.64	0.050	0.043	mg/L	1		SW-846 6010C-D	3/26/16	3/28/16 13:06	AME
Antimony	ND	5.0	0.69	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:48	MJH
Arsenic	ND	2.0	1.5	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:48	MJH
Barium	460	50	1.9	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:48	MJH
Beryllium	ND	2.0	0.30	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:48	MJH
Cadmium	ND	2.5	0.085	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:48	MJH
Calcium	230	0.15	0.019	mg/L	1		SW-846 6010C-D	3/26/16	3/28/16 13:06	AME
Chromium	ND	5.0	2.2	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:48	MJH
Cobalt	1.3	5.0	0.12	µg/L	5	J	SW-846 6020A-B	3/22/16	3/23/16 14:48	MJH
Copper	5.2	25	0.94	µg/L	5	J	SW-846 6020A-B	3/22/16	3/23/16 14:48	MJH
Iron	1.2	0.050	0.013	mg/L	1		SW-846 6010C-D	3/26/16	3/28/16 13:06	AME
Lead	0.52	5.0	0.27	µg/L	5	J	SW-846 6020A-B	3/22/16	3/23/16 14:48	MJH
Magnesium	53	0.15	0.034	mg/L	1		SW-846 6010C-D	3/26/16	3/28/16 13:06	AME
Manganese	57	5.0	0.57	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:48	MJH
Mercury	ND	0.00010	0.000019	mg/L	1		SW-846 7470A	3/23/16	3/24/16 13:56	TGW
Nickel	6.9	25	4.0	µg/L	5	J	SW-846 6020A-B	3/22/16	3/23/16 14:48	MJH
Potassium	8.2	2.0	0.18	mg/L	1		SW-846 6010C-D	3/26/16	3/28/16 13:06	AME
Selenium	6.4	25	3.8	µg/L	5	J	SW-846 6020A-B	3/22/16	3/23/16 14:48	MJH
Silver	ND	2.5	0.57	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:48	MJH
Sodium	270	2.0	0.092	mg/L	1		SW-846 6010C-D	3/29/16	3/30/16 12:52	AME
Thallium	ND	1.0	0.32	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:48	MJH
Vanadium	ND	25	9.3	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:48	MJH
Zinc	ND	50	17	µg/L	5		SW-846 6020A-B	3/22/16	3/23/16 14:48	MJH

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: TRC-GW-5
Sampled: 3/20/2016 13:00
Sample ID: 16C0970-25
Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Carbonaceous BOD	ND	4.0		mg/L	1	H-09	SM21-22 5210B	3/23/16	3/23/16 12:45	AMM
Chloride	850	10	8.7	mg/L	10		SM21-22 4500 CL B	3/25/16	3/25/16 21:55	DJM
Flashpoint	> 212 °F			°F	1		SW-846 1010A	3/23/16	3/23/16 15:45	AG
Hexavalent Chromium	ND	0.0040	0.0030	mg/L	1	H-03	SW-846 7196A	3/22/16	3/22/16 11:15	LL
Nitrate/Nitrite as N	11	0.10		mg/L	2		SM 21-22 4500 NO3 F	3/24/16	3/24/16 17:05	AG
Phenol	0.057	0.050	0.047	mg/L	1	R-04	EPA 420.1	3/23/16	3/24/16 12:45	LL
Total Kjeldahl Nitrogen	2.1	1.0	0.17	mg/L	1		SM19-22 4500-N Org B,C-NH3 C	3/24/16	3/25/16 12:20	VAK
Total Nitrogen	7.7	0.050		mg/L	1		SM19-22 4500-N Org B,C-NH3 C	3/25/16	3/25/16 15:54	JK
Total Solids	2800	10		mg/L	1	R-02	SM21-22 2540B	3/24/16	3/24/16 12:15	LL
Total Suspended Solids	300	6.2	5.3	mg/L	1		SM21-22 2540D	3/23/16	3/23/16 12:15	LL
Silica Gel Treated HEM (SGT-HEM)	ND	14		mg/L	1		EPA 1664B	4/12/16	4/12/16 13:30	LL

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q | Sample Description: | Work Order: 16C0970

Date Received: 3/21/2016

Field Sample #: Trip Blank Water | Sampled: 3/16/2016 00:00

Sample ID: 16C0970-26

Sample Matrix: Trip Blank Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	4.9	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Benzene	ND	1.0	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Bromochloromethane	ND	1.0	0.22	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Bromodichloromethane	ND	0.50	0.088	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Bromoform	ND	1.0	0.21	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Bromomethane	ND	2.0	0.94	µg/L	1	R-05	SW-846 8260C	3/24/16	3/24/16 10:51	EEH
2-Butanone (MEK)	ND	20	2.4	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Carbon Disulfide	ND	4.0	1.0	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Carbon Tetrachloride	ND	5.0	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Chlorobenzene	ND	1.0	0.16	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Chlorodibromomethane	ND	0.50	0.10	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Chloroethane	ND	2.0	0.28	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Chloroform	ND	2.0	0.22	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Chloromethane	ND	2.0	0.32	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Cyclohexane	ND	5.0	0.25	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	0.34	µg/L	1	V-05	SW-846 8260C	3/24/16	3/24/16 10:51	EEH
1,2-Dibromoethane (EDB)	ND	0.50	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
1,2-Dichlorobenzene	ND	1.0	0.17	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
1,3-Dichlorobenzene	ND	1.0	0.17	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
1,4-Dichlorobenzene	ND	1.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	0.18	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
1,1-Dichloroethane	ND	1.0	0.16	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
1,2-Dichloroethane	ND	1.0	0.19	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
1,1-Dichloroethylene	ND	1.0	0.21	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
trans-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
1,2-Dichloropropane	ND	1.0	0.13	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
cis-1,3-Dichloropropene	ND	0.50	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
trans-1,3-Dichloropropene	ND	0.50	0.11	µg/L	1	V-05	SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Ethylbenzene	ND	1.0	0.13	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
2-Hexanone (MBK)	ND	10	1.5	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Isopropylbenzene (Cumene)	ND	1.0	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Methyl Acetate	ND	1.0	0.42	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.090	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Methyl Cyclohexane	ND	1.0	0.63	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Methylene Chloride	ND	5.0	3.2	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	1.5	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Styrene	ND	1.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	0.16	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Tetrachloroethylene	ND	1.0	0.17	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Toluene	ND	1.0	0.17	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
1,2,3-Trichlorobenzene	ND	5.0	0.14	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
1,2,4-Trichlorobenzene	ND	1.0	0.19	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
1,1,1-Trichloroethane	ND	1.0	0.094	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: Trip Blank Water
Sampled: 3/16/2016 00:00
Sample ID: 16C0970-26
Sample Matrix: Trip Blank Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,1,2-Trichloroethane	ND	1.0	0.12	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Trichloroethylene	ND	1.0	0.20	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	0.15	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	0.14	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Vinyl Chloride	ND	2.0	0.13	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
m+p Xylene	ND	2.0	0.25	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
o-Xylene	ND	1.0	0.13	µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH
Xylenes (total)	ND	3.0		µg/L	1		SW-846 8260C	3/24/16	3/24/16 10:51	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	102	70-130		3/24/16 10:51
Toluene-d8	100	70-130		3/24/16 10:51
4-Bromofluorobenzene	93.6	70-130		3/24/16 10:51

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970

Date Received: 3/21/2016

Field Sample #: Trip Blank Water
Sampled: 3/16/2016 00:00

Sample ID: 16C0970-26

Sample Matrix: Trip Blank Water

Tentatively Identified Compounds - Volatile Compounds (ESTIMATED VALUES REPORTED)

Analyte	Results	Units	Response	RT	DF	CAS #	Q#	Method	Date Prepared	Date/Time Analyzed	Analyst
No TICs Found	0.0	µg/L			1			SW-846 8260C	3/24/16	3/24/16 10:51	EEH

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: Trip Blank Soil
Sampled: 3/16/2016 00:00
Sample ID: 16C0970-27
Sample Matrix: Trip Blank Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.10	0.023	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Benzene	ND	0.0020	0.00070	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Bromochloromethane	ND	0.0020	0.0014	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Bromodichloromethane	ND	0.0020	0.00060	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Bromoform	ND	0.0020	0.0014	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Bromomethane	ND	0.010	0.0017	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
2-Butanone (MEK)	ND	0.040	0.018	mg/Kg wet	1	V-05	SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Carbon Disulfide	ND	0.0060	0.0035	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Carbon Tetrachloride	ND	0.0020	0.00080	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Chlorobenzene	ND	0.0020	0.00070	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Chlorodibromomethane	ND	0.0010	0.00070	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Chloroethane	ND	0.020	0.0015	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Chloroform	ND	0.0040	0.00070	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Chloromethane	ND	0.010	0.00090	mg/Kg wet	1	L-04, V-05	SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Cyclohexane	ND	0.0020	0.00080	mg/Kg wet	1	V-05	SW-846 8260C	3/23/16	3/23/16 23:09	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	0.0011	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
1,2-Dibromoethane (EDB)	ND	0.0010	0.0010	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
1,2-Dichlorobenzene	ND	0.0020	0.00070	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
1,3-Dichlorobenzene	ND	0.0020	0.00070	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
1,4-Dichlorobenzene	ND	0.0020	0.00080	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Dichlorodifluoromethane (Freon 12)	ND	0.020	0.0013	mg/Kg wet	1	R-05	SW-846 8260C	3/23/16	3/23/16 23:09	MFF
1,1-Dichloroethane	ND	0.0020	0.00070	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
1,2-Dichloroethane	ND	0.0020	0.0013	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
1,1-Dichloroethylene	ND	0.0040	0.0011	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
cis-1,2-Dichloroethylene	ND	0.0020	0.00080	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
trans-1,2-Dichloroethylene	ND	0.0020	0.00090	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
1,2-Dichloropropane	ND	0.0020	0.0013	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
cis-1,3-Dichloropropene	ND	0.0010	0.00070	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
trans-1,3-Dichloropropene	ND	0.0010	0.00070	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Ethylbenzene	ND	0.0020	0.00080	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
2-Hexanone (MBK)	ND	0.020	0.011	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Isopropylbenzene (Cumene)	ND	0.0020	0.00070	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Methyl Acetate	ND	0.0020	0.0016	mg/Kg wet	1	V-05	SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	0.00090	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Methyl Cyclohexane	ND	0.0020	0.0010	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Methylene Chloride	ND	0.020	0.0071	mg/Kg wet	1	V-05	SW-846 8260C	3/23/16	3/23/16 23:09	MFF
4-Methyl-2-pentanone (MIBK)	ND	0.020	0.0076	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Styrene	ND	0.0020	0.00060	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
1,1,2,2-Tetrachloroethane	ND	0.0010	0.00090	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Tetrachloroethylene	ND	0.0020	0.0013	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Toluene	ND	0.0020	0.00080	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
1,2,3-Trichlorobenzene	ND	0.0020	0.00060	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
1,2,4-Trichlorobenzene	ND	0.0020	0.00080	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
1,1,1-Trichloroethane	ND	0.0020	0.0010	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: Trip Blank Soil
Sampled: 3/16/2016 00:00
Sample ID: 16C0970-27
Sample Matrix: Trip Blank Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,1,2-Trichloroethane	ND	0.0020	0.0012	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Trichloroethylene	ND	0.0020	0.0010	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Trichlorofluoromethane (Freon 11)	ND	0.010	0.0011	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.010	0.00090	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Vinyl Chloride	ND	0.010	0.0011	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
m+p Xylene	ND	0.0040	0.0017	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
o-Xylene	ND	0.0020	0.00070	mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF
Xylenes (total)	ND	0.0060		mg/Kg wet	1		SW-846 8260C	3/23/16	3/23/16 23:09	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	112	70-130		3/23/16 23:09
Toluene-d8	91.6	70-130		3/23/16 23:09
4-Bromofluorobenzene	97.2	70-130		3/23/16 23:09

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 450Q
Sample Description:
Work Order: 16C0970
Date Received: 3/21/2016
Field Sample #: Trip Blank Soil
Sampled: 3/16/2016 00:00
Sample ID: 16C0970-27
Sample Matrix: Trip Blank Soil

Tentatively Identified Compounds - Volatile Compounds (ESTIMATED VALUES REPORTED)

Analyte	Results	Units	Response	RT	DF	CAS #	Q#	Method	Date Prepared	Date/Time Analyzed	Analyst
No TICs Found	0.0	mg/Kg wet			1			SW-846 8260C	3/23/16	3/23/16 23:09	MFF

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

EPA 1664B

Lab Number [Field ID]	Batch	Initial [mL]	Date
16C0970-25 [TRC-GW-5]	B146407	100	04/12/16

EPA 420.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-25 [TRC-GW-5]	B144880	50.0	50.0	03/23/16

Prep Method: SW-846 3510C-EPA 608

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-25 [TRC-GW-5]	B144972	750	7.50	03/24/16

Prep Method: SW-846 5030B-EPA 624

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-25 [TRC-GW-5]	B145012	5	5.00	03/24/16

SM 21-22 4500 NO3 F

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-25 [TRC-GW-5]	B145075	25.0	25.0	03/24/16

Prep Method: % Solids-SM 2540G

Lab Number [Field ID]	Batch	Date
16C0970-01 [TRC-UST-1]	B144860	03/22/16
16C0970-02 [TRC-UST-2]	B144860	03/22/16
16C0970-03 [TRC-SB-1 (1-3)]	B144860	03/22/16
16C0970-04 [TRC-SB-1 (10-12)]	B144860	03/22/16
16C0970-05 [TRC-SB-2 (1-3)]	B144860	03/22/16
16C0970-06 [TRC-SB-2 (10-12)]	B144860	03/22/16
16C0970-07 [TRC-SB-3 (1-3)]	B144860	03/22/16
16C0970-08 [TRC-SB-3 (10-12)]	B144860	03/22/16
16C0970-09 [TRC-SB-4 (1-3)]	B144860	03/22/16
16C0970-10 [TRC-SB-4 (10-12)]	B144860	03/22/16
16C0970-11 [TRC-SB-5 (1-3)]	B144860	03/22/16
16C0970-12 [TRC-SB-5 (10-12)]	B144860	03/22/16
16C0970-13 [TRC-SB-6 (1-3)]	B144860	03/22/16
16C0970-14 [TRC-SB-6 (10-12)]	B144860	03/22/16
16C0970-15 [TRC-SB-7 (1-3)]	B144860	03/22/16
16C0970-16 [TRC-SB-7 (10-12)]	B144860	03/22/16
16C0970-17 [TRC-SB-8 (1-3)]	B144860	03/22/16
16C0970-18 [TRC-SB-8 (10-12)]	B144860	03/22/16
16C0970-19 [TRC-SB-9 (1-3)]	B144860	03/22/16
16C0970-20 [TRC-SB-9 (10-12)]	B144860	03/22/16
16C0970-21 [DUP-1]	B144860	03/22/16

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Sample Extraction Data

SM19-22 4500-N Org B,C-NH3 C

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-25 [TRC-GW-5]	B145009	25.0	25.0	03/24/16

SM19-22 4500-N Org B,C-NH3 C

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-25 [TRC-GW-5]	B145148	50.0	50.0	03/25/16

SM21-22 2540B

Lab Number [Field ID]	Batch	Initial [mL]	Date
16C0970-25 [TRC-GW-5]	B144983	50.0	03/24/16

SM21-22 2540D

Lab Number [Field ID]	Batch	Initial [mL]	Date
16C0970-25 [TRC-GW-5]	B144882	80.0	03/23/16

SM21-22 4500 CL B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-25 [TRC-GW-5]	B145159	100	100	03/25/16

SM21-22 5210B

Lab Number [Field ID]	Batch	Initial [mL]	Date
16C0970-25 [TRC-GW-5]	B144932	150	03/23/16

SW-846 1010A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-25 [TRC-GW-5]	B144943	50.0	50.0	03/23/16

SW-846 1030

Lab Number [Field ID]	Batch	Initial [g]	Date
16C0970-04 [TRC-SB-1 (10-12)]	B144967	50.0	03/23/16
16C0970-05 [TRC-SB-2 (1-3)]	B144967	50.0	03/23/16
16C0970-12 [TRC-SB-5 (10-12)]	B144967	50.0	03/23/16
16C0970-13 [TRC-SB-6 (1-3)]	B144967	50.0	03/23/16
16C0970-16 [TRC-SB-7 (10-12)]	B144967	50.0	03/23/16

Prep Method: SW-846 3050B-SW-846 6010C-D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-21 [DUP-1]	B144825	1.01	50.0	03/22/16

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 3050B-SW-846 6010C-D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-03 [TRC-SB-1 (1-3)]	B144837	1.02	50.0	03/22/16
16C0970-04 [TRC-SB-1 (10-12)]	B144837	1.08	50.0	03/22/16
16C0970-05 [TRC-SB-2 (1-3)]	B144837	1.04	50.0	03/22/16
16C0970-06 [TRC-SB-2 (10-12)]	B144837	1.01	50.0	03/22/16
16C0970-07 [TRC-SB-3 (1-3)]	B144837	1.04	50.0	03/22/16
16C0970-08 [TRC-SB-3 (10-12)]	B144837	1.05	50.0	03/22/16
16C0970-09 [TRC-SB-4 (1-3)]	B144837	1.03	50.0	03/22/16
16C0970-10 [TRC-SB-4 (10-12)]	B144837	1.04	50.0	03/22/16
16C0970-11 [TRC-SB-5 (1-3)]	B144837	1.06	50.0	03/22/16
16C0970-12 [TRC-SB-5 (10-12)]	B144837	1.08	50.0	03/22/16
16C0970-13 [TRC-SB-6 (1-3)]	B144837	0.987	50.0	03/22/16
16C0970-14 [TRC-SB-6 (10-12)]	B144837	1.03	50.0	03/22/16
16C0970-15 [TRC-SB-7 (1-3)]	B144837	1.03	50.0	03/22/16
16C0970-16 [TRC-SB-7 (10-12)]	B144837	1.04	50.0	03/22/16
16C0970-17 [TRC-SB-8 (1-3)]	B144837	1.07	50.0	03/22/16
16C0970-18 [TRC-SB-8 (10-12)]	B144837	1.07	50.0	03/22/16
16C0970-19 [TRC-SB-9 (1-3)]	B144837	1.04	50.0	03/22/16
16C0970-20 [TRC-SB-9 (10-12)]	B144837	1.04	50.0	03/22/16

Prep Method: SW-846 3005A-SW-846 6010C-D

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-22 [TRC-GW-1]	B144956	50.0	50.0	03/23/16
16C0970-23 [TRC-GW-3]	B144956	50.0	50.0	03/23/16
16C0970-24 [TRC-GW-4]	B144956	50.0	50.0	03/23/16
16C0970-25 [TRC-GW-5]	B144956	50.0	50.0	03/23/16

Prep Method: SW-846 3005A Dissolved-SW-846 6010C-D

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-22 [TRC-GW-1]	B145165	50.0	50.0	03/26/16
16C0970-23 [TRC-GW-3]	B145165	50.0	50.0	03/26/16
16C0970-24 [TRC-GW-4]	B145165	50.0	50.0	03/26/16
16C0970-25 [TRC-GW-5]	B145165	50.0	50.0	03/26/16

Prep Method: SW-846 3005A Dissolved-SW-846 6010C-D

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-22RE1 [TRC-GW-1]	B145355	50.0	50.0	03/29/16
16C0970-23RE1 [TRC-GW-3]	B145355	50.0	50.0	03/29/16
16C0970-24RE1 [TRC-GW-4]	B145355	50.0	50.0	03/29/16
16C0970-25RE1 [TRC-GW-5]	B145355	50.0	50.0	03/29/16

Prep Method: SW-846 3005A Dissolved-SW-846 6020A-B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-22 [TRC-GW-1]	B144852	50.0	50.0	03/22/16
16C0970-23 [TRC-GW-3]	B144852	50.0	50.0	03/22/16
16C0970-25 [TRC-GW-5]	B144852	50.0	50.0	03/22/16

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Sample Extraction Data

Prep Method: SW-846 3005A Dissolved-SW-846 6020A-B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-24 [TRC-GW-4]	B145050	50.0	50.0	03/24/16

Prep Method: SW-846 3005A-SW-846 6020A-B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-22 [TRC-GW-1]	B145179	50.0	50.0	03/26/16
16C0970-23 [TRC-GW-3]	B145179	50.0	50.0	03/26/16
16C0970-24 [TRC-GW-4]	B145179	50.0	50.0	03/26/16
16C0970-25 [TRC-GW-5]	B145179	50.0	50.0	03/26/16

SW-846 7196A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-04 [TRC-SB-1 (10-12)]	B145105	2.52	100	03/25/16
16C0970-05 [TRC-SB-2 (1-3)]	B145105	2.53	100	03/25/16
16C0970-12 [TRC-SB-5 (10-12)]	B145105	2.54	100	03/25/16
16C0970-13 [TRC-SB-6 (1-3)]	B145105	2.56	100	03/25/16
16C0970-16 [TRC-SB-7 (10-12)]	B145105	2.52	100	03/25/16

SW-846 7196A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-25 [TRC-GW-5]	B144878	50.0	50.0	03/22/16

Prep Method: SW-846 7470A Prep-SW-846 7470A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-22 [TRC-GW-1]	B144885	6.00	6.00	03/23/16
16C0970-23 [TRC-GW-3]	B144885	6.00	6.00	03/23/16
16C0970-24 [TRC-GW-4]	B144885	6.00	6.00	03/23/16
16C0970-25 [TRC-GW-5]	B144885	6.00	6.00	03/23/16

Prep Method: SW-846 7470A Prep-SW-846 7470A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-22 [TRC-GW-1]	B144890	6.00	6.00	03/23/16
16C0970-23 [TRC-GW-3]	B144890	6.00	6.00	03/23/16
16C0970-24 [TRC-GW-4]	B144890	6.00	6.00	03/23/16
16C0970-25 [TRC-GW-5]	B144890	6.00	6.00	03/23/16

Prep Method: SW-846 7471-SW-846 7471B

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-03 [TRC-SB-1 (1-3)]	B144836	0.610	50.0	03/22/16
16C0970-04 [TRC-SB-1 (10-12)]	B144836	0.609	50.0	03/22/16
16C0970-05 [TRC-SB-2 (1-3)]	B144836	0.600	50.0	03/22/16

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Sample Extraction Data

Prep Method: SW-846 7471-SW-846 7471B

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-06 [TRC-SB-2 (10-12)]	B144836	0.583	50.0	03/22/16
16C0970-07 [TRC-SB-3 (1-3)]	B144836	0.593	50.0	03/22/16
16C0970-08 [TRC-SB-3 (10-12)]	B144836	0.599	50.0	03/22/16
16C0970-09 [TRC-SB-4 (1-3)]	B144836	0.604	50.0	03/22/16
16C0970-10 [TRC-SB-4 (10-12)]	B144836	0.597	50.0	03/22/16
16C0970-11 [TRC-SB-5 (1-3)]	B144836	0.606	50.0	03/22/16
16C0970-12 [TRC-SB-5 (10-12)]	B144836	0.579	50.0	03/22/16
16C0970-13 [TRC-SB-6 (1-3)]	B144836	0.584	50.0	03/22/16
16C0970-14 [TRC-SB-6 (10-12)]	B144836	0.587	50.0	03/22/16
16C0970-15 [TRC-SB-7 (1-3)]	B144836	0.624	50.0	03/22/16
16C0970-16 [TRC-SB-7 (10-12)]	B144836	0.600	50.0	03/22/16
16C0970-17 [TRC-SB-8 (1-3)]	B144836	0.590	50.0	03/22/16
16C0970-18 [TRC-SB-8 (10-12)]	B144836	0.612	50.0	03/22/16
16C0970-19 [TRC-SB-9 (1-3)]	B144836	0.588	50.0	03/22/16
16C0970-20 [TRC-SB-9 (10-12)]	B144836	0.584	50.0	03/22/16
16C0970-21 [DUP-1]	B144836	0.579	50.0	03/22/16

Prep Method: SW-846 3546-SW-846 8015C

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-04 [TRC-SB-1 (10-12)]	B144858	30.0	1.00	03/22/16
16C0970-05 [TRC-SB-2 (1-3)]	B144858	30.2	1.00	03/22/16
16C0970-12 [TRC-SB-5 (10-12)]	B144858	30.1	1.00	03/22/16
16C0970-13 [TRC-SB-6 (1-3)]	B144858	30.3	1.00	03/22/16
16C0970-16 [TRC-SB-7 (10-12)]	B144858	30.1	1.00	03/22/16

Prep Method: SW-846 5035/5030B-SW-846 8015C

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-04 [TRC-SB-1 (10-12)]	B145003	5.80	15.2	03/24/16
16C0970-05 [TRC-SB-2 (1-3)]	B145003	4.90	5.60	03/24/16
16C0970-12 [TRC-SB-5 (10-12)]	B145003	4.90	5.30	03/24/16
16C0970-13 [TRC-SB-6 (1-3)]	B145003	5.00	5.30	03/24/16
16C0970-16 [TRC-SB-7 (10-12)]	B145003	4.70	5.40	03/24/16

Prep Method: SW-846 3546-SW-846 8081B

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-03 [TRC-SB-1 (1-3)]	B144813	10.0	10.0	03/22/16
16C0970-04 [TRC-SB-1 (10-12)]	B144813	10.0	10.0	03/22/16
16C0970-05 [TRC-SB-2 (1-3)]	B144813	10.0	10.0	03/22/16
16C0970-06 [TRC-SB-2 (10-12)]	B144813	10.0	10.0	03/22/16
16C0970-07 [TRC-SB-3 (1-3)]	B144813	10.0	10.0	03/22/16
16C0970-08 [TRC-SB-3 (10-12)]	B144813	10.0	10.0	03/22/16
16C0970-09 [TRC-SB-4 (1-3)]	B144813	10.0	10.0	03/22/16
16C0970-10 [TRC-SB-4 (10-12)]	B144813	10.0	10.0	03/22/16
16C0970-11 [TRC-SB-5 (1-3)]	B144813	10.0	10.0	03/22/16
16C0970-12 [TRC-SB-5 (10-12)]	B144813	10.0	10.0	03/22/16
16C0970-13 [TRC-SB-6 (1-3)]	B144813	10.0	10.0	03/22/16
16C0970-14 [TRC-SB-6 (10-12)]	B144813	10.0	10.0	03/22/16
16C0970-15 [TRC-SB-7 (1-3)]	B144813	10.0	10.0	03/22/16

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Sample Extraction Data

Prep Method: SW-846 3546-SW-846 8081B

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-16 [TRC-SB-7 (10-12)]	B144813	10.0	10.0	03/22/16
16C0970-17 [TRC-SB-8 (1-3)]	B144813	10.0	10.0	03/22/16
16C0970-18 [TRC-SB-8 (10-12)]	B144813	10.0	10.0	03/22/16
16C0970-19 [TRC-SB-9 (1-3)]	B144813	10.0	10.0	03/22/16
16C0970-20 [TRC-SB-9 (10-12)]	B144813	10.0	10.0	03/22/16
16C0970-21 [DUP-1]	B144813	10.0	10.0	03/22/16

Prep Method: SW-846 3546-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-03 [TRC-SB-1 (1-3)]	B144814	10.0	10.0	03/22/16
16C0970-04 [TRC-SB-1 (10-12)]	B144814	10.0	10.0	03/22/16
16C0970-05 [TRC-SB-2 (1-3)]	B144814	10.0	10.0	03/22/16
16C0970-06 [TRC-SB-2 (10-12)]	B144814	10.0	10.0	03/22/16
16C0970-07 [TRC-SB-3 (1-3)]	B144814	10.0	10.0	03/22/16
16C0970-08 [TRC-SB-3 (10-12)]	B144814	10.0	10.0	03/22/16
16C0970-09 [TRC-SB-4 (1-3)]	B144814	10.0	10.0	03/22/16
16C0970-10 [TRC-SB-4 (10-12)]	B144814	10.0	10.0	03/22/16
16C0970-11 [TRC-SB-5 (1-3)]	B144814	10.0	10.0	03/22/16
16C0970-12 [TRC-SB-5 (10-12)]	B144814	10.0	10.0	03/22/16
16C0970-13 [TRC-SB-6 (1-3)]	B144814	10.0	10.0	03/22/16
16C0970-14 [TRC-SB-6 (10-12)]	B144814	10.0	10.0	03/22/16
16C0970-15 [TRC-SB-7 (1-3)]	B144814	10.0	10.0	03/22/16
16C0970-16 [TRC-SB-7 (10-12)]	B144814	10.0	10.0	03/22/16
16C0970-17 [TRC-SB-8 (1-3)]	B144814	10.0	10.0	03/22/16
16C0970-18 [TRC-SB-8 (10-12)]	B144814	10.0	10.0	03/22/16
16C0970-19 [TRC-SB-9 (1-3)]	B144814	10.0	10.0	03/22/16
16C0970-20 [TRC-SB-9 (10-12)]	B144814	10.0	10.0	03/22/16
16C0970-21 [DUP-1]	B144814	10.0	10.0	03/22/16

Prep Method: SW-846 8151-SW-846 8151A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-03 [TRC-SB-1 (1-3)]	B144820	20.1	5.00	03/22/16
16C0970-04 [TRC-SB-1 (10-12)]	B144820	20.2	5.00	03/22/16
16C0970-05 [TRC-SB-2 (1-3)]	B144820	20.0	5.00	03/22/16
16C0970-06 [TRC-SB-2 (10-12)]	B144820	20.2	5.00	03/22/16
16C0970-07 [TRC-SB-3 (1-3)]	B144820	20.1	5.00	03/22/16
16C0970-08 [TRC-SB-3 (10-12)]	B144820	20.3	5.00	03/22/16
16C0970-09 [TRC-SB-4 (1-3)]	B144820	20.2	5.00	03/22/16
16C0970-10 [TRC-SB-4 (10-12)]	B144820	20.1	5.00	03/22/16
16C0970-11 [TRC-SB-5 (1-3)]	B144820	20.2	5.00	03/22/16
16C0970-12 [TRC-SB-5 (10-12)]	B144820	20.0	5.00	03/22/16

Prep Method: SW-846 8151-SW-846 8151A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-13 [TRC-SB-6 (1-3)]	B144886	20.0	5.00	03/23/16
16C0970-14 [TRC-SB-6 (10-12)]	B144886	20.2	5.00	03/23/16
16C0970-15 [TRC-SB-7 (1-3)]	B144886	20.1	5.00	03/23/16
16C0970-16 [TRC-SB-7 (10-12)]	B144886	20.0	5.00	03/23/16

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Sample Extraction Data

Prep Method: SW-846 8151-SW-846 8151A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-17 [TRC-SB-8 (1-3)]	B144886	20.0	5.00	03/23/16
16C0970-18 [TRC-SB-8 (10-12)]	B144886	20.3	5.00	03/23/16
16C0970-19 [TRC-SB-9 (1-3)]	B144886	20.2	5.00	03/23/16
16C0970-20 [TRC-SB-9 (10-12)]	B144886	20.0	5.00	03/23/16
16C0970-21 [DUP-1]	B144886	20.2	5.00	03/23/16

Prep Method: SW-846 5035-SW-846 8260C

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-03 [TRC-SB-1 (1-3)]	B144930	5.62	10.0	03/23/16
16C0970-04 [TRC-SB-1 (10-12)]	B144930	5.37	10.0	03/23/16
16C0970-05 [TRC-SB-2 (1-3)]	B144930	3.97	10.0	03/23/16
16C0970-06 [TRC-SB-2 (10-12)]	B144930	4.93	10.0	03/23/16
16C0970-07 [TRC-SB-3 (1-3)]	B144930	5.29	10.0	03/23/16
16C0970-08 [TRC-SB-3 (10-12)]	B144930	5.71	10.0	03/23/16
16C0970-09 [TRC-SB-4 (1-3)]	B144930	5.02	10.0	03/23/16
16C0970-10 [TRC-SB-4 (10-12)]	B144930	4.80	10.0	03/23/16
16C0970-11 [TRC-SB-5 (1-3)]	B144930	5.41	10.0	03/23/16
16C0970-12 [TRC-SB-5 (10-12)]	B144930	4.99	10.0	03/23/16
16C0970-13 [TRC-SB-6 (1-3)]	B144930	4.99	10.0	03/23/16
16C0970-14 [TRC-SB-6 (10-12)]	B144930	5.47	10.0	03/23/16

Prep Method: SW-846 5035-SW-846 8260C

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-01 [TRC-UST-1]	B144935	4.48	10.0	03/23/16
16C0970-02 [TRC-UST-2]	B144935	4.85	10.0	03/23/16

Prep Method: SW-846 5035-SW-846 8260C

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-15 [TRC-SB-7 (1-3)]	B144944	5.76	10.0	03/23/16
16C0970-16 [TRC-SB-7 (10-12)]	B144944	4.56	10.0	03/23/16
16C0970-18 [TRC-SB-8 (10-12)]	B144944	5.58	10.0	03/23/16
16C0970-19 [TRC-SB-9 (1-3)]	B144944	6.25	10.0	03/23/16
16C0970-20 [TRC-SB-9 (10-12)]	B144944	6.03	10.0	03/23/16
16C0970-21 [DUP-1]	B144944	5.66	10.0	03/23/16
16C0970-27 [Trip Blank Soil]	B144944	5.00	10.0	03/23/16

Prep Method: SW-846 5035-SW-846 8260C

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-17 [TRC-SB-8 (1-3)]	B144969	5.44	10.0	03/23/16

Prep Method: SW-846 5030B-SW-846 8260C

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-22 [TRC-GW-1]	B145017	5	5.00	03/24/16
16C0970-23 [TRC-GW-3]	B145017	5	5.00	03/24/16

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Prep Method: SW-846 5030B-SW-846 8260C

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-24 [TRC-GW-4]	B145017	5	5.00	03/24/16
16C0970-25 [TRC-GW-5]	B145017	5	5.00	03/24/16
16C0970-26 [Trip Blank Water]	B145017	5	5.00	03/24/16

Prep Method: SW-846 3546-SW-846 8270D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-03 [TRC-SB-1 (1-3)]	B144868	30.0	1.00	03/23/16
16C0970-04 [TRC-SB-1 (10-12)]	B144868	30.0	1.00	03/23/16
16C0970-05 [TRC-SB-2 (1-3)]	B144868	30.0	1.00	03/23/16
16C0970-05RE1 [TRC-SB-2 (1-3)]	B144868	30.0	1.00	03/23/16
16C0970-06 [TRC-SB-2 (10-12)]	B144868	30.0	1.00	03/23/16
16C0970-07 [TRC-SB-3 (1-3)]	B144868	30.0	1.00	03/23/16
16C0970-07RE1 [TRC-SB-3 (1-3)]	B144868	30.0	1.00	03/23/16
16C0970-08 [TRC-SB-3 (10-12)]	B144868	30.0	1.00	03/23/16
16C0970-09 [TRC-SB-4 (1-3)]	B144868	30.0	1.00	03/23/16
16C0970-10 [TRC-SB-4 (10-12)]	B144868	30.0	1.00	03/23/16
16C0970-11 [TRC-SB-5 (1-3)]	B144868	30.0	1.00	03/23/16
16C0970-12 [TRC-SB-5 (10-12)]	B144868	30.0	1.00	03/23/16
16C0970-13 [TRC-SB-6 (1-3)]	B144868	30.0	1.00	03/23/16
16C0970-14 [TRC-SB-6 (10-12)]	B144868	30.0	1.00	03/23/16
16C0970-15 [TRC-SB-7 (1-3)]	B144868	30.1	1.00	03/23/16
16C0970-15RE1 [TRC-SB-7 (1-3)]	B144868	30.1	1.00	03/23/16
16C0970-16 [TRC-SB-7 (10-12)]	B144868	30.0	1.00	03/23/16
16C0970-17 [TRC-SB-8 (1-3)]	B144868	30.0	1.00	03/23/16
16C0970-18 [TRC-SB-8 (10-12)]	B144868	30.0	1.00	03/23/16
16C0970-19 [TRC-SB-9 (1-3)]	B144868	30.0	1.00	03/23/16
16C0970-20 [TRC-SB-9 (10-12)]	B144868	30.0	1.00	03/23/16
16C0970-21 [DUP-1]	B144868	30.0	1.00	03/23/16

Prep Method: SW-846 3546-SW-846 8270D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-01 [TRC-UST-1]	B144974	30.0	1.00	03/24/16
16C0970-02 [TRC-UST-2]	B144974	30.0	1.00	03/24/16

Prep Method: SW-846 3546-SW-846 8270D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-03 [TRC-SB-1 (1-3)]	B145213	30.0	1.00	03/23/16
16C0970-04 [TRC-SB-1 (10-12)]	B145213	30.0	1.00	03/23/16
16C0970-05 [TRC-SB-2 (1-3)]	B145213	30.0	1.00	03/23/16
16C0970-06 [TRC-SB-2 (10-12)]	B145213	30.0	1.00	03/23/16
16C0970-07 [TRC-SB-3 (1-3)]	B145213	30.0	1.00	03/23/16
16C0970-08 [TRC-SB-3 (10-12)]	B145213	30.0	1.00	03/23/16
16C0970-09 [TRC-SB-4 (1-3)]	B145213	30.0	1.00	03/23/16
16C0970-10 [TRC-SB-4 (10-12)]	B145213	30.0	1.00	03/23/16
16C0970-11 [TRC-SB-5 (1-3)]	B145213	30.0	1.00	03/23/16
16C0970-12 [TRC-SB-5 (10-12)]	B145213	30.0	1.00	03/23/16
16C0970-13 [TRC-SB-6 (1-3)]	B145213	30.0	1.00	03/23/16
16C0970-14 [TRC-SB-6 (10-12)]	B145213	30.0	1.00	03/23/16

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Prep Method: SW-846 3546-SW-846 8270D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-15 [TRC-SB-7 (1-3)]	B145213	30.1	1.00	03/23/16
16C0970-16 [TRC-SB-7 (10-12)]	B145213	30.0	1.00	03/23/16
16C0970-17 [TRC-SB-8 (1-3)]	B145213	30.0	1.00	03/23/16
16C0970-18 [TRC-SB-8 (10-12)]	B145213	30.0	1.00	03/23/16
16C0970-19 [TRC-SB-9 (1-3)]	B145213	30.0	1.00	03/23/16
16C0970-20 [TRC-SB-9 (10-12)]	B145213	30.0	1.00	03/23/16
16C0970-21 [DUP-1]	B145213	30.0	1.00	03/23/16

Prep Method: SW-846 3510C-SW-846 8270D

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-22 [TRC-GW-1]	B144867	860	0.800	03/23/16
16C0970-23 [TRC-GW-3]	B144867	1000	1.00	03/23/16
16C0970-24 [TRC-GW-4]	B144867	1000	1.00	03/23/16

Prep Method: SW-846 3510C-SW-846 8270D

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-25 [TRC-GW-5]	B145126	450	0.400	03/25/16

Prep Method: SW-846 3510C-SW-846 8270D

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-22 [TRC-GW-1]	B145282	860	0.800	03/23/16
16C0970-23 [TRC-GW-3]	B145282	1000	1.00	03/23/16
16C0970-24 [TRC-GW-4]	B145282	1000	1.00	03/23/16

Prep Method: SW-846 3510C-SW-846 8270D

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16C0970-25 [TRC-GW-5]	B145335	450	0.400	03/25/16

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Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-04 [TRC-SB-1 (10-12)]	B145039	25.0	250	03/24/16
16C0970-05 [TRC-SB-2 (1-3)]	B145039	25.3	250	03/24/16
16C0970-12 [TRC-SB-5 (10-12)]	B145039	25.1	250	03/24/16
16C0970-13 [TRC-SB-6 (1-3)]	B145039	25.2	250	03/24/16
16C0970-16 [TRC-SB-7 (10-12)]	B145039	25.1	250	03/24/16

SW-846 9014

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-04 [TRC-SB-1 (10-12)]	B145047	1.26	50.0	03/24/16
16C0970-05 [TRC-SB-2 (1-3)]	B145047	1.30	50.0	03/24/16
16C0970-12 [TRC-SB-5 (10-12)]	B145047	1.06	50.0	03/24/16

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Sample Extraction Data

SW-846 9014

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-13 [TRC-SB-6 (1-3)]	B145047	1.02	50.0	03/24/16
16C0970-16 [TRC-SB-7 (10-12)]	B145047	1.05	50.0	03/24/16

SW-846 9030A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
16C0970-04 [TRC-SB-1 (10-12)]	B145041	25.0	250	03/24/16
16C0970-05 [TRC-SB-2 (1-3)]	B145041	25.3	250	03/24/16
16C0970-12 [TRC-SB-5 (10-12)]	B145041	25.1	250	03/24/16
16C0970-13 [TRC-SB-6 (1-3)]	B145041	25.2	250	03/24/16
16C0970-16 [TRC-SB-7 (10-12)]	B145041	25.1	250	03/24/16

SW-846 9045C

Lab Number [Field ID]	Batch	Initial [g]	Date
16C0970-04 [TRC-SB-1 (10-12)]	B144875	20.0	03/23/16
16C0970-05 [TRC-SB-2 (1-3)]	B144875	20.0	03/23/16
16C0970-12 [TRC-SB-5 (10-12)]	B144875	20.0	03/23/16
16C0970-13 [TRC-SB-6 (1-3)]	B144875	20.0	03/23/16
16C0970-16 [TRC-SB-7 (10-12)]	B144875	20.0	03/23/16

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144930 - SW-846 5035										
Blank (B144930-BLK1)				Prepared & Analyzed: 03/23/16						
Acetone	ND	0.10	mg/Kg wet							
Benzene	ND	0.0020	mg/Kg wet							
Bromochloromethane	ND	0.0020	mg/Kg wet							
Bromodichloromethane	ND	0.0020	mg/Kg wet							
Bromoform	ND	0.0020	mg/Kg wet							
Bromomethane	ND	0.010	mg/Kg wet							
2-Butanone (MEK)	ND	0.040	mg/Kg wet							
Carbon Disulfide	ND	0.0060	mg/Kg wet							
Carbon Tetrachloride	ND	0.0020	mg/Kg wet							
Chlorobenzene	ND	0.0020	mg/Kg wet							
Chlorodibromomethane	ND	0.0010	mg/Kg wet							
Chloroethane	ND	0.020	mg/Kg wet							
Chloroform	ND	0.0040	mg/Kg wet							
Chloromethane	ND	0.010	mg/Kg wet							L-04, V-05
Cyclohexane	ND	0.0020	mg/Kg wet							V-05
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg wet							
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg wet							
1,2-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,3-Dichlorobenzene	ND	0.0020	mg/Kg wet							
1,4-Dichlorobenzene	ND	0.0020	mg/Kg wet							
Dichlorodifluoromethane (Freon 12)	ND	0.020	mg/Kg wet							
1,1-Dichloroethane	ND	0.0020	mg/Kg wet							
1,2-Dichloroethane	ND	0.0020	mg/Kg wet							
1,1-Dichloroethylene	ND	0.0040	mg/Kg wet							
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet							
1,2-Dichloropropane	ND	0.0020	mg/Kg wet							
cis-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg wet							
Ethylbenzene	ND	0.0020	mg/Kg wet							
2-Hexanone (MBK)	ND	0.020	mg/Kg wet							
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg wet							
Methyl Acetate	ND	0.0020	mg/Kg wet							V-05
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	mg/Kg wet							
Methyl Cyclohexane	ND	0.0020	mg/Kg wet							
Methylene Chloride	ND	0.020	mg/Kg wet							V-05
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg wet							
Styrene	ND	0.0020	mg/Kg wet							
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg wet							
Tetrachloroethylene	ND	0.0020	mg/Kg wet							
Toluene	ND	0.0020	mg/Kg wet							
1,2,3-Trichlorobenzene	ND	0.0020	mg/Kg wet							
1,2,4-Trichlorobenzene	ND	0.0020	mg/Kg wet							
1,1,1-Trichloroethane	ND	0.0020	mg/Kg wet							
1,1,2-Trichloroethane	ND	0.0020	mg/Kg wet							
Trichloroethylene	ND	0.0020	mg/Kg wet							
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg wet							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.010	mg/Kg wet							
Vinyl Chloride	ND	0.010	mg/Kg wet							
m+p Xylene	ND	0.0040	mg/Kg wet							
o-Xylene	ND	0.0020	mg/Kg wet							

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B144930 - SW-846 5035												
Blank (B144930-BLK1)				Prepared & Analyzed: 03/23/16								
Xylenes (total)	ND	0.0060	mg/Kg wet									
Surrogate: 1,2-Dichloroethane-d4	*0.0494*		mg/Kg wet	0.0500		98.7		70-130				
Surrogate: Toluene-d8	*0.0468*		mg/Kg wet	0.0500		93.5		70-130				
Surrogate: 4-Bromofluorobenzene	*0.0491*		mg/Kg wet	0.0500		98.2		70-130				
LCS (B144930-BS1)				Prepared & Analyzed: 03/23/16								
Acetone	0.259	0.10	mg/Kg wet	0.200		129		70-160				†
Benzene	0.0175	0.0020	mg/Kg wet	0.0200		87.4		70-130				
Bromochloromethane	0.0181	0.0020	mg/Kg wet	0.0200		90.4		70-130				
Bromodichloromethane	0.0222	0.0020	mg/Kg wet	0.0200		111		70-130				
Bromoform	0.0231	0.0020	mg/Kg wet	0.0200		116		70-130				
Bromomethane	0.0109	0.010	mg/Kg wet	0.0200		54.3		40-130				†
2-Butanone (MEK)	0.183	0.040	mg/Kg wet	0.200		91.3		70-160				†
Carbon Disulfide	0.0148	0.0060	mg/Kg wet	0.0200		74.1		70-130				
Carbon Tetrachloride	0.0243	0.0020	mg/Kg wet	0.0200		122		70-130				
Chlorobenzene	0.0220	0.0020	mg/Kg wet	0.0200		110		70-130				
Chlorodibromomethane	0.0233	0.0010	mg/Kg wet	0.0200		116		70-130				
Chloroethane	0.0177	0.020	mg/Kg wet	0.0200		88.6		70-130			J	
Chloroform	0.0205	0.0040	mg/Kg wet	0.0200		102		70-130				
Chloromethane	0.0120	0.010	mg/Kg wet	0.0200		**60.0**	*	70-130			L-04, V-05	
Cyclohexane	0.0149	0.0020	mg/Kg wet	0.0200		74.4		70-130			V-05	
1,2-Dibromo-3-chloropropane (DBCP)	0.0170	0.0020	mg/Kg wet	0.0200		85.0		70-130				
1,2-Dibromoethane (EDB)	0.0216	0.0010	mg/Kg wet	0.0200		108		70-130				
1,2-Dichlorobenzene	0.0211	0.0020	mg/Kg wet	0.0200		106		70-130				
1,3-Dichlorobenzene	0.0211	0.0020	mg/Kg wet	0.0200		106		70-130				
1,4-Dichlorobenzene	0.0207	0.0020	mg/Kg wet	0.0200		103		70-130				
Dichlorodifluoromethane (Freon 12)	0.0149	0.020	mg/Kg wet	0.0200		74.6		40-160			J	†
1,1-Dichloroethane	0.0185	0.0020	mg/Kg wet	0.0200		92.3		70-130				
1,2-Dichloroethane	0.0247	0.0020	mg/Kg wet	0.0200		124		70-130			V-20	
1,1-Dichloroethylene	0.0173	0.0040	mg/Kg wet	0.0200		86.4		70-130				
cis-1,2-Dichloroethylene	0.0179	0.0020	mg/Kg wet	0.0200		89.3		70-130				
trans-1,2-Dichloroethylene	0.0173	0.0020	mg/Kg wet	0.0200		86.4		70-130				
1,2-Dichloropropane	0.0190	0.0020	mg/Kg wet	0.0200		95.2		70-130				
cis-1,3-Dichloropropene	0.0194	0.0010	mg/Kg wet	0.0200		97.1		70-130				
trans-1,3-Dichloropropene	0.0200	0.0010	mg/Kg wet	0.0200		100		70-130				
Ethylbenzene	0.0229	0.0020	mg/Kg wet	0.0200		115		70-130				
2-Hexanone (MBK)	0.186	0.020	mg/Kg wet	0.200		92.8		70-160				†
Isopropylbenzene (Cumene)	0.0241	0.0020	mg/Kg wet	0.0200		120		70-130				
Methyl Acetate	0.0140	0.0020	mg/Kg wet	0.0200		70.2		70-130			V-05	
Methyl tert-Butyl Ether (MTBE)	0.0188	0.0040	mg/Kg wet	0.0200		94.2		70-130				
Methyl Cyclohexane	0.0201	0.0020	mg/Kg wet	0.0200		100		70-130				
Methylene Chloride	0.0140	0.020	mg/Kg wet	0.0200		70.1		40-160			J, V-05	†
4-Methyl-2-pentanone (MIBK)	0.164	0.020	mg/Kg wet	0.200		82.0		70-160				†
Styrene	0.0225	0.0020	mg/Kg wet	0.0200		113		70-130				
1,1,2,2-Tetrachloroethane	0.0198	0.0010	mg/Kg wet	0.0200		99.1		70-130				
Tetrachloroethylene	0.0272	0.0020	mg/Kg wet	0.0200		**136**	*	70-130			L-02	
Toluene	0.0189	0.0020	mg/Kg wet	0.0200		94.4		70-130				
1,2,3-Trichlorobenzene	0.0172	0.0020	mg/Kg wet	0.0200		85.9		70-130				
1,2,4-Trichlorobenzene	0.0175	0.0020	mg/Kg wet	0.0200		87.6		70-130				
1,1,1-Trichloroethane	0.0225	0.0020	mg/Kg wet	0.0200		112		70-130				
1,1,2-Trichloroethane	0.0216	0.0020	mg/Kg wet	0.0200		108		70-130				
Trichloroethylene	0.0220	0.0020	mg/Kg wet	0.0200		110		70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B144930 - SW-846 5035												
LCS (B144930-BS1)				Prepared & Analyzed: 03/23/16								
Trichlorofluoromethane (Freon 11)	0.0190	0.010	mg/Kg wet	0.0200		94.8		70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0182	0.010	mg/Kg wet	0.0200		91.2		70-130				
Vinyl Chloride	0.0130	0.010	mg/Kg wet	0.0200		65.2		40-130				†
m+p Xylene	0.0458	0.0040	mg/Kg wet	0.0400		114		70-130				
o-Xylene	0.0220	0.0020	mg/Kg wet	0.0200		110		70-130				
Surrogate: 1,2-Dichloroethane-d4	*0.0498*		mg/Kg wet	0.0500		99.7		70-130				
Surrogate: Toluene-d8	*0.0471*		mg/Kg wet	0.0500		94.3		70-130				
Surrogate: 4-Bromofluorobenzene	*0.0520*		mg/Kg wet	0.0500		104		70-130				
LCS Dup (B144930-BSD1)				Prepared & Analyzed: 03/23/16								
Acetone	0.211	0.10	mg/Kg wet	0.200		106		70-160	20.3	25		†
Benzene	0.0176	0.0020	mg/Kg wet	0.0200		88.0		70-130	0.684	25		
Bromochloromethane	0.0190	0.0020	mg/Kg wet	0.0200		94.9		70-130	4.86	25		
Bromodichloromethane	0.0233	0.0020	mg/Kg wet	0.0200		117		70-130	4.74	25		
Bromoform	0.0242	0.0020	mg/Kg wet	0.0200		121		70-130	4.49	25		
Bromomethane	0.0128	0.010	mg/Kg wet	0.0200		63.9		40-130	16.2	25		†
2-Butanone (MEK)	0.166	0.040	mg/Kg wet	0.200		83.2		70-160	9.27	25		†
Carbon Disulfide	0.0160	0.0060	mg/Kg wet	0.0200		79.9		70-130	7.53	25		
Carbon Tetrachloride	0.0255	0.0020	mg/Kg wet	0.0200		127		70-130	4.74	25		
Chlorobenzene	0.0233	0.0020	mg/Kg wet	0.0200		117		70-130	6.00	25		
Chlorodibromomethane	0.0241	0.0010	mg/Kg wet	0.0200		120		70-130	3.46	25		
Chloroethane	0.0184	0.020	mg/Kg wet	0.0200		92.2		70-130	3.98	25	J	
Chloroform	0.0213	0.0040	mg/Kg wet	0.0200		106		70-130	3.64	25		
Chloromethane	0.0127	0.010	mg/Kg wet	0.0200		**63.3**	*	70-130	5.35	25	L-04, V-05	
Cyclohexane	0.0154	0.0020	mg/Kg wet	0.0200		76.9		70-130	3.30	25	V-05	
1,2-Dibromo-3-chloropropane (DBCP)	0.0184	0.0020	mg/Kg wet	0.0200		92.0		70-130	7.91	25		
1,2-Dibromoethane (EDB)	0.0227	0.0010	mg/Kg wet	0.0200		113		70-130	4.70	25		
1,2-Dichlorobenzene	0.0215	0.0020	mg/Kg wet	0.0200		108		70-130	1.87	25		
1,3-Dichlorobenzene	0.0215	0.0020	mg/Kg wet	0.0200		108		70-130	1.97	25		
1,4-Dichlorobenzene	0.0210	0.0020	mg/Kg wet	0.0200		105		70-130	1.54	25		
Dichlorodifluoromethane (Freon 12)	0.0147	0.020	mg/Kg wet	0.0200		73.5		40-160	1.49	25	J	†
1,1-Dichloroethane	0.0191	0.0020	mg/Kg wet	0.0200		95.5		70-130	3.41	25		
1,2-Dichloroethane	0.0247	0.0020	mg/Kg wet	0.0200		123		70-130	0.0810	25	V-20	
1,1-Dichloroethylene	0.0175	0.0040	mg/Kg wet	0.0200		87.5		70-130	1.27	25		
cis-1,2-Dichloroethylene	0.0183	0.0020	mg/Kg wet	0.0200		91.7		70-130	2.65	25		
trans-1,2-Dichloroethylene	0.0185	0.0020	mg/Kg wet	0.0200		92.5		70-130	6.82	25		
1,2-Dichloropropane	0.0183	0.0020	mg/Kg wet	0.0200		91.4		70-130	4.07	25		
cis-1,3-Dichloropropene	0.0198	0.0010	mg/Kg wet	0.0200		98.8		70-130	1.74	25		
trans-1,3-Dichloropropene	0.0204	0.0010	mg/Kg wet	0.0200		102		70-130	2.08	25		
Ethylbenzene	0.0234	0.0020	mg/Kg wet	0.0200		117		70-130	1.99	25		
2-Hexanone (MBK)	0.184	0.020	mg/Kg wet	0.200		91.8		70-160	1.16	25		†
Isopropylbenzene (Cumene)	0.0253	0.0020	mg/Kg wet	0.0200		126		70-130	4.86	25		
Methyl Acetate	0.0149	0.0020	mg/Kg wet	0.0200		74.5		70-130	5.94	25	V-05	
Methyl tert-Butyl Ether (MTBE)	0.0192	0.0040	mg/Kg wet	0.0200		96.0		70-130	1.89	25		
Methyl Cyclohexane	0.0199	0.0020	mg/Kg wet	0.0200		99.6		70-130	0.800	25		
Methylene Chloride	0.0142	0.020	mg/Kg wet	0.0200		71.0		40-160	1.28	25	J, V-05	†
4-Methyl-2-pentanone (MIBK)	0.171	0.020	mg/Kg wet	0.200		85.4		70-160	3.97	25		†
Styrene	0.0233	0.0020	mg/Kg wet	0.0200		117		70-130	3.58	25		
1,1,2,2-Tetrachloroethane	0.0216	0.0010	mg/Kg wet	0.0200		108		70-130	8.69	25		
Tetrachloroethylene	0.0267	0.0020	mg/Kg wet	0.0200		**133**	*	70-130	2.00	25	L-02	
Toluene	0.0192	0.0020	mg/Kg wet	0.0200		95.8		70-130	1.47	25		
1,2,3-Trichlorobenzene	0.0178	0.0020	mg/Kg wet	0.0200		89.1		70-130	3.66	25		

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B144930 - SW-846 5035											
LCS Dup (B144930-BSD1)				Prepared & Analyzed: 03/23/16							
1,2,4-Trichlorobenzene	0.0179	0.0020	mg/Kg wet	0.0200		89.3	70-130	1.92	25		
1,1,1-Trichloroethane	0.0229	0.0020	mg/Kg wet	0.0200		114	70-130	1.59	25		
1,1,2-Trichloroethane	0.0217	0.0020	mg/Kg wet	0.0200		109	70-130	0.739	25		
Trichloroethylene	0.0220	0.0020	mg/Kg wet	0.0200		110	70-130	0.00	25		
Trichlorofluoromethane (Freon 11)	0.0194	0.010	mg/Kg wet	0.0200		96.8	70-130	2.09	25		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0189	0.010	mg/Kg wet	0.0200		94.4	70-130	3.45	25		
Vinyl Chloride	0.0144	0.010	mg/Kg wet	0.0200		72.2	40-130	10.2	25		†
m+p Xylene	0.0471	0.0040	mg/Kg wet	0.0400		118	70-130	2.84	25		
o-Xylene	0.0231	0.0020	mg/Kg wet	0.0200		116	70-130	5.15	25		
Surrogate: 1,2-Dichloroethane-d4	*0.0505*		mg/Kg wet	0.0500		101	70-130				
Surrogate: Toluene-d8	*0.0470*		mg/Kg wet	0.0500		94.0	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0530*		mg/Kg wet	0.0500		106	70-130				
Batch B144935 - SW-846 5035											
Blank (B144935-BLK1)				Prepared & Analyzed: 03/23/16							
Benzene	ND	0.0020	mg/Kg wet								
n-Butylbenzene	ND	0.0020	mg/Kg wet								
sec-Butylbenzene	ND	0.0020	mg/Kg wet								
tert-Butylbenzene	ND	0.0020	mg/Kg wet								
Ethylbenzene	ND	0.0020	mg/Kg wet								
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg wet								
p-Isopropyltoluene (p-Cymene)	ND	0.0020	mg/Kg wet								
Naphthalene	ND	0.0040	mg/Kg wet							V-05	
n-Propylbenzene	ND	0.0020	mg/Kg wet								
Toluene	ND	0.0020	mg/Kg wet								
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg wet								
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg wet								
m+p Xylene	ND	0.0040	mg/Kg wet								
o-Xylene	ND	0.0020	mg/Kg wet								
Surrogate: 1,2-Dichloroethane-d4	*0.0494*		mg/Kg wet	0.0500		98.7	70-130				
Surrogate: Toluene-d8	*0.0468*		mg/Kg wet	0.0500		93.5	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0491*		mg/Kg wet	0.0500		98.2	70-130				
LCS (B144935-BS1)				Prepared & Analyzed: 03/23/16							
Benzene	0.0175	0.0020	mg/Kg wet	0.0200		87.4	70-130				
n-Butylbenzene	0.0220	0.0020	mg/Kg wet	0.0200		110	70-130				
sec-Butylbenzene	0.0217	0.0020	mg/Kg wet	0.0200		108	70-130				
tert-Butylbenzene	0.0220	0.0020	mg/Kg wet	0.0200		110	70-160				†
Ethylbenzene	0.0229	0.0020	mg/Kg wet	0.0200		115	70-130				
Isopropylbenzene (Cumene)	0.0241	0.0020	mg/Kg wet	0.0200		120	70-130				
p-Isopropyltoluene (p-Cymene)	0.0224	0.0020	mg/Kg wet	0.0200		112	70-130				
Naphthalene	0.0145	0.0040	mg/Kg wet	0.0200		72.5	40-130			V-05	†
n-Propylbenzene	0.0223	0.0020	mg/Kg wet	0.0200		111	70-130				
Toluene	0.0189	0.0020	mg/Kg wet	0.0200		94.4	70-130				
1,2,4-Trimethylbenzene	0.0219	0.0020	mg/Kg wet	0.0200		110	70-130				
1,3,5-Trimethylbenzene	0.0246	0.0020	mg/Kg wet	0.0200		123	70-130				
m+p Xylene	0.0458	0.0040	mg/Kg wet	0.0400		114	70-130				
o-Xylene	0.0220	0.0020	mg/Kg wet	0.0200		110	70-130				
Surrogate: 1,2-Dichloroethane-d4	*0.0498*		mg/Kg wet	0.0500		99.7	70-130				
Surrogate: Toluene-d8	*0.0471*		mg/Kg wet	0.0500		94.3	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0520*		mg/Kg wet	0.0500		104	70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B144935 - SW-846 5035											
LCS Dup (B144935-BSD1)				Prepared & Analyzed: 03/23/16							
Benzene	0.0176	0.0020	mg/Kg wet	0.0200		88.0	70-130	0.684	25		
n-Butylbenzene	0.0222	0.0020	mg/Kg wet	0.0200		111	70-130	1.09	25		
sec-Butylbenzene	0.0224	0.0020	mg/Kg wet	0.0200		112	70-130	3.45	25		
tert-Butylbenzene	0.0228	0.0020	mg/Kg wet	0.0200		114	70-160	3.57	25		†
Ethylbenzene	0.0234	0.0020	mg/Kg wet	0.0200		117	70-130	1.99	25		
Isopropylbenzene (Cumene)	0.0253	0.0020	mg/Kg wet	0.0200		126	70-130	4.86	25		
p-Isopropyltoluene (p-Cymene)	0.0231	0.0020	mg/Kg wet	0.0200		115	70-130	3.17	25		
Naphthalene	0.0148	0.0040	mg/Kg wet	0.0200		73.9	40-130	1.91	25	V-05	†
n-Propylbenzene	0.0232	0.0020	mg/Kg wet	0.0200		116	70-130	4.13	25		
Toluene	0.0192	0.0020	mg/Kg wet	0.0200		95.8	70-130	1.47	25		
1,2,4-Trimethylbenzene	0.0226	0.0020	mg/Kg wet	0.0200		113	70-130	3.14	25		
1,3,5-Trimethylbenzene	0.0260	0.0020	mg/Kg wet	0.0200		130	70-130	5.77	25		
m+p Xylene	0.0471	0.0040	mg/Kg wet	0.0400		118	70-130	2.84	25		
o-Xylene	0.0231	0.0020	mg/Kg wet	0.0200		116	70-130	5.15	25		
Surrogate: 1,2-Dichloroethane-d4	*0.0505*		mg/Kg wet	0.0500		101	70-130				
Surrogate: Toluene-d8	*0.0470*		mg/Kg wet	0.0500		94.0	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0530*		mg/Kg wet	0.0500		106	70-130				
Batch B144944 - SW-846 5035											
Blank (B144944-BLK1)				Prepared & Analyzed: 03/23/16							
Acetone	ND	0.10	mg/Kg wet								
Benzene	ND	0.0020	mg/Kg wet								
Bromochloromethane	ND	0.0020	mg/Kg wet								
Bromodichloromethane	ND	0.0020	mg/Kg wet								
Bromoform	ND	0.0020	mg/Kg wet								
Bromomethane	ND	0.010	mg/Kg wet								
2-Butanone (MEK)	ND	0.040	mg/Kg wet							V-05	
Carbon Disulfide	ND	0.0060	mg/Kg wet								
Carbon Tetrachloride	ND	0.0020	mg/Kg wet								
Chlorobenzene	ND	0.0020	mg/Kg wet								
Chlorodibromomethane	ND	0.0010	mg/Kg wet								
Chloroethane	ND	0.020	mg/Kg wet								
Chloroform	ND	0.0040	mg/Kg wet								
Chloromethane	ND	0.010	mg/Kg wet							L-04, V-05	
Cyclohexane	ND	0.0020	mg/Kg wet							V-05	
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg wet								
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg wet								
1,2-Dichlorobenzene	ND	0.0020	mg/Kg wet								
1,3-Dichlorobenzene	ND	0.0020	mg/Kg wet								
1,4-Dichlorobenzene	ND	0.0020	mg/Kg wet								
Dichlorodifluoromethane (Freon 12)	ND	0.020	mg/Kg wet							R-05	
1,1-Dichloroethane	ND	0.0020	mg/Kg wet								
1,2-Dichloroethane	ND	0.0020	mg/Kg wet								
1,1-Dichloroethylene	ND	0.0040	mg/Kg wet								
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet								
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet								
1,2-Dichloropropane	ND	0.0020	mg/Kg wet								
cis-1,3-Dichloropropene	ND	0.0010	mg/Kg wet								
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg wet								
Ethylbenzene	ND	0.0020	mg/Kg wet								
2-Hexanone (MBK)	ND	0.020	mg/Kg wet								

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QUALITY CONTROL

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B144944 - SW-846 5035												
Blank (B144944-BLK1)				Prepared & Analyzed: 03/23/16								
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg wet									
Methyl Acetate	ND	0.0020	mg/Kg wet								V-05	
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	mg/Kg wet									
Methyl Cyclohexane	ND	0.0020	mg/Kg wet									
Methylene Chloride	ND	0.020	mg/Kg wet								V-05	
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg wet									
Styrene	ND	0.0020	mg/Kg wet									
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg wet									
Tetrachloroethylene	ND	0.0020	mg/Kg wet									
Toluene	ND	0.0020	mg/Kg wet									
1,2,3-Trichlorobenzene	ND	0.0020	mg/Kg wet									
1,2,4-Trichlorobenzene	ND	0.0020	mg/Kg wet									
1,1,1-Trichloroethane	ND	0.0020	mg/Kg wet									
1,1,2-Trichloroethane	ND	0.0020	mg/Kg wet									
Trichloroethylene	ND	0.0020	mg/Kg wet									
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg wet									
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.010	mg/Kg wet									
Vinyl Chloride	ND	0.010	mg/Kg wet									
m+p Xylene	ND	0.0040	mg/Kg wet									
o-Xylene	ND	0.0020	mg/Kg wet									
Xylenes (total)	ND	0.0060	mg/Kg wet									
Surrogate: 1,2-Dichloroethane-d4	*0.0476*		mg/Kg wet	0.0500		95.3		70-130				
Surrogate: Toluene-d8	*0.0462*		mg/Kg wet	0.0500		92.5		70-130				
Surrogate: 4-Bromofluorobenzene	*0.0487*		mg/Kg wet	0.0500		97.4		70-130				
LCS (B144944-BS1)				Prepared & Analyzed: 03/23/16								
Acetone	0.196	0.10	mg/Kg wet	0.200		97.9		70-160				†
Benzene	0.0168	0.0020	mg/Kg wet	0.0200		83.9		70-130				
Bromochloromethane	0.0175	0.0020	mg/Kg wet	0.0200		87.5		70-130				
Bromodichloromethane	0.0219	0.0020	mg/Kg wet	0.0200		109		70-130				
Bromoform	0.0227	0.0020	mg/Kg wet	0.0200		114		70-130				
Bromomethane	0.0104	0.010	mg/Kg wet	0.0200		52.0		40-130				†
2-Butanone (MEK)	0.160	0.040	mg/Kg wet	0.200		79.8		70-160			V-05	†
Carbon Disulfide	0.0149	0.0060	mg/Kg wet	0.0200		74.7		70-130				
Carbon Tetrachloride	0.0226	0.0020	mg/Kg wet	0.0200		113		70-130				
Chlorobenzene	0.0237	0.0020	mg/Kg wet	0.0200		118		70-130				
Chlorodibromomethane	0.0239	0.0010	mg/Kg wet	0.0200		120		70-130				
Chloroethane	0.0148	0.020	mg/Kg wet	0.0200		74.2		70-130			J	
Chloroform	0.0190	0.0040	mg/Kg wet	0.0200		95.2		70-130				
Chloromethane	0.0116	0.010	mg/Kg wet	0.0200		**58.1**	*	70-130			L-04, V-05	
Cyclohexane	0.0145	0.0020	mg/Kg wet	0.0200		72.7		70-130			V-05	
1,2-Dibromo-3-chloropropane (DBCP)	0.0164	0.0020	mg/Kg wet	0.0200		82.0		70-130				
1,2-Dibromoethane (EDB)	0.0227	0.0010	mg/Kg wet	0.0200		114		70-130				
1,2-Dichlorobenzene	0.0214	0.0020	mg/Kg wet	0.0200		107		70-130				
1,3-Dichlorobenzene	0.0217	0.0020	mg/Kg wet	0.0200		109		70-130				
1,4-Dichlorobenzene	0.0208	0.0020	mg/Kg wet	0.0200		104		70-130				
Dichlorodifluoromethane (Freon 12)	0.0132	0.020	mg/Kg wet	0.0200		65.9		40-160			J, R-05	†
1,1-Dichloroethane	0.0181	0.0020	mg/Kg wet	0.0200		90.4		70-130				
1,2-Dichloroethane	0.0221	0.0020	mg/Kg wet	0.0200		110		70-130				
1,1-Dichloroethylene	0.0157	0.0040	mg/Kg wet	0.0200		78.6		70-130				
cis-1,2-Dichloroethylene	0.0173	0.0020	mg/Kg wet	0.0200		86.5		70-130				
trans-1,2-Dichloroethylene	0.0171	0.0020	mg/Kg wet	0.0200		85.5		70-130				

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B144944 - SW-846 5035												
LCS (B144944-BS1)				Prepared & Analyzed: 03/23/16								
1,2-Dichloropropane	0.0184	0.0020	mg/Kg wet	0.0200		91.9		70-130				
cis-1,3-Dichloropropene	0.0195	0.0010	mg/Kg wet	0.0200		97.4		70-130				
trans-1,3-Dichloropropene	0.0200	0.0010	mg/Kg wet	0.0200		100		70-130				
Ethylbenzene	0.0233	0.0020	mg/Kg wet	0.0200		116		70-130				
2-Hexanone (MBK)	0.174	0.020	mg/Kg wet	0.200		86.9		70-160				†
Isopropylbenzene (Cumene)	0.0249	0.0020	mg/Kg wet	0.0200		124		70-130				
Methyl Acetate	0.0141	0.0020	mg/Kg wet	0.0200		70.3		70-130			V-05	
Methyl tert-Butyl Ether (MTBE)	0.0184	0.0040	mg/Kg wet	0.0200		91.9		70-130				
Methyl Cyclohexane	0.0193	0.0020	mg/Kg wet	0.0200		96.6		70-130				
Methylene Chloride	0.0133	0.020	mg/Kg wet	0.0200		66.4		40-160			J, V-05	†
4-Methyl-2-pentanone (MIBK)	0.170	0.020	mg/Kg wet	0.200		84.8		70-160				†
Styrene	0.0231	0.0020	mg/Kg wet	0.0200		116		70-130				
1,1,2,2-Tetrachloroethane	0.0208	0.0010	mg/Kg wet	0.0200		104		70-130				
Tetrachloroethylene	0.0273	0.0020	mg/Kg wet	0.0200		**136**	*	70-130			L-02, V-20	
Toluene	0.0196	0.0020	mg/Kg wet	0.0200		98.0		70-130				
1,2,3-Trichlorobenzene	0.0174	0.0020	mg/Kg wet	0.0200		86.8		70-130				
1,2,4-Trichlorobenzene	0.0180	0.0020	mg/Kg wet	0.0200		89.9		70-130				
1,1,1-Trichloroethane	0.0209	0.0020	mg/Kg wet	0.0200		105		70-130				
1,1,2-Trichloroethane	0.0218	0.0020	mg/Kg wet	0.0200		109		70-130				
Trichloroethylene	0.0219	0.0020	mg/Kg wet	0.0200		110		70-130				
Trichlorofluoromethane (Freon 11)	0.0178	0.010	mg/Kg wet	0.0200		88.8		70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0173	0.010	mg/Kg wet	0.0200		86.3		70-130				
Vinyl Chloride	0.0133	0.010	mg/Kg wet	0.0200		66.4		40-130				†
m+p Xylene	0.0466	0.0040	mg/Kg wet	0.0400		116		70-130				
o-Xylene	0.0228	0.0020	mg/Kg wet	0.0200		114		70-130				
Surrogate: 1,2-Dichloroethane-d4	*0.0467*		mg/Kg wet	0.0500		93.4		70-130				
Surrogate: Toluene-d8	*0.0474*		mg/Kg wet	0.0500		94.8		70-130				
Surrogate: 4-Bromofluorobenzene	*0.0527*		mg/Kg wet	0.0500		105		70-130				
LCS Dup (B144944-BSD1)				Prepared & Analyzed: 03/23/16								
Acetone	0.176	0.10	mg/Kg wet	0.200		87.9		70-160	10.8	25		†
Benzene	0.0168	0.0020	mg/Kg wet	0.0200		83.9		70-130	0.00	25		
Bromochloromethane	0.0172	0.0020	mg/Kg wet	0.0200		86.0		70-130	1.73	25		
Bromodichloromethane	0.0222	0.0020	mg/Kg wet	0.0200		111		70-130	1.45	25		
Bromoform	0.0228	0.0020	mg/Kg wet	0.0200		114		70-130	0.352	25		
Bromomethane	0.0105	0.010	mg/Kg wet	0.0200		52.3		40-130	0.575	25		†
2-Butanone (MEK)	0.148	0.040	mg/Kg wet	0.200		74.1		70-160	7.41	25	V-05	†
Carbon Disulfide	0.0154	0.0060	mg/Kg wet	0.0200		76.8		70-130	2.77	25		
Carbon Tetrachloride	0.0224	0.0020	mg/Kg wet	0.0200		112		70-130	1.16	25		
Chlorobenzene	0.0222	0.0020	mg/Kg wet	0.0200		111		70-130	6.27	25		
Chlorodibromomethane	0.0233	0.0010	mg/Kg wet	0.0200		117		70-130	2.45	25		
Chloroethane	0.0165	0.020	mg/Kg wet	0.0200		82.3		70-130	10.4	25	J	
Chloroform	0.0188	0.0040	mg/Kg wet	0.0200		94.2		70-130	1.06	25		
Chloromethane	0.0117	0.010	mg/Kg wet	0.0200		**58.6**	*	70-130	0.857	25	L-04, V-05	
Cyclohexane	0.0149	0.0020	mg/Kg wet	0.0200		74.4		70-130	2.31	25	V-05	
1,2-Dibromo-3-chloropropane (DBCP)	0.0170	0.0020	mg/Kg wet	0.0200		84.9		70-130	3.48	25		
1,2-Dibromoethane (EDB)	0.0218	0.0010	mg/Kg wet	0.0200		109		70-130	3.86	25		
1,2-Dichlorobenzene	0.0215	0.0020	mg/Kg wet	0.0200		108		70-130	0.559	25		
1,3-Dichlorobenzene	0.0213	0.0020	mg/Kg wet	0.0200		106		70-130	2.14	25		
1,4-Dichlorobenzene	0.0205	0.0020	mg/Kg wet	0.0200		102		70-130	1.26	25		
Dichlorodifluoromethane (Freon 12)	0.0101	0.020	mg/Kg wet	0.0200		50.7		40-160	**26.1**	* 25	J, R-05	†
1,1-Dichloroethane	0.0175	0.0020	mg/Kg wet	0.0200		87.4		70-130	3.37	25		

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B144944 - SW-846 5035												
LCS Dup (B144944-BSD1)				Prepared & Analyzed: 03/23/16								
1,2-Dichloroethane	0.0229	0.0020	mg/Kg wet	0.0200		114		70-130	3.56	25		
1,1-Dichloroethylene	0.0165	0.0040	mg/Kg wet	0.0200		82.4		70-130	4.72	25		
cis-1,2-Dichloroethylene	0.0170	0.0020	mg/Kg wet	0.0200		85.2		70-130	1.51	25		
trans-1,2-Dichloroethylene	0.0175	0.0020	mg/Kg wet	0.0200		87.3		70-130	2.08	25		
1,2-Dichloropropane	0.0180	0.0020	mg/Kg wet	0.0200		89.8		70-130	2.31	25		
cis-1,3-Dichloropropene	0.0187	0.0010	mg/Kg wet	0.0200		93.6		70-130	3.98	25		
trans-1,3-Dichloropropene	0.0201	0.0010	mg/Kg wet	0.0200		100		70-130	0.199	25		
Ethylbenzene	0.0226	0.0020	mg/Kg wet	0.0200		113		70-130	2.88	25		
2-Hexanone (MBK)	0.176	0.020	mg/Kg wet	0.200		88.1		70-160	1.35	25		†
Isopropylbenzene (Cumene)	0.0240	0.0020	mg/Kg wet	0.0200		120		70-130	3.52	25		
Methyl Acetate	0.0138	0.0020	mg/Kg wet	0.0200		**68.8**	*	70-130	2.16	25	L-07, V-05	
Methyl tert-Butyl Ether (MTBE)	0.0176	0.0040	mg/Kg wet	0.0200		87.9		70-130	4.45	25		
Methyl Cyclohexane	0.0199	0.0020	mg/Kg wet	0.0200		99.5		70-130	2.96	25		
Methylene Chloride	0.0135	0.020	mg/Kg wet	0.0200		67.5		40-160	1.64	25	J, V-05	†
4-Methyl-2-pentanone (MIBK)	0.168	0.020	mg/Kg wet	0.200		84.1		70-160	0.900	25		†
Styrene	0.0222	0.0020	mg/Kg wet	0.0200		111		70-130	3.88	25		
1,1,2,2-Tetrachloroethane	0.0206	0.0010	mg/Kg wet	0.0200		103		70-130	1.06	25		
Tetrachloroethylene	0.0265	0.0020	mg/Kg wet	0.0200		**133**	*	70-130	2.82	25	L-02, V-20	
Toluene	0.0187	0.0020	mg/Kg wet	0.0200		93.6		70-130	4.59	25		
1,2,3-Trichlorobenzene	0.0171	0.0020	mg/Kg wet	0.0200		85.4		70-130	1.63	25		
1,2,4-Trichlorobenzene	0.0169	0.0020	mg/Kg wet	0.0200		84.6		70-130	6.07	25		
1,1,1-Trichloroethane	0.0214	0.0020	mg/Kg wet	0.0200		107		70-130	1.99	25		
1,1,2-Trichloroethane	0.0206	0.0020	mg/Kg wet	0.0200		103		70-130	5.85	25		
Trichloroethylene	0.0211	0.0020	mg/Kg wet	0.0200		106		70-130	3.63	25		
Trichlorofluoromethane (Freon 11)	0.0180	0.010	mg/Kg wet	0.0200		90.2		70-130	1.56	25		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0182	0.010	mg/Kg wet	0.0200		91.1		70-130	5.41	25		
Vinyl Chloride	0.0137	0.010	mg/Kg wet	0.0200		68.3		40-130	2.82	25		†
m+p Xylene	0.0445	0.0040	mg/Kg wet	0.0400		111		70-130	4.70	25		
o-Xylene	0.0218	0.0020	mg/Kg wet	0.0200		109		70-130	4.39	25		
Surrogate: 1,2-Dichloroethane-d4	*0.0472*		mg/Kg wet	0.0500		94.4		70-130				
Surrogate: Toluene-d8	*0.0482*		mg/Kg wet	0.0500		96.3		70-130				
Surrogate: 4-Bromofluorobenzene	*0.0514*		mg/Kg wet	0.0500		103		70-130				
Batch B144969 - SW-846 5035												
Blank (B144969-BLK1)				Prepared & Analyzed: 03/24/16								
Acetone	ND	0.10	mg/Kg wet								R-05	
Benzene	ND	0.0020	mg/Kg wet									
Bromochloromethane	ND	0.0020	mg/Kg wet									
Bromodichloromethane	ND	0.0020	mg/Kg wet									
Bromoform	ND	0.0020	mg/Kg wet									
Bromomethane	ND	0.010	mg/Kg wet									
2-Butanone (MEK)	ND	0.040	mg/Kg wet								R-05	
Carbon Disulfide	ND	0.0060	mg/Kg wet									
Carbon Tetrachloride	ND	0.0020	mg/Kg wet									
Chlorobenzene	ND	0.0020	mg/Kg wet									
Chlorodibromomethane	ND	0.0010	mg/Kg wet									
Chloroethane	ND	0.020	mg/Kg wet									
Chloroform	ND	0.0040	mg/Kg wet									
Chloromethane	ND	0.010	mg/Kg wet								L-04, V-05	
Cyclohexane	ND	0.0020	mg/Kg wet								V-05	
1,2-Dibromo-3-chloropropane (DBCP)	ND	0.0020	mg/Kg wet									

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B144969 - SW-846 5035											
Blank (B144969-BLK1)				Prepared & Analyzed: 03/24/16							
1,2-Dibromoethane (EDB)	ND	0.0010	mg/Kg wet								
1,2-Dichlorobenzene	ND	0.0020	mg/Kg wet								
1,3-Dichlorobenzene	ND	0.0020	mg/Kg wet								
1,4-Dichlorobenzene	ND	0.0020	mg/Kg wet								
Dichlorodifluoromethane (Freon 12)	ND	0.020	mg/Kg wet								
1,1-Dichloroethane	ND	0.0020	mg/Kg wet								
1,2-Dichloroethane	ND	0.0020	mg/Kg wet								
1,1-Dichloroethylene	ND	0.0040	mg/Kg wet								
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet								
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet								
1,2-Dichloropropane	ND	0.0020	mg/Kg wet								
cis-1,3-Dichloropropene	ND	0.0010	mg/Kg wet								
trans-1,3-Dichloropropene	ND	0.0010	mg/Kg wet								
Ethylbenzene	ND	0.0020	mg/Kg wet								
2-Hexanone (MBK)	ND	0.020	mg/Kg wet							R-05	
Isopropylbenzene (Cumene)	ND	0.0020	mg/Kg wet								
Methyl Acetate	ND	0.0020	mg/Kg wet							L-04, V-05	
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	mg/Kg wet								
Methyl Cyclohexane	ND	0.0020	mg/Kg wet								
Methylene Chloride	ND	0.020	mg/Kg wet							V-05	
4-Methyl-2-pentanone (MIBK)	ND	0.020	mg/Kg wet								
Styrene	ND	0.0020	mg/Kg wet								
1,1,2,2-Tetrachloroethane	ND	0.0010	mg/Kg wet								
Tetrachloroethylene	ND	0.0020	mg/Kg wet								
Toluene	ND	0.0020	mg/Kg wet								
1,2,3-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,2,4-Trichlorobenzene	ND	0.0020	mg/Kg wet								
1,1,1-Trichloroethane	ND	0.0020	mg/Kg wet								
1,1,2-Trichloroethane	ND	0.0020	mg/Kg wet								
Trichloroethylene	ND	0.0020	mg/Kg wet								
Trichlorofluoromethane (Freon 11)	ND	0.010	mg/Kg wet								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.010	mg/Kg wet								
Vinyl Chloride	ND	0.010	mg/Kg wet								
m+p Xylene	ND	0.0040	mg/Kg wet								
o-Xylene	ND	0.0020	mg/Kg wet								
Xylenes (total)	ND	0.0060	mg/Kg wet								
Surrogate: 1,2-Dichloroethane-d4	*0.0509*		mg/Kg wet	0.0500		102	70-130				
Surrogate: Toluene-d8	*0.0465*		mg/Kg wet	0.0500		92.9	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0493*		mg/Kg wet	0.0500		98.6	70-130				
LCS (B144969-BS1)				Prepared & Analyzed: 03/24/16							
Acetone	0.171	0.10	mg/Kg wet	0.200		85.5	70-160			R-05	†
Benzene	0.0164	0.0020	mg/Kg wet	0.0200		81.8	70-130				
Bromochloromethane	0.0172	0.0020	mg/Kg wet	0.0200		86.0	70-130				
Bromodichloromethane	0.0226	0.0020	mg/Kg wet	0.0200		113	70-130			V-20	
Bromoform	0.0223	0.0020	mg/Kg wet	0.0200		111	70-130				
Bromomethane	0.0114	0.010	mg/Kg wet	0.0200		57.2	40-130				†
2-Butanone (MEK)	0.142	0.040	mg/Kg wet	0.200		70.8	70-160			R-05	†
Carbon Disulfide	0.0144	0.0060	mg/Kg wet	0.0200		72.0	70-130				
Carbon Tetrachloride	0.0233	0.0020	mg/Kg wet	0.0200		117	70-130				
Chlorobenzene	0.0221	0.0020	mg/Kg wet	0.0200		111	70-130				
Chlorodibromomethane	0.0230	0.0010	mg/Kg wet	0.0200		115	70-130			V-20	

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QUALITY CONTROL

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B144969 - SW-846 5035												
LCS (B144969-BS1)				Prepared & Analyzed: 03/24/16								
Chloroethane	0.0162	0.020	mg/Kg wet	0.0200		80.8		70-130			J	
Chloroform	0.0196	0.0040	mg/Kg wet	0.0200		97.9		70-130				
Chloromethane	0.0116	0.010	mg/Kg wet	0.0200		**58.1**	*	70-130			L-04, V-05	
Cyclohexane	0.0140	0.0020	mg/Kg wet	0.0200		**69.8**	*	70-130			V-05	
1,2-Dibromo-3-chloropropane (DBCP)	0.0173	0.0020	mg/Kg wet	0.0200		86.7		70-130				
1,2-Dibromoethane (EDB)	0.0213	0.0010	mg/Kg wet	0.0200		106		70-130				
1,2-Dichlorobenzene	0.0199	0.0020	mg/Kg wet	0.0200		99.3		70-130				
1,3-Dichlorobenzene	0.0199	0.0020	mg/Kg wet	0.0200		99.6		70-130				
1,4-Dichlorobenzene	0.0195	0.0020	mg/Kg wet	0.0200		97.7		70-130				
Dichlorodifluoromethane (Freon 12)	0.0141	0.020	mg/Kg wet	0.0200		70.4		40-160			J	†
1,1-Dichloroethane	0.0176	0.0020	mg/Kg wet	0.0200		88.0		70-130				
1,2-Dichloroethane	0.0242	0.0020	mg/Kg wet	0.0200		121		70-130			V-20	
1,1-Dichloroethylene	0.0163	0.0040	mg/Kg wet	0.0200		81.6		70-130				
cis-1,2-Dichloroethylene	0.0173	0.0020	mg/Kg wet	0.0200		86.5		70-130				
trans-1,2-Dichloroethylene	0.0172	0.0020	mg/Kg wet	0.0200		86.0		70-130				
1,2-Dichloropropane	0.0174	0.0020	mg/Kg wet	0.0200		86.9		70-130				
cis-1,3-Dichloropropene	0.0185	0.0010	mg/Kg wet	0.0200		92.3		70-130				
trans-1,3-Dichloropropene	0.0200	0.0010	mg/Kg wet	0.0200		100		70-130				
Ethylbenzene	0.0222	0.0020	mg/Kg wet	0.0200		111		70-130				
2-Hexanone (MBK)	0.174	0.020	mg/Kg wet	0.200		86.8		70-160			R-05	†
Isopropylbenzene (Cumene)	0.0237	0.0020	mg/Kg wet	0.0200		119		70-130				
Methyl Acetate	0.0139	0.0020	mg/Kg wet	0.0200		**69.5**	*	70-130			L-04, V-05	
Methyl tert-Butyl Ether (MTBE)	0.0181	0.0040	mg/Kg wet	0.0200		90.6		70-130				
Methyl Cyclohexane	0.0193	0.0020	mg/Kg wet	0.0200		96.4		70-130				
Methylene Chloride	0.0133	0.020	mg/Kg wet	0.0200		66.5		40-160			J, V-05	†
4-Methyl-2-pentanone (MIBK)	0.161	0.020	mg/Kg wet	0.200		80.6		70-160				†
Styrene	0.0222	0.0020	mg/Kg wet	0.0200		111		70-130				
1,1,2,2-Tetrachloroethane	0.0196	0.0010	mg/Kg wet	0.0200		98.1		70-130				
Tetrachloroethylene	0.0255	0.0020	mg/Kg wet	0.0200		128		70-130			V-20	
Toluene	0.0183	0.0020	mg/Kg wet	0.0200		91.4		70-130				
1,2,3-Trichlorobenzene	0.0206	0.0020	mg/Kg wet	0.0200		103		70-130				
1,2,4-Trichlorobenzene	0.0202	0.0020	mg/Kg wet	0.0200		101		70-130				
1,1,1-Trichloroethane	0.0214	0.0020	mg/Kg wet	0.0200		107		70-130				
1,1,2-Trichloroethane	0.0203	0.0020	mg/Kg wet	0.0200		102		70-130				
Trichloroethylene	0.0216	0.0020	mg/Kg wet	0.0200		108		70-130				
Trichlorofluoromethane (Freon 11)	0.0187	0.010	mg/Kg wet	0.0200		93.6		70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0182	0.010	mg/Kg wet	0.0200		90.8		70-130				
Vinyl Chloride	0.0136	0.010	mg/Kg wet	0.0200		67.9		40-130				†
m+p Xylene	0.0443	0.0040	mg/Kg wet	0.0400		111		70-130				
o-Xylene	0.0218	0.0020	mg/Kg wet	0.0200		109		70-130				
Surrogate: 1,2-Dichloroethane-d4	*0.0495*		mg/Kg wet	0.0500		98.9		70-130				
Surrogate: Toluene-d8	*0.0471*		mg/Kg wet	0.0500		94.2		70-130				
Surrogate: 4-Bromofluorobenzene	*0.0532*		mg/Kg wet	0.0500		106		70-130				

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QUALITY CONTROL

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD		RPD Limit	Notes	
Batch B144969 - SW-846 5035													
LCS Dup (B144969-BSD1)				Prepared & Analyzed: 03/24/16									
Acetone	0.322	0.10	mg/Kg wet	0.200		**161**	*	70-160	**61.2**	*	25	L-07A, R-05	†
Benzene	0.0153	0.0020	mg/Kg wet	0.0200		76.3		70-130	6.96		25		
Bromochloromethane	0.0165	0.0020	mg/Kg wet	0.0200		82.5		70-130	4.15		25		
Bromodichloromethane	0.0200	0.0020	mg/Kg wet	0.0200		100		70-130	12.3		25	V-20	
Bromoform	0.0200	0.0020	mg/Kg wet	0.0200		99.8		70-130	11.0		25		
Bromomethane	0.0118	0.010	mg/Kg wet	0.0200		59.1		40-130	3.27		25		†
2-Butanone (MEK)	0.212	0.040	mg/Kg wet	0.200		106		70-160	**39.7**	*	25	R-05	†
Carbon Disulfide	0.0140	0.0060	mg/Kg wet	0.0200		70.1		70-130	2.67		25		
Carbon Tetrachloride	0.0220	0.0020	mg/Kg wet	0.0200		110		70-130	5.73		25		
Chlorobenzene	0.0202	0.0020	mg/Kg wet	0.0200		101		70-130	9.27		25		
Chlorodibromomethane	0.0202	0.0010	mg/Kg wet	0.0200		101		70-130	12.7		25	V-20	
Chloroethane	0.0152	0.020	mg/Kg wet	0.0200		75.9		70-130	6.25		25	J	
Chloroform	0.0178	0.0040	mg/Kg wet	0.0200		89.0		70-130	9.52		25		
Chloromethane	0.0111	0.010	mg/Kg wet	0.0200		**55.3**	*	70-130	4.94		25	V-05, L-04	
Cyclohexane	0.0140	0.0020	mg/Kg wet	0.0200		70.1		70-130	0.429		25	V-05	
1,2-Dibromo-3-chloropropane (DBCP)	0.0158	0.0020	mg/Kg wet	0.0200		78.8		70-130	9.55		25		
1,2-Dibromoethane (EDB)	0.0198	0.0010	mg/Kg wet	0.0200		99.2		70-130	6.91		25		
1,2-Dichlorobenzene	0.0187	0.0020	mg/Kg wet	0.0200		93.7		70-130	5.80		25		
1,3-Dichlorobenzene	0.0192	0.0020	mg/Kg wet	0.0200		96.1		70-130	3.58		25		
1,4-Dichlorobenzene	0.0190	0.0020	mg/Kg wet	0.0200		95.2		70-130	2.59		25		
Dichlorodifluoromethane (Freon 12)	0.0130	0.020	mg/Kg wet	0.0200		65.1		40-160	7.82		25	J	†
1,1-Dichloroethane	0.0163	0.0020	mg/Kg wet	0.0200		81.3		70-130	7.91		25		
1,2-Dichloroethane	0.0211	0.0020	mg/Kg wet	0.0200		106		70-130	13.6		25	V-20	
1,1-Dichloroethylene	0.0158	0.0040	mg/Kg wet	0.0200		79.2		70-130	2.99		25		
cis-1,2-Dichloroethylene	0.0161	0.0020	mg/Kg wet	0.0200		80.5		70-130	7.19		25		
trans-1,2-Dichloroethylene	0.0160	0.0020	mg/Kg wet	0.0200		79.8		70-130	7.48		25		
1,2-Dichloropropane	0.0163	0.0020	mg/Kg wet	0.0200		81.6		70-130	6.29		25		
cis-1,3-Dichloropropene	0.0173	0.0010	mg/Kg wet	0.0200		86.6		70-130	6.37		25		
trans-1,3-Dichloropropene	0.0176	0.0010	mg/Kg wet	0.0200		88.2		70-130	12.5		25		
Ethylbenzene	0.0204	0.0020	mg/Kg wet	0.0200		102		70-130	8.63		25		
2-Hexanone (MBK)	0.224	0.020	mg/Kg wet	0.200		112		70-160	**25.5**	*	25	R-05	†
Isopropylbenzene (Cumene)	0.0214	0.0020	mg/Kg wet	0.0200		107		70-130	10.3		25		
Methyl Acetate	0.0131	0.0020	mg/Kg wet	0.0200		**65.7**	*	70-130	5.62		25	L-04, V-05	
Methyl tert-Butyl Ether (MTBE)	0.0174	0.0040	mg/Kg wet	0.0200		86.8		70-130	4.28		25		
Methyl Cyclohexane	0.0183	0.0020	mg/Kg wet	0.0200		91.6		70-130	5.11		25		
Methylene Chloride	0.0116	0.020	mg/Kg wet	0.0200		58.0		40-160	13.7		25	J, V-05	†
4-Methyl-2-pentanone (MIBK)	0.153	0.020	mg/Kg wet	0.200		76.7		70-160	4.96		25		†
Styrene	0.0201	0.0020	mg/Kg wet	0.0200		100		70-130	9.75		25		
1,1,2,2-Tetrachloroethane	0.0183	0.0010	mg/Kg wet	0.0200		91.3		70-130	7.18		25		
Tetrachloroethylene	0.0247	0.0020	mg/Kg wet	0.0200		123		70-130	3.51		25	V-20	
Toluene	0.0169	0.0020	mg/Kg wet	0.0200		84.6		70-130	7.73		25		
1,2,3-Trichlorobenzene	0.0193	0.0020	mg/Kg wet	0.0200		96.6		70-130	6.51		25		
1,2,4-Trichlorobenzene	0.0195	0.0020	mg/Kg wet	0.0200		97.3		70-130	3.53		25		
1,1,1-Trichloroethane	0.0203	0.0020	mg/Kg wet	0.0200		101		70-130	5.47		25		
1,1,2-Trichloroethane	0.0183	0.0020	mg/Kg wet	0.0200		91.5		70-130	10.6		25		
Trichloroethylene	0.0203	0.0020	mg/Kg wet	0.0200		102		70-130	6.30		25		
Trichlorofluoromethane (Freon 11)	0.0180	0.010	mg/Kg wet	0.0200		89.9		70-130	4.03		25		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.0179	0.010	mg/Kg wet	0.0200		89.4		70-130	1.55		25		
Vinyl Chloride	0.0128	0.010	mg/Kg wet	0.0200		63.9		40-130	6.07		25		†
m+p Xylene	0.0405	0.0040	mg/Kg wet	0.0400		101		70-130	8.87		25		
o-Xylene	0.0193	0.0020	mg/Kg wet	0.0200		96.7		70-130	12.1		25		

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QUALITY CONTROL

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144969 - SW-846 5035										
LCS Dup (B144969-BSD1)				Prepared & Analyzed: 03/24/16						
Surrogate: 1,2-Dichloroethane-d4	*0.0496*		mg/Kg wet	0.0500		99.2	70-130			
Surrogate: Toluene-d8	*0.0471*		mg/Kg wet	0.0500		94.2	70-130			
Surrogate: 4-Bromofluorobenzene	*0.0524*		mg/Kg wet	0.0500		105	70-130			
Batch B145017 - SW-846 5030B										
Blank (B145017-BLK1)				Prepared & Analyzed: 03/24/16						
Acetone	ND	50	µg/L							
Benzene	ND	1.0	µg/L							
Bromochloromethane	ND	1.0	µg/L							
Bromodichloromethane	ND	0.50	µg/L							
Bromoform	ND	1.0	µg/L							
Bromomethane	ND	2.0	µg/L							R-05
2-Butanone (MEK)	ND	20	µg/L							
Carbon Disulfide	ND	4.0	µg/L							
Carbon Tetrachloride	ND	5.0	µg/L							
Chlorobenzene	ND	1.0	µg/L							
Chlorodibromomethane	ND	0.50	µg/L							
Chloroethane	ND	2.0	µg/L							
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							
Cyclohexane	ND	5.0	µg/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L							V-05
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
1,2-Dichlorobenzene	ND	1.0	µg/L							
1,3-Dichlorobenzene	ND	1.0	µg/L							
1,4-Dichlorobenzene	ND	1.0	µg/L							
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L							
1,1-Dichloroethane	ND	1.0	µg/L							
1,2-Dichloroethane	ND	1.0	µg/L							
1,1-Dichloroethylene	ND	1.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
trans-1,2-Dichloroethylene	ND	1.0	µg/L							
1,2-Dichloropropane	ND	1.0	µg/L							
cis-1,3-Dichloropropene	ND	0.50	µg/L							
trans-1,3-Dichloropropene	ND	0.50	µg/L							V-05
Ethylbenzene	ND	1.0	µg/L							
2-Hexanone (MBK)	ND	10	µg/L							
Isopropylbenzene (Cumene)	ND	1.0	µg/L							
Methyl Acetate	ND	1.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
Methyl Cyclohexane	ND	1.0	µg/L							
Methylene Chloride	ND	5.0	µg/L							
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L							
Styrene	ND	1.0	µg/L							
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L							
Tetrachloroethylene	ND	1.0	µg/L							
Toluene	ND	1.0	µg/L							
1,2,3-Trichlorobenzene	ND	5.0	µg/L							
1,2,4-Trichlorobenzene	ND	1.0	µg/L							
1,1,1-Trichloroethane	ND	1.0	µg/L							
1,1,2-Trichloroethane	ND	1.0	µg/L							
Trichloroethylene	ND	1.0	µg/L							

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QUALITY CONTROL

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B145017 - SW-846 5030B											
Blank (B145017-BLK1)				Prepared & Analyzed: 03/24/16							
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L								
Vinyl Chloride	ND	2.0	µg/L								
m+p Xylene	ND	2.0	µg/L								
o-Xylene	ND	1.0	µg/L								
Xylenes (total)	ND	3.0	µg/L								
Surrogate: 1,2-Dichloroethane-d4	*25.6*		µg/L	25.0		102	70-130				
Surrogate: Toluene-d8	*25.1*		µg/L	25.0		101	70-130				
Surrogate: 4-Bromofluorobenzene	*23.5*		µg/L	25.0		94.0	70-130				
LCS (B145017-BS1)				Prepared & Analyzed: 03/24/16							
Acetone	121	50	µg/L	100		121	70-160				†
Benzene	10.2	1.0	µg/L	10.0		102	70-130				
Bromochloromethane	11.2	1.0	µg/L	10.0		112	70-130				
Bromodichloromethane	9.65	0.50	µg/L	10.0		96.5	70-130				
Bromoform	8.97	1.0	µg/L	10.0		89.7	70-130				
Bromomethane	4.58	2.0	µg/L	10.0		45.8	40-160			R-05	†
2-Butanone (MEK)	113	20	µg/L	100		113	40-160				†
Carbon Disulfide	8.77	4.0	µg/L	10.0		87.7	70-130				
Carbon Tetrachloride	10.1	5.0	µg/L	10.0		101	70-130				
Chlorobenzene	9.62	1.0	µg/L	10.0		96.2	70-130				
Chlorodibromomethane	8.85	0.50	µg/L	10.0		88.5	70-130				
Chloroethane	9.59	2.0	µg/L	10.0		95.9	70-130				
Chloroform	10.2	2.0	µg/L	10.0		102	70-130				
Chloromethane	7.80	2.0	µg/L	10.0		78.0	40-160				†
Cyclohexane	10.4	5.0	µg/L	10.0		104	70-130				
1,2-Dibromo-3-chloropropane (DBCP)	8.12	5.0	µg/L	10.0		81.2	70-130			V-05	
1,2-Dibromoethane (EDB)	9.26	0.50	µg/L	10.0		92.6	70-130				
1,2-Dichlorobenzene	9.11	1.0	µg/L	10.0		91.1	70-130				
1,3-Dichlorobenzene	8.88	1.0	µg/L	10.0		88.8	70-130				
1,4-Dichlorobenzene	9.10	1.0	µg/L	10.0		91.0	70-130				
Dichlorodifluoromethane (Freon 12)	4.70	2.0	µg/L	10.0		47.0	40-160				†
1,1-Dichloroethane	10.6	1.0	µg/L	10.0		106	70-130				
1,2-Dichloroethane	9.99	1.0	µg/L	10.0		99.9	70-130				
1,1-Dichloroethylene	8.75	1.0	µg/L	10.0		87.5	70-130				
cis-1,2-Dichloroethylene	10.2	1.0	µg/L	10.0		102	70-130				
trans-1,2-Dichloroethylene	9.87	1.0	µg/L	10.0		98.7	70-130				
1,2-Dichloropropane	9.87	1.0	µg/L	10.0		98.7	70-130				
cis-1,3-Dichloropropene	7.92	0.50	µg/L	10.0		79.2	70-130				
trans-1,3-Dichloropropene	7.79	0.50	µg/L	10.0		77.9	70-130			V-05	
Ethylbenzene	9.75	1.0	µg/L	10.0		97.5	70-130				
2-Hexanone (MBK)	100	10	µg/L	100		100	70-160				†
Isopropylbenzene (Cumene)	9.03	1.0	µg/L	10.0		90.3	70-130				
Methyl Acetate	10.8	1.0	µg/L	10.0		108	70-130				
Methyl tert-Butyl Ether (MTBE)	8.53	1.0	µg/L	10.0		85.3	70-130				
Methyl Cyclohexane	10.1	1.0	µg/L	10.0		101	70-130				
Methylene Chloride	8.99	5.0	µg/L	10.0		89.9	70-130				
4-Methyl-2-pentanone (MIBK)	86.8	10	µg/L	100		86.8	70-160				†
Styrene	9.15	1.0	µg/L	10.0		91.5	70-130				
1,1,2,2-Tetrachloroethane	8.91	0.50	µg/L	10.0		89.1	70-130				
Tetrachloroethylene	10.7	1.0	µg/L	10.0		107	70-130				
Toluene	9.58	1.0	µg/L	10.0		95.8	70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD		RPD Limit	Notes	
Batch B145017 - SW-846 5030B												
LCS (B145017-BS1)				Prepared & Analyzed: 03/24/16								
1,2,3-Trichlorobenzene	9.91	5.0	µg/L	10.0		99.1	70-130					
1,2,4-Trichlorobenzene	9.28	1.0	µg/L	10.0		92.8	70-130					
1,1,1-Trichloroethane	9.83	1.0	µg/L	10.0		98.3	70-130					
1,1,2-Trichloroethane	9.75	1.0	µg/L	10.0		97.5	70-130					
Trichloroethylene	10.7	1.0	µg/L	10.0		107	70-130					
Trichlorofluoromethane (Freon 11)	8.76	2.0	µg/L	10.0		87.6	70-130					
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.08	1.0	µg/L	10.0		90.8	70-130					
Vinyl Chloride	10.8	2.0	µg/L	10.0		108	40-160					†
m+p Xylene	18.8	2.0	µg/L	20.0		93.8	70-130					
o-Xylene	9.30	1.0	µg/L	10.0		93.0	70-130					
Surrogate: 1,2-Dichloroethane-d4	*25.8*		µg/L	25.0		103	70-130					
Surrogate: Toluene-d8	*25.1*		µg/L	25.0		100	70-130					
Surrogate: 4-Bromofluorobenzene	*24.1*		µg/L	25.0		96.4	70-130					
LCS Dup (B145017-BSD1)				Prepared & Analyzed: 03/24/16								
Acetone	124	50	µg/L	100		124	70-160	2.40		25		†
Benzene	10.5	1.0	µg/L	10.0		105	70-130	3.00		25		
Bromochloromethane	11.7	1.0	µg/L	10.0		117	70-130	4.73		25		
Bromodichloromethane	9.74	0.50	µg/L	10.0		97.4	70-130	0.928		25		
Bromoform	9.25	1.0	µg/L	10.0		92.5	70-130	3.07		25		
Bromomethane	6.01	2.0	µg/L	10.0		60.1	40-160	**27.0**	*	25	R-05	†
2-Butanone (MEK)	114	20	µg/L	100		114	40-160	0.917		25		†
Carbon Disulfide	8.94	4.0	µg/L	10.0		89.4	70-130	1.92		25		
Carbon Tetrachloride	10.4	5.0	µg/L	10.0		104	70-130	3.41		25		
Chlorobenzene	9.64	1.0	µg/L	10.0		96.4	70-130	0.208		25		
Chlorodibromomethane	9.17	0.50	µg/L	10.0		91.7	70-130	3.55		25		
Chloroethane	10.2	2.0	µg/L	10.0		102	70-130	6.46		25		
Chloroform	10.4	2.0	µg/L	10.0		104	70-130	1.36		25		
Chloromethane	8.42	2.0	µg/L	10.0		84.2	40-160	7.64		25		†
Cyclohexane	10.6	5.0	µg/L	10.0		106	70-130	1.53		25		
1,2-Dibromo-3-chloropropane (DBCP)	7.90	5.0	µg/L	10.0		79.0	70-130	2.75		25	V-05	
1,2-Dibromoethane (EDB)	9.59	0.50	µg/L	10.0		95.9	70-130	3.50		25		
1,2-Dichlorobenzene	9.76	1.0	µg/L	10.0		97.6	70-130	6.89		25		
1,3-Dichlorobenzene	9.40	1.0	µg/L	10.0		94.0	70-130	5.69		25		
1,4-Dichlorobenzene	9.49	1.0	µg/L	10.0		94.9	70-130	4.20		25		
Dichlorodifluoromethane (Freon 12)	4.74	2.0	µg/L	10.0		47.4	40-160	0.847		25		†
1,1-Dichloroethane	10.8	1.0	µg/L	10.0		108	70-130	1.22		25		
1,2-Dichloroethane	10.2	1.0	µg/L	10.0		102	70-130	2.28		25		
1,1-Dichloroethylene	9.06	1.0	µg/L	10.0		90.6	70-130	3.48		25		
cis-1,2-Dichloroethylene	10.5	1.0	µg/L	10.0		105	70-130	2.22		25		
trans-1,2-Dichloroethylene	10.2	1.0	µg/L	10.0		102	70-130	2.80		25		
1,2-Dichloropropane	10.1	1.0	µg/L	10.0		101	70-130	2.30		25		
cis-1,3-Dichloropropene	7.88	0.50	µg/L	10.0		78.8	70-130	0.506		25		
trans-1,3-Dichloropropene	8.04	0.50	µg/L	10.0		80.4	70-130	3.16		25	V-05	
Ethylbenzene	9.95	1.0	µg/L	10.0		99.5	70-130	2.03		25		
2-Hexanone (MBK)	101	10	µg/L	100		101	70-160	0.894		25		†
Isopropylbenzene (Cumene)	9.32	1.0	µg/L	10.0		93.2	70-130	3.16		25		
Methyl Acetate	10.8	1.0	µg/L	10.0		108	70-130	0.462		25		
Methyl tert-Butyl Ether (MTBE)	9.12	1.0	µg/L	10.0		91.2	70-130	6.69		25		
Methyl Cyclohexane	10.4	1.0	µg/L	10.0		104	70-130	2.44		25		
Methylene Chloride	9.44	5.0	µg/L	10.0		94.4	70-130	4.88		25		
4-Methyl-2-pentanone (MIBK)	86.3	10	µg/L	100		86.3	70-160	0.601		25		†

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145017 - SW-846 5030B										
LCS Dup (B145017-BSD1)				Prepared & Analyzed: 03/24/16						
Styrene	9.32	1.0	µg/L	10.0		93.2	70-130	1.84	25	
1,1,2,2-Tetrachloroethane	9.03	0.50	µg/L	10.0		90.3	70-130	1.34	25	
Tetrachloroethylene	10.5	1.0	µg/L	10.0		105	70-130	1.23	25	
Toluene	9.75	1.0	µg/L	10.0		97.5	70-130	1.76	25	
1,2,3-Trichlorobenzene	10.4	5.0	µg/L	10.0		104	70-130	4.44	25	
1,2,4-Trichlorobenzene	9.71	1.0	µg/L	10.0		97.1	70-130	4.53	25	
1,1,1-Trichloroethane	10.4	1.0	µg/L	10.0		104	70-130	5.54	25	
1,1,2-Trichloroethane	10.0	1.0	µg/L	10.0		100	70-130	2.53	25	
Trichloroethylene	10.7	1.0	µg/L	10.0		107	70-130	0.187	25	
Trichlorofluoromethane (Freon 11)	8.98	2.0	µg/L	10.0		89.8	70-130	2.48	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.25	1.0	µg/L	10.0		92.5	70-130	1.85	25	
Vinyl Chloride	12.0	2.0	µg/L	10.0		120	40-160	10.2	25	†
m+p Xylene	19.2	2.0	µg/L	20.0		96.2	70-130	2.42	25	
o-Xylene	9.43	1.0	µg/L	10.0		94.3	70-130	1.39	25	
Surrogate: 1,2-Dichloroethane-d4	*25.2*		µg/L	25.0		101	70-130			
Surrogate: Toluene-d8	*25.0*		µg/L	25.0		100	70-130			
Surrogate: 4-Bromofluorobenzene	*24.0*		µg/L	25.0		96.2	70-130			

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145012 - SW-846 5030B										
Blank (B145012-BLK1)				Prepared & Analyzed: 03/24/16						
Benzene	ND	1.0	µg/L							
Bromodichloromethane	ND	2.0	µg/L							
Bromoform	ND	2.0	µg/L							
Bromomethane	ND	2.0	µg/L							
Carbon Tetrachloride	ND	2.0	µg/L							
Chlorobenzene	ND	2.0	µg/L							
Chlorodibromomethane	ND	2.0	µg/L							
Chloroethane	ND	2.0	µg/L							
2-Chloroethyl Vinyl Ether	ND	10	µg/L							
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							
1,2-Dichlorobenzene	ND	2.0	µg/L							
1,3-Dichlorobenzene	ND	2.0	µg/L							
1,4-Dichlorobenzene	ND	2.0	µg/L							
1,2-Dichloroethane	ND	2.0	µg/L							
1,1-Dichloroethane	ND	2.0	µg/L							
1,1-Dichloroethylene	ND	2.0	µg/L							
trans-1,2-Dichloroethylene	ND	2.0	µg/L							
1,2-Dichloropropane	ND	2.0	µg/L							
cis-1,3-Dichloropropene	ND	2.0	µg/L							
trans-1,3-Dichloropropene	ND	2.0	µg/L							
Ethylbenzene	ND	2.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	2.0	µg/L							
Methylene Chloride	ND	5.0	µg/L							
1,1,2,2-Tetrachloroethane	ND	2.0	µg/L							
Tetrachloroethylene	ND	2.0	µg/L							
Toluene	ND	1.0	µg/L							
1,1,1-Trichloroethane	ND	2.0	µg/L							
1,1,2-Trichloroethane	ND	2.0	µg/L							
Trichloroethylene	ND	2.0	µg/L							
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L							
Vinyl Chloride	ND	2.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	2.0	µg/L							
Surrogate: 1,2-Dichloroethane-d4	*25.6*		µg/L	25.0		102	70-130			
Surrogate: Toluene-d8	*25.1*		µg/L	25.0		101	70-130			
Surrogate: 4-Bromofluorobenzene	*23.5*		µg/L	25.0		94.0	70-130			
LCS (B145012-BS1)				Prepared & Analyzed: 03/24/16						
Benzene	10.3	1.0	µg/L	10.0		103	37-151			
Bromodichloromethane	9.56	2.0	µg/L	10.0		95.6	35-155			
Bromoform	8.76	2.0	µg/L	10.0		87.6	45-169			
Bromomethane	9.53	2.0	µg/L	10.0		95.3	20-242			
Carbon Tetrachloride	10.0	2.0	µg/L	10.0		100	70-140			
Chlorobenzene	9.50	2.0	µg/L	10.0		95.0	37-160			
Chlorodibromomethane	9.25	2.0	µg/L	10.0		92.5	53-149			
Chloroethane	9.29	2.0	µg/L	10.0		92.9	70-130			
2-Chloroethyl Vinyl Ether	80.3	10	µg/L	100		80.3	10-305			
Chloroform	9.98	2.0	µg/L	10.0		99.8	51-138			
Chloromethane	11.8	2.0	µg/L	10.0		118	20-273			
1,2-Dichlorobenzene	9.46	2.0	µg/L	10.0		94.6	18-190			
1,3-Dichlorobenzene	9.14	2.0	µg/L	10.0		91.4	59-156			

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145012 - SW-846 5030B										
LCS (B145012-BS1)				Prepared & Analyzed: 03/24/16						
1,4-Dichlorobenzene	9.45	2.0	µg/L	10.0		94.5	18-190			
1,2-Dichloroethane	9.91	2.0	µg/L	10.0		99.1	49-155			
1,1-Dichloroethane	10.1	2.0	µg/L	10.0		101	59-155			
1,1-Dichloroethylene	9.41	2.0	µg/L	10.0		94.1	20-234			
trans-1,2-Dichloroethylene	10.2	2.0	µg/L	10.0		102	54-156			
1,2-Dichloropropane	9.72	2.0	µg/L	10.0		97.2	20-210			
cis-1,3-Dichloropropene	8.50	2.0	µg/L	10.0		85.0	20-227			
trans-1,3-Dichloropropene	7.85	2.0	µg/L	10.0		78.5	17-183			
Ethylbenzene	9.62	2.0	µg/L	10.0		96.2	37-162			
Methyl tert-Butyl Ether (MTBE)	8.96	2.0	µg/L	10.0		89.6	70-130			
Methylene Chloride	9.86	5.0	µg/L	10.0		98.6	50-221			
1,1,2,2-Tetrachloroethane	8.95	2.0	µg/L	10.0		89.5	46-157			
Tetrachloroethylene	9.89	2.0	µg/L	10.0		98.9	64-148			
Toluene	9.44	1.0	µg/L	10.0		94.4	47-150			
1,1,1-Trichloroethane	9.84	2.0	µg/L	10.0		98.4	52-162			
1,1,2-Trichloroethane	9.66	2.0	µg/L	10.0		96.6	52-150			
Trichloroethylene	10.3	2.0	µg/L	10.0		103	71-157			
Trichlorofluoromethane (Freon 11)	9.60	2.0	µg/L	10.0		96.0	17-181			
Vinyl Chloride	11.8	2.0	µg/L	10.0		118	20-251			
m+p Xylene	19.2	2.0	µg/L	20.0		95.8	70-130			
o-Xylene	9.62	2.0	µg/L	10.0		96.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	*25.8*		µg/L	25.0		103	70-130			
Surrogate: Toluene-d8	*24.6*		µg/L	25.0		98.3	70-130			
Surrogate: 4-Bromofluorobenzene	*24.1*		µg/L	25.0		96.4	70-130			

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QUALITY CONTROL

Tentatively Identified Compounds - Volatile Compounds (ESTIMATED VALUES REPORTED) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144930 - SW-846 5035										
Blank (B144930-BLK1)				Prepared & Analyzed: 03/23/16						
No TICs Found	0.0		mg/Kg wet							
Batch B144944 - SW-846 5035										
Blank (B144944-BLK1)				Prepared & Analyzed: 03/23/16						
No TICs Found	0.0		mg/Kg wet							
Batch B144969 - SW-846 5035										
Blank (B144969-BLK1)				Prepared & Analyzed: 03/24/16						
No TICs Found	0.0		mg/Kg wet							
Batch B145017 - SW-846 5030B										
Blank (B145017-BLK1)				Prepared & Analyzed: 03/24/16						
No TICs Found	0.0		µg/L							

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144867 - SW-846 3510C										
Blank (B144867-BLK1)				Prepared: 03/23/16 Analyzed: 03/24/16						
Acenaphthene (low)	ND	0.30	µg/L							
Acenaphthylene (low)	ND	0.30	µg/L							
Acetophenone	ND	10	µg/L							R-05
Anthracene (low)	ND	0.20	µg/L							
Benzo(a)anthracene (low)	ND	0.050	µg/L							
Benzo(a)pyrene (low)	ND	0.10	µg/L							
Benzo(b)fluoranthene (low)	ND	0.050	µg/L							
Benzo(g,h,i)perylene (low)	ND	0.50	µg/L							
Benzo(k)fluoranthene (low)	ND	0.20	µg/L							
Bis(2-chloroethoxy)methane	ND	10	µg/L							
Bis(2-chloroethyl)ether	ND	10	µg/L							R-05
Bis(2-chloroisopropyl)ether	ND	10	µg/L							R-05, V-20
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L							
4-Bromophenylphenylether	ND	10	µg/L							
Butylbenzylphthalate	ND	10	µg/L							
Carbazole	ND	10	µg/L							
4-Chloroaniline	ND	10	µg/L							R-05
4-Chloro-3-methylphenol	ND	10	µg/L							
2-Chloronaphthalene	ND	10	µg/L							
2-Chlorophenol	ND	10	µg/L							R-05
4-Chlorophenylphenylether	ND	10	µg/L							
Chrysene (low)	ND	0.20	µg/L							
Dibenz(a,h)anthracene (low)	ND	0.20	µg/L							
Dibenzofuran	ND	5.0	µg/L							
Di-n-butylphthalate	ND	10	µg/L							
3,3-Dichlorobenzidine	ND	10	µg/L							
2,4-Dichlorophenol	ND	10	µg/L							
Diethylphthalate	ND	10	µg/L							
2,4-Dimethylphenol	ND	10	µg/L							
Dimethylphthalate	ND	10	µg/L							
4,6-Dinitro-2-methylphenol	ND	10	µg/L							
2,4-Dinitrophenol	ND	10	µg/L							
2,4-Dinitrotoluene	ND	10	µg/L							
2,6-Dinitrotoluene	ND	10	µg/L							
Di-n-octylphthalate	ND	10	µg/L							
Fluoranthene (low)	ND	0.50	µg/L							
Fluorene (low)	ND	1.0	µg/L							
Hexachlorobenzene	ND	10	µg/L							V-05
Hexachlorobutadiene	ND	10	µg/L							R-05
Hexachlorocyclopentadiene	ND	10	µg/L							V-05
Hexachloroethane	ND	10	µg/L							
Indeno(1,2,3-cd)pyrene (low)	ND	0.20	µg/L							
Isophorone	ND	10	µg/L							
2-Methylnaphthalene (low)	ND	1.0	µg/L							
2-Methylphenol	ND	10	µg/L							R-05
3/4-Methylphenol	ND	10	µg/L							R-05
Naphthalene (low)	ND	1.0	µg/L							
2-Nitroaniline	ND	10	µg/L							
3-Nitroaniline	ND	10	µg/L							
4-Nitroaniline	ND	10	µg/L							
Nitrobenzene	ND	10	µg/L							
2-Nitrophenol	ND	10	µg/L							

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144867 - SW-846 3510C										
Blank (B144867-BLK1)				Prepared: 03/23/16 Analyzed: 03/24/16						
4-Nitrophenol	ND	10	µg/L							
N-Nitrosodiphenylamine	ND	10	µg/L							
N-Nitrosodi-n-propylamine	ND	10	µg/L							R-05
Pentachlorophenol	ND	10	µg/L							
Phenanthrene (low)	ND	0.050	µg/L							
Phenol	ND	10	µg/L							R-05
Pyrene (low)	ND	1.0	µg/L							
1,2,4,5-Tetrachlorobenzene	ND	10	µg/L							
2,4,5-Trichlorophenol	ND	10	µg/L							
2,4,6-Trichlorophenol	ND	10	µg/L							
Surrogate: 2-Fluorophenol	*79.4*		µg/L	200		39.7	15-110			
Surrogate: Phenol-d6	*49.5*		µg/L	200		24.8	15-110			
Surrogate: Nitrobenzene-d5	*92.0*		µg/L	100		92.0	30-130			
Surrogate: Nitrobenzene-d5 (low)	*64.7*		µg/L	100		64.7	30-130			
Surrogate: 2-Fluorobiphenyl	*82.8*		µg/L	100		82.8	30-130			
Surrogate: 2-Fluorobiphenyl (low)	*61.7*		µg/L	100		61.7	30-130			
Surrogate: 2,4,6-Tribromophenol	*155*		µg/L	200		77.4	15-110			
Surrogate: p-Terphenyl-d14	*90.6*		µg/L	100		90.6	30-130			
Surrogate: p-Terphenyl-d14 (low)	*54.2*		µg/L	100		54.2	30-130			
LCS (B144867-BS1)				Prepared: 03/23/16 Analyzed: 03/24/16						
Acenaphthene (low)	39.0	7.5	µg/L	50.0		78.0	40-140			
Acenaphthylene (low)	39.6	7.5	µg/L	50.0		79.3	40-140			
Acetophenone	61.0	10	µg/L	50.0		122	40-140			R-05
Anthracene (low)	42.0	5.0	µg/L	50.0		84.0	40-140			
Benzo(a)anthracene (low)	41.0	1.2	µg/L	50.0		82.0	40-140			
Benzo(a)pyrene (low)	43.1	2.5	µg/L	50.0		86.2	40-140			
Benzo(b)fluoranthene (low)	44.8	1.2	µg/L	50.0		89.6	40-140			
Benzo(g,h,i)perylene (low)	40.8	12	µg/L	50.0		81.6	40-140			
Benzo(k)fluoranthene (low)	40.6	5.0	µg/L	50.0		81.3	40-140			
Bis(2-chloroethoxy)methane	54.5	10	µg/L	50.0		109	40-140			
Bis(2-chloroethyl)ether	57.9	10	µg/L	50.0		116	40-140			R-05
Bis(2-chloroisopropyl)ether	69.8	10	µg/L	50.0		140	40-140			R-05, V-20
Bis(2-Ethylhexyl)phthalate	50.1	10	µg/L	50.0		100	40-140			
4-Bromophenylphenylether	41.1	10	µg/L	50.0		82.2	40-140			
Butylbenzylphthalate	50.4	10	µg/L	50.0		101	40-140			
Carbazole	48.9	10	µg/L	50.0		97.8	40-140			
4-Chloroaniline	46.5	10	µg/L	50.0		93.1	40-140			R-05
4-Chloro-3-methylphenol	53.3	10	µg/L	50.0		107	30-130			
2-Chloronaphthalene	35.4	10	µg/L	50.0		70.8	40-140			
2-Chlorophenol	47.6	10	µg/L	50.0		95.3	30-130			R-05
4-Chlorophenylphenylether	46.3	10	µg/L	50.0		92.6	40-140			
Chrysene (low)	39.5	5.0	µg/L	50.0		79.0	40-140			
Dibenz(a,h)anthracene (low)	40.2	5.0	µg/L	50.0		80.4	40-140			
Dibenzofuran	46.8	5.0	µg/L	50.0		93.6	40-140			
Di-n-butylphthalate	46.1	10	µg/L	50.0		92.2	40-140			
3,3-Dichlorobenzidine	34.4	10	µg/L	50.0		68.9	40-140			
2,4-Dichlorophenol	48.8	10	µg/L	50.0		97.5	30-130			
Diethylphthalate	49.2	10	µg/L	50.0		98.4	40-140			
2,4-Dimethylphenol	49.8	10	µg/L	50.0		99.6	30-130			
Dimethylphthalate	48.6	10	µg/L	50.0		97.2	40-140			
4,6-Dinitro-2-methylphenol	41.4	10	µg/L	50.0		82.8	30-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B144867 - SW-846 3510C											
LCS (B144867-BS1)				Prepared: 03/23/16 Analyzed: 03/24/16							
2,4-Dinitrophenol	39.7	10	µg/L	50.0		79.4	30-130				
2,4-Dinitrotoluene	47.3	10	µg/L	50.0		94.6	40-140				
2,6-Dinitrotoluene	46.8	10	µg/L	50.0		93.6	40-140				
Di-n-octylphthalate	46.5	10	µg/L	50.0		93.0	40-140				
Fluoranthene (low)	41.7	12	µg/L	50.0		83.4	40-140				
Fluorene (low)	40.2	25	µg/L	50.0		80.3	40-140				
Hexachlorobenzene	35.4	10	µg/L	50.0		70.9	40-140			V-05	
Hexachlorobutadiene	28.8	10	µg/L	50.0		57.6	40-140			R-05	
Hexachlorocyclopentadiene	21.2	10	µg/L	50.0		42.4	30-140			V-05	†
Hexachloroethane	32.7	10	µg/L	50.0		65.4	40-140				
Indeno(1,2,3-cd)pyrene (low)	41.0	5.0	µg/L	50.0		82.0	40-140				
Isophorone	58.1	10	µg/L	50.0		116	40-140				
2-Methylnaphthalene (low)	33.2	25	µg/L	50.0		66.5	40-140				
2-Methylphenol	34.4	10	µg/L	50.0		68.8	30-130			R-05	
3/4-Methylphenol	55.7	10	µg/L	50.0		111	30-130			R-05	
Naphthalene (low)	30.3	25	µg/L	50.0		60.6	40-140				
2-Nitroaniline	59.2	10	µg/L	50.0		118	40-140				
3-Nitroaniline	50.8	10	µg/L	50.0		102	40-140				
4-Nitroaniline	45.8	10	µg/L	50.0		91.5	40-140				
Nitrobenzene	54.8	10	µg/L	50.0		110	40-140				
2-Nitrophenol	49.8	10	µg/L	50.0		99.6	30-130				
4-Nitrophenol	21.8	10	µg/L	50.0		43.7	10-130				†
N-Nitrosodiphenylamine	53.6	10	µg/L	50.0		107	40-140				
N-Nitrosodi-n-propylamine	62.5	10	µg/L	50.0		125	40-140			R-05	
Pentachlorophenol	33.6	10	µg/L	50.0		67.1	30-130				
Phenanthrene (low)	40.1	1.2	µg/L	50.0		80.2	40-140				
Phenol	23.6	10	µg/L	50.0		47.1	20-130			R-05	†
Pyrene (low)	38.7	25	µg/L	50.0		77.4	40-140				
1,2,4,5-Tetrachlorobenzene	42.0	10	µg/L	50.0		84.0	40-140				
2,4,5-Trichlorophenol	41.2	10	µg/L	50.0		82.4	30-130				
2,4,6-Trichlorophenol	45.0	10	µg/L	50.0		90.0	30-130				
Surrogate: 2-Fluorophenol	*120*		µg/L	200		60.0	15-110				
Surrogate: Phenol-d6	*79.9*		µg/L	200		39.9	15-110				
Surrogate: Nitrobenzene-d5	*120*		µg/L	100		120	30-130				
Surrogate: Nitrobenzene-d5 (low)	*67.8*		µg/L	100		67.8	30-130				
Surrogate: 2-Fluorobiphenyl	*94.3*		µg/L	100		94.3	30-130				
Surrogate: 2-Fluorobiphenyl (low)	*73.4*		µg/L	100		73.4	30-130				
Surrogate: 2,4,6-Tribromophenol	*188*		µg/L	200		93.9	15-110				
Surrogate: p-Terphenyl-d14	*93.7*		µg/L	100		93.7	30-130				
Surrogate: p-Terphenyl-d14 (low)	*52.8*		µg/L	100		52.8	30-130				
LCS Dup (B144867-BSD1)				Prepared: 03/23/16 Analyzed: 03/24/16							
Acenaphthene (low)	42.7	7.5	µg/L	50.0		85.4	40-140	9.00	20		
Acenaphthylene (low)	43.6	7.5	µg/L	50.0		87.2	40-140	9.55	20		
Acetophenone	47.8	10	µg/L	50.0		95.7	40-140	**24.2** *	20	R-05	
Anthracene (low)	46.8	5.0	µg/L	50.0		93.5	40-140	10.8	20		
Benzo(a)anthracene (low)	45.9	1.2	µg/L	50.0		91.8	40-140	11.2	20		
Benzo(a)pyrene (low)	48.0	2.5	µg/L	50.0		96.0	40-140	10.7	20		
Benzo(b)fluoranthene (low)	50.0	1.2	µg/L	50.0		100	40-140	11.0	20		
Benzo(g,h,i)perylene (low)	45.1	12	µg/L	50.0		90.2	40-140	10.1	20		
Benzo(k)fluoranthene (low)	45.2	5.0	µg/L	50.0		90.4	40-140	10.5	20		
Bis(2-chloroethoxy)methane	47.0	10	µg/L	50.0		94.0	40-140	14.8	20		

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD		RPD Limit	Notes	
Batch B144867 - SW-846 3510C												
LCS Dup (B144867-BSD1)				Prepared: 03/23/16 Analyzed: 03/24/16								
Bis(2-chloroethyl)ether	43.8	10	µg/L	50.0		87.7	40-140	**27.6**	*	20	R-05	
Bis(2-chloroisopropyl)ether	54.2	10	µg/L	50.0		108	40-140	**25.2**	*	20	V-20, R-05	
Bis(2-Ethylhexyl)phthalate	48.2	10	µg/L	50.0		96.3	40-140	3.97		20		
4-Bromophenylphenylether	41.6	10	µg/L	50.0		83.2	40-140	1.14		20		
Butylbenzylphthalate	51.1	10	µg/L	50.0		102	40-140	1.38		20		
Carbazole	47.9	10	µg/L	50.0		95.8	40-140	2.11		20		
4-Chloroaniline	38.0	10	µg/L	50.0		75.9	40-140	**20.3**	*	20	R-05	
4-Chloro-3-methylphenol	47.5	10	µg/L	50.0		95.1	30-130	11.5		20		
2-Chloronaphthalene	33.0	10	µg/L	50.0		66.0	40-140	7.02		20		
2-Chlorophenol	37.8	10	µg/L	50.0		75.5	30-130	**23.1**	*	20	R-05	
4-Chlorophenylphenylether	46.0	10	µg/L	50.0		92.1	40-140	0.520		20		
Chrysene (low)	44.1	5.0	µg/L	50.0		88.2	40-140	10.9		20		
Dibenz(a,h)anthracene (low)	44.3	5.0	µg/L	50.0		88.6	40-140	9.64		20		
Dibenzofuran	45.9	5.0	µg/L	50.0		91.7	40-140	1.96		20		
Di-n-butylphthalate	45.8	10	µg/L	50.0		91.6	40-140	0.740		20		
3,3-Dichlorobenzidine	32.8	10	µg/L	50.0		65.5	40-140	4.97		20		
2,4-Dichlorophenol	42.9	10	µg/L	50.0		85.8	30-130	12.7		20		
Diethylphthalate	47.6	10	µg/L	50.0		95.2	40-140	3.37		20		
2,4-Dimethylphenol	42.4	10	µg/L	50.0		84.7	30-130	16.2		20		
Dimethylphthalate	47.6	10	µg/L	50.0		95.1	40-140	2.10		50		‡
4,6-Dinitro-2-methylphenol	41.3	10	µg/L	50.0		82.6	30-130	0.290		50		‡
2,4-Dinitrophenol	37.0	10	µg/L	50.0		74.1	30-130	6.93		50		‡
2,4-Dinitrotoluene	46.4	10	µg/L	50.0		92.9	40-140	1.86		20		
2,6-Dinitrotoluene	45.6	10	µg/L	50.0		91.3	40-140	2.55		20		
Di-n-octylphthalate	46.8	10	µg/L	50.0		93.6	40-140	0.622		20		
Fluoranthene (low)	47.0	12	µg/L	50.0		94.0	40-140	11.9		20		
Fluorene (low)	45.3	25	µg/L	50.0		90.6	40-140	12.1		20		
Hexachlorobenzene	36.0	10	µg/L	50.0		72.0	40-140	1.62		20	V-05	
Hexachlorobutadiene	23.2	10	µg/L	50.0		46.4	40-140	**21.5**	*	20	R-05	
Hexachlorocyclopentadiene	19.5	10	µg/L	50.0		38.9	30-140	8.55		50	V-05	† ‡
Hexachloroethane	23.2	10	µg/L	50.0		46.5	40-140	33.8		50		‡
Indeno(1,2,3-cd)pyrene (low)	45.3	5.0	µg/L	50.0		90.6	40-140	9.85		20		
Isophorone	49.7	10	µg/L	50.0		99.4	40-140	15.6		20		
2-Methylnaphthalene (low)	35.3	25	µg/L	50.0		70.6	40-140	6.05		20		
2-Methylphenol	27.2	10	µg/L	50.0		54.5	30-130	**23.2**	*	20	R-05	
3/4-Methylphenol	43.5	10	µg/L	50.0		87.1	30-130	**24.5**	*	20	R-05	
Naphthalene (low)	31.4	25	µg/L	50.0		62.8	40-140	3.49		20		
2-Nitroaniline	56.3	10	µg/L	50.0		113	40-140	5.07		20		
3-Nitroaniline	47.7	10	µg/L	50.0		95.3	40-140	6.34		20		
4-Nitroaniline	42.0	10	µg/L	50.0		83.9	40-140	8.67		20		
Nitrobenzene	46.2	10	µg/L	50.0		92.4	40-140	17.1		20		
2-Nitrophenol	42.1	10	µg/L	50.0		84.2	30-130	16.7		20		
4-Nitrophenol	22.4	10	µg/L	50.0		44.9	10-130	2.76		50		† ‡
N-Nitrosodiphenylamine	54.4	10	µg/L	50.0		109	40-140	1.35		20		
N-Nitrosodi-n-propylamine	50.8	10	µg/L	50.0		102	40-140	**20.6**	*	20	R-05	
Pentachlorophenol	32.4	10	µg/L	50.0		64.8	30-130	3.52		50		‡
Phenanthrene (low)	44.4	1.2	µg/L	50.0		88.8	40-140	10.1		20		
Phenol	18.2	10	µg/L	50.0		36.3	20-130	**25.9**	*	20	R-05	†
Pyrene (low)	43.2	25	µg/L	50.0		86.4	40-140	11.0		20		
1,2,4,5-Tetrachlorobenzene	38.6	10	µg/L	50.0		77.3	40-140	8.34		20		
2,4,5-Trichlorophenol	40.2	10	µg/L	50.0		80.4	30-130	2.38		20		
2,4,6-Trichlorophenol	43.7	10	µg/L	50.0		87.3	30-130	3.07		50		‡

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144867 - SW-846 3510C										
LCS Dup (B144867-BSD1)				Prepared: 03/23/16 Analyzed: 03/24/16						
Surrogate: 2-Fluorophenol	*89.9*		µg/L	200		44.9	15-110			
Surrogate: Phenol-d6	*62.0*		µg/L	200		31.0	15-110			
Surrogate: Nitrobenzene-d5	*97.7*		µg/L	100		97.7	30-130			
Surrogate: Nitrobenzene-d5 (low)	*70.4*		µg/L	100		70.4	30-130			
Surrogate: 2-Fluorobiphenyl	*87.9*		µg/L	100		87.9	30-130			
Surrogate: 2-Fluorobiphenyl (low)	*76.3*		µg/L	100		76.3	30-130			
Surrogate: 2,4,6-Tribromophenol	*182*		µg/L	200		90.8	15-110			
Surrogate: p-Terphenyl-d14	*97.0*		µg/L	100		97.0	30-130			
Surrogate: p-Terphenyl-d14 (low)	*57.2*		µg/L	100		57.2	30-130			
Batch B144868 - SW-846 3546										
Blank (B144868-BLK1)				Prepared: 03/23/16 Analyzed: 03/24/16						
Acenaphthene	ND	0.17	mg/Kg wet							
Acenaphthylene	ND	0.17	mg/Kg wet							
Acetophenone	ND	0.34	mg/Kg wet							
Anthracene	ND	0.17	mg/Kg wet							
Benzo(a)anthracene	ND	0.17	mg/Kg wet							
Benzo(a)pyrene	ND	0.17	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.17	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.17	mg/Kg wet							V-05
Benzo(k)fluoranthene	ND	0.17	mg/Kg wet							
Bis(2-chloroethoxy)methane	ND	0.34	mg/Kg wet							
Bis(2-chloroethyl)ether	ND	0.34	mg/Kg wet							
Bis(2-chloroisopropyl)ether	ND	0.34	mg/Kg wet							
Bis(2-Ethylhexyl)phthalate	ND	0.34	mg/Kg wet							
4-Bromophenylphenylether	ND	0.34	mg/Kg wet							
Butylbenzylphthalate	ND	0.34	mg/Kg wet							
Carbazole	ND	0.17	mg/Kg wet							
4-Chloroaniline	ND	0.66	mg/Kg wet							
4-Chloro-3-methylphenol	ND	0.66	mg/Kg wet							
2-Chloronaphthalene	ND	0.34	mg/Kg wet							
2-Chlorophenol	ND	0.34	mg/Kg wet							
4-Chlorophenylphenylether	ND	0.34	mg/Kg wet							
Chrysene	ND	0.17	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.17	mg/Kg wet							V-05
Dibenzofuran	ND	0.34	mg/Kg wet							
Di-n-butylphthalate	ND	0.34	mg/Kg wet							
3,3-Dichlorobenzidine	ND	0.17	mg/Kg wet							
2,4-Dichlorophenol	ND	0.34	mg/Kg wet							
Diethylphthalate	ND	0.34	mg/Kg wet							
2,4-Dimethylphenol	ND	0.34	mg/Kg wet							
Dimethylphthalate	ND	0.34	mg/Kg wet							
4,6-Dinitro-2-methylphenol	ND	0.34	mg/Kg wet							
2,4-Dinitrophenol	ND	0.66	mg/Kg wet							
2,4-Dinitrotoluene	ND	0.34	mg/Kg wet							
2,6-Dinitrotoluene	ND	0.34	mg/Kg wet							
Di-n-octylphthalate	ND	0.34	mg/Kg wet							
Fluoranthene	ND	0.17	mg/Kg wet							
Fluorene	ND	0.17	mg/Kg wet							
Hexachlorobenzene	ND	0.34	mg/Kg wet							
Hexachlorobutadiene	ND	0.34	mg/Kg wet							
Hexachlorocyclopentadiene	ND	0.34	mg/Kg wet							V-05

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144868 - SW-846 3546										
Blank (B144868-BLK1)				Prepared: 03/23/16 Analyzed: 03/24/16						
Hexachloroethane	ND	0.34	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.17	mg/Kg wet							V-05
Isophorone	ND	0.34	mg/Kg wet							
2-Methylnaphthalene	ND	0.17	mg/Kg wet							
2-Methylphenol	ND	0.34	mg/Kg wet							
3/4-Methylphenol	ND	0.34	mg/Kg wet							
Naphthalene	ND	0.17	mg/Kg wet							
2-Nitroaniline	ND	0.34	mg/Kg wet							
3-Nitroaniline	ND	0.34	mg/Kg wet							
Nitrobenzene	ND	0.34	mg/Kg wet							
2-Nitrophenol	ND	0.34	mg/Kg wet							
4-Nitrophenol	ND	0.66	mg/Kg wet							V-20
N-Nitrosodiphenylamine	ND	0.34	mg/Kg wet							
N-Nitrosodi-n-propylamine	ND	0.34	mg/Kg wet							
Pentachlorophenol	ND	0.34	mg/Kg wet							V-05
Phenanthrene	ND	0.17	mg/Kg wet							
Phenol	ND	0.34	mg/Kg wet							
Pyrene	ND	0.17	mg/Kg wet							
1,2,4,5-Tetrachlorobenzene	ND	0.34	mg/Kg wet							
2,4,5-Trichlorophenol	ND	0.34	mg/Kg wet							
2,4,6-Trichlorophenol	ND	0.34	mg/Kg wet							
Surrogate: 2-Fluorophenol	*4.85*		mg/Kg wet	6.67		72.8	30-130			
Surrogate: Phenol-d6	*5.25*		mg/Kg wet	6.67		78.7	30-130			
Surrogate: Nitrobenzene-d5	*2.71*		mg/Kg wet	3.33		81.2	30-130			
Surrogate: 2-Fluorobiphenyl	*2.73*		mg/Kg wet	3.33		81.8	30-130			
Surrogate: 2,4,6-Tribromophenol	*5.61*		mg/Kg wet	6.67		84.1	30-130			
Surrogate: p-Terphenyl-d14	*2.93*		mg/Kg wet	3.33		88.0	30-130			
LCS (B144868-BS1)				Prepared: 03/23/16 Analyzed: 03/24/16						
Acenaphthene	1.23	0.17	mg/Kg wet	1.67		74.0	40-140			
Acenaphthylene	1.22	0.17	mg/Kg wet	1.67		73.4	40-140			
Acetophenone	1.21	0.34	mg/Kg wet	1.67		72.9	40-140			
Anthracene	1.21	0.17	mg/Kg wet	1.67		72.4	40-140			
Benzo(a)anthracene	1.24	0.17	mg/Kg wet	1.67		74.7	40-140			
Benzo(a)pyrene	1.29	0.17	mg/Kg wet	1.67		77.2	40-140			
Benzo(b)fluoranthene	1.29	0.17	mg/Kg wet	1.67		77.4	40-140			
Benzo(g,h,i)perylene	0.986	0.17	mg/Kg wet	1.67		59.2	40-140			V-05
Benzo(k)fluoranthene	1.27	0.17	mg/Kg wet	1.67		76.4	40-140			
Bis(2-chloroethoxy)methane	1.24	0.34	mg/Kg wet	1.67		74.5	40-140			
Bis(2-chloroethyl)ether	1.17	0.34	mg/Kg wet	1.67		70.0	40-140			
Bis(2-chloroisopropyl)ether	1.35	0.34	mg/Kg wet	1.67		81.2	40-140			
Bis(2-Ethylhexyl)phthalate	1.54	0.34	mg/Kg wet	1.67		92.6	40-140			
4-Bromophenylphenylether	1.20	0.34	mg/Kg wet	1.67		71.9	40-140			
Butylbenzylphthalate	1.42	0.34	mg/Kg wet	1.67		85.0	40-140			
Carbazole	1.27	0.17	mg/Kg wet	1.67		76.3	40-140			
4-Chloroaniline	0.845	0.66	mg/Kg wet	1.67		50.7	10-140			†
4-Chloro-3-methylphenol	1.32	0.66	mg/Kg wet	1.67		79.1	30-130			
2-Chloronaphthalene	1.22	0.34	mg/Kg wet	1.67		73.3	40-140			
2-Chlorophenol	1.11	0.34	mg/Kg wet	1.67		66.8	30-130			
4-Chlorophenylphenylether	1.30	0.34	mg/Kg wet	1.67		77.9	40-140			
Chrysene	1.19	0.17	mg/Kg wet	1.67		71.5	40-140			
Dibenz(a,h)anthracene	0.984	0.17	mg/Kg wet	1.67		59.0	40-140			V-05

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B144868 - SW-846 3546											
LCS (B144868-BS1)				Prepared: 03/23/16 Analyzed: 03/24/16							
Dibenzofuran	1.30	0.34	mg/Kg wet	1.67		77.8	40-140				
Di-n-butylphthalate	1.33	0.34	mg/Kg wet	1.67		79.6	40-140				
3,3-Dichlorobenzidine	0.745	0.17	mg/Kg wet	1.67		44.7	20-140				†
2,4-Dichlorophenol	1.24	0.34	mg/Kg wet	1.67		74.5	30-130				
Diethylphthalate	1.33	0.34	mg/Kg wet	1.67		79.9	40-140				
2,4-Dimethylphenol	1.24	0.34	mg/Kg wet	1.67		74.2	30-130				
Dimethylphthalate	1.29	0.34	mg/Kg wet	1.67		77.2	40-140				
4,6-Dinitro-2-methylphenol	0.735	0.34	mg/Kg wet	1.67		44.1	30-130				
2,4-Dinitrophenol	0.507	0.66	mg/Kg wet	1.67		30.4	30-130			J	
2,4-Dinitrotoluene	1.35	0.34	mg/Kg wet	1.67		80.8	40-140				
2,6-Dinitrotoluene	1.33	0.34	mg/Kg wet	1.67		80.0	40-140				
Di-n-octylphthalate	1.58	0.34	mg/Kg wet	1.67		95.0	40-140				
Fluoranthene	1.31	0.17	mg/Kg wet	1.67		78.9	40-140				
Fluorene	1.32	0.17	mg/Kg wet	1.67		79.0	40-140				
Hexachlorobenzene	1.22	0.34	mg/Kg wet	1.67		73.1	40-140				
Hexachlorobutadiene	1.22	0.34	mg/Kg wet	1.67		73.4	40-140				
Hexachlorocyclopentadiene	0.750	0.34	mg/Kg wet	1.67		45.0	40-140			V-05	
Hexachloroethane	1.16	0.34	mg/Kg wet	1.67		69.6	40-140				
Indeno(1,2,3-cd)pyrene	1.03	0.17	mg/Kg wet	1.67		61.6	40-140			V-05	
Isophorone	1.35	0.34	mg/Kg wet	1.67		81.0	40-140				
2-Methylnaphthalene	1.16	0.17	mg/Kg wet	1.67		69.7	40-140				
2-Methylphenol	1.12	0.34	mg/Kg wet	1.67		67.2	30-130				
3/4-Methylphenol	1.18	0.34	mg/Kg wet	1.67		70.8	30-130				
Naphthalene	1.15	0.17	mg/Kg wet	1.67		68.8	40-140				
2-Nitroaniline	1.51	0.34	mg/Kg wet	1.67		90.5	40-140				
3-Nitroaniline	1.28	0.34	mg/Kg wet	1.67		76.5	30-140				†
Nitrobenzene	1.32	0.34	mg/Kg wet	1.67		79.4	40-140				
2-Nitrophenol	1.16	0.34	mg/Kg wet	1.67		69.8	30-130				
4-Nitrophenol	1.70	0.66	mg/Kg wet	1.67		102	30-130			V-20	
N-Nitrosodiphenylamine	1.42	0.34	mg/Kg wet	1.67		85.0	40-140				
N-Nitrosodi-n-propylamine	1.18	0.34	mg/Kg wet	1.67		70.8	40-140				
Pentachlorophenol	0.804	0.34	mg/Kg wet	1.67		48.2	30-130			V-05	
Phenanthrene	1.24	0.17	mg/Kg wet	1.67		74.1	40-140				
Phenol	1.31	0.34	mg/Kg wet	1.67		78.4	30-130				
Pyrene	1.28	0.17	mg/Kg wet	1.67		76.7	40-140				
1,2,4,5-Tetrachlorobenzene	1.30	0.34	mg/Kg wet	1.67		78.2	40-140				
2,4,5-Trichlorophenol	1.20	0.34	mg/Kg wet	1.67		72.2	30-130				
2,4,6-Trichlorophenol	1.26	0.34	mg/Kg wet	1.67		75.4	30-130				
Surrogate: 2-Fluorophenol	*5.04*		mg/Kg wet	6.67		75.6	30-130				
Surrogate: Phenol-d6	*5.33*		mg/Kg wet	6.67		79.9	30-130				
Surrogate: Nitrobenzene-d5	*2.78*		mg/Kg wet	3.33		83.3	30-130				
Surrogate: 2-Fluorobiphenyl	*2.70*		mg/Kg wet	3.33		81.0	30-130				
Surrogate: 2,4,6-Tribromophenol	*5.83*		mg/Kg wet	6.67		87.4	30-130				
Surrogate: p-Terphenyl-d14	*2.82*		mg/Kg wet	3.33		84.7	30-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B144868 - SW-846 3546												
LCS Dup (B144868-BSD1)				Prepared: 03/23/16 Analyzed: 03/24/16								
Acenaphthene	1.36	0.17	mg/Kg wet	1.67		81.6		40-140	9.72	30		
Acenaphthylene	1.37	0.17	mg/Kg wet	1.67		82.3		40-140	11.5	30		
Acetophenone	1.41	0.34	mg/Kg wet	1.67		84.4		40-140	14.6	30		
Anthracene	1.39	0.17	mg/Kg wet	1.67		83.5		40-140	14.3	30		
Benzo(a)anthracene	1.44	0.17	mg/Kg wet	1.67		86.4		40-140	14.5	30		
Benzo(a)pyrene	1.48	0.17	mg/Kg wet	1.67		89.1		40-140	14.2	30		
Benzo(b)fluoranthene	1.48	0.17	mg/Kg wet	1.67		89.1		40-140	14.1	30		
Benzo(g,h,i)perylene	1.21	0.17	mg/Kg wet	1.67		72.6		40-140	20.4	30	V-05	
Benzo(k)fluoranthene	1.43	0.17	mg/Kg wet	1.67		86.0		40-140	11.8	30		
Bis(2-chloroethoxy)methane	1.37	0.34	mg/Kg wet	1.67		82.2		40-140	9.83	30		
Bis(2-chloroethyl)ether	1.28	0.34	mg/Kg wet	1.67		76.9		40-140	9.34	30		
Bis(2-chloroisopropyl)ether	1.49	0.34	mg/Kg wet	1.67		89.3		40-140	9.60	30		
Bis(2-Ethylhexyl)phthalate	1.75	0.34	mg/Kg wet	1.67		105		40-140	12.7	30		
4-Bromophenylphenylether	1.43	0.34	mg/Kg wet	1.67		86.0		40-140	17.8	30		
Butylbenzylphthalate	1.64	0.34	mg/Kg wet	1.67		98.1		40-140	14.3	30		
Carbazole	1.43	0.17	mg/Kg wet	1.67		85.6		40-140	11.5	30		
4-Chloroaniline	0.954	0.66	mg/Kg wet	1.67		57.3		10-140	12.2	30		†
4-Chloro-3-methylphenol	1.52	0.66	mg/Kg wet	1.67		91.3		30-130	14.3	30		
2-Chloronaphthalene	1.33	0.34	mg/Kg wet	1.67		79.7		40-140	8.29	30		
2-Chlorophenol	1.30	0.34	mg/Kg wet	1.67		77.8		30-130	15.2	30		
4-Chlorophenylphenylether	1.46	0.34	mg/Kg wet	1.67		87.7		40-140	11.9	30		
Chrysene	1.39	0.17	mg/Kg wet	1.67		83.1		40-140	15.1	30		
Dibenz(a,h)anthracene	1.18	0.17	mg/Kg wet	1.67		70.6		40-140	17.9	30	V-05	
Dibenzofuran	1.45	0.34	mg/Kg wet	1.67		87.2		40-140	11.4	30		
Di-n-butylphthalate	1.48	0.34	mg/Kg wet	1.67		88.7		40-140	10.8	30		
3,3-Dichlorobenzidine	0.903	0.17	mg/Kg wet	1.67		54.2		20-140	19.2	50		† ‡
2,4-Dichlorophenol	1.44	0.34	mg/Kg wet	1.67		86.2		30-130	14.6	30		
Diethylphthalate	1.49	0.34	mg/Kg wet	1.67		89.2		40-140	11.0	30		
2,4-Dimethylphenol	1.40	0.34	mg/Kg wet	1.67		84.0		30-130	12.4	30		
Dimethylphthalate	1.46	0.34	mg/Kg wet	1.67		87.8		40-140	12.8	30		
4,6-Dinitro-2-methylphenol	0.771	0.34	mg/Kg wet	1.67		46.3		30-130	4.78	30		
2,4-Dinitrophenol	0.492	0.66	mg/Kg wet	1.67		**29.5**	*	30-130	3.07	30	J, L-07	
2,4-Dinitrotoluene	1.52	0.34	mg/Kg wet	1.67		91.2		40-140	12.1	30		
2,6-Dinitrotoluene	1.52	0.34	mg/Kg wet	1.67		91.4		40-140	13.3	30		
Di-n-octylphthalate	1.77	0.34	mg/Kg wet	1.67		106		40-140	11.0	30		
Fluoranthene	1.46	0.17	mg/Kg wet	1.67		87.3		40-140	10.1	30		
Fluorene	1.46	0.17	mg/Kg wet	1.67		87.4		40-140	10.1	30		
Hexachlorobenzene	1.44	0.34	mg/Kg wet	1.67		86.2		40-140	16.5	30		
Hexachlorobutadiene	1.34	0.34	mg/Kg wet	1.67		80.7		40-140	9.50	30		
Hexachlorocyclopentadiene	0.869	0.34	mg/Kg wet	1.67		52.2		40-140	14.7	30	V-05	
Hexachloroethane	1.23	0.34	mg/Kg wet	1.67		73.6		40-140	5.67	30		
Indeno(1,2,3-cd)pyrene	1.22	0.17	mg/Kg wet	1.67		73.0		40-140	17.0	30	V-05	
Isophorone	1.50	0.34	mg/Kg wet	1.67		90.1		40-140	10.6	30		
2-Methylnaphthalene	1.31	0.17	mg/Kg wet	1.67		78.3		40-140	11.6	30		
2-Methylphenol	1.30	0.34	mg/Kg wet	1.67		77.8		30-130	14.7	30		
3/4-Methylphenol	1.37	0.34	mg/Kg wet	1.67		82.4		30-130	15.2	30		
Naphthalene	1.27	0.17	mg/Kg wet	1.67		76.3		40-140	10.3	30		
2-Nitroaniline	1.67	0.34	mg/Kg wet	1.67		99.9		40-140	9.94	30		
3-Nitroaniline	1.35	0.34	mg/Kg wet	1.67		81.2		30-140	5.96	30		†
Nitrobenzene	1.45	0.34	mg/Kg wet	1.67		87.2		40-140	9.34	30		
2-Nitrophenol	1.29	0.34	mg/Kg wet	1.67		77.5		30-130	10.4	30		
4-Nitrophenol	1.85	0.66	mg/Kg wet	1.67		111		30-130	8.16	50	V-20	‡

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B144868 - SW-846 3546											
LCS Dup (B144868-BSD1)				Prepared: 03/23/16 Analyzed: 03/24/16							
N-Nitrosodiphenylamine	1.69	0.34	mg/Kg wet	1.67		101		40-140	17.6	30	
N-Nitrosodi-n-propylamine	1.37	0.34	mg/Kg wet	1.67		82.5		40-140	15.2	30	
Pentachlorophenol	0.889	0.34	mg/Kg wet	1.67		53.4		30-130	10.1	30	V-05
Phenanthrene	1.44	0.17	mg/Kg wet	1.67		86.3		40-140	15.2	30	
Phenol	1.48	0.34	mg/Kg wet	1.67		88.8		30-130	12.4	30	
Pyrene	1.47	0.17	mg/Kg wet	1.67		88.2		40-140	13.9	30	
1,2,4,5-Tetrachlorobenzene	1.43	0.34	mg/Kg wet	1.67		85.5		40-140	8.97	30	
2,4,5-Trichlorophenol	1.36	0.34	mg/Kg wet	1.67		81.5		30-130	12.2	30	
2,4,6-Trichlorophenol	1.41	0.34	mg/Kg wet	1.67		84.8		30-130	11.6	30	
Surrogate: 2-Fluorophenol	*5.41*		mg/Kg wet	6.67		81.1		30-130			
Surrogate: Phenol-d6	*5.88*		mg/Kg wet	6.67		88.2		30-130			
Surrogate: Nitrobenzene-d5	*2.98*		mg/Kg wet	3.33		89.4		30-130			
Surrogate: 2-Fluorobiphenyl	*2.92*		mg/Kg wet	3.33		87.6		30-130			
Surrogate: 2,4,6-Tribromophenol	*6.18*		mg/Kg wet	6.67		92.7		30-130			
Surrogate: p-Terphenyl-d14	*3.16*		mg/Kg wet	3.33		94.9		30-130			
Matrix Spike (B144868-MS1)		**Source: 16C0970-07**		Prepared: 03/23/16 Analyzed: 03/24/16							
Acenaphthene	1.39	0.18	mg/Kg dry	1.74	0.132	72.3		40-140			
Acenaphthylene	2.02	0.18	mg/Kg dry	1.74	0.371	95.0		40-140			
Acetophenone	1.16	0.35	mg/Kg dry	1.74	ND	66.9		40-140			
Anthracene	2.18	0.18	mg/Kg dry	1.74	0.428	101		40-140			R-06
Benzo(a)anthracene	5.19	0.18	mg/Kg dry	1.74	1.76	**198**	*	40-140			MS-23
Benzo(a)pyrene	5.40	0.18	mg/Kg dry	1.74	1.92	**200**	*	40-140			R-06
Benzo(b)fluoranthene	7.12	0.18	mg/Kg dry	1.74	2.50	**266**	*	40-140			MS-23
Benzo(g,h,i)perylene	3.76	0.18	mg/Kg dry	1.74	1.67	121		40-140			R-06, V-05
Benzo(k)fluoranthene	3.11	0.18	mg/Kg dry	1.74	0.889	128		40-140			R-06
Bis(2-chloroethoxy)methane	1.14	0.35	mg/Kg dry	1.74	ND	65.8		40-140			
Bis(2-chloroethyl)ether	1.02	0.35	mg/Kg dry	1.74	ND	58.6		40-140			
Bis(2-chloroisopropyl)ether	1.23	0.35	mg/Kg dry	1.74	ND	70.6		40-140			
Bis(2-Ethylhexyl)phthalate	1.52	0.35	mg/Kg dry	1.74	0.176	77.6		40-140			
4-Bromophenylphenylether	1.20	0.35	mg/Kg dry	1.74	ND	69.2		40-140			
Butylbenzylphthalate	1.34	0.35	mg/Kg dry	1.74	ND	77.1		40-140			
Carbazole	1.79	0.18	mg/Kg dry	1.74	0.273	87.2		40-140			
4-Chloroaniline	1.18	0.69	mg/Kg dry	1.74	ND	67.9		40-140			
4-Chloro-3-methylphenol	1.34	0.69	mg/Kg dry	1.74	ND	76.8		30-130			
2-Chloronaphthalene	1.16	0.35	mg/Kg dry	1.74	ND	66.5		40-140			
2-Chlorophenol	1.06	0.35	mg/Kg dry	1.74	ND	60.8		30-130			
4-Chlorophenylphenylether	1.30	0.35	mg/Kg dry	1.74	ND	74.6		40-140			
Chrysene	5.49	0.18	mg/Kg dry	1.74	1.84	**210**	*	40-140			MS-23
Dibenz(a,h)anthracene	1.45	0.18	mg/Kg dry	1.74	0.291	66.8		40-140			V-05
Dibenzofuran	1.73	0.35	mg/Kg dry	1.74	0.174	89.7		40-140			
Di-n-butylphthalate	1.30	0.35	mg/Kg dry	1.74	ND	74.6		40-140			
3,3-Dichlorobenzidine	0.994	0.18	mg/Kg dry	1.74	ND	57.2		40-140			
2,4-Dichlorophenol	1.22	0.35	mg/Kg dry	1.74	ND	70.1		30-130			
Diethylphthalate	1.32	0.35	mg/Kg dry	1.74	ND	75.9		40-140			
2,4-Dimethylphenol	1.23	0.35	mg/Kg dry	1.74	ND	70.9		30-130			
Dimethylphthalate	1.27	0.35	mg/Kg dry	1.74	ND	73.2		40-140			
4,6-Dinitro-2-methylphenol	0.375	0.35	mg/Kg dry	1.74	ND	**21.6**	*	30-130			MS-23
2,4-Dinitrophenol	0.397	0.69	mg/Kg dry	1.74	ND	**22.8**	*	30-130			J, MS-23
2,4-Dinitrotoluene	1.36	0.35	mg/Kg dry	1.74	ND	78.1		40-140			
2,6-Dinitrotoluene	1.37	0.35	mg/Kg dry	1.74	ND	78.9		40-140			
Di-n-octylphthalate	1.64	0.35	mg/Kg dry	1.74	ND	94.6		40-140			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B144868 - SW-846 3546											
Matrix Spike (B144868-MS1)		**Source: 16C0970-07**		Prepared: 03/23/16 Analyzed: 03/24/16							
Fluoranthene	12.5	0.18	mg/Kg dry	1.74	4.41	**467**	*	40-140			MS-23
Fluorene	1.83	0.18	mg/Kg dry	1.74	0.215	92.9		40-140			
Hexachlorobenzene	1.19	0.35	mg/Kg dry	1.74	ND	68.2		40-140			
Hexachlorobutadiene	1.19	0.35	mg/Kg dry	1.74	ND	68.5		40-140			
Hexachlorocyclopentadiene	ND	0.35	mg/Kg dry	1.74	ND		*	30-130			MS-09, R-06, V-05
Hexachloroethane	1.01	0.35	mg/Kg dry	1.74	ND	57.8		40-140			
Indeno(1,2,3-cd)pyrene	3.55	0.18	mg/Kg dry	1.74	1.45	121		40-140			R-06, V-05
Isophorone	1.27	0.35	mg/Kg dry	1.74	ND	73.3		40-140			
2-Methylnaphthalene	1.38	0.18	mg/Kg dry	1.74	0.118	72.8		40-140			
2-Methylphenol	1.08	0.35	mg/Kg dry	1.74	ND	62.4		30-130			
3/4-Methylphenol	1.22	0.35	mg/Kg dry	1.74	ND	70.2		30-130			
Naphthalene	1.51	0.18	mg/Kg dry	1.74	0.200	75.4		40-140			
2-Nitroaniline	1.52	0.35	mg/Kg dry	1.74	ND	87.4		40-140			
3-Nitroaniline	1.32	0.35	mg/Kg dry	1.74	ND	75.7		40-140			
Nitrobenzene	1.23	0.35	mg/Kg dry	1.74	ND	70.9		40-140			
2-Nitrophenol	1.02	0.35	mg/Kg dry	1.74	ND	58.8		30-130			
4-Nitrophenol	1.77	0.69	mg/Kg dry	1.74	ND	102		30-130			V-20
N-Nitrosodiphenylamine	1.46	0.35	mg/Kg dry	1.74	ND	84.0		40-140			
N-Nitrosodi-n-propylamine	1.12	0.35	mg/Kg dry	1.74	ND	64.7		40-140			
Pentachlorophenol	0.805	0.35	mg/Kg dry	1.74	ND	46.3		30-130			
Phenanthrene	9.59	0.18	mg/Kg dry	1.74	3.09	**374**	*	40-140			MS-23
Phenol	1.27	0.35	mg/Kg dry	1.74	ND	73.1		30-130			
Pyrene	12.9	0.18	mg/Kg dry	1.74	4.87	**464**	*	40-140			MS-23
1,2,4,5-Tetrachlorobenzene	1.27	0.35	mg/Kg dry	1.74	ND	73.2		40-140			
2,4,5-Trichlorophenol	1.16	0.35	mg/Kg dry	1.74	ND	66.6		30-130			
2,4,6-Trichlorophenol	1.22	0.35	mg/Kg dry	1.74	ND	69.9		30-130			
Surrogate: 2-Fluorophenol	*4.20*		mg/Kg dry	6.95		60.4		30-130			
Surrogate: Phenol-d6	*4.87*		mg/Kg dry	6.95		70.1		30-130			
Surrogate: Nitrobenzene-d5	*2.49*		mg/Kg dry	3.48		71.7		30-130			
Surrogate: 2-Fluorobiphenyl	*2.58*		mg/Kg dry	3.48		74.1		30-130			
Surrogate: 2,4,6-Tribromophenol	*5.15*		mg/Kg dry	6.95		74.0		30-130			
Surrogate: p-Terphenyl-d14	*2.70*		mg/Kg dry	3.48		77.6		30-130			
Matrix Spike Dup (B144868-MSD1)		**Source: 16C0970-07**		Prepared: 03/23/16 Analyzed: 03/28/16							
Acenaphthene	1.24	0.18	mg/Kg dry	1.74	0.132	63.9		40-140	11.1	30	
Acenaphthylene	1.49	0.18	mg/Kg dry	1.74	0.371	64.7		40-140	29.9	30	
Acetophenone	1.15	0.35	mg/Kg dry	1.74	ND	66.0		40-140	1.35	30	
Anthracene	1.55	0.18	mg/Kg dry	1.74	0.428	64.4		40-140	**33.9**	* 30	R-06
Benzo(a)anthracene	2.80	0.18	mg/Kg dry	1.74	1.76	60.2		40-140	**59.8**	* 30	R-06
Benzo(a)pyrene	3.06	0.18	mg/Kg dry	1.74	1.92	65.2		40-140	**55.5**	* 30	R-06
Benzo(b)fluoranthene	3.64	0.18	mg/Kg dry	1.74	2.50	65.7		40-140	**64.7**	* 30	R-06
Benzo(g,h,i)perylene	2.58	0.18	mg/Kg dry	1.74	1.67	52.6		40-140	**37.3**	* 30	R-06, V-05
Benzo(k)fluoranthene	2.02	0.18	mg/Kg dry	1.74	0.889	65.3		40-140	**42.4**	* 30	R-06
Bis(2-chloroethoxy)methane	1.11	0.35	mg/Kg dry	1.74	ND	63.6		40-140	3.34	30	
Bis(2-chloroethyl)ether	1.01	0.35	mg/Kg dry	1.74	ND	57.9		40-140	1.10	30	
Bis(2-chloroisopropyl)ether	1.24	0.35	mg/Kg dry	1.74	ND	71.3		40-140	0.874	30	
Bis(2-Ethylhexyl)phthalate	1.28	0.35	mg/Kg dry	1.74	0.176	63.8		40-140	17.1	30	
4-Bromophenylphenylether	1.15	0.35	mg/Kg dry	1.74	ND	66.2		40-140	4.37	30	
Butylbenzylphthalate	1.31	0.35	mg/Kg dry	1.74	ND	75.2		40-140	2.60	30	
Carbazole	1.40	0.18	mg/Kg dry	1.74	0.273	64.9		40-140	24.3	30	
4-Chloroaniline	1.07	0.69	mg/Kg dry	1.74	ND	61.7		40-140	9.44	30	
4-Chloro-3-methylphenol	1.22	0.69	mg/Kg dry	1.74	ND	70.0		30-130	9.32	30	

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD		RPD Limit	Notes
Batch B144868 - SW-846 3546												
Matrix Spike Dup (B144868-MSD1)		**Source: 16C0970-07**		Prepared: 03/23/16 Analyzed: 03/28/16								
2-Chloronaphthalene	1.07	0.35	mg/Kg dry	1.74	ND	61.5		40-140	7.81		30	
2-Chlorophenol	1.04	0.35	mg/Kg dry	1.74	ND	59.6		30-130	1.96		30	
4-Chlorophenylphenylether	1.22	0.35	mg/Kg dry	1.74	ND	70.0		40-140	6.28		30	
Chrysene	2.83	0.18	mg/Kg dry	1.74	1.84	56.9		40-140	**64.1**	*	30	R-06
Dibenz(a,h)anthracene	1.22	0.18	mg/Kg dry	1.74	0.291	53.3		40-140	17.6		30	V-05
Dibenzofuran	1.33	0.35	mg/Kg dry	1.74	0.174	66.4		40-140	26.4		30	
Di-n-butylphthalate	1.16	0.35	mg/Kg dry	1.74	ND	66.8		40-140	10.9		30	
3,3-Dichlorobenzidine	0.957	0.18	mg/Kg dry	1.74	ND	55.1		40-140	3.81		30	
2,4-Dichlorophenol	1.16	0.35	mg/Kg dry	1.74	ND	66.6		30-130	5.06		30	
Diethylphthalate	1.22	0.35	mg/Kg dry	1.74	ND	70.5		40-140	7.38		30	
2,4-Dimethylphenol	1.15	0.35	mg/Kg dry	1.74	ND	66.1		30-130	6.98		30	
Dimethylphthalate	1.21	0.35	mg/Kg dry	1.74	ND	69.4		40-140	5.30		30	
4,6-Dinitro-2-methylphenol	0.603	0.35	mg/Kg dry	1.74	ND	34.7		30-130	**46.8**	*	30	R-06
2,4-Dinitrophenol	0.553	0.69	mg/Kg dry	1.74	ND	31.8		30-130	**32.9**	*	30	J, R-06
2,4-Dinitrotoluene	1.22	0.35	mg/Kg dry	1.74	ND	70.5		40-140	10.2		30	
2,6-Dinitrotoluene	1.25	0.35	mg/Kg dry	1.74	ND	71.9		40-140	9.28		30	
Di-n-octylphthalate	1.34	0.35	mg/Kg dry	1.74	ND	77.0		40-140	20.4		30	
Fluoranthene	5.29	0.18	mg/Kg dry	1.74	4.41	50.5		40-140	**81.2**	*	30	R-06
Fluorene	1.40	0.18	mg/Kg dry	1.74	0.215	68.2		40-140	26.6		30	
Hexachlorobenzene	1.14	0.35	mg/Kg dry	1.74	ND	65.3		40-140	4.37		30	
Hexachlorobutadiene	1.14	0.35	mg/Kg dry	1.74	ND	65.5		40-140	4.45		30	
Hexachlorocyclopentadiene	ND	0.35	mg/Kg dry	1.74	ND		*	30-130			30	MS-09, R-06, V-05
Hexachloroethane	1.04	0.35	mg/Kg dry	1.74	ND	59.6		40-140	2.96		30	
Indeno(1,2,3-cd)pyrene	2.34	0.18	mg/Kg dry	1.74	1.45	51.1		40-140	**41.1**	*	30	R-06, V-05
Isophorone	1.24	0.35	mg/Kg dry	1.74	ND	71.6		40-140	2.40		30	
2-Methylnaphthalene	1.17	0.18	mg/Kg dry	1.74	0.118	60.8		40-140	16.3		30	
2-Methylphenol	1.04	0.35	mg/Kg dry	1.74	ND	59.6		30-130	4.52		30	
3/4-Methylphenol	1.12	0.35	mg/Kg dry	1.74	ND	64.5		30-130	8.47		30	
Naphthalene	1.18	0.18	mg/Kg dry	1.74	0.200	56.4		40-140	24.6		30	
2-Nitroaniline	1.44	0.35	mg/Kg dry	1.74	ND	83.0		40-140	5.12		30	
3-Nitroaniline	1.22	0.35	mg/Kg dry	1.74	ND	70.1		40-140	7.74		30	
Nitrobenzene	1.24	0.35	mg/Kg dry	1.74	ND	71.4		40-140	0.702		30	
2-Nitrophenol	1.02	0.35	mg/Kg dry	1.74	ND	58.8		30-130	0.00		30	
4-Nitrophenol	1.65	0.69	mg/Kg dry	1.74	ND	95.2		30-130	6.78		30	V-20
N-Nitrosodiphenylamine	1.40	0.35	mg/Kg dry	1.74	ND	80.3		40-140	4.50		30	
N-Nitrosodi-n-propylamine	1.11	0.35	mg/Kg dry	1.74	ND	63.7		40-140	1.53		30	
Pentachlorophenol	0.697	0.35	mg/Kg dry	1.74	ND	40.1		30-130	14.3		30	V-05
Phenanthrene	4.16	0.18	mg/Kg dry	1.74	3.09	61.5		40-140	**78.9**	*	30	R-06
Phenol	1.26	0.35	mg/Kg dry	1.74	ND	72.7		30-130	0.549		30	
Pyrene	6.41	0.18	mg/Kg dry	1.74	4.87	88.3		40-140	**67.5**	*	30	R-06
1,2,4,5-Tetrachlorobenzene	1.22	0.35	mg/Kg dry	1.74	ND	70.4		40-140	3.93		30	
2,4,5-Trichlorophenol	1.07	0.35	mg/Kg dry	1.74	ND	61.3		30-130	8.22		30	
2,4,6-Trichlorophenol	1.12	0.35	mg/Kg dry	1.74	ND	64.2		30-130	8.47		30	
Surrogate: 2-Fluorophenol	*4.17*		mg/Kg dry	6.95		60.0		30-130				
Surrogate: Phenol-d6	*4.73*		mg/Kg dry	6.95		68.0		30-130				
Surrogate: Nitrobenzene-d5	*2.51*		mg/Kg dry	3.48		72.3		30-130				
Surrogate: 2-Fluorobiphenyl	*2.47*		mg/Kg dry	3.48		71.0		30-130				
Surrogate: 2,4,6-Tribromophenol	*4.52*		mg/Kg dry	6.95		65.0		30-130				
Surrogate: p-Terphenyl-d14	*2.87*		mg/Kg dry	3.48		82.5		30-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144974 - SW-846 3546										
Blank (B144974-BLK1)				Prepared: 03/24/16 Analyzed: 03/26/16						
Acenaphthene	ND	0.17	mg/Kg wet							
Acenaphthylene	ND	0.17	mg/Kg wet							
Anthracene	ND	0.17	mg/Kg wet							
Benzo(a)anthracene	ND	0.17	mg/Kg wet							
Benzo(a)pyrene	ND	0.17	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.17	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.17	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.17	mg/Kg wet							
Chrysene	ND	0.17	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.17	mg/Kg wet							
Fluoranthene	ND	0.17	mg/Kg wet							
Fluorene	ND	0.17	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.17	mg/Kg wet							
Naphthalene	ND	0.17	mg/Kg wet							
Phenanthrene	ND	0.17	mg/Kg wet							
Pyrene	ND	0.17	mg/Kg wet							
Surrogate: Nitrobenzene-d5	*3.17*		mg/Kg wet	3.33		95.1	30-130			
Surrogate: 2-Fluorobiphenyl	*3.20*		mg/Kg wet	3.33		96.1	30-130			
Surrogate: p-Terphenyl-d14	*3.98*		mg/Kg wet	3.33		119	30-130			
LCS (B144974-BS1)				Prepared: 03/24/16 Analyzed: 03/26/16						
Acenaphthene	1.29	0.17	mg/Kg wet	1.67		77.5	40-140			
Acenaphthylene	1.33	0.17	mg/Kg wet	1.67		79.7	40-140			
Anthracene	1.34	0.17	mg/Kg wet	1.67		80.7	40-140			
Benzo(a)anthracene	1.35	0.17	mg/Kg wet	1.67		81.1	40-140			
Benzo(a)pyrene	1.36	0.17	mg/Kg wet	1.67		81.7	40-140			
Benzo(b)fluoranthene	1.35	0.17	mg/Kg wet	1.67		81.0	40-140			
Benzo(g,h,i)perylene	1.36	0.17	mg/Kg wet	1.67		81.7	40-140			
Benzo(k)fluoranthene	1.32	0.17	mg/Kg wet	1.67		79.1	40-140			
Chrysene	1.33	0.17	mg/Kg wet	1.67		79.8	40-140			
Dibenz(a,h)anthracene	1.36	0.17	mg/Kg wet	1.67		81.7	40-140			
Fluoranthene	1.30	0.17	mg/Kg wet	1.67		78.0	40-140			
Fluorene	1.38	0.17	mg/Kg wet	1.67		82.9	40-140			
Indeno(1,2,3-cd)pyrene	1.34	0.17	mg/Kg wet	1.67		80.6	40-140			
Naphthalene	1.26	0.17	mg/Kg wet	1.67		75.6	40-140			
Phenanthrene	1.37	0.17	mg/Kg wet	1.67		81.9	40-140			
Pyrene	1.36	0.17	mg/Kg wet	1.67		81.8	40-140			
Surrogate: Nitrobenzene-d5	*2.81*		mg/Kg wet	3.33		84.2	30-130			
Surrogate: 2-Fluorobiphenyl	*2.95*		mg/Kg wet	3.33		88.6	30-130			
Surrogate: p-Terphenyl-d14	*3.11*		mg/Kg wet	3.33		93.2	30-130			
LCS Dup (B144974-BSD1)				Prepared: 03/24/16 Analyzed: 03/26/16						
Acenaphthene	1.42	0.17	mg/Kg wet	1.67		85.2	40-140	9.56	30	
Acenaphthylene	1.43	0.17	mg/Kg wet	1.67		85.6	40-140	7.21	30	
Anthracene	1.49	0.17	mg/Kg wet	1.67		89.6	40-140	10.5	30	
Benzo(a)anthracene	1.46	0.17	mg/Kg wet	1.67		87.6	40-140	7.64	30	
Benzo(a)pyrene	1.54	0.17	mg/Kg wet	1.67		92.5	40-140	12.4	30	
Benzo(b)fluoranthene	1.52	0.17	mg/Kg wet	1.67		91.3	40-140	11.9	30	
Benzo(g,h,i)perylene	1.53	0.17	mg/Kg wet	1.67		91.8	40-140	11.6	30	
Benzo(k)fluoranthene	1.50	0.17	mg/Kg wet	1.67		90.1	40-140	13.0	30	
Chrysene	1.44	0.17	mg/Kg wet	1.67		86.3	40-140	7.82	30	
Dibenz(a,h)anthracene	1.52	0.17	mg/Kg wet	1.67		91.1	40-140	10.9	30	

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144974 - SW-846 3546										
LCS Dup (B144974-BSD1)				Prepared: 03/24/16 Analyzed: 03/26/16						
Fluoranthene	1.44	0.17	mg/Kg wet	1.67		86.6	40-140	10.5	30	
Fluorene	1.52	0.17	mg/Kg wet	1.67		91.2	40-140	9.52	30	
Indeno(1,2,3-cd)pyrene	1.51	0.17	mg/Kg wet	1.67		90.5	40-140	11.7	30	
Naphthalene	1.36	0.17	mg/Kg wet	1.67		81.7	40-140	7.76	30	
Phenanthrene	1.50	0.17	mg/Kg wet	1.67		89.9	40-140	9.33	30	
Pyrene	1.49	0.17	mg/Kg wet	1.67		89.5	40-140	9.01	30	
Surrogate: Nitrobenzene-d5	*3.01*		mg/Kg wet	3.33		90.3	30-130			
Surrogate: 2-Fluorobiphenyl	*3.15*		mg/Kg wet	3.33		94.6	30-130			
Surrogate: p-Terphenyl-d14	*3.41*		mg/Kg wet	3.33		102	30-130			
Matrix Spike (B144974-MS1)		**Source: 16C0970-01**		Prepared: 03/24/16 Analyzed: 03/26/16						
Acenaphthene	1.44	0.18	mg/Kg dry	1.77	ND	81.3	40-140			
Acenaphthylene	1.42	0.18	mg/Kg dry	1.77	ND	80.2	40-140			
Anthracene	1.48	0.18	mg/Kg dry	1.77	ND	83.7	40-140			
Benzo(a)anthracene	1.48	0.18	mg/Kg dry	1.77	ND	83.9	40-140			
Benzo(a)pyrene	1.53	0.18	mg/Kg dry	1.77	ND	86.7	40-140			
Benzo(b)fluoranthene	1.57	0.18	mg/Kg dry	1.77	ND	88.6	40-140			
Benzo(g,h,i)perylene	1.12	0.18	mg/Kg dry	1.77	ND	63.5	40-140			
Benzo(k)fluoranthene	1.56	0.18	mg/Kg dry	1.77	ND	88.1	40-140			
Chrysene	1.47	0.18	mg/Kg dry	1.77	ND	83.3	40-140			
Dibenz(a,h)anthracene	1.17	0.18	mg/Kg dry	1.77	ND	66.3	40-140			
Fluoranthene	1.55	0.18	mg/Kg dry	1.77	ND	87.8	40-140			
Fluorene	1.49	0.18	mg/Kg dry	1.77	ND	84.1	40-140			
Indeno(1,2,3-cd)pyrene	1.14	0.18	mg/Kg dry	1.77	ND	64.5	40-140			
Naphthalene	1.33	0.18	mg/Kg dry	1.77	ND	75.1	40-140			
Phenanthrene	1.49	0.18	mg/Kg dry	1.77	ND	84.2	40-140			
Pyrene	1.44	0.18	mg/Kg dry	1.77	ND	81.3	40-140			
Surrogate: Nitrobenzene-d5	*2.98*		mg/Kg dry	3.53		84.3	30-130			
Surrogate: 2-Fluorobiphenyl	*3.16*		mg/Kg dry	3.53		89.3	30-130			
Surrogate: p-Terphenyl-d14	*3.28*		mg/Kg dry	3.53		92.7	30-130			
Matrix Spike Dup (B144974-MSD1)		**Source: 16C0970-01**		Prepared: 03/24/16 Analyzed: 03/26/16						
Acenaphthene	1.23	0.18	mg/Kg dry	1.76	ND	69.7	40-140	15.8	30	
Acenaphthylene	1.25	0.18	mg/Kg dry	1.76	ND	70.8	40-140	12.7	30	
Anthracene	1.25	0.18	mg/Kg dry	1.76	ND	70.7	40-140	17.1	30	
Benzo(a)anthracene	1.24	0.18	mg/Kg dry	1.76	ND	70.5	40-140	17.7	30	
Benzo(a)pyrene	1.30	0.18	mg/Kg dry	1.76	ND	73.6	40-140	16.7	30	
Benzo(b)fluoranthene	1.36	0.18	mg/Kg dry	1.76	ND	77.0	40-140	14.4	30	
Benzo(g,h,i)perylene	0.959	0.18	mg/Kg dry	1.76	ND	54.5	40-140	15.6	30	
Benzo(k)fluoranthene	1.32	0.18	mg/Kg dry	1.76	ND	74.9	40-140	16.5	30	
Chrysene	1.24	0.18	mg/Kg dry	1.76	ND	70.5	40-140	17.0	30	
Dibenz(a,h)anthracene	1.00	0.18	mg/Kg dry	1.76	ND	56.9	40-140	15.6	30	
Fluoranthene	1.30	0.18	mg/Kg dry	1.76	ND	73.9	40-140	17.5	30	
Fluorene	1.29	0.18	mg/Kg dry	1.76	ND	73.1	40-140	14.4	30	
Indeno(1,2,3-cd)pyrene	0.988	0.18	mg/Kg dry	1.76	ND	56.1	40-140	14.3	30	
Naphthalene	1.19	0.18	mg/Kg dry	1.76	ND	67.4	40-140	11.1	30	
Phenanthrene	1.27	0.18	mg/Kg dry	1.76	ND	71.9	40-140	16.1	30	
Pyrene	1.21	0.18	mg/Kg dry	1.76	ND	68.8	40-140	17.0	30	
Surrogate: Nitrobenzene-d5	*2.62*		mg/Kg dry	3.52		74.3	30-130			
Surrogate: 2-Fluorobiphenyl	*2.73*		mg/Kg dry	3.52		77.5	30-130			
Surrogate: p-Terphenyl-d14	*2.73*		mg/Kg dry	3.52		77.6	30-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145126 - SW-846 3510C										
Blank (B145126-BLK1)				Prepared & Analyzed: 03/25/16						
Acenaphthene (low)	ND	0.30	µg/L							
Acenaphthylene (low)	ND	0.30	µg/L							
Acetophenone	ND	10	µg/L							
Anthracene (low)	ND	0.20	µg/L							
Benzo(a)anthracene (low)	ND	0.050	µg/L							
Benzo(a)pyrene (low)	ND	0.10	µg/L							
Benzo(b)fluoranthene (low)	ND	0.050	µg/L							
Benzo(g,h,i)perylene (low)	ND	0.50	µg/L							
Benzo(k)fluoranthene (low)	ND	0.20	µg/L							
Bis(2-chloroethoxy)methane	ND	10	µg/L							
Bis(2-chloroethyl)ether	ND	10	µg/L							
Bis(2-chloroisopropyl)ether	ND	10	µg/L							
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L							
4-Bromophenylphenylether	ND	10	µg/L							
Butylbenzylphthalate	ND	10	µg/L							
Carbazole	ND	10	µg/L							
4-Chloroaniline	ND	10	µg/L							
4-Chloro-3-methylphenol	ND	10	µg/L							
2-Chloronaphthalene	ND	10	µg/L							
2-Chlorophenol	ND	10	µg/L							
4-Chlorophenylphenylether	ND	10	µg/L							
Chrysene (low)	ND	0.20	µg/L							
Dibenz(a,h)anthracene (low)	ND	0.20	µg/L							
Dibenzofuran	ND	5.0	µg/L							
Di-n-butylphthalate	ND	10	µg/L							
3,3-Dichlorobenzidine	ND	10	µg/L							
2,4-Dichlorophenol	ND	10	µg/L							
Diethylphthalate	ND	10	µg/L							
2,4-Dimethylphenol	ND	10	µg/L							
Dimethylphthalate	ND	10	µg/L							
4,6-Dinitro-2-methylphenol	ND	10	µg/L							
2,4-Dinitrophenol	ND	10	µg/L							
2,4-Dinitrotoluene	ND	10	µg/L							
2,6-Dinitrotoluene	ND	10	µg/L							
Di-n-octylphthalate	ND	10	µg/L							
Fluoranthene (low)	ND	0.50	µg/L							
Fluorene (low)	ND	1.0	µg/L							
Hexachlorobenzene	ND	10	µg/L							
Hexachlorobutadiene	ND	10	µg/L							
Hexachlorocyclopentadiene	ND	10	µg/L							V-05
Hexachloroethane	ND	10	µg/L							
Indeno(1,2,3-cd)pyrene (low)	ND	0.20	µg/L							
Isophorone	ND	10	µg/L							
2-Methylnaphthalene (low)	ND	1.0	µg/L							
2-Methylphenol	ND	10	µg/L							
3/4-Methylphenol	ND	10	µg/L							
Naphthalene (low)	ND	1.0	µg/L							
2-Nitroaniline	ND	10	µg/L							
3-Nitroaniline	ND	10	µg/L							
4-Nitroaniline	ND	10	µg/L							
Nitrobenzene	ND	10	µg/L							
2-Nitrophenol	ND	10	µg/L							

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145126 - SW-846 3510C										
Blank (B145126-BLK1)				Prepared: 03/25/16 Analyzed: 03/26/16						
4-Nitrophenol	ND	10	µg/L							V-20
N-Nitrosodiphenylamine	ND	10	µg/L							
N-Nitrosodi-n-propylamine	ND	10	µg/L							
Pentachlorophenol	ND	10	µg/L							
Phenanthrene (low)	ND	0.050	µg/L							
Phenol	ND	10	µg/L							
Pyrene (low)	ND	1.0	µg/L							
1,2,4,5-Tetrachlorobenzene	ND	10	µg/L							
2,4,5-Trichlorophenol	ND	10	µg/L							
2,4,6-Trichlorophenol	ND	10	µg/L							
Surrogate: 2-Fluorophenol	*73.6*		µg/L	200		36.8	15-110			
Surrogate: Phenol-d6	*48.5*		µg/L	200		24.3	15-110			
Surrogate: Nitrobenzene-d5	*82.9*		µg/L	100		82.9	30-130			
Surrogate: Nitrobenzene-d5 (low)	*63.6*		µg/L	100		63.6	30-130			
Surrogate: 2-Fluorobiphenyl	*79.2*		µg/L	100		79.2	30-130			
Surrogate: 2-Fluorobiphenyl (low)	*58.5*		µg/L	100		58.5	30-130			
Surrogate: 2,4,6-Tribromophenol	*178*		µg/L	200		89.1	15-110			
Surrogate: p-Terphenyl-d14	*85.4*		µg/L	100		85.4	30-130			
Surrogate: p-Terphenyl-d14 (low)	*54.2*		µg/L	100		54.2	30-130			
LCS (B145126-BS1)				Prepared & Analyzed: 03/25/16						
Acenaphthene (low)	90.2	7.5	µg/L	100		90.2	40-140			
Acenaphthylene (low)	92.4	7.5	µg/L	100		92.4	40-140			
Acetophenone	93.7	10	µg/L	100		93.7	40-140			
Anthracene (low)	92.9	5.0	µg/L	100		92.9	40-140			
Benzo(a)anthracene (low)	93.2	1.2	µg/L	100		93.2	40-140			
Benzo(a)pyrene (low)	96.6	2.5	µg/L	100		96.6	40-140			
Benzo(b)fluoranthene (low)	96.4	1.2	µg/L	100		96.4	40-140			
Benzo(g,h,i)perylene (low)	91.3	12	µg/L	100		91.3	40-140			
Benzo(k)fluoranthene (low)	87.6	5.0	µg/L	100		87.6	40-140			
Bis(2-chloroethoxy)methane	86.8	10	µg/L	100		86.8	40-140			
Bis(2-chloroethyl)ether	84.0	10	µg/L	100		84.0	40-140			
Bis(2-chloroisopropyl)ether	96.4	10	µg/L	100		96.4	40-140			
Bis(2-Ethylhexyl)phthalate	87.9	10	µg/L	100		87.9	40-140			
4-Bromophenylphenylether	84.6	10	µg/L	100		84.6	40-140			
Butylbenzylphthalate	91.6	10	µg/L	100		91.6	40-140			
Carbazole	82.2	10	µg/L	100		82.2	40-140			
4-Chloroaniline	60.2	10	µg/L	100		60.2	40-140			
4-Chloro-3-methylphenol	87.2	10	µg/L	100		87.2	30-130			
2-Chloronaphthalene	75.1	10	µg/L	100		75.1	40-140			
2-Chlorophenol	74.0	10	µg/L	100		74.0	30-130			
4-Chlorophenylphenylether	94.3	10	µg/L	100		94.3	40-140			
Chrysene (low)	87.4	5.0	µg/L	100		87.4	40-140			
Dibenz(a,h)anthracene (low)	96.9	5.0	µg/L	100		96.9	40-140			
Dibenzofuran	88.2	5.0	µg/L	100		88.2	40-140			
Di-n-butylphthalate	83.7	10	µg/L	100		83.7	40-140			
3,3-Dichlorobenzidine	63.2	10	µg/L	100		63.2	40-140			
2,4-Dichlorophenol	85.1	10	µg/L	100		85.1	30-130			
Diethylphthalate	89.4	10	µg/L	100		89.4	40-140			
2,4-Dimethylphenol	81.8	10	µg/L	100		81.8	30-130			
Dimethylphthalate	86.2	10	µg/L	100		86.2	40-140			
4,6-Dinitro-2-methylphenol	79.1	10	µg/L	100		79.1	30-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B145126 - SW-846 3510C											
LCS (B145126-BS1)				Prepared: 03/25/16 Analyzed: 03/26/16							
2,4-Dinitrophenol	73.9	10	µg/L	100		73.9	30-130				
2,4-Dinitrotoluene	88.2	10	µg/L	100		88.2	40-140				
2,6-Dinitrotoluene	89.4	10	µg/L	100		89.4	40-140				
Di-n-octylphthalate	98.8	10	µg/L	100		98.8	40-140				
Fluoranthene (low)	91.4	12	µg/L	100		91.4	40-140				
Fluorene (low)	91.3	25	µg/L	100		91.3	40-140				
Hexachlorobenzene	84.0	10	µg/L	100		84.0	40-140				
Hexachlorobutadiene	88.0	10	µg/L	100		88.0	40-140				
Hexachlorocyclopentadiene	71.1	10	µg/L	100		71.1	30-140			V-05	†
Hexachloroethane	81.9	10	µg/L	100		81.9	40-140				
Indeno(1,2,3-cd)pyrene (low)	96.9	5.0	µg/L	100		96.9	40-140				
Isophorone	96.4	10	µg/L	100		96.4	40-140				
2-Methylnaphthalene (low)	85.3	25	µg/L	100		85.3	40-140				
2-Methylphenol	65.3	10	µg/L	100		65.3	30-130				
3/4-Methylphenol	93.7	10	µg/L	100		93.7	30-130				
Naphthalene (low)	77.8	25	µg/L	100		77.8	40-140				
2-Nitroaniline	94.8	10	µg/L	100		94.8	40-140				
3-Nitroaniline	74.3	10	µg/L	100		74.3	40-140				
4-Nitroaniline	75.7	10	µg/L	100		75.7	40-140				
Nitrobenzene	89.7	10	µg/L	100		89.7	40-140				
2-Nitrophenol	80.8	10	µg/L	100		80.8	30-130				
4-Nitrophenol	53.4	10	µg/L	100		53.4	10-130			V-20	†
N-Nitrosodiphenylamine	96.2	10	µg/L	100		96.2	40-140				
N-Nitrosodi-n-propylamine	91.3	10	µg/L	100		91.3	40-140				
Pentachlorophenol	70.4	10	µg/L	100		70.4	30-130				
Phenanthrene (low)	87.8	1.2	µg/L	100		87.8	40-140				
Phenol	37.4	10	µg/L	100		37.4	20-130				†
Pyrene (low)	89.0	25	µg/L	100		89.0	40-140				
1,2,4,5-Tetrachlorobenzene	89.0	10	µg/L	100		89.0	40-140				
2,4,5-Trichlorophenol	80.2	10	µg/L	100		80.2	30-130				
2,4,6-Trichlorophenol	84.2	10	µg/L	100		84.2	30-130				
Surrogate: 2-Fluorophenol	*89.1*		µg/L	200		44.5	15-110				
Surrogate: Phenol-d6	*64.0*		µg/L	200		32.0	15-110				
Surrogate: Nitrobenzene-d5	*92.3*		µg/L	100		92.3	30-130				
Surrogate: Nitrobenzene-d5 (low)	*78.7*		µg/L	100		78.7	30-130				
Surrogate: 2-Fluorobiphenyl	*89.5*		µg/L	100		89.5	30-130				
Surrogate: 2-Fluorobiphenyl (low)	*80.2*		µg/L	100		80.2	30-130				
Surrogate: 2,4,6-Tribromophenol	*188*		µg/L	200		94.2	15-110				
Surrogate: p-Terphenyl-d14	*91.1*		µg/L	100		91.1	30-130				
Surrogate: p-Terphenyl-d14 (low)	*60.2*		µg/L	100		60.2	30-130				
LCS Dup (B145126-BSD1)				Prepared & Analyzed: 03/25/16							
Acenaphthene (low)	91.1	7.5	µg/L	100		91.1	40-140	0.993	20		
Acenaphthylene (low)	93.4	7.5	µg/L	100		93.4	40-140	1.08	20		
Acetophenone	84.9	10	µg/L	100		84.9	40-140	9.86	20		
Anthracene (low)	93.8	5.0	µg/L	100		93.8	40-140	0.911	20		
Benzo(a)anthracene (low)	93.9	1.2	µg/L	100		93.9	40-140	0.695	20		
Benzo(a)pyrene (low)	97.7	2.5	µg/L	100		97.7	40-140	1.18	20		
Benzo(b)fluoranthene (low)	97.3	1.2	µg/L	100		97.3	40-140	0.852	20		
Benzo(g,h,i)perylene (low)	93.5	12	µg/L	100		93.5	40-140	2.38	20		
Benzo(k)fluoranthene (low)	88.4	5.0	µg/L	100		88.4	40-140	0.994	20		
Bis(2-chloroethoxy)methane	81.1	10	µg/L	100		81.1	40-140	6.76	20		

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B145126 - SW-846 3510C											
LCS Dup (B145126-BSD1)				Prepared: 03/25/16 Analyzed: 03/26/16							
Bis(2-chloroethyl)ether	77.1	10	µg/L	100		77.1	40-140	8.59	20		
Bis(2-chloroisopropyl)ether	88.0	10	µg/L	100		88.0	40-140	9.09	20		
Bis(2-Ethylhexyl)phthalate	81.4	10	µg/L	100		81.4	40-140	7.68	20		
4-Bromophenylphenylether	78.3	10	µg/L	100		78.3	40-140	7.74	20		
Butylbenzylphthalate	86.5	10	µg/L	100		86.5	40-140	5.76	20		
Carbazole	80.7	10	µg/L	100		80.7	40-140	1.74	20		
4-Chloroaniline	65.6	10	µg/L	100		65.6	40-140	8.63	20		
4-Chloro-3-methylphenol	82.2	10	µg/L	100		82.2	30-130	5.82	20		
2-Chloronaphthalene	71.1	10	µg/L	100		71.1	40-140	5.43	20		
2-Chlorophenol	66.8	10	µg/L	100		66.8	30-130	10.2	20		
4-Chlorophenylphenylether	87.7	10	µg/L	100		87.7	40-140	7.28	20		
Chrysene (low)	88.0	5.0	µg/L	100		88.0	40-140	0.627	20		
Dibenz(a,h)anthracene (low)	98.6	5.0	µg/L	100		98.6	40-140	1.76	20		
Dibenzofuran	82.5	5.0	µg/L	100		82.5	40-140	6.69	20		
Di-n-butylphthalate	81.3	10	µg/L	100		81.3	40-140	2.92	20		
3,3-Dichlorobenzidine	61.1	10	µg/L	100		61.1	40-140	3.43	20		
2,4-Dichlorophenol	79.7	10	µg/L	100		79.7	30-130	6.59	20		
Diethylphthalate	84.6	10	µg/L	100		84.6	40-140	5.48	20		
2,4-Dimethylphenol	77.3	10	µg/L	100		77.3	30-130	5.63	20		
Dimethylphthalate	81.5	10	µg/L	100		81.5	40-140	5.53	50		‡
4,6-Dinitro-2-methylphenol	77.1	10	µg/L	100		77.1	30-130	2.55	50		‡
2,4-Dinitrophenol	73.4	10	µg/L	100		73.4	30-130	0.747	50		‡
2,4-Dinitrotoluene	86.1	10	µg/L	100		86.1	40-140	2.35	20		
2,6-Dinitrotoluene	84.8	10	µg/L	100		84.8	40-140	5.29	20		
Di-n-octylphthalate	89.9	10	µg/L	100		89.9	40-140	9.42	20		
Fluoranthene (low)	92.2	12	µg/L	100		92.2	40-140	0.817	20		
Fluorene (low)	93.3	25	µg/L	100		93.3	40-140	2.19	20		
Hexachlorobenzene	76.9	10	µg/L	100		76.9	40-140	8.86	20		
Hexachlorobutadiene	81.6	10	µg/L	100		81.6	40-140	7.55	20		
Hexachlorocyclopentadiene	66.9	10	µg/L	100		66.9	30-140	6.10	50	V-05	† ‡
Hexachloroethane	73.6	10	µg/L	100		73.6	40-140	10.7	50		‡
Indeno(1,2,3-cd)pyrene (low)	99.0	5.0	µg/L	100		99.0	40-140	2.19	20		
Isophorone	89.7	10	µg/L	100		89.7	40-140	7.16	20		
2-Methylnaphthalene (low)	88.4	25	µg/L	100		88.4	40-140	3.51	20		
2-Methylphenol	59.0	10	µg/L	100		59.0	30-130	10.1	20		
3/4-Methylphenol	84.4	10	µg/L	100		84.4	30-130	10.4	20		
Naphthalene (low)	78.4	25	µg/L	100		78.4	40-140	0.800	20		
2-Nitroaniline	91.0	10	µg/L	100		91.0	40-140	4.05	20		
3-Nitroaniline	75.6	10	µg/L	100		75.6	40-140	1.80	20		
4-Nitroaniline	76.8	10	µg/L	100		76.8	40-140	1.48	20		
Nitrobenzene	85.6	10	µg/L	100		85.6	40-140	4.66	20		
2-Nitrophenol	77.0	10	µg/L	100		77.0	30-130	4.82	20		
4-Nitrophenol	52.3	10	µg/L	100		52.3	10-130	2.06	50	V-20	† ‡
N-Nitrosodiphenylamine	89.4	10	µg/L	100		89.4	40-140	7.39	20		
N-Nitrosodi-n-propylamine	82.6	10	µg/L	100		82.6	40-140	10.1	20		
Pentachlorophenol	64.8	10	µg/L	100		64.8	30-130	8.24	50		‡
Phenanthrene (low)	88.4	1.2	µg/L	100		88.4	40-140	0.624	20		
Phenol	34.3	10	µg/L	100		34.3	20-130	8.78	20		†
Pyrene (low)	89.3	25	µg/L	100		89.3	40-140	0.308	20		
1,2,4,5-Tetrachlorobenzene	83.8	10	µg/L	100		83.8	40-140	6.05	20		
2,4,5-Trichlorophenol	75.2	10	µg/L	100		75.2	30-130	6.43	20		
2,4,6-Trichlorophenol	79.5	10	µg/L	100		79.5	30-130	5.73	50		‡

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145126 - SW-846 3510C										
LCS Dup (B145126-BSD1)				Prepared: 03/25/16 Analyzed: 03/26/16						
Surrogate: 2-Fluorophenol	*82.7*		µg/L	200		41.3	15-110			
Surrogate: Phenol-d6	*58.1*		µg/L	200		29.0	15-110			
Surrogate: Nitrobenzene-d5	*88.2*		µg/L	100		88.2	30-130			
Surrogate: Nitrobenzene-d5 (low)	*78.8*		µg/L	100		78.8	30-130			
Surrogate: 2-Fluorobiphenyl	*82.1*		µg/L	100		82.1	30-130			
Surrogate: 2-Fluorobiphenyl (low)	*80.3*		µg/L	100		80.3	30-130			
Surrogate: 2,4,6-Tribromophenol	*177*		µg/L	200		88.7	15-110			
Surrogate: p-Terphenyl-d14	*84.7*		µg/L	100		84.7	30-130			
Surrogate: p-Terphenyl-d14 (low)	*59.2*		µg/L	100		59.2	30-130			
Batch B145213 - SW-846 3546										
Blank (B145213-BLK1)				Prepared: 03/23/16 Analyzed: 03/24/16						
Atrazine	ND	0.67	mg/Kg wet							
Benzaldehyde	ND	0.34	mg/Kg wet							V-20
Biphenyl	ND	0.67	mg/Kg wet							
Caprolactam	ND	0.34	mg/Kg wet							
2,4,5-Trichlorophenol	ND	0.34	mg/Kg wet							
2,4,6-Trichlorophenol	ND	0.34	mg/Kg wet							
Surrogate: 2-Fluorophenol	*4.77*		mg/Kg wet	6.67		71.5	15-110			
Surrogate: Phenol-d6	*5.86*		mg/Kg wet	6.67		87.9	15-110			
Surrogate: Nitrobenzene-d5	*2.95*		mg/Kg wet	3.33		88.5	30-130			
Surrogate: 2-Fluorobiphenyl	*2.88*		mg/Kg wet	3.33		86.5	30-130			
Surrogate: 2,4,6-Tribromophenol	*5.67*		mg/Kg wet	6.67		85.1	15-110			
Surrogate: p-Terphenyl-d14	*3.37*		mg/Kg wet	3.33		101	30-130			
LCS (B145213-BS1)				Prepared: 03/23/16 Analyzed: 03/24/16						
Atrazine	1.56	0.67	mg/Kg wet	1.67		93.8	40-140			
Benzaldehyde	1.18	0.34	mg/Kg wet	1.67		71.1	40-140			V-20
Biphenyl	1.42	0.67	mg/Kg wet	1.67		85.0	40-140			
Caprolactam	1.40	0.34	mg/Kg wet	1.67		84.1	40-140			
Surrogate: 2-Fluorophenol	*4.95*		mg/Kg wet	6.67		74.3	15-110			
Surrogate: Phenol-d6	*5.95*		mg/Kg wet	6.67		89.2	15-110			
Surrogate: Nitrobenzene-d5	*3.03*		mg/Kg wet	3.33		90.9	30-130			
Surrogate: 2-Fluorobiphenyl	*2.85*		mg/Kg wet	3.33		85.6	30-130			
Surrogate: 2,4,6-Tribromophenol	*5.89*		mg/Kg wet	6.67		88.4	15-110			
Surrogate: p-Terphenyl-d14	*3.24*		mg/Kg wet	3.33		97.2	30-130			
LCS Dup (B145213-BSD1)				Prepared: 03/23/16 Analyzed: 03/24/16						
Atrazine	1.67	0.67	mg/Kg wet	1.67		100	40-140	6.60	20	
Benzaldehyde	1.32	0.34	mg/Kg wet	1.67		79.4	40-140	11.1	20	V-20
Biphenyl	1.58	0.67	mg/Kg wet	1.67		94.7	40-140	10.8	20	
Caprolactam	1.54	0.34	mg/Kg wet	1.67		92.3	40-140	9.39	20	
Surrogate: 2-Fluorophenol	*5.31*		mg/Kg wet	6.67		79.6	15-110			
Surrogate: Phenol-d6	*6.57*		mg/Kg wet	6.67		98.6	15-110			
Surrogate: Nitrobenzene-d5	*3.25*		mg/Kg wet	3.33		97.5	30-130			
Surrogate: 2-Fluorobiphenyl	*3.09*		mg/Kg wet	3.33		92.6	30-130			
Surrogate: 2,4,6-Tribromophenol	*6.26*		mg/Kg wet	6.67		93.8	15-110			
Surrogate: p-Terphenyl-d14	*3.63*		mg/Kg wet	3.33		109	30-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B145213 - SW-846 3546											
Matrix Spike (B145213-MS1)		**Source: 16C0970-07**		Prepared: 03/23/16 Analyzed: 03/28/16							
Atrazine	1.41	0.70	mg/Kg dry	1.74	ND	81.4		40-140			
Benzaldehyde	1.25	0.35	mg/Kg dry	1.74	ND	71.7		40-140			
Biphenyl	1.51	0.70	mg/Kg dry	1.74	ND	87.1		40-140			
Caprolactam	1.33	0.35	mg/Kg dry	1.74	ND	76.3		40-140			
Surrogate: 2-Fluorophenol	*4.11*		mg/Kg dry	6.95		59.2		15-110			
Surrogate: Phenol-d6	*5.44*		mg/Kg dry	6.95		78.2		15-110			
Surrogate: Nitrobenzene-d5	*2.77*		mg/Kg dry	3.48		79.6		30-130			
Surrogate: 2-Fluorobiphenyl	*2.78*		mg/Kg dry	3.48		80.1		30-130			
Surrogate: 2,4,6-Tribromophenol	*4.93*		mg/Kg dry	6.95		70.9		15-110			
Surrogate: p-Terphenyl-d14	*3.15*		mg/Kg dry	3.48		90.7		30-130			
Matrix Spike Dup (B145213-MSD1)		**Source: 16C0970-07**		Prepared & Analyzed: 03/28/16							
Atrazine	1.31	0.70	mg/Kg dry	1.74	ND	75.6		40-140	7.31	30	
Benzaldehyde	1.22	0.35	mg/Kg dry	1.74	ND	69.9		40-140	2.54	30	
Biphenyl	1.37	0.70	mg/Kg dry	1.74	ND	78.7		40-140	10.2	30	
Caprolactam	1.23	0.35	mg/Kg dry	1.74	ND	70.8		40-140	7.42	30	
Surrogate: 2-Fluorophenol	*4.09*		mg/Kg dry	6.95		58.9		15-110			
Surrogate: Phenol-d6	*5.28*		mg/Kg dry	6.95		76.0		15-110			
Surrogate: Nitrobenzene-d5	*2.74*		mg/Kg dry	3.48		78.9		30-130			
Surrogate: 2-Fluorobiphenyl	*2.61*		mg/Kg dry	3.48		75.1		30-130			
Surrogate: 2,4,6-Tribromophenol	*4.57*		mg/Kg dry	6.95		65.8		15-110			
Surrogate: p-Terphenyl-d14	*3.29*		mg/Kg dry	3.48		94.7		30-130			
Batch B145282 - SW-846 3510C											
Blank (B145282-BLK1)				Prepared: 03/23/16 Analyzed: 03/24/16							
Atrazine	ND	20	µg/L								
Benzaldehyde	ND	10	µg/L								R-05
Biphenyl	ND	20	µg/L								
Caprolactam	ND	10	µg/L								L-04, R-05
Surrogate: 2-Fluorophenol	*67.1*		µg/L	200		33.6		15-110			
Surrogate: Phenol-d6	*45.0*		µg/L	200		22.5		15-110			
Surrogate: Nitrobenzene-d5	*87.8*		µg/L	100		87.8		30-130			
Surrogate: 2-Fluorobiphenyl	*79.4*		µg/L	100		79.4		30-130			
Surrogate: 2,4,6-Tribromophenol	*162*		µg/L	200		81.1		15-110			
Surrogate: p-Terphenyl-d14	*163*		µg/L	100		**163**	*	30-130			S-07
LCS (B145282-BS1)				Prepared: 03/23/16 Analyzed: 03/24/16							
Atrazine	58.4	20	µg/L	50.0		117		40-140			
Benzaldehyde	54.7	10	µg/L	50.0		109		40-140			R-05
Biphenyl	44.8	20	µg/L	50.0		89.7		40-140			
Caprolactam	13.6	10	µg/L	50.0		**27.3**	*	40-140			L-04, R-05
Surrogate: 2-Fluorophenol	*101*		µg/L	200		50.7		15-110			
Surrogate: Phenol-d6	*72.5*		µg/L	200		36.3		15-110			
Surrogate: Nitrobenzene-d5	*114*		µg/L	100		114		30-130			
Surrogate: 2-Fluorobiphenyl	*90.5*		µg/L	100		90.5		30-130			
Surrogate: 2,4,6-Tribromophenol	*197*		µg/L	200		98.4		15-110			
Surrogate: p-Terphenyl-d14	*168*		µg/L	100		**168**	*	30-130			S-07

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD		RPD Limit	Notes
Batch B145282 - SW-846 3510C												
LCS Dup (B145282-BSD1)				Prepared: 03/23/16 Analyzed: 03/24/16								
Atrazine	53.9	20	µg/L	50.0		108		40-140	8.05		20	
Benzaldehyde	38.4	10	µg/L	50.0		76.8		40-140	**35.1**	*	20	R-05
Biphenyl	43.3	20	µg/L	50.0		86.5		40-140	3.61		20	
Caprolactam	10.9	10	µg/L	50.0		**21.8**	*	40-140	**22.2**	*	20	L-04, R-05
Surrogate: 2-Fluorophenol	*76.0*		µg/L	200		38.0		15-110				
Surrogate: Phenol-d6	*56.3*		µg/L	200		28.2		15-110				
Surrogate: Nitrobenzene-d5	*93.2*		µg/L	100		93.2		30-130				
Surrogate: 2-Fluorobiphenyl	*84.3*		µg/L	100		84.3		30-130				
Surrogate: 2,4,6-Tribromophenol	*190*		µg/L	200		95.1		15-110				
Surrogate: p-Terphenyl-d14	*174*		µg/L	100		**174**	*	30-130				S-07
Batch B145335 - SW-846 3510C												
Blank (B145335-BLK1)				Prepared: 03/25/16 Analyzed: 03/26/16								
Atrazine	ND	20	µg/L									
Benzaldehyde	ND	10	µg/L									V-20
Biphenyl	ND	20	µg/L									
Caprolactam	ND	10	µg/L									L-04
Surrogate: 2-Fluorophenol	*73.6*		µg/L	200		36.8		15-110				
Surrogate: Phenol-d6	*48.5*		µg/L	200		24.3		15-110				
Surrogate: Nitrobenzene-d5	*82.9*		µg/L	100		82.9		30-130				
Surrogate: 2-Fluorobiphenyl	*79.2*		µg/L	100		79.2		30-130				
Surrogate: 2,4,6-Tribromophenol	*178*		µg/L	200		89.1		15-110				
Surrogate: p-Terphenyl-d14	*85.4*		µg/L	100		85.4		30-130				
LCS (B145335-BS1)				Prepared: 03/25/16 Analyzed: 03/26/16								
Atrazine	98.7	20	µg/L	100		98.7		40-140				
Benzaldehyde	94.1	10	µg/L	100		94.1		40-140				V-20
Biphenyl	99.0	20	µg/L	100		99.0		40-140				
Caprolactam	21.0	10	µg/L	100		**21.0**	*	40-140				L-04
Surrogate: 2-Fluorophenol	*87.5*		µg/L	200		43.7		15-110				
Surrogate: Phenol-d6	*71.5*		µg/L	200		35.7		15-110				
Surrogate: Nitrobenzene-d5	*101*		µg/L	100		101		30-130				
Surrogate: 2-Fluorobiphenyl	*94.6*		µg/L	100		94.6		30-130				
Surrogate: 2,4,6-Tribromophenol	*191*		µg/L	200		95.3		15-110				
Surrogate: p-Terphenyl-d14	*105*		µg/L	100		105		30-130				
LCS Dup (B145335-BSD1)				Prepared: 03/25/16 Analyzed: 03/26/16								
Atrazine	95.8	20	µg/L	100		95.8		40-140	2.98		20	
Benzaldehyde	88.6	10	µg/L	100		88.6		40-140	6.01		20	V-20
Biphenyl	92.1	20	µg/L	100		92.1		40-140	7.16		20	
Caprolactam	20.3	10	µg/L	100		**20.3**	*	40-140	3.30		20	L-04
Surrogate: 2-Fluorophenol	*81.2*		µg/L	200		40.6		15-110				
Surrogate: Phenol-d6	*64.9*		µg/L	200		32.4		15-110				
Surrogate: Nitrobenzene-d5	*96.2*		µg/L	100		96.2		30-130				
Surrogate: 2-Fluorobiphenyl	*86.8*		µg/L	100		86.8		30-130				
Surrogate: 2,4,6-Tribromophenol	*180*		µg/L	200		89.8		15-110				
Surrogate: p-Terphenyl-d14	*97.2*		µg/L	100		97.2		30-130				

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QUALITY CONTROL

Tentatively Identified Compounds - SV Compounds (ESTIMATED VALUES REPORTED) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144867 - SW-846 3510C										
Blank (B144867-BLK1)				Prepared: 03/23/16 Analyzed: 03/24/16						
No TICs Found	0.0		µg/L							
Batch B144868 - SW-846 3546										
Blank (B144868-BLK1)				Prepared: 03/23/16 Analyzed: 03/24/16						
No TICs Found	0.0		mg/Kg wet							

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QUALITY CONTROL

Organochloride Pesticides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144813 - SW-846 3546										
Blank (B144813-BLK1)				Prepared: 03/22/16 Analyzed: 03/24/16						
alpha-Chlordane	ND	0.0050	mg/Kg wet							
alpha-Chlordane [2C]	ND	0.0050	mg/Kg wet							
gamma-Chlordane	ND	0.0050	mg/Kg wet							
gamma-Chlordane [2C]	ND	0.0050	mg/Kg wet							
Alachlor	ND	0.020	mg/Kg wet							
Alachlor [2C]	ND	0.020	mg/Kg wet							
Aldrin	ND	0.0050	mg/Kg wet							
Aldrin [2C]	ND	0.0050	mg/Kg wet							
alpha-BHC	ND	0.0050	mg/Kg wet							
alpha-BHC [2C]	ND	0.0050	mg/Kg wet							
beta-BHC	ND	0.0050	mg/Kg wet							
beta-BHC [2C]	ND	0.0050	mg/Kg wet							
delta-BHC	ND	0.0050	mg/Kg wet							
delta-BHC [2C]	ND	0.0050	mg/Kg wet							
gamma-BHC (Lindane)	ND	0.0020	mg/Kg wet							
gamma-BHC (Lindane) [2C]	ND	0.0020	mg/Kg wet							
Chlordane	ND	0.020	mg/Kg wet							V-05
Chlordane [2C]	ND	0.020	mg/Kg wet							
4,4'-DDD	ND	0.0040	mg/Kg wet							
4,4'-DDD [2C]	ND	0.0040	mg/Kg wet							
4,4'-DDE	ND	0.0040	mg/Kg wet							
4,4'-DDE [2C]	ND	0.0040	mg/Kg wet							
4,4'-DDT	ND	0.0040	mg/Kg wet							
4,4'-DDT [2C]	ND	0.0040	mg/Kg wet							
Dieldrin	ND	0.0040	mg/Kg wet							
Dieldrin [2C]	ND	0.0040	mg/Kg wet							
Endosulfan I	ND	0.0050	mg/Kg wet							
Endosulfan I [2C]	ND	0.0050	mg/Kg wet							
Endosulfan II	ND	0.0080	mg/Kg wet							
Endosulfan II [2C]	ND	0.0080	mg/Kg wet							
Endosulfan Sulfate	ND	0.0080	mg/Kg wet							
Endosulfan Sulfate [2C]	ND	0.0080	mg/Kg wet							
Endrin	ND	0.0080	mg/Kg wet							
Endrin [2C]	ND	0.0080	mg/Kg wet							
Endrin Aldehyde	ND	0.0080	mg/Kg wet							
Endrin Aldehyde [2C]	ND	0.0080	mg/Kg wet							
Endrin Ketone	ND	0.0080	mg/Kg wet							
Endrin Ketone [2C]	ND	0.0080	mg/Kg wet							
Heptachlor	ND	0.0050	mg/Kg wet							
Heptachlor [2C]	ND	0.0050	mg/Kg wet							
Heptachlor Epoxide	ND	0.0050	mg/Kg wet							
Heptachlor Epoxide [2C]	ND	0.0050	mg/Kg wet							
Hexachlorobenzene	ND	0.0060	mg/Kg wet							
Hexachlorobenzene [2C]	ND	0.0060	mg/Kg wet							
Methoxychlor	ND	0.050	mg/Kg wet							
Methoxychlor [2C]	ND	0.050	mg/Kg wet							
Toxaphene	ND	0.10	mg/Kg wet							
Toxaphene [2C]	ND	0.10	mg/Kg wet							
Surrogate: Decachlorobiphenyl	*0.202*		mg/Kg wet	0.200		101	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.246*		mg/Kg wet	0.200		123	30-150			
Surrogate: Tetrachloro-m-xylene	*0.178*		mg/Kg wet	0.200		89.2	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.181*		mg/Kg wet	0.200		90.4	30-150			

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QUALITY CONTROL

Organochloride Pesticides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144813 - SW-846 3546										
LCS (B144813-BS1)				Prepared: 03/22/16 Analyzed: 03/24/16						
alpha-Chlordane	0.096	0.0050	mg/Kg wet	0.100		96.1	40-140			
alpha-Chlordane [2C]	0.11	0.0050	mg/Kg wet	0.100		113	40-140			
gamma-Chlordane	0.095	0.0050	mg/Kg wet	0.100		94.9	40-140			
gamma-Chlordane [2C]	0.11	0.0050	mg/Kg wet	0.100		113	40-140			
Alachlor	0.10	0.020	mg/Kg wet	0.100		99.6	40-140			
Alachlor [2C]	0.12	0.020	mg/Kg wet	0.100		120	40-140			
Aldrin	0.092	0.0050	mg/Kg wet	0.100		92.4	40-140			
Aldrin [2C]	0.10	0.0050	mg/Kg wet	0.100		104	40-140			
alpha-BHC	0.096	0.0050	mg/Kg wet	0.100		96.2	40-140			
alpha-BHC [2C]	0.098	0.0050	mg/Kg wet	0.100		98.5	40-140			
beta-BHC	0.096	0.0050	mg/Kg wet	0.100		96.0	40-140			
beta-BHC [2C]	0.10	0.0050	mg/Kg wet	0.100		100	40-140			
delta-BHC	0.086	0.0050	mg/Kg wet	0.100		85.6	40-140			
delta-BHC [2C]	0.090	0.0050	mg/Kg wet	0.100		90.0	40-140			
gamma-BHC (Lindane)	0.10	0.0020	mg/Kg wet	0.100		101	40-140			
gamma-BHC (Lindane) [2C]	0.10	0.0020	mg/Kg wet	0.100		103	40-140			
4,4'-DDD	0.11	0.0040	mg/Kg wet	0.100		108	40-140			
4,4'-DDD [2C]	0.12	0.0040	mg/Kg wet	0.100		122	40-140			
4,4'-DDE	0.10	0.0040	mg/Kg wet	0.100		101	40-140			
4,4'-DDE [2C]	0.12	0.0040	mg/Kg wet	0.100		117	40-140			
4,4'-DDT	0.11	0.0040	mg/Kg wet	0.100		105	40-140			
4,4'-DDT [2C]	0.12	0.0040	mg/Kg wet	0.100		122	40-140			
Dieldrin	0.097	0.0040	mg/Kg wet	0.100		96.9	40-140			
Dieldrin [2C]	0.11	0.0040	mg/Kg wet	0.100		108	40-140			
Endosulfan I	0.085	0.0050	mg/Kg wet	0.100		85.3	40-140			
Endosulfan I [2C]	0.099	0.0050	mg/Kg wet	0.100		98.6	40-140			
Endosulfan II	0.094	0.0080	mg/Kg wet	0.100		94.1	40-140			
Endosulfan II [2C]	0.11	0.0080	mg/Kg wet	0.100		110	40-140			
Endosulfan Sulfate	0.11	0.0080	mg/Kg wet	0.100		105	40-140			
Endosulfan Sulfate [2C]	0.12	0.0080	mg/Kg wet	0.100		117	40-140			
Endrin	0.10	0.0080	mg/Kg wet	0.100		102	40-140			
Endrin [2C]	0.12	0.0080	mg/Kg wet	0.100		116	40-140			
Endrin Aldehyde	0.099	0.0080	mg/Kg wet	0.100		98.8	40-140			
Endrin Aldehyde [2C]	0.12	0.0080	mg/Kg wet	0.100		116	40-140			
Endrin Ketone	0.11	0.0080	mg/Kg wet	0.100		111	40-140			
Endrin Ketone [2C]	0.13	0.0080	mg/Kg wet	0.100		126	40-140			
Heptachlor	0.091	0.0050	mg/Kg wet	0.100		90.7	40-140			
Heptachlor [2C]	0.10	0.0050	mg/Kg wet	0.100		103	40-140			
Heptachlor Epoxide	0.092	0.0050	mg/Kg wet	0.100		92.4	40-140			
Heptachlor Epoxide [2C]	0.10	0.0050	mg/Kg wet	0.100		105	40-140			
Hexachlorobenzene	0.085	0.0060	mg/Kg wet	0.100		84.7	40-140			
Hexachlorobenzene [2C]	0.089	0.0060	mg/Kg wet	0.100		89.0	40-140			
Methoxychlor	0.10	0.050	mg/Kg wet	0.100		102	40-140			
Methoxychlor [2C]	0.14	0.050	mg/Kg wet	0.100		135	40-140			
Surrogate: Decachlorobiphenyl	*0.203*		mg/Kg wet	0.200		101	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.248*		mg/Kg wet	0.200		124	30-150			
Surrogate: Tetrachloro-m-xylene	*0.177*		mg/Kg wet	0.200		88.5	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.177*		mg/Kg wet	0.200		88.7	30-150			

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QUALITY CONTROL

Organochloride Pesticides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144813 - SW-846 3546										
LCS Dup (B144813-BSD1)				Prepared: 03/22/16 Analyzed: 03/25/16						
alpha-Chlordane	0.098	0.0050	mg/Kg wet	0.100		98.1	40-140	2.06	30	
alpha-Chlordane [2C]	0.12	0.0050	mg/Kg wet	0.100		116	40-140	2.37	30	
gamma-Chlordane	0.097	0.0050	mg/Kg wet	0.100		97.0	40-140	2.16	30	
gamma-Chlordane [2C]	0.12	0.0050	mg/Kg wet	0.100		115	40-140	2.35	30	
Alachlor	0.10	0.020	mg/Kg wet	0.100		102	40-140	2.67	30	
Alachlor [2C]	0.12	0.020	mg/Kg wet	0.100		123	40-140	2.99	30	
Aldrin	0.094	0.0050	mg/Kg wet	0.100		94.2	40-140	1.87	30	
Aldrin [2C]	0.11	0.0050	mg/Kg wet	0.100		106	40-140	2.16	30	
alpha-BHC	0.10	0.0050	mg/Kg wet	0.100		99.8	40-140	3.60	30	
alpha-BHC [2C]	0.10	0.0050	mg/Kg wet	0.100		103	40-140	4.66	30	
beta-BHC	0.098	0.0050	mg/Kg wet	0.100		98.2	40-140	2.26	30	
beta-BHC [2C]	0.10	0.0050	mg/Kg wet	0.100		103	40-140	2.99	30	
delta-BHC	0.099	0.0050	mg/Kg wet	0.100		98.6	40-140	14.0	30	
delta-BHC [2C]	0.10	0.0050	mg/Kg wet	0.100		104	40-140	14.4	30	
gamma-BHC (Lindane)	0.10	0.0020	mg/Kg wet	0.100		104	40-140	3.11	30	
gamma-BHC (Lindane) [2C]	0.11	0.0020	mg/Kg wet	0.100		107	40-140	3.85	30	
4,4'-DDD	0.11	0.0040	mg/Kg wet	0.100		111	40-140	2.61	30	
4,4'-DDD [2C]	0.13	0.0040	mg/Kg wet	0.100		126	40-140	2.57	30	
4,4'-DDE	0.10	0.0040	mg/Kg wet	0.100		104	40-140	2.39	30	
4,4'-DDE [2C]	0.12	0.0040	mg/Kg wet	0.100		120	40-140	2.32	30	
4,4'-DDT	0.11	0.0040	mg/Kg wet	0.100		109	40-140	3.10	30	
4,4'-DDT [2C]	0.13	0.0040	mg/Kg wet	0.100		126	40-140	3.02	30	
Dieldrin	0.099	0.0040	mg/Kg wet	0.100		99.0	40-140	2.15	30	
Dieldrin [2C]	0.11	0.0040	mg/Kg wet	0.100		110	40-140	2.26	30	
Endosulfan I	0.095	0.0050	mg/Kg wet	0.100		95.1	40-140	10.8	30	
Endosulfan I [2C]	0.11	0.0050	mg/Kg wet	0.100		110	40-140	10.7	30	
Endosulfan II	0.10	0.0080	mg/Kg wet	0.100		102	40-140	8.47	30	
Endosulfan II [2C]	0.12	0.0080	mg/Kg wet	0.100		119	40-140	8.28	30	
Endosulfan Sulfate	0.11	0.0080	mg/Kg wet	0.100		106	40-140	0.619	30	
Endosulfan Sulfate [2C]	0.12	0.0080	mg/Kg wet	0.100		121	40-140	3.44	30	
Endrin	0.10	0.0080	mg/Kg wet	0.100		105	40-140	2.49	30	
Endrin [2C]	0.12	0.0080	mg/Kg wet	0.100		119	40-140	2.73	30	
Endrin Aldehyde	0.10	0.0080	mg/Kg wet	0.100		101	40-140	2.74	30	
Endrin Aldehyde [2C]	0.12	0.0080	mg/Kg wet	0.100		120	40-140	3.10	30	
Endrin Ketone	0.11	0.0080	mg/Kg wet	0.100		114	40-140	2.59	30	
Endrin Ketone [2C]	0.13	0.0080	mg/Kg wet	0.100		130	40-140	2.90	30	
Heptachlor	0.092	0.0050	mg/Kg wet	0.100		92.3	40-140	1.74	30	
Heptachlor [2C]	0.11	0.0050	mg/Kg wet	0.100		106	40-140	2.66	30	
Heptachlor Epoxide	0.094	0.0050	mg/Kg wet	0.100		94.1	40-140	1.79	30	
Heptachlor Epoxide [2C]	0.11	0.0050	mg/Kg wet	0.100		107	40-140	2.07	30	
Hexachlorobenzene	0.086	0.0060	mg/Kg wet	0.100		85.9	40-140	1.44	30	
Hexachlorobenzene [2C]	0.091	0.0060	mg/Kg wet	0.100		90.8	40-140	2.01	30	
Methoxychlor	0.10	0.050	mg/Kg wet	0.100		104	40-140	2.17	30	
Methoxychlor [2C]	0.13	0.050	mg/Kg wet	0.100		132	40-140	2.39	30	
Surrogate: Decachlorobiphenyl	*0.203*		mg/Kg wet	0.200		101	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.249*		mg/Kg wet	0.200		124	30-150			
Surrogate: Tetrachloro-m-xylene	*0.176*		mg/Kg wet	0.200		88.2	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.179*		mg/Kg wet	0.200		89.7	30-150			

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QUALITY CONTROL

Organochloride Pesticides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144813 - SW-846 3546										
Matrix Spike (B144813-MS1)		**Source: 16C0970-03**		Prepared: 03/22/16 Analyzed: 03/25/16						
alpha-Chlordane	0.084	0.0057	mg/Kg dry	0.114	ND	73.7	30-150			
alpha-Chlordane [2C]	0.096	0.0057	mg/Kg dry	0.114	ND	84.5	30-150			
gamma-Chlordane	0.086	0.0057	mg/Kg dry	0.114	ND	75.4	30-150			
gamma-Chlordane [2C]	0.077	0.0057	mg/Kg dry	0.114	ND	68.1	30-150			
Alachlor	0.099	0.023	mg/Kg dry	0.114	ND	86.8	30-150			
Alachlor [2C]	0.11	0.023	mg/Kg dry	0.114	ND	96.2	30-150			
Aldrin	0.079	0.0057	mg/Kg dry	0.114	ND	69.8	30-150			
Aldrin [2C]	0.086	0.0057	mg/Kg dry	0.114	ND	75.8	30-150			
alpha-BHC	0.076	0.0057	mg/Kg dry	0.114	ND	66.6	30-150			
alpha-BHC [2C]	0.072	0.0057	mg/Kg dry	0.114	ND	63.2	30-150			
beta-BHC	0.076	0.0057	mg/Kg dry	0.114	ND	66.7	30-150			
beta-BHC [2C]	0.079	0.0057	mg/Kg dry	0.114	ND	69.2	30-150			
delta-BHC	0.058	0.0057	mg/Kg dry	0.114	ND	50.7	30-150			R-06
delta-BHC [2C]	0.059	0.0057	mg/Kg dry	0.114	ND	52.2	30-150			R-06
gamma-BHC (Lindane)	0.076	0.0023	mg/Kg dry	0.114	ND	66.8	30-150			
gamma-BHC (Lindane) [2C]	0.078	0.0023	mg/Kg dry	0.114	ND	68.6	30-150			
4,4'-DDD	0.092	0.0045	mg/Kg dry	0.114	0.0049	76.8	30-150			
4,4'-DDD [2C]	0.11	0.0045	mg/Kg dry	0.114	0.0010	93.2	30-150			V-06
4,4'-DDE	0.094	0.0045	mg/Kg dry	0.114	ND	82.9	30-150			
4,4'-DDE [2C]	0.11	0.0045	mg/Kg dry	0.114	ND	96.1	30-150			V-06
4,4'-DDT	0.093	0.0045	mg/Kg dry	0.114	0.0028	79.7	30-150			
4,4'-DDT [2C]	0.10	0.0045	mg/Kg dry	0.114	0.0013	88.9	30-150			V-06
Dieldrin	0.088	0.0045	mg/Kg dry	0.114	ND	77.1	30-150			
Dieldrin [2C]	0.096	0.0045	mg/Kg dry	0.114	ND	84.1	30-150			
Endosulfan I	0.063	0.0057	mg/Kg dry	0.114	ND	55.7	30-150			R-06
Endosulfan I [2C]	0.071	0.0057	mg/Kg dry	0.114	ND	62.8	30-150			R-06
Endosulfan II	0.061	0.0091	mg/Kg dry	0.114	0.00065	52.7	30-150			R-06
Endosulfan II [2C]	0.071	0.0091	mg/Kg dry	0.114	0.0018	61.2	30-150			R-06
Endosulfan Sulfate	0.073	0.0091	mg/Kg dry	0.114	ND	64.2	30-150			
Endosulfan Sulfate [2C]	0.079	0.0091	mg/Kg dry	0.114	0.0019	67.5	30-150			V-06
Endrin	0.096	0.0091	mg/Kg dry	0.114	ND	84.4	30-150			
Endrin [2C]	0.10	0.0091	mg/Kg dry	0.114	ND	91.9	30-150			V-06
Endrin Aldehyde	0.062	0.0091	mg/Kg dry	0.114	ND	54.5	30-150			
Endrin Aldehyde [2C]	0.068	0.0091	mg/Kg dry	0.114	ND	60.1	30-150			V-06
Endrin Ketone	0.089	0.0091	mg/Kg dry	0.114	ND	78.6	30-150			
Endrin Ketone [2C]	0.11	0.0091	mg/Kg dry	0.114	ND	93.0	30-150			V-06
Heptachlor	0.090	0.0057	mg/Kg dry	0.114	ND	79.5	30-150			
Heptachlor [2C]	0.097	0.0057	mg/Kg dry	0.114	ND	85.2	30-150			
Heptachlor Epoxide	0.083	0.0057	mg/Kg dry	0.114	ND	73.3	30-150			
Heptachlor Epoxide [2C]	0.096	0.0057	mg/Kg dry	0.114	ND	84.4	30-150			
Hexachlorobenzene	0.094	0.0068	mg/Kg dry	0.114	0.0019	81.0	30-150			
Hexachlorobenzene [2C]	0.083	0.0068	mg/Kg dry	0.114	0.0018	71.1	30-150			
Methoxychlor	0.088	0.057	mg/Kg dry	0.114	ND	77.7	30-150			
Methoxychlor [2C]	0.11	0.057	mg/Kg dry	0.114	ND	96.7	30-150			V-06
Surrogate: Decachlorobiphenyl	*0.236*		mg/Kg dry	0.227		104	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.272*		mg/Kg dry	0.227		120	30-150			
Surrogate: Tetrachloro-m-xylene	*0.172*		mg/Kg dry	0.227		75.5	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.162*		mg/Kg dry	0.227		71.4	30-150			

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QUALITY CONTROL

Organochloride Pesticides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD		RPD Limit	Notes
Batch B144813 - SW-846 3546											
Matrix Spike Dup (B144813-MSD1)		**Source: 16C0970-03**		Prepared: 03/22/16 Analyzed: 03/25/16							
alpha-Chlordane	0.077	0.0057	mg/Kg dry	0.114	ND	67.3	30-150	9.00		30	
alpha-Chlordane [2C]	0.089	0.0057	mg/Kg dry	0.114	ND	78.4	30-150	7.53		30	
gamma-Chlordane	0.077	0.0057	mg/Kg dry	0.114	ND	68.2	30-150	10.1		30	
gamma-Chlordane [2C]	0.073	0.0057	mg/Kg dry	0.114	ND	63.9	30-150	6.22		30	
Alachlor	0.089	0.023	mg/Kg dry	0.114	ND	78.5	30-150	10.1		30	
Alachlor [2C]	0.097	0.023	mg/Kg dry	0.114	ND	85.8	30-150	11.5		30	
Aldrin	0.075	0.0057	mg/Kg dry	0.114	ND	66.3	30-150	5.10		30	
Aldrin [2C]	0.082	0.0057	mg/Kg dry	0.114	ND	72.6	30-150	4.39		30	
alpha-BHC	0.063	0.0057	mg/Kg dry	0.114	ND	55.5	30-150	18.1		30	
alpha-BHC [2C]	0.061	0.0057	mg/Kg dry	0.114	ND	53.9	30-150	15.9		30	
beta-BHC	0.068	0.0057	mg/Kg dry	0.114	ND	60.3	30-150	10.1		30	
beta-BHC [2C]	0.075	0.0057	mg/Kg dry	0.114	ND	65.6	30-150	5.39		30	
delta-BHC	0.036	0.0057	mg/Kg dry	0.114	ND	31.6	30-150	**46.5**	*	30	R-06
delta-BHC [2C]	0.039	0.0057	mg/Kg dry	0.114	ND	34.0	30-150	**42.1**	*	30	R-06
gamma-BHC (Lindane)	0.063	0.0023	mg/Kg dry	0.114	ND	55.2	30-150	19.1		30	
gamma-BHC (Lindane) [2C]	0.064	0.0023	mg/Kg dry	0.114	ND	55.9	30-150	20.3		30	
4,4'-DDD	0.086	0.0045	mg/Kg dry	0.114	0.0049	71.7	30-150	6.49		30	
4,4'-DDD [2C]	0.11	0.0045	mg/Kg dry	0.114	0.0010	93.4	30-150	0.132		30	V-06
4,4'-DDE	0.087	0.0045	mg/Kg dry	0.114	ND	76.5	30-150	8.02		30	
4,4'-DDE [2C]	0.097	0.0045	mg/Kg dry	0.114	ND	85.5	30-150	11.6		30	V-06
4,4'-DDT	0.083	0.0045	mg/Kg dry	0.114	0.0028	70.5	30-150	11.8		30	
4,4'-DDT [2C]	0.089	0.0045	mg/Kg dry	0.114	0.0013	77.1	30-150	14.1		30	V-06
Dieldrin	0.081	0.0045	mg/Kg dry	0.114	ND	71.2	30-150	8.02		30	
Dieldrin [2C]	0.089	0.0045	mg/Kg dry	0.114	ND	78.3	30-150	7.19		30	
Endosulfan I	0.044	0.0057	mg/Kg dry	0.114	ND	38.9	30-150	**35.5**	*	30	R-06
Endosulfan I [2C]	0.050	0.0057	mg/Kg dry	0.114	ND	44.2	30-150	**34.7**	*	30	R-06
Endosulfan II	0.041	0.0091	mg/Kg dry	0.114	0.00065	35.8	30-150	**37.7**	*	30	R-06
Endosulfan II [2C]	0.050	0.0091	mg/Kg dry	0.114	0.0018	42.7	30-150	**34.5**	*	30	R-06
Endosulfan Sulfate	0.062	0.0091	mg/Kg dry	0.114	ND	54.5	30-150	16.3		30	
Endosulfan Sulfate [2C]	0.068	0.0091	mg/Kg dry	0.114	0.0019	57.8	30-150	15.1		30	V-06
Endrin	0.090	0.0091	mg/Kg dry	0.114	ND	79.1	30-150	6.53		30	
Endrin [2C]	0.097	0.0091	mg/Kg dry	0.114	ND	85.0	30-150	7.79		30	V-06
Endrin Aldehyde	0.056	0.0091	mg/Kg dry	0.114	ND	49.3	30-150	10.0		30	
Endrin Aldehyde [2C]	0.061	0.0091	mg/Kg dry	0.114	ND	54.1	30-150	10.5		30	V-06
Endrin Ketone	0.085	0.0091	mg/Kg dry	0.114	ND	75.0	30-150	4.69		30	
Endrin Ketone [2C]	0.10	0.0091	mg/Kg dry	0.114	ND	91.6	30-150	1.55		30	V-06
Heptachlor	0.081	0.0057	mg/Kg dry	0.114	ND	71.7	30-150	10.4		30	
Heptachlor [2C]	0.088	0.0057	mg/Kg dry	0.114	ND	77.6	30-150	9.43		30	
Heptachlor Epoxide	0.077	0.0057	mg/Kg dry	0.114	ND	67.3	30-150	8.43		30	
Heptachlor Epoxide [2C]	0.090	0.0057	mg/Kg dry	0.114	ND	78.9	30-150	6.74		30	
Hexachlorobenzene	0.086	0.0068	mg/Kg dry	0.114	0.0019	73.8	30-150	9.08		30	
Hexachlorobenzene [2C]	0.078	0.0068	mg/Kg dry	0.114	0.0018	67.3	30-150	5.30		30	
Methoxychlor	0.082	0.057	mg/Kg dry	0.114	ND	72.4	30-150	7.07		30	
Methoxychlor [2C]	0.10	0.057	mg/Kg dry	0.114	ND	91.1	30-150	5.88		30	V-06
Surrogate: Decachlorobiphenyl	*0.204*		mg/Kg dry	0.227		89.9	30-150				
Surrogate: Decachlorobiphenyl [2C]	*0.266*		mg/Kg dry	0.227		117	30-150				
Surrogate: Tetrachloro-m-xylene	*0.162*		mg/Kg dry	0.227		71.2	30-150				
Surrogate: Tetrachloro-m-xylene [2C]	*0.157*		mg/Kg dry	0.227		68.9	30-150				

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144814 - SW-846 3546										
Blank (B144814-BLK1)				Prepared: 03/22/16 Analyzed: 03/24/16						
Aroclor-1016	ND	0.020	mg/Kg wet							
Aroclor-1016 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1221	ND	0.020	mg/Kg wet							
Aroclor-1221 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1232	ND	0.020	mg/Kg wet							
Aroclor-1232 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1242	ND	0.020	mg/Kg wet							
Aroclor-1242 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1248	ND	0.020	mg/Kg wet							
Aroclor-1248 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1254	ND	0.020	mg/Kg wet							
Aroclor-1254 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1260	ND	0.020	mg/Kg wet							
Aroclor-1260 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1262	ND	0.020	mg/Kg wet							
Aroclor-1262 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1268	ND	0.020	mg/Kg wet							
Aroclor-1268 [2C]	ND	0.020	mg/Kg wet							
Surrogate: Decachlorobiphenyl	*0.194*		mg/Kg wet	0.200		97.2	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.187*		mg/Kg wet	0.200		93.4	30-150			
Surrogate: Tetrachloro-m-xylene	*0.188*		mg/Kg wet	0.200		93.8	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.186*		mg/Kg wet	0.200		93.2	30-150			
LCS (B144814-BS1)				Prepared: 03/22/16 Analyzed: 03/24/16						
Aroclor-1016	0.19	0.020	mg/Kg wet	0.200		94.3	40-140			
Aroclor-1016 [2C]	0.19	0.020	mg/Kg wet	0.200		96.4	40-140			
Aroclor-1260	0.18	0.020	mg/Kg wet	0.200		91.9	40-140			
Aroclor-1260 [2C]	0.18	0.020	mg/Kg wet	0.200		90.3	40-140			
Surrogate: Decachlorobiphenyl	*0.177*		mg/Kg wet	0.200		88.3	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.171*		mg/Kg wet	0.200		85.6	30-150			
Surrogate: Tetrachloro-m-xylene	*0.174*		mg/Kg wet	0.200		87.2	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.175*		mg/Kg wet	0.200		87.4	30-150			
LCS Dup (B144814-BSD1)				Prepared: 03/22/16 Analyzed: 03/24/16						
Aroclor-1016	0.19	0.020	mg/Kg wet	0.200		96.2	40-140	1.97	30	
Aroclor-1016 [2C]	0.20	0.020	mg/Kg wet	0.200		98.6	40-140	2.28	30	
Aroclor-1260	0.19	0.020	mg/Kg wet	0.200		95.0	40-140	3.29	30	
Aroclor-1260 [2C]	0.19	0.020	mg/Kg wet	0.200		93.3	40-140	3.27	30	
Surrogate: Decachlorobiphenyl	*0.199*		mg/Kg wet	0.200		99.3	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.192*		mg/Kg wet	0.200		95.8	30-150			
Surrogate: Tetrachloro-m-xylene	*0.194*		mg/Kg wet	0.200		97.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.192*		mg/Kg wet	0.200		95.9	30-150			

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144814 - SW-846 3546										
Matrix Spike (B144814-MS1)		**Source: 16C0970-04**		Prepared: 03/22/16 Analyzed: 03/24/16						
Aroclor-1016	0.21	0.10	mg/Kg dry	0.207	ND	102	40-140			
Aroclor-1016 [2C]	0.23	0.10	mg/Kg dry	0.207	ND	110	40-140			
Aroclor-1260	0.19	0.10	mg/Kg dry	0.207	ND	90.8	40-140			
Aroclor-1260 [2C]	0.21	0.10	mg/Kg dry	0.207	ND	103	40-140			
Surrogate: Decachlorobiphenyl	*0.174*		mg/Kg dry	0.207		84.2	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.176*		mg/Kg dry	0.207		85.2	30-150			
Surrogate: Tetrachloro-m-xylene	*0.192*		mg/Kg dry	0.207		92.6	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.214*		mg/Kg dry	0.207		103	30-150			
Matrix Spike Dup (B144814-MSD1)		**Source: 16C0970-04**		Prepared: 03/22/16 Analyzed: 03/24/16						
Aroclor-1016	0.19	0.10	mg/Kg dry	0.207	ND	91.9	40-140	10.2	30	
Aroclor-1016 [2C]	0.21	0.10	mg/Kg dry	0.207	ND	103	40-140	7.10	30	
Aroclor-1260	0.17	0.10	mg/Kg dry	0.207	ND	81.4	40-140	10.9	30	
Aroclor-1260 [2C]	0.19	0.10	mg/Kg dry	0.207	ND	93.2	40-140	9.89	30	
Surrogate: Decachlorobiphenyl	*0.153*		mg/Kg dry	0.207		73.7	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.158*		mg/Kg dry	0.207		76.2	30-150			
Surrogate: Tetrachloro-m-xylene	*0.171*		mg/Kg dry	0.207		82.4	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.195*		mg/Kg dry	0.207		94.0	30-150			
Batch B144972 - SW-846 3510C										
Blank (B144972-BLK1)				Prepared & Analyzed: 03/24/16						
Aroclor-1016	ND	0.20	µg/L							
Aroclor-1016 [2C]	ND	0.20	µg/L							
Aroclor-1221	ND	0.20	µg/L							
Aroclor-1221 [2C]	ND	0.20	µg/L							
Aroclor-1232	ND	0.20	µg/L							
Aroclor-1232 [2C]	ND	0.20	µg/L							
Aroclor-1242	ND	0.20	µg/L							
Aroclor-1242 [2C]	ND	0.20	µg/L							
Aroclor-1248	ND	0.20	µg/L							
Aroclor-1248 [2C]	ND	0.20	µg/L							
Aroclor-1254	ND	0.20	µg/L							
Aroclor-1254 [2C]	ND	0.20	µg/L							
Aroclor-1260	ND	0.20	µg/L							
Aroclor-1260 [2C]	ND	0.20	µg/L							
Surrogate: Decachlorobiphenyl	*1.63*		µg/L	2.00		81.7	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.67*		µg/L	2.00		83.4	30-150			
Surrogate: Tetrachloro-m-xylene	*1.50*		µg/L	2.00		75.2	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.56*		µg/L	2.00		78.0	30-150			
LCS (B144972-BS1)				Prepared & Analyzed: 03/24/16						
Aroclor-1016	0.47	0.20	µg/L	0.500		94.4	50-114			
Aroclor-1016 [2C]	0.49	0.20	µg/L	0.500		97.4	50-114			V-06
Aroclor-1260	0.46	0.20	µg/L	0.500		91.3	8-127			
Aroclor-1260 [2C]	0.46	0.20	µg/L	0.500		91.9	8-127			
Surrogate: Decachlorobiphenyl	*1.68*		µg/L	2.00		84.0	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.71*		µg/L	2.00		85.5	30-150			
Surrogate: Tetrachloro-m-xylene	*1.53*		µg/L	2.00		76.3	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.59*		µg/L	2.00		79.6	30-150			

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144972 - SW-846 3510C										
LCS Dup (B144972-BSD1)				Prepared & Analyzed: 03/24/16						
Aroclor-1016	0.49	0.20	µg/L	0.500		97.1	50-114	2.84		
Aroclor-1016 [2C]	0.52	0.20	µg/L	0.500		104	50-114	6.55		V-06
Aroclor-1260	0.47	0.20	µg/L	0.500		93.9	8-127	2.81		
Aroclor-1260 [2C]	0.47	0.20	µg/L	0.500		94.8	8-127	3.06		
Surrogate: Decachlorobiphenyl	*1.71*		µg/L	2.00		85.7	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.76*		µg/L	2.00		87.9	30-150			
Surrogate: Tetrachloro-m-xylene	*1.58*		µg/L	2.00		78.8	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.65*		µg/L	2.00		82.5	30-150			

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QUALITY CONTROL

Herbicides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144820 - SW-846 8151										
Blank (B144820-BLK1)				Prepared: 03/22/16 Analyzed: 03/26/16						
2,4-D	ND	24	µg/kg wet							
2,4-D [2C]	ND	24	µg/kg wet							
2,4,5-TP (Silvex)	ND	2.4	µg/kg wet							
2,4,5-TP (Silvex) [2C]	ND	2.4	µg/kg wet							
2,4,5-T	ND	2.4	µg/kg wet							
2,4,5-T [2C]	ND	2.4	µg/kg wet							
Dalapon	ND	59	µg/kg wet							
Dalapon [2C]	ND	59	µg/kg wet							
Dicamba	ND	2.4	µg/kg wet							
Dicamba [2C]	ND	2.4	µg/kg wet							
Surrogate: 2,4-Dichlorophenylacetic acid	*91.7*		µg/kg wet	95.1		96.4	30-150			
Surrogate: 2,4-Dichlorophenylacetic acid [2C]	*85.4*		µg/kg wet	95.1		89.8	30-150			
LCS (B144820-BS1)				Prepared: 03/22/16 Analyzed: 03/26/16						
2,4-D	121	25	µg/kg wet	124		97.2	40-140			
2,4-D [2C]	106	25	µg/kg wet	124		84.9	40-140			
2,4,5-TP (Silvex)	12.4	2.5	µg/kg wet	12.4		100	40-140			
2,4,5-TP (Silvex) [2C]	12.0	2.5	µg/kg wet	12.4		96.4	40-140			
2,4,5-T	12.0	2.5	µg/kg wet	12.4		96.6	40-140			
2,4,5-T [2C]	11.8	2.5	µg/kg wet	12.4		94.9	40-140			
Dalapon	185	62	µg/kg wet	311		59.4	40-140			
Dalapon [2C]	195	62	µg/kg wet	311		62.9	40-140			V-06
Dicamba	11.8	2.5	µg/kg wet	12.4		94.6	40-140			
Dicamba [2C]	12.2	2.5	µg/kg wet	12.4		98.1	40-140			
Surrogate: 2,4-Dichlorophenylacetic acid	*102*		µg/kg wet	99.4		103	30-150			
Surrogate: 2,4-Dichlorophenylacetic acid [2C]	*98.6*		µg/kg wet	99.4		99.1	30-150			
LCS Dup (B144820-BSD1)				Prepared: 03/22/16 Analyzed: 03/26/16						
2,4-D	112	25	µg/kg wet	124		90.5	40-140	7.36	30	
2,4-D [2C]	101	25	µg/kg wet	124		81.6	40-140	4.22	30	
2,4,5-TP (Silvex)	11.9	2.5	µg/kg wet	12.4		95.6	40-140	4.84	30	
2,4,5-TP (Silvex) [2C]	11.4	2.5	µg/kg wet	12.4		91.5	40-140	5.39	30	
2,4,5-T	11.7	2.5	µg/kg wet	12.4		94.4	40-140	2.50	30	
2,4,5-T [2C]	11.0	2.5	µg/kg wet	12.4		88.9	40-140	6.73	30	
Dalapon	190	62	µg/kg wet	310		61.4	40-140	3.12	30	
Dalapon [2C]	198	62	µg/kg wet	310		63.9	40-140	1.37	30	V-06
Dicamba	13.3	2.5	µg/kg wet	12.4		107	40-140	12.2	30	
Dicamba [2C]	11.8	2.5	µg/kg wet	12.4		95.4	40-140	3.01	30	
Surrogate: 2,4-Dichlorophenylacetic acid	*103*		µg/kg wet	99.2		103	30-150			
Surrogate: 2,4-Dichlorophenylacetic acid [2C]	*92.8*		µg/kg wet	99.2		93.6	30-150			
Matrix Spike (B144820-MS1)		**Source: 16C0970-06**		Prepared: 03/22/16 Analyzed: 03/27/16						
2,4-D	120	28	µg/kg dry	142	ND	84.5	30-150			
2,4-D [2C]	107	28	µg/kg dry	142	ND	75.7	30-150			
2,4,5-TP (Silvex)	12.2	2.8	µg/kg dry	14.2	ND	86.1	30-150			V-06
2,4,5-TP (Silvex) [2C]	12.0	2.8	µg/kg dry	14.2	ND	84.3	30-150			
2,4,5-T	12.3	2.8	µg/kg dry	14.2	ND	86.9	30-150			
2,4,5-T [2C]	12.4	2.8	µg/kg dry	14.2	ND	87.1	30-150			
Dalapon	183	71	µg/kg dry	354	ND	51.5	30-150			V-06
Dalapon [2C]	194	71	µg/kg dry	354	ND	54.7	30-150			V-06

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QUALITY CONTROL

Herbicides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144820 - SW-846 8151										
Matrix Spike (B144820-MS1)		**Source: 16C0970-06**		Prepared: 03/22/16 Analyzed: 03/27/16						
Dicamba	12.5	2.8	µg/kg dry	14.2	ND	88.3	30-150			V-06
Dicamba [2C]	12.3	2.8	µg/kg dry	14.2	ND	86.6	30-150			
Surrogate: 2,4-Dichlorophenylacetic acid	*101*		µg/kg dry	113		89.4	30-150			
Surrogate: 2,4-Dichlorophenylacetic acid [2C]	*96.6*		µg/kg dry	113		85.2	30-150			
Matrix Spike Dup (B144820-MSD1)		**Source: 16C0970-06**		Prepared: 03/22/16 Analyzed: 03/27/16						
2,4-D	95.9	28	µg/kg dry	142	ND	67.6	30-150	22.2	30	
2,4-D [2C]	85.6	28	µg/kg dry	142	ND	60.3	30-150	22.5	30	
2,4,5-TP (Silvex)	9.66	2.8	µg/kg dry	14.2	ND	68.1	30-150	23.2	30	V-06
2,4,5-TP (Silvex) [2C]	9.58	2.8	µg/kg dry	14.2	ND	67.5	30-150	22.0	30	
2,4,5-T	9.53	2.8	µg/kg dry	14.2	ND	67.2	30-150	25.5	30	
2,4,5-T [2C]	9.47	2.8	µg/kg dry	14.2	ND	66.7	30-150	26.4	30	
Dalapon	156	71	µg/kg dry	355	ND	43.9	30-150	15.8	30	V-06
Dalapon [2C]	163	71	µg/kg dry	355	ND	45.8	30-150	17.5	30	V-06
Dicamba	10.3	2.8	µg/kg dry	14.2	ND	72.5	30-150	19.5	30	V-06
Dicamba [2C]	10.3	2.8	µg/kg dry	14.2	ND	72.5	30-150	17.7	30	
Surrogate: 2,4-Dichlorophenylacetic acid	*84.8*		µg/kg dry	114		74.7	30-150			
Surrogate: 2,4-Dichlorophenylacetic acid [2C]	*83.5*		µg/kg dry	114		73.6	30-150			
Batch B144886 - SW-846 8151										
Blank (B144886-BLK1)				Prepared: 03/23/16 Analyzed: 03/26/16						
2,4-D	ND	24	µg/kg wet							
2,4-D [2C]	ND	24	µg/kg wet							
2,4,5-TP (Silvex)	ND	2.4	µg/kg wet							
2,4,5-TP (Silvex) [2C]	ND	2.4	µg/kg wet							
2,4,5-T	ND	2.4	µg/kg wet							
2,4,5-T [2C]	ND	2.4	µg/kg wet							
Dalapon	ND	59	µg/kg wet							
Dalapon [2C]	ND	59	µg/kg wet							
Dicamba	ND	2.4	µg/kg wet							
Dicamba [2C]	ND	2.4	µg/kg wet							
Surrogate: 2,4-Dichlorophenylacetic acid	*109*		µg/kg wet	95.1		115	30-150			
Surrogate: 2,4-Dichlorophenylacetic acid [2C]	*98.3*		µg/kg wet	95.1		103	30-150			
LCS (B144886-BS1)				Prepared: 03/23/16 Analyzed: 03/26/16						
2,4-D	131	25	µg/kg wet	125		105	40-140			
2,4-D [2C]	111	25	µg/kg wet	125		89.0	40-140			
2,4,5-TP (Silvex)	14.5	2.5	µg/kg wet	12.5		116	40-140			
2,4,5-TP (Silvex) [2C]	12.7	2.5	µg/kg wet	12.5		102	40-140			
2,4,5-T	12.9	2.5	µg/kg wet	12.5		103	40-140			
2,4,5-T [2C]	12.2	2.5	µg/kg wet	12.5		98.0	40-140			
Dalapon	195	62	µg/kg wet	312		62.3	40-140			
Dalapon [2C]	205	62	µg/kg wet	312		65.8	40-140			V-06
Dicamba	11.4	2.5	µg/kg wet	12.5		91.2	40-140			
Dicamba [2C]	12.5	2.5	µg/kg wet	12.5		100	40-140			
Surrogate: 2,4-Dichlorophenylacetic acid	*120*		µg/kg wet	99.9		120	30-150			
Surrogate: 2,4-Dichlorophenylacetic acid [2C]	*108*		µg/kg wet	99.9		108	30-150			

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QUALITY CONTROL

Herbicides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144886 - SW-846 8151										
LCS Dup (B144886-BSD1)				Prepared: 03/23/16 Analyzed: 03/26/16						
2,4-D	130	25	µg/kg wet	125		104	40-140	1.18	30	
2,4-D [2C]	109	25	µg/kg wet	125		87.7	40-140	1.67	30	
2,4,5-TP (Silvex)	13.1	2.5	µg/kg wet	12.5		105	40-140	10.4	30	
2,4,5-TP (Silvex) [2C]	12.7	2.5	µg/kg wet	12.5		102	40-140	0.148	30	
2,4,5-T	13.1	2.5	µg/kg wet	12.5		105	40-140	1.39	30	
2,4,5-T [2C]	12.6	2.5	µg/kg wet	12.5		101	40-140	3.16	30	
Dalapon	195	62	µg/kg wet	311		62.7	40-140	0.309	30	
Dalapon [2C]	202	62	µg/kg wet	311		64.8	40-140	1.71	30	V-06
Dicamba	12.2	2.5	µg/kg wet	12.5		97.9	40-140	6.88	30	
Dicamba [2C]	12.2	2.5	µg/kg wet	12.5		98.0	40-140	2.35	30	
Surrogate: 2,4-Dichlorophenylacetic acid	*116*		µg/kg wet	99.7		117	30-150			
Surrogate: 2,4-Dichlorophenylacetic acid [2C]	*108*		µg/kg wet	99.7		108	30-150			

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144858 - SW-846 3546										
Blank (B144858-BLK1)				Prepared: 03/22/16 Analyzed: 03/23/16						
Diesel Range Organics	ND	8.3	mg/Kg wet							
Surrogate: o-Terphenyl	*2.58*		mg/Kg wet	3.33		77.3	40-140			
LCS (B144858-BS1)				Prepared: 03/22/16 Analyzed: 03/23/16						
Diesel Range Organics	23.0	8.3	mg/Kg wet	33.3		68.9	40-140			
Surrogate: o-Terphenyl	*2.59*		mg/Kg wet	3.33		77.6	40-140			
LCS Dup (B144858-BSD1)				Prepared: 03/22/16 Analyzed: 03/23/16						
Diesel Range Organics	22.7	8.3	mg/Kg wet	33.3		68.2	40-140	1.08		
Surrogate: o-Terphenyl	*2.55*		mg/Kg wet	3.33		76.6	40-140			
Matrix Spike (B144858-MS1)	**Source: 16C0970-04**			Prepared: 03/22/16 Analyzed: 03/23/16						
Diesel Range Organics	19.7	8.6	mg/Kg dry	34.5	2.41	50.0	40-140			
Surrogate: o-Terphenyl	*2.21*		mg/Kg dry	3.45		64.1	40-140			
Matrix Spike Dup (B144858-MSD1)	**Source: 16C0970-04**			Prepared: 03/22/16 Analyzed: 03/23/16						
Diesel Range Organics	21.4	8.6	mg/Kg dry	34.5	2.41	55.0	40-140	8.41	30	
Surrogate: o-Terphenyl	*2.41*		mg/Kg dry	3.45		69.9	40-140			
Batch B145003 - SW-846 5035/5030B										
Blank (B145003-BLK1)				Prepared & Analyzed: 03/24/16						
Gasoline Range Organics (GRO)	ND	1.0	mg/Kg wet							
Surrogate: 1-Chloro-3-fluorobenzene	*0.0113*		mg/Kg wet	0.0150		75.3	70-130			
LCS (B145003-BS1)				Prepared & Analyzed: 03/24/16						
Gasoline Range Organics (GRO)	0.211	0.010	mg/Kg wet	0.250		84.2	80-120			
Surrogate: 1-Chloro-3-fluorobenzene	*0.0126*		mg/Kg wet	0.0150		83.9	70-130			
LCS Dup (B145003-BSD1)				Prepared & Analyzed: 03/24/16						
Gasoline Range Organics (GRO)	0.209	0.010	mg/Kg wet	0.250		83.8	80-120	0.517	30	
Surrogate: 1-Chloro-3-fluorobenzene	*0.0118*		mg/Kg wet	0.0150		79.0	70-130			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B144825 - SW-846 3050B											
Blank (B144825-BLK1)				Prepared: 03/22/16 Analyzed: 03/23/16							
Aluminum	ND	2.5	mg/Kg wet								
Antimony	ND	2.5	mg/Kg wet								
Arsenic	ND	2.5	mg/Kg wet								
Barium	ND	2.5	mg/Kg wet								
Beryllium	ND	0.25	mg/Kg wet								
Cadmium	ND	0.25	mg/Kg wet								
Calcium	5.0	7.5	mg/Kg wet								J
Chromium	ND	0.50	mg/Kg wet								
Cobalt	ND	2.5	mg/Kg wet								
Copper	ND	0.50	mg/Kg wet								
Iron	1.6	2.5	mg/Kg wet								J
Lead	ND	0.75	mg/Kg wet								
Magnesium	ND	7.5	mg/Kg wet								
Manganese	ND	0.50	mg/Kg wet								
Nickel	ND	0.50	mg/Kg wet								
Potassium	ND	100	mg/Kg wet								
Selenium	ND	5.0	mg/Kg wet								
Silver	ND	0.50	mg/Kg wet								
Sodium	ND	100	mg/Kg wet								
Thallium	ND	2.5	mg/Kg wet								
Vanadium	ND	1.0	mg/Kg wet								
Zinc	ND	1.0	mg/Kg wet								
LCS (B144825-BS1)				Prepared: 03/22/16 Analyzed: 03/23/16							
Aluminum	6370	4.9	mg/Kg wet	7930		80.3		51.2-148.1			
Antimony	95.5	4.9	mg/Kg wet	105		90.9		0-210.3			
Arsenic	79.8	4.9	mg/Kg wet	98.5		81.0		77.8-122.1			
Barium	251	4.9	mg/Kg wet	308		**81.3**	*	82-117.4			L-07
Beryllium	55.6	0.49	mg/Kg wet	66.0		84.2		82.3-117.7			
Cadmium	121	0.49	mg/Kg wet	146		82.7		81.9-118.2			
Calcium	5580	15	mg/Kg wet	6610		84.4		81.9-118.2			
Chromium	151	0.98	mg/Kg wet	182		83.0		78.7-120.6			
Cobalt	133	4.9	mg/Kg wet	162		**81.8**	*	83-116.7			L-07
Copper	84.1	0.98	mg/Kg wet	106		**79.3**	*	80.4-119.6			L-07
Iron	12400	4.9	mg/Kg wet	14400		86.2		46.8-153			
Lead	103	1.5	mg/Kg wet	130		**79.2**	*	82.4-117.8			L-07
Magnesium	2240	15	mg/Kg wet	2640		84.7		75.5-124.2			
Manganese	328	0.98	mg/Kg wet	410		**80.1**	*	80.8-119.2			L-07
Nickel	121	0.98	mg/Kg wet	149		**80.9**	*	82.2-117.8			L-07
Potassium	2270	200	mg/Kg wet	2550		89.0		69.9-130.1			
Selenium	122	9.8	mg/Kg wet	154		79.3		77.1-122.3			
Silver	30.9	0.98	mg/Kg wet	40.9		75.6		74.3-125.4			
Sodium	2190	200	mg/Kg wet	2480		88.3		69.9-130.5			
Thallium	147	4.9	mg/Kg wet	175		83.9		78.2-121.6			
Vanadium	89.9	2.0	mg/Kg wet	96.7		93.0		64.8-135.2			
Zinc	160	2.0	mg/Kg wet	191		83.6		79.7-120.8			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144825 - SW-846 3050B										
LCS Dup (B144825-BSD1)				Prepared: 03/22/16 Analyzed: 03/23/16						
Aluminum	6460	4.9	mg/Kg wet	7930		81.5	51.2-148.1	1.44	30	
Antimony	101	4.9	mg/Kg wet	105		96.1	0-210.3	5.50	30	
Arsenic	86.6	4.9	mg/Kg wet	98.5		88.0	77.8-122.1	8.28	30	
Barium	274	4.9	mg/Kg wet	308		89.0	82-117.4	8.97	30	
Beryllium	59.4	0.49	mg/Kg wet	66.0		90.0	82.3-117.7	6.64	30	
Cadmium	126	0.49	mg/Kg wet	146		86.5	81.9-118.2	4.53	30	
Calcium	5740	15	mg/Kg wet	6610		86.9	81.9-118.2	2.96	30	
Chromium	162	0.98	mg/Kg wet	182		89.2	78.7-120.6	7.21	30	
Cobalt	141	4.9	mg/Kg wet	162		87.1	83-116.7	6.29	30	
Copper	89.7	0.98	mg/Kg wet	106		84.6	80.4-119.6	6.39	30	
Iron	13400	4.9	mg/Kg wet	14400		93.2	46.8-153	7.73	30	
Lead	109	1.5	mg/Kg wet	130		84.0	82.4-117.8	5.86	30	
Magnesium	2350	15	mg/Kg wet	2640		88.9	75.5-124.2	4.83	30	
Manganese	347	0.98	mg/Kg wet	410		84.6	80.8-119.2	5.52	30	
Nickel	129	0.98	mg/Kg wet	149		86.3	82.2-117.8	6.42	30	
Potassium	2430	200	mg/Kg wet	2550		95.5	69.9-130.1	7.01	30	
Selenium	137	9.8	mg/Kg wet	154		88.7	77.1-122.3	11.2	30	
Silver	32.8	0.98	mg/Kg wet	40.9		80.3	74.3-125.4	6.02	30	
Sodium	2270	200	mg/Kg wet	2480		91.6	69.9-130.5	3.62	30	
Thallium	158	4.9	mg/Kg wet	175		90.3	78.2-121.6	7.27	30	
Vanadium	87.8	2.0	mg/Kg wet	96.7		90.8	64.8-135.2	2.43	30	
Zinc	171	2.0	mg/Kg wet	191		89.5	79.7-120.8	6.75	30	
MRL Check (B144825-MRL1)				Prepared: 03/22/16 Analyzed: 03/23/16						
Lead	0.641	0.75	mg/Kg wet	0.751		85.4	80-120			J
Batch B144836 - SW-846 7471										
Blank (B144836-BLK1)				Prepared: 03/22/16 Analyzed: 03/23/16						
Mercury	ND	0.025	mg/Kg wet							
LCS (B144836-BS1)				Prepared: 03/22/16 Analyzed: 03/23/16						
Mercury	6.17	0.78	mg/Kg wet	7.10		86.9	73.7-126.3			
LCS Dup (B144836-BSD1)				Prepared: 03/22/16 Analyzed: 03/23/16						
Mercury	6.20	0.80	mg/Kg wet	7.10		87.3	73.7-126.3	0.445	30	
Duplicate (B144836-DUP1)		**Source: 16C0970-03**		Prepared: 03/22/16 Analyzed: 03/23/16						
Mercury	0.199	0.029	mg/Kg dry		0.244			20.3	35	
Matrix Spike (B144836-MS1)		**Source: 16C0970-03**		Prepared: 03/22/16 Analyzed: 03/23/16						
Mercury	0.489	0.030	mg/Kg dry	0.200	0.244	123	75-125			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144837 - SW-846 3050B										
Blank (B144837-BLK1)				Prepared: 03/22/16 Analyzed: 03/25/16						
Aluminum	ND	2.5	mg/Kg wet							
Antimony	ND	2.5	mg/Kg wet							
Arsenic	ND	2.5	mg/Kg wet							
Barium	ND	2.5	mg/Kg wet							
Beryllium	ND	0.25	mg/Kg wet							
Cadmium	ND	0.25	mg/Kg wet							
Calcium	ND	7.5	mg/Kg wet							
Chromium	0.28	0.50	mg/Kg wet							J
Cobalt	ND	2.5	mg/Kg wet							
Copper	ND	0.50	mg/Kg wet							
Iron	ND	2.5	mg/Kg wet							
Lead	ND	0.75	mg/Kg wet							
Magnesium	ND	7.5	mg/Kg wet							
Manganese	ND	0.50	mg/Kg wet							
Nickel	ND	0.50	mg/Kg wet							
Potassium	ND	100	mg/Kg wet							
Selenium	ND	5.0	mg/Kg wet							
Silver	ND	0.50	mg/Kg wet							
Sodium	ND	100	mg/Kg wet							
Thallium	ND	2.5	mg/Kg wet							
Vanadium	ND	1.0	mg/Kg wet							
Zinc	ND	1.0	mg/Kg wet							
LCS (B144837-BS1)				Prepared: 03/22/16 Analyzed: 03/25/16						
Aluminum	6070	5.0	mg/Kg wet	7930		76.6	51.2-148.1			
Antimony	85.9	5.0	mg/Kg wet	105		81.8	0-210.3			
Arsenic	83.3	5.0	mg/Kg wet	98.5		84.6	77.8-122.1			
Barium	266	5.0	mg/Kg wet	308		86.2	82-117.4			
Beryllium	63.0	0.50	mg/Kg wet	66.0		95.4	82.3-117.7			
Cadmium	130	0.50	mg/Kg wet	146		89.0	81.9-118.2			
Calcium	5630	15	mg/Kg wet	6610		85.2	81.9-118.2			
Chromium	162	1.0	mg/Kg wet	182		88.8	78.7-120.6			
Cobalt	145	5.0	mg/Kg wet	162		89.6	83-116.7			
Copper	95.0	1.0	mg/Kg wet	106		89.7	80.4-119.6			
Iron	11000	5.0	mg/Kg wet	14400		76.6	46.8-153			
Lead	118	1.5	mg/Kg wet	130		90.6	82.4-117.8			
Magnesium	2280	15	mg/Kg wet	2640		86.4	75.5-124.2			
Manganese	351	1.0	mg/Kg wet	410		85.6	80.8-119.2			
Nickel	131	1.0	mg/Kg wet	149		88.1	82.2-117.8			
Potassium	2160	200	mg/Kg wet	2550		84.7	69.9-130.1			
Selenium	126	10	mg/Kg wet	154		82.1	77.1-122.3			
Silver	33.7	1.0	mg/Kg wet	40.9		82.4	74.3-125.4			
Sodium	2350	200	mg/Kg wet	2480		94.7	69.9-130.5			
Thallium	150	5.0	mg/Kg wet	175		85.9	78.2-121.6			
Vanadium	86.0	2.0	mg/Kg wet	96.7		88.9	64.8-135.2			
Zinc	166	2.0	mg/Kg wet	191		86.7	79.7-120.8			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144837 - SW-846 3050B										
LCS Dup (B144837-BSD1)				Prepared: 03/22/16 Analyzed: 03/25/16						
Aluminum	6310	4.8	mg/Kg wet	7930		79.6	51.2-148.1	3.92	30	
Antimony	88.6	4.8	mg/Kg wet	105		84.4	0-210.3	3.06	30	
Arsenic	86.0	4.8	mg/Kg wet	98.5		87.3	77.8-122.1	3.15	30	
Barium	277	4.8	mg/Kg wet	308		90.0	82-117.4	4.27	30	
Beryllium	65.9	0.48	mg/Kg wet	66.0		99.8	82.3-117.7	4.54	30	
Cadmium	136	0.48	mg/Kg wet	146		92.9	81.9-118.2	4.29	30	
Calcium	5660	14	mg/Kg wet	6610		85.7	81.9-118.2	0.574	30	
Chromium	167	0.96	mg/Kg wet	182		91.6	78.7-120.6	3.05	30	
Cobalt	150	4.8	mg/Kg wet	162		92.8	83-116.7	3.51	30	
Copper	94.8	0.96	mg/Kg wet	106		89.4	80.4-119.6	0.271	30	
Iron	11500	4.8	mg/Kg wet	14400		79.8	46.8-153	4.05	30	
Lead	117	1.4	mg/Kg wet	130		89.9	82.4-117.8	0.695	30	
Magnesium	2360	14	mg/Kg wet	2640		89.3	75.5-124.2	3.30	30	
Manganese	389	0.96	mg/Kg wet	410		94.9	80.8-119.2	10.2	30	
Nickel	136	0.96	mg/Kg wet	149		91.1	82.2-117.8	3.43	30	
Potassium	2210	190	mg/Kg wet	2550		86.5	69.9-130.1	2.19	30	
Selenium	126	9.6	mg/Kg wet	154		82.1	77.1-122.3	0.0164	30	
Silver	34.7	0.96	mg/Kg wet	40.9		85.0	74.3-125.4	3.12	30	
Sodium	2540	190	mg/Kg wet	2480		102	69.9-130.5	7.84	30	
Thallium	168	4.8	mg/Kg wet	175		95.9	78.2-121.6	11.1	30	
Vanadium	88.1	1.9	mg/Kg wet	96.7		91.1	64.8-135.2	2.46	30	
Zinc	171	1.9	mg/Kg wet	191		89.7	79.7-120.8	3.41	30	
Duplicate (B144837-DUP1)		**Source: 16C0970-03**		Prepared: 03/22/16 Analyzed: 03/25/16						
Aluminum	6390	2.7	mg/Kg dry		6300			1.37	35	
Antimony	ND	2.7	mg/Kg dry		ND			NC	35	
Arsenic	36.4	2.7	mg/Kg dry		43.8			18.3	35	
Barium	2040	14	mg/Kg dry		3290			**46.6** *	35	R-02
Beryllium	0.727	0.27	mg/Kg dry		0.741			1.86	35	
Cadmium	2.61	0.27	mg/Kg dry		3.00			14.2	35	
Calcium	22200	8.2	mg/Kg dry		19200			14.6	35	
Chromium	20.8	0.55	mg/Kg dry		25.4			19.8	35	
Cobalt	9.79	2.7	mg/Kg dry		11.3			13.9	35	
Copper	76.9	0.55	mg/Kg dry		90.7			16.5	35	
Iron	66800	14	mg/Kg dry		86900			26.1	35	
Lead	21300	4.1	mg/Kg dry		17000			22.7	35	
Magnesium	3560	8.2	mg/Kg dry		3510			1.55	35	
Manganese	420	0.55	mg/Kg dry		453			7.65	35	
Nickel	17.5	0.55	mg/Kg dry		19.9			12.9	35	
Potassium	678	110	mg/Kg dry		699			3.16	35	
Selenium	ND	5.5	mg/Kg dry		ND			NC	35	
Silver	ND	0.55	mg/Kg dry		ND			NC	35	
Sodium	244	110	mg/Kg dry		253			3.75	35	
Thallium	ND	2.7	mg/Kg dry		ND			NC	35	
Vanadium	24.1	1.1	mg/Kg dry		25.0			3.61	35	
Zinc	807	1.1	mg/Kg dry		973			18.7	35	

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B144837 - SW-846 3050B											
MRL Check (B144837-MRL1)				Prepared: 03/22/16 Analyzed: 03/28/16							
Lead	0.714	0.70	mg/Kg wet	0.699		102		80-120			
Matrix Spike (B144837-MS1)		**Source: 16C0970-03**		Prepared: 03/22/16 Analyzed: 03/25/16							
Aluminum	7210	2.7	mg/Kg dry	110	6300	**827**	*	75-125			MS-19
Antimony	64.7	2.7	mg/Kg dry	110	ND	**58.9**	*	75-125			MS-07
Arsenic	128	2.7	mg/Kg dry	110	43.8	76.3		75-125			
Barium	2090	14	mg/Kg dry	110	3290	**-1090**	*	75-125			MS-19
Beryllium	119	0.27	mg/Kg dry	110	0.741	108		75-125			
Cadmium	115	0.27	mg/Kg dry	110	3.00	102		75-125			
Calcium	23200	8.2	mg/Kg dry	110	19200	**3710**	*	75-125			MS-19
Chromium	128	0.55	mg/Kg dry	110	25.4	93.4		75-125			
Cobalt	112	2.7	mg/Kg dry	110	11.3	91.7		75-125			
Copper	190	0.55	mg/Kg dry	110	90.7	90.8		75-125			
Iron	55300	14	mg/Kg dry	110	86900	**-28800**	*	75-125			MS-19
Lead	12700	4.1	mg/Kg dry	110	17000	**-3920**	*	75-125			MS-19
Magnesium	4240	8.2	mg/Kg dry	110	3510	**662**	*	75-125			MS-19
Manganese	489	0.55	mg/Kg dry	110	453	**32.7**	*	75-125			MS-19
Nickel	116	0.55	mg/Kg dry	110	19.9	87.2		75-125			
Potassium	1860	110	mg/Kg dry	1100	699	105		75-125			
Selenium	96.3	5.5	mg/Kg dry	110	ND	87.6		75-125			
Silver	106	0.55	mg/Kg dry	110	ND	96.2		75-125			
Sodium	375	110	mg/Kg dry	110	253	110		75-125			
Thallium	89.3	2.7	mg/Kg dry	110	ND	81.3		75-125			
Vanadium	136	1.1	mg/Kg dry	110	25.0	101		75-125			
Zinc	838	1.1	mg/Kg dry	110	973	**-123**	*	75-125			MS-19
Batch B144890 - SW-846 7470A Prep											
Blank (B144890-BLK1)				Prepared: 03/23/16 Analyzed: 03/24/16							
Mercury	ND	0.00010	mg/L								
LCS (B144890-BS1)				Prepared: 03/23/16 Analyzed: 03/24/16							
Mercury	0.00215	0.00010	mg/L	0.00200		108		80-120			
LCS Dup (B144890-BSD1)				Prepared: 03/23/16 Analyzed: 03/24/16							
Mercury	0.00213	0.00010	mg/L	0.00200		106		80-120	1.14	20	
Duplicate (B144890-DUP1)		**Source: 16C0970-22**		Prepared: 03/23/16 Analyzed: 03/24/16							
Mercury	ND	0.00010	mg/L		ND				NC	20	
Matrix Spike (B144890-MS1)		**Source: 16C0970-22**		Prepared: 03/23/16 Analyzed: 03/24/16							
Mercury	0.00213	0.00010	mg/L	0.00200	ND	107		75-125			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144956 - SW-846 3005A										
Blank (B144956-BLK1)				Prepared: 03/23/16 Analyzed: 03/24/16						
Aluminum	ND	0.050	mg/L							
Calcium	ND	0.15	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.15	mg/L							
Potassium	ND	2.0	mg/L							
Sodium	0.12	2.0	mg/L							J
LCS (B144956-BS2)				Prepared: 03/23/16 Analyzed: 03/24/16						
Aluminum	2.19	0.050	mg/L	2.00		110	80-120			
Calcium	2.06	0.15	mg/L	2.00		103	80-120			
Iron	2.01	0.050	mg/L	2.00		101	80-120			
Magnesium	2.15	0.15	mg/L	2.00		107	80-120			
Potassium	20.6	2.0	mg/L	20.0		103	80-120			
Sodium	2.28	2.0	mg/L	2.00		114	80-120			
LCS Dup (B144956-BSD2)				Prepared: 03/23/16 Analyzed: 03/24/16						
Aluminum	2.23	0.050	mg/L	2.00		112	80-120	1.91	20	
Calcium	2.21	0.15	mg/L	2.00		110	80-120	6.77	20	
Iron	2.04	0.050	mg/L	2.00		102	80-120	1.49	20	
Magnesium	2.19	0.15	mg/L	2.00		109	80-120	1.84	20	
Potassium	21.0	2.0	mg/L	20.0		105	80-120	1.84	20	
Sodium	2.29	2.0	mg/L	2.00		115	80-120	0.442	20	
Batch B145179 - SW-846 3005A										
Blank (B145179-BLK1)				Prepared: 03/26/16 Analyzed: 03/29/16						
Antimony	ND	5.0	µg/L							
Arsenic	ND	2.0	µg/L							
Barium	ND	50	µg/L							
Beryllium	ND	2.0	µg/L							
Cadmium	ND	2.5	µg/L							
Chromium	ND	5.0	µg/L							
Cobalt	ND	5.0	µg/L							
Copper	ND	25	µg/L							
Lead	ND	5.0	µg/L							
Manganese	1.6	5.0	µg/L							J
Nickel	ND	25	µg/L							
Selenium	ND	25	µg/L							
Silver	ND	2.5	µg/L							
Thallium	ND	1.0	µg/L							
Vanadium	ND	25	µg/L							
Zinc	ND	50	µg/L							

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145179 - SW-846 3005A										
LCS (B145179-BS1)				Prepared: 03/26/16 Analyzed: 03/29/16						
Antimony	252	5.0	µg/L	250		101	80-120			
Arsenic	239	2.0	µg/L	250		95.6	80-120			
Barium	245	50	µg/L	250		98.0	80-120			
Beryllium	243	2.0	µg/L	250		97.3	80-120			
Cadmium	246	2.5	µg/L	250		98.4	80-120			
Chromium	244	5.0	µg/L	250		97.6	80-120			
Cobalt	248	5.0	µg/L	250		99.3	80-120			
Copper	242	25	µg/L	250		96.9	80-120			
Lead	249	5.0	µg/L	250		99.4	80-120			
Manganese	253	5.0	µg/L	250		101	80-120			
Nickel	238	25	µg/L	250		95.1	80-120			
Selenium	234	25	µg/L	250		93.4	80-120			
Silver	262	2.5	µg/L	250		105	80-120			
Thallium	234	1.0	µg/L	250		93.7	80-120			
Vanadium	254	25	µg/L	250		102	80-120			
Zinc	245	50	µg/L	250		97.9	80-120			
LCS Dup (B145179-BSD1)				Prepared: 03/26/16 Analyzed: 03/29/16						
Antimony	256	5.0	µg/L	250		102	80-120	1.59	20	
Arsenic	239	2.0	µg/L	250		95.6	80-120	0.0191	20	
Barium	246	50	µg/L	250		98.3	80-120	0.287	20	
Beryllium	247	2.0	µg/L	250		98.8	80-120	1.56	20	
Cadmium	248	2.5	µg/L	250		99.1	80-120	0.705	20	
Chromium	247	5.0	µg/L	250		98.6	80-120	1.07	20	
Cobalt	248	5.0	µg/L	250		99.2	80-120	0.162	20	
Copper	241	25	µg/L	250		96.4	80-120	0.546	20	
Lead	253	5.0	µg/L	250		101	80-120	1.64	20	
Manganese	254	5.0	µg/L	250		102	80-120	0.491	20	
Nickel	239	25	µg/L	250		95.6	80-120	0.540	20	
Selenium	233	25	µg/L	250		93.1	80-120	0.297	20	
Silver	263	2.5	µg/L	250		105	80-120	0.729	20	
Thallium	239	1.0	µg/L	250		95.7	80-120	2.04	20	
Vanadium	256	25	µg/L	250		102	80-120	0.766	20	
Zinc	245	50	µg/L	250		98.0	80-120	0.0600	20	
Duplicate (B145179-DUP1)		**Source: 16C0970-22**		Prepared: 03/26/16 Analyzed: 03/29/16						
Antimony	ND	5.0	µg/L		ND			NC	20	
Arsenic	3.44	2.0	µg/L		5.12			**39.2** *	20	R-04
Barium	857	50	µg/L		898			4.76	20	
Beryllium	2.96	2.0	µg/L		3.19			7.55	20	
Cadmium	2.21	2.5	µg/L		2.20			0.230	20	J
Chromium	214	5.0	µg/L		237			10.5	20	
Cobalt	198	5.0	µg/L		201			1.39	20	
Copper	310	25	µg/L		350			12.2	20	
Lead	120	5.0	µg/L		127			5.58	20	
Manganese	8460	5.0	µg/L		8640			2.13	20	
Nickel	199	25	µg/L		217			8.80	20	
Selenium	9.88	25	µg/L		9.61			2.82	20	J
Silver	ND	2.5	µg/L		ND			NC	20	
Thallium	0.601	1.0	µg/L		0.835			**32.7** *	20	J
Vanadium	132	25	µg/L		160			19.1	20	
Zinc	406	50	µg/L		452			10.9	20	

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B145179 - SW-846 3005A											
Matrix Spike (B145179-MS1)		**Source: 16C0970-22**		Prepared: 03/26/16 Analyzed: 03/29/16							
Antimony	240	5.0	µg/L	250	ND	96.0		75-125			
Arsenic	240	2.0	µg/L	250	5.12	94.1		75-125			
Barium	1050	50	µg/L	250	898	**61.1**	*	75-125			MS-07
Beryllium	228	2.0	µg/L	250	3.19	89.7		75-125			
Cadmium	236	2.5	µg/L	250	2.20	93.7		75-125			
Chromium	435	5.0	µg/L	250	237	79.1		75-125			
Cobalt	427	5.0	µg/L	250	201	90.5		75-125			
Copper	534	25	µg/L	250	350	**73.6**	*	75-125			MS-07
Lead	362	5.0	µg/L	250	127	93.9		75-125			
Manganese	8610	5.0	µg/L	250	8640	**-14.1**	*	75-125			MS-19
Nickel	413	25	µg/L	250	217	78.6		75-125			
Selenium	232	25	µg/L	250	9.61	89.0		75-125			
Silver	222	2.5	µg/L	250	ND	88.9		75-125			
Thallium	245	1.0	µg/L	250	0.835	97.5		75-125			
Vanadium	376	25	µg/L	250	160	86.7		75-125			
Zinc	599	50	µg/L	250	452	**58.9**	*	75-125			MS-07

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QUALITY CONTROL

Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144852 - SW-846 3005A Dissolved										
Blank (B144852-BLK1)				Prepared: 03/22/16 Analyzed: 03/23/16						
Antimony	ND	5.0	µg/L							
Arsenic	ND	2.0	µg/L							
Barium	ND	50	µg/L							
Beryllium	ND	2.0	µg/L							
Cadmium	ND	2.5	µg/L							
Chromium	ND	5.0	µg/L							
Cobalt	ND	5.0	µg/L							
Copper	ND	25	µg/L							
Lead	ND	5.0	µg/L							
Manganese	ND	5.0	µg/L							
Nickel	ND	25	µg/L							
Selenium	ND	25	µg/L							
Silver	ND	2.5	µg/L							
Thallium	ND	1.0	µg/L							
Vanadium	ND	25	µg/L							
Zinc	ND	50	µg/L							
LCS (B144852-BS1)				Prepared: 03/22/16 Analyzed: 03/23/16						
Antimony	250	5.0	µg/L	250		99.8	80-120			
Arsenic	241	2.0	µg/L	250		96.5	80-120			
Barium	244	50	µg/L	250		97.5	80-120			
Beryllium	230	2.0	µg/L	250		91.9	80-120			
Cadmium	246	2.5	µg/L	250		98.5	80-120			
Chromium	243	5.0	µg/L	250		97.3	80-120			
Cobalt	244	5.0	µg/L	250		97.5	80-120			
Copper	245	25	µg/L	250		97.9	80-120			
Lead	247	5.0	µg/L	250		98.8	80-120			
Manganese	245	5.0	µg/L	250		98.1	80-120			
Nickel	241	25	µg/L	250		96.4	80-120			
Selenium	240	25	µg/L	250		96.2	80-120			
Silver	248	2.5	µg/L	250		99.1	80-120			
Thallium	234	1.0	µg/L	250		93.8	80-120			
Vanadium	245	25	µg/L	250		98.1	80-120			
Zinc	244	50	µg/L	250		97.7	80-120			
LCS Dup (B144852-BSD1)				Prepared: 03/22/16 Analyzed: 03/23/16						
Antimony	260	5.0	µg/L	250		104	80-120	4.28	20	
Arsenic	254	2.0	µg/L	250		101	80-120	5.01	20	
Barium	255	50	µg/L	250		102	80-120	4.28	20	
Beryllium	245	2.0	µg/L	250		98.1	80-120	6.52	20	
Cadmium	258	2.5	µg/L	250		103	80-120	4.67	20	
Chromium	258	5.0	µg/L	250		103	80-120	5.76	20	
Cobalt	257	5.0	µg/L	250		103	80-120	5.48	20	
Copper	256	25	µg/L	250		102	80-120	4.46	20	
Lead	261	5.0	µg/L	250		105	80-120	5.73	20	
Manganese	258	5.0	µg/L	250		103	80-120	5.29	20	
Nickel	253	25	µg/L	250		101	80-120	4.89	20	
Selenium	255	25	µg/L	250		102	80-120	5.79	20	
Silver	261	2.5	µg/L	250		105	80-120	5.34	20	
Thallium	248	1.0	µg/L	250		99.3	80-120	5.71	20	
Vanadium	260	25	µg/L	250		104	80-120	5.93	20	
Zinc	257	50	µg/L	250		103	80-120	4.93	20	

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QUALITY CONTROL

Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144852 - SW-846 3005A Dissolved										
Duplicate (B144852-DUP1)		**Source: 16C0970-22**		Prepared: 03/22/16 Analyzed: 03/23/16						
Antimony	ND	5.0	µg/L		ND			NC	20	
Arsenic	ND	2.0	µg/L		ND			NC	20	
Barium	78.6	50	µg/L		74.1			5.87	20	
Beryllium	ND	2.0	µg/L		ND			NC	20	
Cadmium	ND	2.5	µg/L		ND			NC	20	
Chromium	10.3	5.0	µg/L		9.75			5.91	20	
Cobalt	1.32	5.0	µg/L		1.26			4.79	20	J
Copper	1.90	25	µg/L		1.68			12.7	20	J
Lead	ND	5.0	µg/L		ND			NC	20	
Manganese	149	5.0	µg/L		143			4.33	20	
Nickel	5.71	25	µg/L		5.32			7.14	20	J
Selenium	8.99	25	µg/L		8.43			6.51	20	J
Silver	ND	2.5	µg/L		ND			NC	20	
Thallium	ND	1.0	µg/L		ND			NC	20	
Vanadium	ND	25	µg/L		ND			NC	20	
Zinc	ND	50	µg/L		ND			NC	20	
Matrix Spike (B144852-MS1)		**Source: 16C0970-22**		Prepared: 03/22/16 Analyzed: 03/23/16						
Antimony	262	5.0	µg/L	250	ND	105	75-125			
Arsenic	256	2.0	µg/L	250	ND	102	75-125			
Barium	327	50	µg/L	250	74.1	101	75-125			
Beryllium	242	2.0	µg/L	250	ND	96.8	75-125			
Cadmium	251	2.5	µg/L	250	ND	100	75-125			
Chromium	263	5.0	µg/L	250	9.75	101	75-125			
Cobalt	254	5.0	µg/L	250	1.26	101	75-125			
Copper	247	25	µg/L	250	1.68	98.1	75-125			
Lead	266	5.0	µg/L	250	ND	106	75-125			
Manganese	410	5.0	µg/L	250	143	107	75-125			
Nickel	251	25	µg/L	250	5.32	98.1	75-125			
Selenium	255	25	µg/L	250	8.43	98.7	75-125			
Silver	229	2.5	µg/L	250	ND	91.7	75-125			
Thallium	255	1.0	µg/L	250	ND	102	75-125			
Vanadium	262	25	µg/L	250	ND	105	75-125			
Zinc	240	50	µg/L	250	ND	96.2	75-125			
Batch B144885 - SW-846 7470A Prep										
Blank (B144885-BLK1)				Prepared: 03/23/16 Analyzed: 03/24/16						
Mercury	ND	0.00010	mg/L							
LCS (B144885-BS1)				Prepared: 03/23/16 Analyzed: 03/24/16						
Mercury	0.00213	0.00010	mg/L	0.00200		107	80-120			

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QUALITY CONTROL

Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144885 - SW-846 7470A Prep										
LCS Dup (B144885-BSD1)				Prepared: 03/23/16 Analyzed: 03/24/16						
Mercury	0.00208	0.00010	mg/L	0.00200		104	80-120	2.60	20	
Batch B145050 - SW-846 3005A Dissolved										
Blank (B145050-BLK1)				Prepared: 03/24/16 Analyzed: 03/29/16						
Antimony	ND	5.0	µg/L							
Arsenic	ND	2.0	µg/L							
Barium	ND	50	µg/L							
Beryllium	ND	2.0	µg/L							
Cadmium	ND	2.5	µg/L							
Chromium	ND	5.0	µg/L							
Cobalt	ND	5.0	µg/L							
Copper	ND	25	µg/L							
Lead	ND	5.0	µg/L							
Manganese	ND	5.0	µg/L							
Nickel	ND	25	µg/L							
Selenium	ND	25	µg/L							
Silver	ND	2.5	µg/L							
Thallium	ND	1.0	µg/L							
Vanadium	ND	25	µg/L							
Zinc	ND	50	µg/L							
LCS (B145050-BS1)				Prepared: 03/24/16 Analyzed: 03/29/16						
Antimony	255	5.0	µg/L	250		102	80-120			
Arsenic	239	2.0	µg/L	250		95.7	80-120			
Barium	249	50	µg/L	250		99.5	80-120			
Beryllium	243	2.0	µg/L	250		97.4	80-120			
Cadmium	246	2.5	µg/L	250		98.6	80-120			
Chromium	253	5.0	µg/L	250		101	80-120			
Cobalt	255	5.0	µg/L	250		102	80-120			
Copper	249	25	µg/L	250		99.7	80-120			
Lead	254	5.0	µg/L	250		102	80-120			
Manganese	258	5.0	µg/L	250		103	80-120			
Nickel	243	25	µg/L	250		97.4	80-120			
Selenium	227	25	µg/L	250		90.8	80-120			
Silver	268	2.5	µg/L	250		107	80-120			
Thallium	242	1.0	µg/L	250		96.6	80-120			
Vanadium	262	25	µg/L	250		105	80-120			
Zinc	238	50	µg/L	250		95.1	80-120			
LCS Dup (B145050-BSD1)				Prepared: 03/24/16 Analyzed: 03/29/16						
Antimony	260	5.0	µg/L	250		104	80-120	1.92	20	
Arsenic	242	2.0	µg/L	250		96.9	80-120	1.24	20	
Barium	253	50	µg/L	250		101	80-120	1.85	20	
Beryllium	244	2.0	µg/L	250		97.6	80-120	0.193	20	
Cadmium	249	2.5	µg/L	250		99.5	80-120	0.929	20	
Chromium	257	5.0	µg/L	250		103	80-120	1.56	20	
Cobalt	257	5.0	µg/L	250		103	80-120	0.534	20	
Copper	251	25	µg/L	250		100	80-120	0.649	20	
Lead	257	5.0	µg/L	250		103	80-120	0.985	20	
Manganese	263	5.0	µg/L	250		105	80-120	1.69	20	
Nickel	247	25	µg/L	250		98.7	80-120	1.38	20	
Selenium	232	25	µg/L	250		92.8	80-120	2.23	20	

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QUALITY CONTROL

Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145050 - SW-846 3005A Dissolved										
LCS Dup (B145050-BSD1)				Prepared: 03/24/16 Analyzed: 03/29/16						
Silver	269	2.5	µg/L	250		108	80-120	0.409	20	
Thallium	243	1.0	µg/L	250		97.0	80-120	0.404	20	
Vanadium	264	25	µg/L	250		106	80-120	0.777	20	
Zinc	239	50	µg/L	250		95.5	80-120	0.498	20	
Duplicate (B145050-DUP1)		**Source: 16C0970-24**		Prepared: 03/24/16 Analyzed: 03/29/16						
Antimony	ND	5.0	µg/L		ND			NC	20	
Arsenic	ND	2.0	µg/L		ND			NC	20	
Barium	62.8	50	µg/L		62.9			0.158	20	
Beryllium	ND	2.0	µg/L		ND			NC	20	
Cadmium	0.0855	2.5	µg/L		ND			NC	20	J
Chromium	ND	5.0	µg/L		ND			NC	20	
Cobalt	8.73	5.0	µg/L		8.74			0.0942	20	
Copper	3.46	25	µg/L		3.44			0.735	20	J
Lead	ND	5.0	µg/L		ND			NC	20	
Manganese	481	5.0	µg/L		487			1.25	20	
Nickel	11.8	25	µg/L		11.5			2.48	20	J
Selenium	9.83	25	µg/L		10.1			2.40	20	J
Silver	ND	2.5	µg/L		ND			NC	20	
Thallium	ND	1.0	µg/L		ND			NC	20	
Vanadium	ND	25	µg/L		ND			NC	20	
Zinc	ND	50	µg/L		ND			NC	20	
Matrix Spike (B145050-MS1)		**Source: 16C0970-24**		Prepared: 03/24/16 Analyzed: 03/29/16						
Antimony	264	5.0	µg/L	250	ND	106	75-125			
Arsenic	249	2.0	µg/L	250	ND	99.7	75-125			
Barium	316	50	µg/L	250	62.9	101	75-125			
Beryllium	239	2.0	µg/L	250	ND	95.6	75-125			
Cadmium	241	2.5	µg/L	250	ND	96.6	75-125			
Chromium	264	5.0	µg/L	250	ND	106	75-125			
Cobalt	270	5.0	µg/L	250	8.74	104	75-125			
Copper	244	25	µg/L	250	3.44	96.1	75-125			
Lead	269	5.0	µg/L	250	ND	108	75-125			
Manganese	718	5.0	µg/L	250	487	92.4	75-125			
Nickel	254	25	µg/L	250	11.5	97.0	75-125			
Selenium	237	25	µg/L	250	10.1	90.7	75-125			
Silver	239	2.5	µg/L	250	ND	95.7	75-125			
Thallium	258	1.0	µg/L	250	ND	103	75-125			
Vanadium	281	25	µg/L	250	ND	112	75-125			
Zinc	229	50	µg/L	250	ND	91.8	75-125			
Batch B145165 - SW-846 3005A Dissolved										
Blank (B145165-BLK1)				Prepared: 03/26/16 Analyzed: 03/28/16						
Aluminum	ND	0.050	mg/L							
Calcium	ND	0.15	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.15	mg/L							
Potassium	ND	2.0	mg/L							

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QUALITY CONTROL

Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B145165 - SW-846 3005A Dissolved											
LCS (B145165-BS1)				Prepared: 03/26/16 Analyzed: 03/28/16							
Aluminum	0.510	0.050	mg/L	0.500		102		80-120			
Calcium	0.549	0.15	mg/L	0.500		110		80-120			
Iron	0.508	0.050	mg/L	0.500		102		80-120			
Magnesium	0.565	0.15	mg/L	0.500		113		80-120			
Potassium	5.14	2.0	mg/L	5.00		103		80-120			
LCS Dup (B145165-BSD1)				Prepared: 03/26/16 Analyzed: 03/28/16							
Aluminum	0.510	0.050	mg/L	0.500		102		80-120	0.0223	20	
Calcium	0.551	0.15	mg/L	0.500		110		80-120	0.434	20	
Iron	0.503	0.050	mg/L	0.500		101		80-120	1.04	20	
Magnesium	0.568	0.15	mg/L	0.500		114		80-120	0.603	20	
Potassium	5.20	2.0	mg/L	5.00		104		80-120	1.26	20	
Batch B145355 - SW-846 3005A Dissolved											
Blank (B145355-BLK1)				Prepared: 03/29/16 Analyzed: 03/30/16							
Sodium	ND	2.0	mg/L								
LCS (B145355-BS1)				Prepared: 03/29/16 Analyzed: 03/30/16							
Sodium	0.536	2.0	mg/L	0.500		107		80-120			J
LCS Dup (B145355-BSD1)				Prepared: 03/29/16 Analyzed: 03/30/16							
Sodium	0.517	2.0	mg/L	0.500		103		80-120	3.51	20	J
Duplicate (B145355-DUP1)		**Source: 16C0970-23RE1**		Prepared: 03/29/16 Analyzed: 03/30/16							
Sodium	68.8	2.0	mg/L		68.0				1.15	20	
Matrix Spike (B145355-MS1)		**Source: 16C0970-23RE1**		Prepared: 03/29/16 Analyzed: 03/30/16							
Sodium	68.0	2.0	mg/L	0.500	68.0	**2.45**	*	75-125			MS-19

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144860 - % Solids										
Duplicate (B144860-DUP2)		**Source: 16C0970-01**		Prepared: 03/22/16 Analyzed: 03/23/16						
% Solids	94.2		% Wt		94.3			0.106	20	
Batch B144875 - SW-846 9045C										
LCS (B144875-BS1)				Prepared & Analyzed: 03/23/16						
pH	6.01		pH Units	6.00		100	98.6-102			
Duplicate (B144875-DUP1)		**Source: 16C0970-12**		Prepared & Analyzed: 03/23/16						
pH	5.2		pH Units		5.2			0.385	5	H-03
Batch B144878 - SW-846 7196A										
Blank (B144878-BLK1)				Prepared & Analyzed: 03/22/16						
Hexavalent Chromium	ND	0.0040	mg/L							
LCS (B144878-BS1)				Prepared & Analyzed: 03/22/16						
Hexavalent Chromium	0.10	0.0040	mg/L	0.100		103	80-120			
LCS Dup (B144878-BSD1)				Prepared & Analyzed: 03/22/16						
Hexavalent Chromium	0.096	0.0040	mg/L	0.100		96.3	80-120	6.53	20	
Matrix Spike (B144878-MS1)		**Source: 16C0970-25**		Prepared & Analyzed: 03/22/16						
Hexavalent Chromium	0.098	0.0040	mg/L	0.100	ND	97.6	75-125			
Matrix Spike Dup (B144878-MSD1)		**Source: 16C0970-25**		Prepared & Analyzed: 03/22/16						
Hexavalent Chromium	0.099	0.0040	mg/L	0.100	ND	98.9	75-125	1.32	20	
Batch B144880 - EPA 420.1										
Blank (B144880-BLK1)				Prepared: 03/23/16 Analyzed: 03/24/16						
Phenol	ND	0.050	mg/L							
LCS (B144880-BS1)				Prepared: 03/23/16 Analyzed: 03/24/16						
Phenol	0.54	0.050	mg/L	0.500		108	76.6-128			
LCS Dup (B144880-BSD1)				Prepared: 03/23/16 Analyzed: 03/24/16						
Phenol	0.56	0.050	mg/L	0.500		111	76.6-128	2.76	9.7	
Duplicate (B144880-DUP1)		**Source: 16C0970-25**		Prepared: 03/23/16 Analyzed: 03/24/16						
Phenol	0.080	0.050	mg/L		0.057			**33.3** *	20	R-04

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B144880 - EPA 420.1										
Matrix Spike (B144880-MS1)		**Source: 16C0970-25**		Prepared: 03/23/16 Analyzed: 03/24/16						
Phenol	0.64	0.050	mg/L	0.500	0.057	116	38.6-145			
Batch B144882 - SM21-22 2540D										
Blank (B144882-BLK1)				Prepared & Analyzed: 03/23/16						
Total Suspended Solids	ND	2.5	mg/L							
LCS (B144882-BS1)				Prepared & Analyzed: 03/23/16						
Total Suspended Solids	174	10	mg/L	200		87.0	70.4-114			
Batch B144932 - SM21-22 5210B										
Blank (B144932-BLK1)				Prepared & Analyzed: 03/23/16						
Carbonaceous BOD	0.73	2.0	mg/L							J
LCS (B144932-BS1)				Prepared & Analyzed: 03/23/16						
Carbonaceous BOD	180	2.0	mg/L	198		92.6	85-115			
Batch B144943 - SW-846 1010A										
Blank (B144943-BLK1)				Prepared & Analyzed: 03/23/16						
Flashpoint	> 212 °F		°F							
LCS (B144943-BS1)				Prepared & Analyzed: 03/23/16						
Flashpoint	81		°F	81.0		100	98.8-101			
LCS Dup (B144943-BSD1)				Prepared & Analyzed: 03/23/16						
Flashpoint	81		°F	81.0		100	98.8-101	0.00	5	
Batch B144983 - SM21-22 2540B										
Blank (B144983-BLK1)				Prepared & Analyzed: 03/24/16						
Total Solids	ND	10	mg/L							
LCS (B144983-BS1)				Prepared & Analyzed: 03/24/16						
Total Solids	190	10	mg/L	200		95.0	66.4-127			
Duplicate (B144983-DUP1)		**Source: 16C0970-25**		Prepared & Analyzed: 03/24/16						
Total Solids	2500	10	mg/L		2800			**8.72** *	5	R-02

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145009 - SM19-22 4500-N Org B,C-NH3 C										
Blank (B145009-BLK1)				Prepared: 03/24/16 Analyzed: 03/25/16						
Total Kjeldahl Nitrogen	ND	1.0	mg/L							
LCS (B145009-BS1)				Prepared: 03/24/16 Analyzed: 03/25/16						
Total Kjeldahl Nitrogen	20	1.0	mg/L	20.0		101	81.5-111			
Batch B145039 - SW-846 9014										
Blank (B145039-BLK1)				Prepared: 03/24/16 Analyzed: 03/25/16						
Reactive Cyanide	ND	0.40	mg/Kg							
LCS (B145039-BS1)				Prepared: 03/24/16 Analyzed: 03/25/16						
Reactive Cyanide	9.5	0.40	mg/Kg	10.0		95.4	86.4-107			
Batch B145041 - SW-846 9030A										
Blank (B145041-BLK1)				Prepared: 03/24/16 Analyzed: 03/25/16						
Reactive Sulfide	ND	2.0	mg/Kg							
LCS (B145041-BS1)				Prepared: 03/24/16 Analyzed: 03/25/16						
Reactive Sulfide	14	2.0	mg/Kg	14.8		94.6	42.9-132			
Batch B145047 - SW-846 9014										
Blank (B145047-BLK1)				Prepared: 03/24/16 Analyzed: 03/25/16						
Cyanide	ND	0.47	mg/Kg wet							
LCS (B145047-BS1)				Prepared: 03/24/16 Analyzed: 03/25/16						
Cyanide	51	2.1	mg/Kg wet	51.0		101	80-120			
LCS Dup (B145047-BSD1)				Prepared: 03/24/16 Analyzed: 03/25/16						
Cyanide	52	2.1	mg/Kg wet	50.0		104	80-120	1.34	20	
Matrix Spike (B145047-MS1)	**Source: 16C0970-16**			Prepared: 03/24/16 Analyzed: 03/25/16						
Cyanide	16	0.49	mg/Kg dry	17.1	ND	94.1	75-125			
Matrix Spike Dup (B145047-MSD1)	**Source: 16C0970-16**			Prepared: 03/24/16 Analyzed: 03/25/16						
Cyanide	17	0.51	mg/Kg dry	17.6	ND	96.6	75-125	5.40	35	
Batch B145075 - SM 21-22 4500 NO3 F										
Blank (B145075-BLK1)				Prepared & Analyzed: 03/24/16						
Nitrate/Nitrite as N	ND	0.050	mg/L							

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B145075 - SM 21-22 4500 NO3 F										
LCS (B145075-BS1)				Prepared & Analyzed: 03/24/16						
Nitrate/Nitrite as N	2.5		mg/L	2.50		98.8	88.9-111			
LCS Dup (B145075-BSD1)				Prepared & Analyzed: 03/24/16						
Nitrate/Nitrite as N	2.5		mg/L	2.50		98.8	88.9-111	0.00	5.66	
Batch B145105 - SW-846 7196A										
Blank (B145105-BLK1)				Prepared: 03/25/16 Analyzed: 03/28/16						
Hexavalent Chromium	0.14	0.16	mg/Kg wet							J
LCS (B145105-BS1)				Prepared: 03/25/16 Analyzed: 03/28/16						
Hexavalent Chromium	89	4.0	mg/Kg wet	109		82.0	80-120			
LCS Dup (B145105-BSD1)				Prepared: 03/25/16 Analyzed: 03/28/16						
Hexavalent Chromium	92	4.0	mg/Kg wet	109		84.5	80-120	3.00	20	
Matrix Spike (B145105-MS1) Soluble MS	**Source: 16C0970-13**			Prepared: 03/25/16 Analyzed: 03/28/16						
Hexavalent Chromium	33	0.85	mg/Kg dry	42.3	ND	78.8	75-125			
Matrix Spike (B145105-MS2) PDMS	**Source: 16C0970-13**			Prepared: 03/25/16 Analyzed: 03/28/16						
Hexavalent Chromium	46	1.7	mg/Kg dry	42.1	ND	109	75-125			
Matrix Spike (B145105-MS3) Insoluble MS	**Source: 16C0970-13**			Prepared: 03/25/16 Analyzed: 03/28/16						
Hexavalent Chromium	590	17	mg/Kg dry	669	ND	88.2	75-125			
Matrix Spike Dup (B145105-MSD1) Soluble MS Dup	**Source: 16C0970-13**			Prepared: 03/25/16 Analyzed: 03/28/16						
Hexavalent Chromium	34	0.83	mg/Kg dry	41.7	ND	82.2	75-125	2.99	35	
Batch B145159 - SM21-22 4500 CL B										
Blank (B145159-BLK1)				Prepared & Analyzed: 03/25/16						
Chloride	ND	1.0	mg/L							
LCS (B145159-BS1)				Prepared & Analyzed: 03/25/16						
Chloride	10	1.0	mg/L	10.2		98.0	87.1-113			
LCS Dup (B145159-BSD1)				Prepared & Analyzed: 03/25/16						
Chloride	10	1.0	mg/L	10.2		103	87.1-113	4.88	9.72	
Batch B146407 - EPA 1664B										
Blank (B146407-BLK1)				Prepared & Analyzed: 04/12/16						
Silica Gel Treated HEM (SGT-HEM)	ND	1.4	mg/L							

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B146407 - EPA 1664B										
LCS (B146407-BS1)				Prepared & Analyzed: 04/12/16						
Silica Gel Treated HEM (SGT-HEM)	13		mg/L	10.0		129	64-132			

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BREAKDOWN REPORT

Lab Sample ID: **S011029-PEM1** **Analyzed:** **03/24/2016**

Column Number: **1**

Analyte	% Breakdown
4,4'-DDT [1]	1.91
Endrin [1]	3.13

Column Number: **2**

Analyte	% Breakdown
4,4'-DDT [2]	2.30
Endrin [2]	3.11

BREAKDOWN REPORT

Lab Sample ID: **S011029-PEM2** **Analyzed:** **03/24/2016**

Column Number: **1**

Analyte	% Breakdown
4,4'-DDT [1]	2.01
Endrin [1]	3.11

Column Number: **2**

Analyte	% Breakdown
4,4'-DDT [2]	2.41
Endrin [2]	3.09

BREAKDOWN REPORT

Lab Sample ID: **S011029-PEM3** **Analyzed:** **03/25/2016**

Column Number: **1**

Analyte	% Breakdown
4,4'-DDT [1]	2.19
Endrin [1]	3.63

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BREAKDOWN REPORT

Lab Sample ID:	S011029-PEM3	Analyzed:	03/25/2016

Column Number: 2

Analyte	% Breakdown
4,4'-DDT [2]	2.74
Endrin [2]	3.73

BREAKDOWN REPORT

Lab Sample ID:	S011029-PEM4	Analyzed:	03/25/2016

Column Number: 1

Analyte	% Breakdown
4,4'-DDT [1]	1.26
Endrin [1]	2.76

Column Number: 2

Analyte	% Breakdown
4,4'-DDT [2]	1.90
Endrin [2]	2.62

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

TRC-SB-1 (1-3)

Lab Sample ID: 16C0970-03 Date(s) Analyzed: 03/25/2016 03/25/2016

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	7.53	-0.03	0.03	0.0049	
	2	7.53	-0.03	0.03	0.0010	132.0
4,4'-DDT	1	7.76	-0.03	0.03	0.0028	
	2	7.79	-0.03	0.03	0.0013	74.7
Endosulfan II	1	7.66	-0.03	0.03	0.00065	
	2	7.62	-0.03	0.03	0.0018	93.5
Hexachlorobenzene	1	5.54	-0.03	0.03	0.0019	
	2	5.48	-0.03	0.03	0.0018	2.7

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

TRC-SB-1 (10-12)

Lab Sample ID: 16C0970-04 Date(s) Analyzed: 03/25/2016 03/25/2016

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	7.53	-0.03	0.03	0.0021	
	2	7.53	-0.03	0.03	0.00055	117.0

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

TRC-SB-2 (1-3)

Lab Sample ID: 16C0970-05 Date(s) Analyzed: 03/25/2016 03/25/2016

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	7.53	-0.03	0.03	0.054	
	2	7.53	-0.03	0.03	0.013	122.0
4,4'-DDT	1	7.77	-0.03	0.03	0.0098	
	2	7.79	-0.03	0.03	0.0031	104.0
Endosulfan II	1	7.66	-0.03	0.03	0.0023	
	2	7.62	-0.03	0.03	0.0075	105.0
Endrin Aldehyde	1	7.99	-0.03	0.03	0.0079	
	2	7.88	-0.03	0.03	0.0065	18.9

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

TRC-SB-3 (1-3)

Lab Sample ID: 16C0970-07 Date(s) Analyzed: 03/25/2016 03/25/2016

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	7.53	-0.03	0.03	0.0073	
	2	7.53	-0.03	0.03	0.00088	157.0

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

TRC-SB-3 (10-12)

Lab Sample ID: 16C0970-08 Date(s) Analyzed: 03/25/2016 03/25/2016

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Hexachlorobenzene	1	5.54	-0.03	0.03	0.0023	
	2	5.48	-0.03	0.03	0.00085	93.4

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

TRC-SB-6 (10-12)

Lab Sample ID: 16C0970-14 Date(s) Analyzed: 03/25/2016 03/25/2016

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
beta-BHC	1	5.91	-0.03	0.03	0.0010	
	2	5.84	-0.03	0.03	0.0015	35.3
Hexachlorobenzene	1	5.54	-0.03	0.03	0.0028	
	2	5.48	-0.03	0.03	0.00091	103.0

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

TRC-SB-7 (1-3)

Lab Sample ID: 16C0970-15 Date(s) Analyzed: 03/25/2016 03/25/2016

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	7.53	-0.03	0.03	0.037	
	2	7.53	-0.03	0.03	0.012	101.0
4,4'-DDT	1	7.77	-0.03	0.03	0.0080	
	2	7.79	-0.03	0.03	0.0029	93.3
Dieldrin	1	7.31	-0.03	0.03	0.00044	
	2	7.20	-0.03	0.03	0.027	194.0
Endosulfan II	1	7.66	-0.03	0.03	0.0022	
	2	7.62	-0.03	0.03	0.0073	108.0
Endrin Aldehyde	1	7.99	-0.03	0.03	0.011	
	2	7.87	-0.03	0.03	0.0043	89.0

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

TRC-SB-8 (1-3)

Lab Sample ID: 16C0970-17 Date(s) Analyzed: 03/25/2016 03/25/2016

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	7.52	-0.03	0.03	0.010	
	2	7.53	-0.03	0.03	0.0025	122.0
4,4'-DDT	1	7.76	-0.03	0.03	0.0019	
	2	7.79	-0.03	0.03	0.00064	99.6
Endosulfan II	1	7.66	-0.03	0.03	0.00058	
	2	7.62	-0.03	0.03	0.0013	76.0
Endrin	1	7.49	-0.03	0.03	0.00078	
	2	7.46	-0.03	0.03	0.00068	13.7

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

TRC-SB-9 (1-3)

Lab Sample ID: 16C0970-19 Date(s) Analyzed: 03/25/2016 03/25/2016

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDE	1	7.08	-0.03	0.03	0.00095	
	2	7.10	-0.03	0.03	0.00069	32.1
4,4'-DDT	1	7.76	-0.03	0.03	0.0041	
	2	7.80	-0.03	0.03	0.012	97.4
Chlordane	1	0.00	-0.03	0.03	0.040	
	2	0.00	-0.03	0.03	0.046	13.7
Dieldrin	1	7.31	-0.03	0.03	0.0013	
	2	7.21	-0.03	0.03	0.0010	27.6
Endosulfan II	1	7.67	-0.03	0.03	0.00075	
	2	7.62	-0.03	0.03	0.00087	14.8
Endrin	1	7.50	-0.03	0.03	0.00039	
	2	7.46	-0.03	0.03	0.00075	62.9
Heptachlor Epoxide	1	6.84	-0.03	0.03	0.00095	
	2	6.72	-0.03	0.03	0.00090	5.4

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

LCS

Lab Sample ID: B144813-BS1 Date(s) Analyzed: 03/24/2016 03/24/2016

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	7.54	-0.03	0.03	0.11	
	2	7.54	-0.03	0.03	0.12	11
4,4'-DDE	1	7.08	-0.03	0.03	0.10	
	2	7.10	-0.03	0.03	0.12	17
4,4'-DDT	1	7.76	-0.03	0.03	0.11	
	2	7.79	-0.03	0.03	0.12	13
Alachlor	1	6.49	-0.03	0.03	0.10	
	2	6.24	-0.03	0.03	0.12	19
Aldrin	1	6.40	-0.03	0.03	0.092	
	2	6.31	-0.03	0.03	0.10	8
alpha-BHC	1	5.65	-0.03	0.03	0.096	
	2	5.57	-0.03	0.03	0.098	2
alpha-Chlordane	1	7.03	-0.03	0.03	0.096	
	2	6.97	-0.03	0.03	0.11	14
beta-BHC	1	5.92	-0.03	0.03	0.096	
	2	5.85	-0.03	0.03	0.10	4
delta-BHC	1	6.04	-0.03	0.03	0.086	
	2	6.05	-0.03	0.03	0.090	5
Dieldrin	1	7.31	-0.03	0.03	0.097	
	2	7.22	-0.03	0.03	0.11	13
Endosulfan I	1	7.13	-0.03	0.03	0.085	
	2	7.01	-0.03	0.03	0.099	15
Endosulfan II	1	7.67	-0.03	0.03	0.094	
	2	7.62	-0.03	0.03	0.11	16
Endosulfan Sulfate	1	8.30	-0.03	0.03	0.11	
	2	8.09	-0.03	0.03	0.12	13
Endrin	1	7.49	-0.03	0.03	0.10	
	2	7.45	-0.03	0.03	0.12	16
Endrin Aldehyde	1	7.99	-0.03	0.03	0.099	
	2	7.88	-0.03	0.03	0.12	19
Endrin Ketone	1	8.49	-0.03	0.03	0.11	

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

LCS

Lab Sample ID: B144813-BS1 Date(s) Analyzed: 03/24/2016 03/24/2016

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
	2	8.45	-0.03	0.03	0.13	16
gamma-BHC (Lindane)	1	5.86	-0.03	0.03	0.10	
	2	5.80	-0.03	0.03	0.10	1
gamma-Chlordane	1	6.93	-0.03	0.03	0.095	
	2	6.86	-0.03	0.03	0.11	15
Heptachlor	1	6.19	-0.03	0.03	0.091	
	2	6.09	-0.03	0.03	0.10	10
Heptachlor Epoxide	1	6.84	-0.03	0.03	0.092	
	2	6.72	-0.03	0.03	0.10	8
Hexachlorobenzene	1	5.54	-0.03	0.03	0.085	
	2	5.48	-0.03	0.03	0.089	5
Methoxychlor	1	8.12	-0.03	0.03	0.10	
	2	8.30	-0.03	0.03	0.14	31

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

LCS Dup

Lab Sample ID: B144813-BSD1 Date(s) Analyzed: 03/25/2016 03/25/2016

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	7.54	-0.03	0.03	0.11	
	2	7.54	-0.03	0.03	0.13	16
4,4'-DDE	1	7.08	-0.03	0.03	0.10	
	2	7.10	-0.03	0.03	0.12	14
4,4'-DDT	1	7.76	-0.03	0.03	0.11	
	2	7.79	-0.03	0.03	0.13	18
Alachlor	1	6.49	-0.03	0.03	0.10	
	2	6.24	-0.03	0.03	0.12	16
Aldrin	1	6.40	-0.03	0.03	0.094	
	2	6.31	-0.03	0.03	0.11	16
alpha-BHC	1	5.65	-0.03	0.03	0.10	
	2	5.57	-0.03	0.03	0.10	0
alpha-Chlordane	1	7.03	-0.03	0.03	0.098	
	2	6.97	-0.03	0.03	0.12	20
beta-BHC	1	5.92	-0.03	0.03	0.098	
	2	5.85	-0.03	0.03	0.10	2
delta-BHC	1	6.04	-0.03	0.03	0.099	
	2	6.05	-0.03	0.03	0.10	1
Dieldrin	1	7.31	-0.03	0.03	0.099	
	2	7.22	-0.03	0.03	0.11	11
Endosulfan I	1	7.13	-0.03	0.03	0.095	
	2	7.01	-0.03	0.03	0.11	15
Endosulfan II	1	7.67	-0.03	0.03	0.10	
	2	7.62	-0.03	0.03	0.12	16
Endosulfan Sulfate	1	8.30	-0.03	0.03	0.11	
	2	8.09	-0.03	0.03	0.12	12
Endrin	1	7.49	-0.03	0.03	0.10	
	2	7.45	-0.03	0.03	0.12	13
Endrin Aldehyde	1	7.99	-0.03	0.03	0.10	
	2	7.89	-0.03	0.03	0.12	17
Endrin Ketone	1	8.49	-0.03	0.03	0.11	

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

LCS Dup

Lab Sample ID: B144813-BSD1 Date(s) Analyzed: 03/25/2016 03/25/2016

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
	2	8.45	-0.03	0.03	0.13	13
gamma-BHC (Lindane)	1	5.86	-0.03	0.03	0.10	
	2	5.80	-0.03	0.03	0.11	6
gamma-Chlordane	1	6.93	-0.03	0.03	0.097	
	2	6.86	-0.03	0.03	0.12	21
Heptachlor	1	6.19	-0.03	0.03	0.092	
	2	6.09	-0.03	0.03	0.11	18
Heptachlor Epoxide	1	6.84	-0.03	0.03	0.094	
	2	6.72	-0.03	0.03	0.11	16
Hexachlorobenzene	1	5.54	-0.03	0.03	0.086	
	2	5.48	-0.03	0.03	0.091	6
Methoxychlor	1	8.13	-0.03	0.03	0.10	
	2	8.30	-0.03	0.03	0.13	22

con-test® ANALYTICAL LABORATORY

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

Matrix Spike

Lab Sample ID: B144813-MS1 Date(s) Analyzed: 03/25/2016 03/25/2016

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	7.54	-0.03	0.03	0.092	
	2	7.54	-0.03	0.03	0.11	18
4,4'-DDE	1	7.08	-0.03	0.03	0.094	
	2	7.10	-0.03	0.03	0.11	16
4,4'-DDT	1	7.76	-0.03	0.03	0.093	
	2	7.79	-0.03	0.03	0.10	7
Alachlor	1	6.49	-0.03	0.03	0.099	
	2	6.24	-0.03	0.03	0.11	11
Aldrin	1	6.40	-0.03	0.03	0.079	
	2	6.31	-0.03	0.03	0.086	8
alpha-BHC	1	5.65	-0.03	0.03	0.076	
	2	5.57	-0.03	0.03	0.072	5
alpha-Chlordane	1	7.03	-0.03	0.03	0.084	
	2	6.97	-0.03	0.03	0.096	14
beta-BHC	1	5.92	-0.03	0.03	0.076	
	2	5.85	-0.03	0.03	0.079	4
delta-BHC	1	6.04	-0.03	0.03	0.058	
	2	6.05	-0.03	0.03	0.059	2
Dieldrin	1	7.31	-0.03	0.03	0.088	
	2	7.22	-0.03	0.03	0.096	9
Endosulfan I	1	7.13	-0.03	0.03	0.063	
	2	7.01	-0.03	0.03	0.071	12
Endosulfan II	1	7.67	-0.03	0.03	0.061	
	2	7.62	-0.03	0.03	0.071	16
Endosulfan Sulfate	1	8.30	-0.03	0.03	0.073	
	2	8.09	-0.03	0.03	0.079	8
Endrin	1	7.49	-0.03	0.03	0.096	
	2	7.45	-0.03	0.03	0.10	4
Endrin Aldehyde	1	7.99	-0.03	0.03	0.062	
	2	7.88	-0.03	0.03	0.068	9
Endrin Ketone	1	8.49	-0.03	0.03	0.089	

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

Matrix Spike

Lab Sample ID: B144813-MS1 Date(s) Analyzed: 03/25/2016 03/25/2016

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
	2	8.45	-0.03	0.03	0.11	21
gamma-BHC (Lindane)	1	5.86	-0.03	0.03	0.076	
	2	5.80	-0.03	0.03	0.078	3
gamma-Chlordane	1	6.93	-0.03	0.03	0.086	
	2	6.86	-0.03	0.03	0.077	11
Heptachlor	1	6.19	-0.03	0.03	0.090	
	2	6.09	-0.03	0.03	0.097	7
Heptachlor Epoxide	1	6.84	-0.03	0.03	0.083	
	2	6.72	-0.03	0.03	0.096	14
Hexachlorobenzene	1	5.54	-0.03	0.03	0.094	
	2	5.48	-0.03	0.03	0.083	12
Methoxychlor	1	8.13	-0.03	0.03	0.088	
	2	8.30	-0.03	0.03	0.11	22

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

Matrix Spike Dup

Lab Sample ID: B144813-MSD1 Date(s) Analyzed: 03/25/2016 03/25/2016

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
4,4'-DDD	1	7.54	-0.03	0.03	0.086	
	2	7.54	-0.03	0.03	0.11	24
4,4'-DDE	1	7.08	-0.03	0.03	0.087	
	2	7.10	-0.03	0.03	0.097	11
4,4'-DDT	1	7.76	-0.03	0.03	0.083	
	2	7.79	-0.03	0.03	0.089	7
Alachlor	1	6.49	-0.03	0.03	0.089	
	2	6.24	-0.03	0.03	0.097	8
Aldrin	1	6.40	-0.03	0.03	0.075	
	2	6.31	-0.03	0.03	0.082	8
alpha-BHC	1	5.65	-0.03	0.03	0.063	
	2	5.57	-0.03	0.03	0.061	3
alpha-Chlordane	1	7.03	-0.03	0.03	0.077	
	2	6.97	-0.03	0.03	0.089	15
beta-BHC	1	5.92	-0.03	0.03	0.068	
	2	5.85	-0.03	0.03	0.075	9
delta-BHC	1	6.04	-0.03	0.03	0.036	
	2	6.05	-0.03	0.03	0.039	8
Dieldrin	1	7.31	-0.03	0.03	0.081	
	2	7.22	-0.03	0.03	0.089	10
Endosulfan I	1	7.13	-0.03	0.03	0.044	
	2	7.01	-0.03	0.03	0.050	12
Endosulfan II	1	7.67	-0.03	0.03	0.041	
	2	7.62	-0.03	0.03	0.050	19
Endosulfan Sulfate	1	8.30	-0.03	0.03	0.062	
	2	8.09	-0.03	0.03	0.068	9
Endrin	1	7.49	-0.03	0.03	0.090	
	2	7.45	-0.03	0.03	0.097	8
Endrin Aldehyde	1	7.99	-0.03	0.03	0.056	
	2	7.88	-0.03	0.03	0.061	9
Endrin Ketone	1	8.49	-0.03	0.03	0.085	

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

Matrix Spike Dup

Lab Sample ID: B144813-MSD1 Date(s) Analyzed: 03/25/2016 03/25/2016

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
	2	8.45	-0.03	0.03	0.10	16
gamma-BHC (Lindane)	1	5.86	-0.03	0.03	0.063	
	2	5.80	-0.03	0.03	0.064	2
gamma-Chlordane	1	6.93	-0.03	0.03	0.077	
	2	6.86	-0.03	0.03	0.073	6
Heptachlor	1	6.19	-0.03	0.03	0.081	
	2	6.09	-0.03	0.03	0.088	8
Heptachlor Epoxide	1	6.84	-0.03	0.03	0.077	
	2	6.72	-0.03	0.03	0.090	16
Hexachlorobenzene	1	5.54	-0.03	0.03	0.086	
	2	5.48	-0.03	0.03	0.078	9
Methoxychlor	1	8.13	-0.03	0.03	0.082	
	2	8.30	-0.03	0.03	0.10	20

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B144814-BS1

Date(s) Analyzed: 03/24/2016 03/24/2016

Instrument ID (1):

Instrument ID (2):

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	0.00	0.00	0.00	0.19	
	2	0.00	0.00	0.00	0.19	1
Aroclor-1260	1	0.00	0.00	0.00	0.18	
	2	0.00	0.00	0.00	0.18	2

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B144814-BSD1 Date(s) Analyzed: 03/24/2016 03/24/2016

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	0.00	0.00	0.00	0.19	
	2	0.00	0.00	0.00	0.20	4
Aroclor-1260	1	0.00	0.00	0.00	0.19	
	2	0.00	0.00	0.00	0.19	0

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

Matrix Spike

Lab Sample ID: B144814-MS1

Date(s) Analyzed: 03/24/2016 03/24/2016

Instrument ID (1):

Instrument ID (2):

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	0.00	0.00	0.00	0.21	
	2	0.00	0.00	0.00	0.23	9
Aroclor-1260	1	0.00	0.00	0.00	0.19	
	2	0.00	0.00	0.00	0.21	11

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

Matrix Spike Dup

Lab Sample ID: B144814-MSD1 Date(s) Analyzed: 03/24/2016 03/24/2016

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	0.00	0.00	0.00	0.19	
	2	0.00	0.00	0.00	0.21	10
Aroclor-1260	1	0.00	0.00	0.00	0.17	
	2	0.00	0.00	0.00	0.19	12

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8151A

LCS

Lab Sample ID: B144820-BS1

Date(s) Analyzed: 03/26/2016 03/26/2016

Instrument ID (1):

Instrument ID (2):

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
2,4,5-T	1	14.03	0.00	0.00	12.0	
	2	13.66	0.00	0.00	11.8	2
2,4,5-TP (Silvex)	1	13.45	0.00	0.00	12.4	
	2	12.86	0.00	0.00	12.0	3
2,4-D	1	11.75	0.00	0.00	121	
	2	11.30	0.00	0.00	106	13
Dalapon	1	3.79	0.00	0.00	185	
	2	3.26	0.00	0.00	195	5
Dicamba	1	9.86	0.00	0.00	11.8	
	2	9.38	0.00	0.00	12.2	3

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8151A

LCS Dup

Lab Sample ID: B144820-BSD1 Date(s) Analyzed: 03/26/2016 03/26/2016

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
2,4,5-T	1	14.03	0.00	0.00	11.7	
	2	13.66	0.00	0.00	11.0	6
2,4,5-TP (Silvex)	1	13.45	0.00	0.00	11.9	
	2	12.86	0.00	0.00	11.4	4
2,4-D	1	11.75	0.00	0.00	112	
	2	11.30	0.00	0.00	101	10
Dalapon	1	3.79	0.00	0.00	190	
	2	3.26	0.00	0.00	198	4
Dicamba	1	9.86	0.00	0.00	13.3	
	2	9.37	0.00	0.00	11.8	12

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8151A

Matrix Spike

Lab Sample ID: B144820-MS1 Date(s) Analyzed: 03/27/2016 03/27/2016

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
2,4,5-T	1	14.02	0.00	0.00	12.3	
	2	13.66	0.00	0.00	12.4	1
2,4,5-TP (Silvex)	1	13.44	0.00	0.00	12.2	
	2	12.87	0.00	0.00	12.0	2
2,4-D	1	11.74	0.00	0.00	120	
	2	11.30	0.00	0.00	107	12
Dalapon	1	3.79	0.00	0.00	183	
	2	3.26	0.00	0.00	194	6
Dicamba	1	9.85	0.00	0.00	12.5	
	2	9.37	0.00	0.00	12.3	2

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8151A

Matrix Spike Dup

Lab Sample ID: B144820-MSD1 Date(s) Analyzed: 03/27/2016 03/27/2016

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
2,4,5-T	1	14.03	0.00	0.00	9.53	
	2	13.67	0.00	0.00	9.47	1
2,4,5-TP (Silvex)	1	13.44	0.00	0.00	9.66	
	2	12.87	0.00	0.00	9.58	1
2,4-D	1	11.74	0.00	0.00	95.9	
	2	11.30	0.00	0.00	85.6	11
Dalapon	1	3.78	0.00	0.00	156	
	2	3.25	0.00	0.00	163	4
Dicamba	1	9.85	0.00	0.00	10.3	
	2	9.37	0.00	0.00	10.3	0

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8151A

LCS

Lab Sample ID: B144886-BS1 Date(s) Analyzed: 03/26/2016 03/26/2016

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
2,4,5-T	1	14.03	0.00	0.00	12.9	
	2	13.66	0.00	0.00	12.2	6
2,4,5-TP (Silvex)	1	13.44	0.00	0.00	14.5	
	2	12.86	0.00	0.00	12.7	13
2,4-D	1	11.75	0.00	0.00	131	
	2	11.30	0.00	0.00	111	17
Dalapon	1	3.79	0.00	0.00	195	
	2	3.26	0.00	0.00	205	5
Dicamba	1	9.86	0.00	0.00	11.4	
	2	9.38	0.00	0.00	12.5	9

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8151A

LCS Dup

Lab Sample ID: B144886-BSD1 Date(s) Analyzed: 03/26/2016 03/26/2016

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
2,4,5-T	1	14.03	0.00	0.00	13.1	
	2	13.66	0.00	0.00	12.6	4
2,4,5-TP (Silvex)	1	13.44	0.00	0.00	13.1	
	2	12.86	0.00	0.00	12.7	3
2,4-D	1	11.75	0.00	0.00	130	
	2	11.30	0.00	0.00	109	18
Dalapon	1	3.79	0.00	0.00	195	
	2	3.25	0.00	0.00	202	4
Dicamba	1	9.86	0.00	0.00	12.2	
	2	9.37	0.00	0.00	12.2	0

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

EPA 608

LCS

Lab Sample ID: B144972-BS1

Date(s) Analyzed: 03/24/2016 03/24/2016

Instrument ID (1):

Instrument ID (2):

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	0.00	0.00	0.00	0.47	
	2	0.00	0.00	0.00	0.49	4
Aroclor-1260	1	0.00	0.00	0.00	0.46	
	2	0.00	0.00	0.00	0.46	1

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

EPA 608

LCS Dup

Lab Sample ID: B144972-BSD1 Date(s) Analyzed: 03/24/2016 03/24/2016

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	0.00	0.00	0.00	0.49	
	2	0.00	0.00	0.00	0.52	7
Aroclor-1260	1	0.00	0.00	0.00	0.47	
	2	0.00	0.00	0.00	0.47	0

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
DL-03	Elevated reporting limit due to matrix.
H-03	Sample received after recommended holding time was exceeded.
H-09	Sample received by laboratory with insufficient time remaining to perform analysis within the recommended holding time.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
L-02	Laboratory fortified blank/laboratory control sample recovery and duplicate recoveries outside of control limits. Data validation is not affected since all results are "not detected" for associated samples in this batch and bias is on the high side.
L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
L-07A	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.
MS-07	Matrix spike recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possiblity of sample matrix effects that lead to low bias for reported result or non-homogeneous sample aliquot cannot be eliminated.
MS-09	Matrix spike recovery and/or matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.
MS-19	Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.
MS-23	Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is outside of the method specified criteria. Reduced precision anticipated for any reported result for this compound.
P-01	Result was confirmed using a dissimilar column. Relative percent difference between the two results was >40%. In accordance with the method, the higher result was reported.
P-02	Sample RPD between primary and confirmatory analysis exceeded 40%. Per EPA method 8000, the lower value was reported due to obvious chromatographic interference on the column with the higher result.
P-05	Sample RPD between primary and confirmatory analysis exceeded 100%. The higher of two results was reported.
P-08	Sample RPD between primary and confirmatory analysis exceeded 100%. Per EPA method 8000, the lower value was reported due to obvious chromatographic interference on the column with the higher result.
R-02	Duplicate RPD is outside of control limits. Outlier can be attributed to sample non-homogeneity encountered during sample prep.
R-04	Duplicate relative percent difference (RPD) is a less useful indicator of sample precision for sample results that are <5 times the reporting limit (RL).
R-05	Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.
R-06	Matrix spike duplicate RPD is outside of control limits. Reduced precision is anticipated for reported result for this compound in this sample.
S-01	The surrogate recovery for this sample is not available due to sample dilution below the surrogate reporting limit required from high analyte concentration and/or matrix interferences.
S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
S-07	One associated surrogate standard recovery is outside of control limits but the other(s) is/are within limits. All recoveries are > 10%.
V-05	Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

V-06	Continuing calibration did not meet method specifications and was biased on the high side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the high side.
V-20	Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.
V-24	Continuing calibration verification was outside of control limits on the confirmation column, but within control limits on the primary column. All sample results are reported from the column within control criteria.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 420.1 in Water	
Phenol	CT,MA,NH,NY,RI,NC,ME,VA
EPA 608 in Water	
Aroclor-1016	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1016 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1221	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1221 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1232	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1232 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1242	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1242 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1248	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1248 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1254	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1254 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1260	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1260 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
EPA 624 in Water	
Benzene	CT,MA,NH,NY,RI,NC,ME,VA
Bromodichloromethane	CT,MA,NH,NY,RI,NC,ME,VA
Bromoform	CT,MA,NH,NY,RI,NC,ME,VA
Bromomethane	CT,MA,NH,NY,RI,NC,ME,VA
Carbon Tetrachloride	CT,MA,NH,NY,RI,NC,ME,VA
Chlorobenzene	CT,MA,NH,NY,RI,NC,ME,VA
Chlorodibromomethane	CT,MA,NH,NY,RI,NC,ME,VA
Chloroethane	CT,MA,NH,NY,RI,NC,ME,VA
2-Chloroethyl Vinyl Ether	CT,MA,NH,NY,RI,NC,ME,VA
Chloroform	CT,MA,NH,NY,RI,NC,ME,VA
Chloromethane	CT,MA,NH,NY,RI,NC,ME,VA
1,2-Dichlorobenzene	CT,MA,NH,NY,RI,NC,ME,VA
1,3-Dichlorobenzene	CT,MA,NH,NY,RI,NC,ME,VA
1,4-Dichlorobenzene	CT,MA,NH,NY,RI,NC,ME,VA
1,2-Dichloroethane	CT,MA,NH,NY,RI,NC,ME,VA
1,1-Dichloroethane	CT,MA,NH,NY,RI,NC,ME,VA
1,1-Dichloroethylene	CT,MA,NH,NY,RI,NC,ME,VA
trans-1,2-Dichloroethylene	CT,MA,NH,NY,RI,NC,ME,VA
1,2-Dichloropropane	CT,MA,NH,NY,RI,NC,ME,VA
cis-1,3-Dichloropropene	CT,MA,NH,NY,RI,NC,ME,VA
trans-1,3-Dichloropropene	CT,MA,NH,NY,RI,NC,ME,VA
Ethylbenzene	CT,MA,NH,NY,RI,NC,ME,VA
Methyl tert-Butyl Ether (MTBE)	NC
Methylene Chloride	CT,MA,NH,NY,RI,NC,ME,VA
Naphthalene	NC
1,1,2,2-Tetrachloroethane	CT,MA,NH,NY,RI,NC,ME,VA
Tetrachloroethylene	CT,MA,NH,NY,RI,NC,ME,VA
Toluene	CT,MA,NH,NY,RI,NC,ME,VA
1,2,4-Trichlorobenzene	NC

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 624 in Water	
1,1,1-Trichloroethane	CT,MA,NH,NY,RI,NC,ME,VA
1,1,2-Trichloroethane	CT,MA,NH,NY,RI,NC,ME,VA
Trichloroethylene	CT,MA,NH,NY,RI,NC,ME,VA
Trichlorofluoromethane (Freon 11)	CT,MA,NH,NY,RI,NC,ME,VA
Vinyl Chloride	CT,MA,NH,NY,RI,NC,ME,VA
m+p Xylene	CT,MA,NH,NY,RI,NC,VA
o-Xylene	CT,MA,NH,NY,RI,NC,VA
SM 21-22 4500 NO3 F in Water	
Nitrate/Nitrite as N	CT,MA,NH,NY,RI,NC,ME,VA
SM19-22 4500-N Org B,C-NH3 C in Water	
Total Kjeldahl Nitrogen	CT,MA,NH,NY,RI,NC,ME,VA,NJ
SM21-22 2540B in Water	
Total Solids	NY,CT,RI,NH,NC,ME,VA
SM21-22 2540D in Water	
Total Suspended Solids	CT,MA,NH,NY,RI,NC,ME,VA
SM21-22 4500 CL B in Water	
Chloride	NH,CT,MA,NY,RI,NC,ME,VA
SM21-22 5210B in Water	
Carbonaceous BOD	NY,CT,RI,NH,ME,VA,NC
SW-846 1030 in Soil	
Ignitability	NY,NH,CT,NC,ME,VA
SW-846 6010C-D in Soil	
Aluminum	CT,NH,NY,ME,VA,NC
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Barium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,ME,VA,NC
Calcium	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Cobalt	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Iron	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,AIHA,ME,VA,NC
Magnesium	CT,NH,NY,ME,VA,NC
Manganese	CT,NH,NY,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Potassium	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Sodium	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,ME,VA,NC
Vanadium	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,ME,VA,NC

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010C-D in Water	
Aluminum	CT,NH,NY,ME,VA,NC
Aluminum	CT,NY,NH,ME,VA,NC
Calcium	CT,NH,NY,NC,ME,VA
Calcium	CT,NH,NY,ME,VA,NC
Iron	CT,NH,NY,ME,VA,NC
Iron	CT,NH,NY,ME,NC,VA
Magnesium	CT,NH,NY,ME,VA,NC
Magnesium	CT,NH,NY,NC,ME,VA
Potassium	CT,NH,NY,ME,VA,NC
Potassium	CT,NH,NY,ME,NC,VA
Sodium	CT,NH,NY,NC,ME,VA
Sodium	CT,NH,NY,ME,VA,NC
SW-846 6020A-B in Water	
Antimony	CT,NH,NY,ME,VA,NC
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,NC,ME,VA
Arsenic	CT,NH,NY,ME,VA,NC
Barium	MA,NY,CT,NC,NH,ME,VA
Barium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,NC,ME,VA
Cadmium	CT,NH,NY,RI,ME,VA,NC
Cadmium	CT,NH,NY,NC,ME,VA
Chromium	CT,NH,NY,NC,ME,VA
Chromium	CT,NH,NY,ME,VA,NC
Cobalt	CT,NH,NY,NC,ME,VA
Cobalt	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,NC,ME,VA
Lead	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,NC,ME,VA
Manganese	CT,NH,NY,ME,VA,NC
Manganese	CT,NH,NY,NC,ME,VA
Nickel	CT,NH,NY,ME,VA,NC
Nickel	CT,NH,NY,NC,ME,VA
Selenium	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,NC,ME,VA
Silver	CT,NC,NH,NY,ME,VA
Silver	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,NC,ME,VA
Thallium	CT,NH,NY,ME,VA,NC
Vanadium	CT,NH,NY,ME,VA,NC
Vanadium	CT,NH,NY,NC,ME,VA
Zinc	CT,NH,NY,NC,ME,VA
Zinc	CT,NH,NY,ME,VA,NC
SW-846 7196A in Soil	

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 7196A in Soil	
Hexavalent Chromium	NY,CT,NH,NC,ME,VA
SW-846 7196A in Water	
Hexavalent Chromium	CT,NH,NY,NC,ME,VA
SW-846 7470A in Water	
Mercury	CT,NH,NY,NC,ME,VA
Mercury	CT,NH,NY,NC,ME,VA
SW-846 7471B in Soil	
Mercury	CT,NH,NY,NC,ME,VA
SW-846 8015C in Soil	
Gasoline Range Organics (GRO)	NY,VA,NH,NC
Diesel Range Organics	NY,VA,NH,NC
SW-846 8081B in Soil	
alpha-Chlordane	NC
alpha-Chlordane [2C]	NC
gamma-Chlordane	NC
gamma-Chlordane [2C]	NC
Alachlor	NC
Alachlor [2C]	NC
Aldrin	CT,NH,NY,ME,NC,VA
Aldrin [2C]	CT,NH,NY,ME,NC,VA
alpha-BHC	CT,NH,NY,ME,NC,VA
alpha-BHC [2C]	CT,NH,NY,ME,NC,VA
beta-BHC	CT,NH,NY,ME,NC,VA
beta-BHC [2C]	CT,NH,NY,ME,NC,VA
delta-BHC	CT,NH,NY,ME,NC,VA
delta-BHC [2C]	CT,NH,NY,ME,NC,VA
gamma-BHC (Lindane)	CT,NH,NY,ME,NC,VA
gamma-BHC (Lindane) [2C]	CT,NH,NY,ME,NC,VA
Chlordane	CT,NH,NY,ME,NC,VA
Chlordane [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDD	CT,NH,NY,ME,NC,VA
4,4'-DDD [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDE	CT,NH,NY,ME,NC,VA
4,4'-DDE [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDT	CT,NH,NY,ME,NC,VA
4,4'-DDT [2C]	CT,NH,NY,ME,NC,VA
Dieldrin	CT,NH,NY,ME,NC,VA
Dieldrin [2C]	CT,NH,NY,ME,NC,VA
Endosulfan I	CT,NH,NY,ME,NC,VA
Endosulfan I [2C]	CT,NH,NY,ME,NC,VA
Endosulfan II	CT,NH,NY,ME,NC,VA
Endosulfan II [2C]	CT,NH,NY,ME,NC,VA
Endosulfan Sulfate	CT,NH,NY,ME,NC,VA
Endosulfan Sulfate [2C]	CT,NH,NY,ME,NC,VA
Endrin	CT,NH,NY,ME,NC,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8081B in Soil	
Endrin [2C]	CT,NH,NY,ME,NC,VA
Endrin Aldehyde	CT,NH,NY,ME,NC,VA
Endrin Aldehyde [2C]	CT,NH,NY,ME,NC,VA
Endrin Ketone	NC
Endrin Ketone [2C]	NC
Heptachlor	CT,NH,NY,ME,NC,VA
Heptachlor [2C]	CT,NH,NY,ME,NC,VA
Heptachlor Epoxide	CT,NH,NY,ME,NC,VA
Heptachlor Epoxide [2C]	CT,NH,NY,ME,NC,VA
Hexachlorobenzene	NC
Hexachlorobenzene [2C]	NC
Methoxychlor	CT,NH,NY,ME,NC,VA
Methoxychlor [2C]	CT,NH,NY,ME,NC,VA
Toxaphene	CT,NH,NY,ME,NC,VA
Toxaphene [2C]	CT,NH,NY,ME,NC,VA
SW-846 8081B in Water	
alpha-Chlordane	NC
alpha-Chlordane [2C]	NC
gamma-Chlordane	NC
gamma-Chlordane [2C]	NC
Alachlor	NC
Alachlor [2C]	NC
Aldrin	CT,NH,NY,ME,NC,VA
Aldrin [2C]	CT,NH,NY,ME,NC,VA
alpha-BHC	CT,NH,NY,ME,NC,VA
alpha-BHC [2C]	CT,NH,NY,ME,NC,VA
beta-BHC	CT,NH,NY,ME,NC,VA
beta-BHC [2C]	CT,NH,NY,ME,NC,VA
delta-BHC	CT,NH,NY,ME,NC,VA
delta-BHC [2C]	CT,NH,NY,ME,NC,VA
gamma-BHC (Lindane)	CT,NH,NY,ME,NC,VA
gamma-BHC (Lindane) [2C]	CT,NH,NY,ME,NC,VA
Chlordane	CT,NH,NY,ME,NC,VA
Chlordane [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDD	CT,NH,NY,ME,NC,VA
4,4'-DDD [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDE	CT,NH,NY,ME,NC,VA
4,4'-DDE [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDT	CT,NH,NY,ME,NC,VA
4,4'-DDT [2C]	CT,NH,NY,ME,NC,VA
Dieldrin	CT,NH,NY,ME,NC,VA
Dieldrin [2C]	CT,NH,NY,ME,NC,VA
Endosulfan I	CT,NH,NY,ME,NC,VA
Endosulfan I [2C]	CT,NH,NY,ME,NC,VA
Endosulfan II	CT,NH,NY,ME,NC,VA
Endosulfan II [2C]	CT,NH,NY,ME,NC,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8081B in Water	
Endosulfan Sulfate	CT,NH,NY,ME,NC,VA
Endosulfan Sulfate [2C]	CT,NH,NY,ME,NC,VA
Endrin	CT,NH,NY,ME,NC,VA
Endrin [2C]	CT,NH,NY,ME,NC,VA
Endrin Aldehyde	CT,NH,NY,ME,NC,VA
Endrin Aldehyde [2C]	CT,NH,NY,ME,NC,VA
Endrin Ketone	NC
Endrin Ketone [2C]	NC
Heptachlor	CT,NH,NY,ME,NC,VA
Heptachlor [2C]	CT,NH,NY,ME,NC,VA
Heptachlor Epoxide	CT,NH,NY,ME,NC,VA
Heptachlor Epoxide [2C]	CT,NH,NY,ME,NC,VA
Hexachlorobenzene	NC
Hexachlorobenzene [2C]	NC
Methoxychlor	CT,NH,NY,ME,NC,VA
Methoxychlor [2C]	CT,NH,NY,ME,NC,VA
Toxaphene	CT,NH,NY,ME,NC,VA
Toxaphene [2C]	CT,NH,NY,ME,NC,VA
SW-846 8082A in Soil	
Aroclor-1016	CT,NH,NY,NC,ME,VA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1221	CT,NH,NY,NC,ME,VA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1232	CT,NH,NY,NC,ME,VA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1242	CT,NH,NY,NC,ME,VA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1248	CT,NH,NY,NC,ME,VA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1254	CT,NH,NY,NC,ME,VA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1260	CT,NH,NY,NC,ME,VA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1262	NH,NY,NC,ME,VA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA
Aroclor-1268	NH,NY,NC,ME,VA
Aroclor-1268 [2C]	NH,NY,NC,ME,VA
SW-846 8260C in Soil	
Acetone	CT,NH,NY,ME,VA
Benzene	CT,NH,NY,VA
Benzene	CT,NH,NY,ME,VA
Bromochloromethane	NH,NY,ME,VA
Bromodichloromethane	CT,NH,NY,ME,VA
Bromoform	CT,NH,NY,ME,VA
Bromomethane	CT,NH,NY,ME,VA
2-Butanone (MEK)	CT,NH,NY,ME,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260C in Soil	
n-Butylbenzene	CT,NH,NY,VA
n-Butylbenzene	CT,NH,NY,ME,VA
sec-Butylbenzene	CT,NH,NY,ME,VA
sec-Butylbenzene	CT,NH,NY,VA
tert-Butylbenzene	CT,NH,NY,VA
tert-Butylbenzene	CT,NH,NY,ME,VA
Carbon Disulfide	CT,NH,NY,ME,VA
Carbon Tetrachloride	CT,NH,NY,ME,VA
Chlorobenzene	CT,NH,NY,ME,VA
Chlorodibromomethane	CT,NH,NY,ME,VA
Chloroethane	CT,NH,NY,ME,VA
Chloroform	CT,NH,NY,ME,VA
Chloromethane	CT,NH,NY,ME,VA
1,2-Dichlorobenzene	CT,NH,NY,ME,VA
1,3-Dichlorobenzene	CT,NH,NY,ME,VA
1,4-Dichlorobenzene	CT,NH,NY,ME,VA
Dichlorodifluoromethane (Freon 12)	NH,NY,ME,VA
1,1-Dichloroethane	CT,NH,NY,ME,VA
1,2-Dichloroethane	CT,NH,NY,ME,VA
1,1-Dichloroethylene	CT,NH,NY,ME,VA
cis-1,2-Dichloroethylene	CT,NH,NY,ME,VA
trans-1,2-Dichloroethylene	CT,NH,NY,ME,VA
1,2-Dichloropropane	CT,NH,NY,ME,VA
cis-1,3-Dichloropropene	CT,NH,NY,ME,VA
trans-1,3-Dichloropropene	CT,NH,NY,ME,VA
Ethylbenzene	CT,NH,NY,ME,VA
Ethylbenzene	CT,NH,NY,VA
Hexachlorobutadiene	NH,NY,ME,VA
2-Hexanone (MBK)	CT,NH,NY,ME,VA
Isopropylbenzene (Cumene)	CT,NH,NY,VA
Isopropylbenzene (Cumene)	CT,NH,NY,ME,VA
p-Isopropyltoluene (p-Cymene)	NH,NY
p-Isopropyltoluene (p-Cymene)	NH,NY
Methyl tert-Butyl Ether (MTBE)	NY,VA
Methyl tert-Butyl Ether (MTBE)	NY,VA
Methylene Chloride	CT,NH,NY,ME,VA
4-Methyl-2-pentanone (MIBK)	CT,NH,NY,VA
Naphthalene	NH,NY,ME,VA
Naphthalene	NH,NY,VA
n-Propylbenzene	NH,NY
n-Propylbenzene	NH,NY
Styrene	CT,NH,NY,ME,VA
1,1,2,2-Tetrachloroethane	CT,NH,NY,ME,VA
Tetrachloroethylene	CT,NH,NY,ME,VA
Toluene	CT,NH,NY,VA
Toluene	CT,NH,NY,ME,VA
1,2,3-Trichlorobenzene	ME

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Analyte	Certifications
SW-846 8260C in Soil	
1,2,4-Trichlorobenzene	NH,NY,ME,VA
1,1,1-Trichloroethane	CT,NH,NY,ME,VA
1,1,2-Trichloroethane	CT,NH,NY,ME,VA
Trichloroethylene	CT,NH,NY,ME,VA
Trichlorofluoromethane (Freon 11)	CT,NH,NY,ME,VA
1,2,4-Trimethylbenzene	CT,NH,NY,VA
1,2,4-Trimethylbenzene	CT,NH,NY,ME,VA
1,3,5-Trimethylbenzene	CT,NH,NY,VA
1,3,5-Trimethylbenzene	CT,NH,NY,ME,VA
Vinyl Chloride	CT,NH,NY,ME,VA
m+p Xylene	CT,NH,VA
m+p Xylene	CT,NH,NY,ME,VA
o-Xylene	CT,NH,NY,ME,VA
o-Xylene	CT,NH,VA
SW-846 8260C in Water	
Acetone	CT,NY,ME,NH,VA
Benzene	CT,NY,ME,NH,VA
Bromochloromethane	NY,ME,NH,VA
Bromodichloromethane	CT,NY,ME,NH,VA
Bromoform	CT,NY,ME,NH,VA
Bromomethane	CT,NY,ME,NH,VA
2-Butanone (MEK)	CT,NY,ME,NH,VA
n-Butylbenzene	NY,ME,VA
sec-Butylbenzene	NY,ME,VA
tert-Butylbenzene	NY,ME,VA
Carbon Disulfide	CT,NY,ME,NH,VA
Carbon Tetrachloride	CT,NY,ME,NH,VA
Chlorobenzene	CT,NY,ME,NH,VA
Chlorodibromomethane	CT,NY,ME,NH,VA
Chloroethane	CT,NY,ME,NH,VA
Chloroform	CT,NY,ME,NH,VA
Chloromethane	CT,NY,ME,NH,VA
1,2-Dichlorobenzene	CT,NY,ME,NH,VA
1,3-Dichlorobenzene	CT,NY,ME,NH,VA
1,4-Dichlorobenzene	CT,NY,ME,NH,VA
Dichlorodifluoromethane (Freon 12)	NY,ME,NH,VA
1,1-Dichloroethane	CT,NY,ME,NH,VA
1,2-Dichloroethane	CT,NY,ME,NH,VA
1,1-Dichloroethylene	CT,NY,ME,NH,VA
cis-1,2-Dichloroethylene	NY,ME
trans-1,2-Dichloroethylene	CT,NY,ME,NH,VA
1,2-Dichloropropane	CT,NY,ME,NH,VA
cis-1,3-Dichloropropene	CT,NY,ME,NH,VA
trans-1,3-Dichloropropene	CT,NY,ME,NH,VA
Ethylbenzene	CT,NY,ME,NH,VA
Hexachlorobutadiene	CT,NY,ME,NH,VA

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CERTIFICATIONS

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Analyte	Certifications
SW-846 8260C in Water	
2-Hexanone (MBK)	CT,NY,ME,NH,VA
Isopropylbenzene (Cumene)	NY,ME,VA
p-Isopropyltoluene (p-Cymene)	CT,NY,ME,NH,VA
Methyl tert-Butyl Ether (MTBE)	CT,NY,ME,NH,VA
Methylene Chloride	CT,NY,ME,NH,VA
4-Methyl-2-pentanone (MIBK)	CT,NY,ME,NH,VA
Naphthalene	NY,ME,NH,VA
n-Propylbenzene	CT,NY,ME,NH,VA
Styrene	CT,NY,ME,NH,VA
1,1,2,2-Tetrachloroethane	CT,NY,ME,NH,VA
Tetrachloroethylene	CT,NY,ME,NH,VA
Toluene	CT,NY,ME,NH,VA
1,2,3-Trichlorobenzene	NY,ME,NH,VA
1,2,4-Trichlorobenzene	CT,NY,ME,NH,VA
1,1,1-Trichloroethane	CT,NY,ME,NH,VA
1,1,2-Trichloroethane	CT,NY,ME,NH,VA
Trichloroethylene	CT,NY,ME,NH,VA
Trichlorofluoromethane (Freon 11)	CT,NY,ME,NH,VA
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	NY,VA
1,2,4-Trimethylbenzene	NY,ME,VA
1,3,5-Trimethylbenzene	NY,ME,VA
Vinyl Chloride	CT,NY,ME,NH,VA
m+p Xylene	CT,NY,ME,NH,VA
o-Xylene	CT,NY,ME,NH,VA
SW-846 8270D in Soil	
Acenaphthene	CT,NY,NH,VA
Acenaphthene	CT,NY,NH,ME,NC,VA
Acenaphthylene	CT,NY,NH,ME,NC,VA
Acenaphthylene	CT,NY,NH,VA
Acetophenone	NY,NH,ME,NC,VA
Anthracene	CT,NY,NH,ME,NC,VA
Anthracene	CT,NY,NH,VA
Benzo(a)anthracene	CT,NY,NH,VA
Benzo(a)anthracene	CT,NY,NH,ME,NC,VA
Benzo(a)pyrene	CT,NY,NH,VA
Benzo(a)pyrene	CT,NY,NH,ME,NC,VA
Benzo(b)fluoranthene	CT,NY,NH,ME,NC,VA
Benzo(b)fluoranthene	CT,NY,NH,VA
Benzo(g,h,i)perylene	CT,NY,NH,ME,NC,VA
Benzo(g,h,i)perylene	CT,NY,NH,VA
Benzo(k)fluoranthene	CT,NY,NH,VA
Benzo(k)fluoranthene	CT,NY,NH,ME,NC,VA
Bis(2-chloroethoxy)methane	CT,NY,NH,ME,NC,VA
Bis(2-chloroethyl)ether	CT,NY,NH,ME,NC,VA
Bis(2-chloroisopropyl)ether	CT,NY,NH,ME,NC,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NH,ME,NC,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270D in Soil	
4-Bromophenylphenylether	CT,NY,NH,ME,NC,VA
Butylbenzylphthalate	CT,NY,NH,ME,NC,VA
Carbazole	NC
4-Chloroaniline	CT,NY,NH,ME,NC,VA
4-Chloro-3-methylphenol	CT,NY,NH,ME,NC,VA
2-Chloronaphthalene	CT,NY,NH,NC,VA
2-Chlorophenol	CT,NY,NH,ME,NC,VA
4-Chlorophenylphenylether	CT,NY,NH,ME,NC,VA
Chrysene	CT,NY,NH,VA
Chrysene	CT,NY,NH,ME,NC,VA
Dibenz(a,h)anthracene	CT,NY,NH,VA
Dibenz(a,h)anthracene	CT,NY,NH,ME,NC,VA
Dibenzofuran	CT,NY,NH,ME,NC,VA
Di-n-butylphthalate	CT,NY,NH,ME,NC,VA
1,2-Dichlorobenzene	NY,NH,ME,NC,VA
1,3-Dichlorobenzene	NY,NH,ME,NC,VA
1,4-Dichlorobenzene	NY,NH,ME,NC,VA
3,3-Dichlorobenzidine	CT,NY,NH,ME,NC,VA
2,4-Dichlorophenol	CT,NY,NH,ME,NC,VA
Diethylphthalate	CT,NY,NH,ME,NC,VA
2,4-Dimethylphenol	CT,NY,NH,ME,NC,VA
Dimethylphthalate	CT,NY,NH,ME,NC,VA
4,6-Dinitro-2-methylphenol	CT,NY,NH,ME,NC,VA
2,4-Dinitrophenol	CT,NY,NH,ME,NC,VA
2,4-Dinitrotoluene	CT,NY,NH,ME,NC,VA
2,6-Dinitrotoluene	CT,NY,NH,ME,NC,VA
Di-n-octylphthalate	CT,NY,NH,ME,NC,VA
Fluoranthene	CT,NY,NH,ME,NC,VA
Fluoranthene	CT,NY,NH,VA
Fluorene	CT,NY,NH,VA
Fluorene	NY,NH,ME,NC,VA
Hexachlorobenzene	CT,NY,NH,ME,NC,VA
Hexachlorobutadiene	CT,NY,NH,ME,NC,VA
Hexachlorocyclopentadiene	CT,NY,NH,ME,NC,VA
Hexachloroethane	CT,NY,NH,ME,NC,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NH,ME,NC,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NH,VA
Isophorone	CT,NY,NH,ME,NC,VA
2-Methylnaphthalene	CT,NY,NH,ME,NC,VA
2-Methylphenol	CT,NY,NH,ME,NC,VA
3/4-Methylphenol	CT,NY,NH,ME,NC,VA
Naphthalene	CT,NY,NH,ME,NC,VA
Naphthalene	CT,NY,NH,VA
2-Nitroaniline	CT,NY,NH,ME,NC,VA
3-Nitroaniline	CT,NY,NH,ME,NC,VA
4-Nitroaniline	CT,NY,NH,ME,NC,VA
Nitrobenzene	CT,NY,NH,ME,NC,VA

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Analyte	Certifications
SW-846 8270D in Soil	
2-Nitrophenol	CT,NY,NH,ME,NC,VA
4-Nitrophenol	CT,NY,NH,ME,NC,VA
N-Nitrosodiphenylamine	CT,NY,NH,ME,NC,VA
N-Nitrosodi-n-propylamine	CT,NY,NH,ME,NC,VA
Pentachlorophenol	CT,NY,NH,ME,NC,VA
Phenanthrene	CT,NY,NH,VA
Phenanthrene	CT,NY,NH,ME,NC,VA
Phenol	CT,NY,NH,ME,NC,VA
Pyrene	CT,NY,NH,VA
Pyrene	CT,NY,NH,ME,NC,VA
1,2,4,5-Tetrachlorobenzene	NC
1,2,4-Trichlorobenzene	CT,NY,NH,ME,NC,VA
2,4,5-Trichlorophenol	CT,NY,NH,ME,NC,VA
2,4,6-Trichlorophenol	CT,NY,NH,ME,NC,VA
Atrazine	ME,NC
2-Fluorophenol	NC
SW-846 8270D in Water	
Acenaphthene	CT,NY,NC,ME,NH,VA
Acenaphthene	CT,NY,NC,NH
Acenaphthylene	CT,NY,NC,ME,NH,VA
Acenaphthylene	CT,NY,NC,NH
Acetophenone	NC
Acetophenone	NC
Anthracene	CT,NY,NC,NH
Anthracene	CT,NY,NC,ME,NH,VA
Benzo(a)anthracene	CT,NY,NC,ME,NH,VA
Benzo(a)anthracene	CT,NY,NC,NH
Benzo(a)pyrene	CT,NY,NC,ME,NH,VA
Benzo(a)pyrene	CT,NY,NC,NH
Benzo(b)fluoranthene	CT,NY,NC,NH
Benzo(b)fluoranthene	CT,NY,NC,ME,NH,VA
Benzo(g,h,i)perylene	CT,NY,NC,NH
Benzo(g,h,i)perylene	CT,NY,NC,ME,NH,VA
Benzo(k)fluoranthene	CT,NY,NC,NH
Benzo(k)fluoranthene	CT,NY,NC,ME,NH,VA
Bis(2-chloroethoxy)methane	CT,NY,NC,ME,NH,VA
Bis(2-chloroethoxy)methane	CT,NY,NC,NH
Bis(2-chloroethyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-chloroethyl)ether	CT,NY,NC,NH
Bis(2-chloroisopropyl)ether	CT,NY,NC,NH
Bis(2-chloroisopropyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NC,NH
Bis(2-Ethylhexyl)phthalate	CT,NY,NC,ME,NH,VA
4-Bromophenylphenylether	CT,NY,NC,ME,NH,VA
4-Bromophenylphenylether	CT,NY,NC,NH
Butylbenzylphthalate	CT,NY,NC,NH

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Analyte	Certifications
SW-846 8270D in Water	
Butylbenzylphthalate	CT,NY,NC,ME,NH,VA
Carbazole	NC
Carbazole	NC
4-Chloroaniline	CT,NY,NC,ME,NH,VA
4-Chloroaniline	CT,NY,NC,NH
4-Chloro-3-methylphenol	CT,NY,NC,ME,NH,VA
4-Chloro-3-methylphenol	CT,NY,NC,NH
2-Chloronaphthalene	CT,NY,NC,ME,NH,VA
2-Chloronaphthalene	CT,NY,NC,NH
2-Chlorophenol	CT,NY,NC,ME,NH,VA
2-Chlorophenol	CT,NY,NC,NH
4-Chlorophenylphenylether	CT,NY,NC,ME,NH,VA
4-Chlorophenylphenylether	CT,NY,NC,NH
Chrysene	CT,NY,NC,ME,NH,VA
Chrysene	CT,NY,NC,NH
Dibenz(a,h)anthracene	CT,NY,NC,NH
Dibenz(a,h)anthracene	CT,NY,NC,ME,NH,VA
Dibenzofuran	CT,NY,NC,ME,NH,VA
Dibenzofuran	CT,NY,NC,NH
Di-n-butylphthalate	CT,NY,NC,NH
Di-n-butylphthalate	CT,NY,NC,ME,NH,VA
1,2-Dichlorobenzene	CT,NY,NC,NH
1,2-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,3-Dichlorobenzene	CT,NY,NC,NH
1,3-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,4-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,4-Dichlorobenzene	CT,NY,NC,NH
3,3-Dichlorobenzidine	CT,NY,NC,NH
3,3-Dichlorobenzidine	CT,NY,NC,ME,NH,VA
2,4-Dichlorophenol	CT,NY,NC,NH
2,4-Dichlorophenol	CT,NY,NC,ME,NH,VA
Diethylphthalate	CT,NY,NC,NH
Diethylphthalate	CT,NY,NC,ME,NH,VA
2,4-Dimethylphenol	CT,NY,NC,ME,NH,VA
2,4-Dimethylphenol	CT,NY,NC,NH
Dimethylphthalate	CT,NY,NC,ME,NH,VA
Dimethylphthalate	CT,NY,NC,NH
4,6-Dinitro-2-methylphenol	CT,NY,NC,NH
4,6-Dinitro-2-methylphenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrophenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrophenol	CT,NY,NC,NH
2,4-Dinitrotoluene	CT,NY,NC,ME,NH,VA
2,4-Dinitrotoluene	CT,NY,NC,NH
2,6-Dinitrotoluene	CT,NY,NC,ME,NH,VA
2,6-Dinitrotoluene	CT,NY,NC,NH
Di-n-octylphthalate	CT,NY,NC,ME,NH,VA
Di-n-octylphthalate	CT,NY,NC,NH

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Analyte	Certifications
SW-846 8270D in Water	
Fluoranthene	CT,NY,NC,ME,NH,VA
Fluoranthene	CT,NY,NC,NH
Fluorene	NY,NC,NH
Fluorene	NY,NC,ME,NH,VA
Hexachlorobenzene	CT,NY,NC,NH
Hexachlorobenzene	CT,NY,NC,ME,NH,VA
Hexachlorobutadiene	CT,NY,NC,ME,NH,VA
Hexachlorobutadiene	CT,NY,NC,NH
Hexachlorocyclopentadiene	CT,NY,NC,NH
Hexachlorocyclopentadiene	CT,NY,NC,ME,NH,VA
Hexachloroethane	CT,NY,NC,ME,NH,VA
Hexachloroethane	CT,NY,NC,NH
Indeno(1,2,3-cd)pyrene	CT,NY,NC,ME,NH,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NC,NH
Isophorone	CT,NY,NC,NH
Isophorone	CT,NY,NC,ME,NH,VA
2-Methylnaphthalene	CT,NY,NC,ME,NH,VA
2-Methylnaphthalene	CT,NY,NC,NH
2-Methylphenol	CT,NY,NC,NH,VA
2-Methylphenol	CT,NY,NC,NH
3/4-Methylphenol	CT,NY,NC,NH,VA
3/4-Methylphenol	CT,NY,NC,NH
Naphthalene	CT,NY,NC,NH
Naphthalene	CT,NY,NC,ME,NH,VA
2-Nitroaniline	CT,NY,NC,ME,NH,VA
2-Nitroaniline	CT,NY,NC,NH
3-Nitroaniline	CT,NY,NC,ME,NH,VA
3-Nitroaniline	CT,NY,NC,NH
4-Nitroaniline	CT,NY,NC,ME,NH,VA
4-Nitroaniline	CT,NY,NC,NH
Nitrobenzene	CT,NY,NC,NH
Nitrobenzene	CT,NY,NC,ME,NH,VA
2-Nitrophenol	CT,NY,NC,NH
2-Nitrophenol	CT,NY,NC,ME,NH,VA
4-Nitrophenol	CT,NY,NC,NH
4-Nitrophenol	CT,NY,NC,ME,NH,VA
N-Nitrosodiphenylamine	CT,NY,NC,NH
N-Nitrosodiphenylamine	CT,NY,NC,ME,NH,VA
N-Nitrosodi-n-propylamine	CT,NY,NC,NH
N-Nitrosodi-n-propylamine	CT,NY,NC,ME,NH,VA
Pentachlorophenol	CT,NY,NC,NH
Pentachlorophenol	CT,NY,NC,ME,NH,VA
Phenanthrene	CT,NY,NC,ME,NH,VA
Phenanthrene	CT,NY,NC,NH
Phenol	CT,NY,NC,NH
Phenol	CT,NY,NC,ME,NH,VA
Pyrene	CT,NY,NC,NH

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Analyte	Certifications
SW-846 8270D in Water	
Pyrene	CT,NY,NC,ME,NH,VA
1,2,4,5-Tetrachlorobenzene	NC
1,2,4,5-Tetrachlorobenzene	NC
1,2,4-Trichlorobenzene	CT,NY,NC,NH
1,2,4-Trichlorobenzene	CT,NY,NC,ME,NH,VA
2,4,5-Trichlorophenol	CT,NY,NC,ME,NH,VA
2,4,5-Trichlorophenol	CT,NY,NC,NH
2,4,6-Trichlorophenol	CT,NY,NC,ME,NH,VA
2,4,6-Trichlorophenol	CT,NY,NC,NH
2-Fluorophenol	NC
2-Fluorophenol	NC
SW-846 9014 in Soil	
Cyanide	NY,CT,NC,ME,NH,VA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2018
MA	Massachusetts DEP	M-MA100	06/30/2016
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2017
NY	New York State Department of Health	10899 NELAP	04/1/2017
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2017
RI	Rhode Island Department of Health	LAO00112	12/30/2016
NC	North Carolina Div. of Water Quality	652	12/31/2016
NJ	New Jersey DEP	MA007 NELAP	06/30/2016
FL	Florida Department of Health	E871027 NELAP	06/30/2016
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2016
ME	State of Maine	2011028	06/9/2017
VA	Commonwealth of Virginia	460217	12/14/2016
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2016

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East longmeadow, MA 01028

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○ OTHER
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Date/~~Time~~	Collection ~~Ending Date~~/Time	Composite	Grab	*Matrix Code	Conc Code	CP-51, Table 3 (included with CoC)	CP-51/TCL listed VOCs + TICs	CP-51/TCL listed SVOCs + TICs	PCB, TAL Metals, pest, herb	TPH - GRO	Hex chromium	Cyanide, TPH DRO, pH, reactivity and ignitability				
								ANALYSIS REQUESTED										
								4	3	1	1	1	1	1				# of Containers
									☒									** Preservation
								G	G	G	G	G	G	G				***Container Code
01	TRC-UST-1	3/19/16	9:30			S	U	X										
02	TRC-UST-2	↓	8:50			↓	↓	X										
03	TRC-SB-1 (1-3')	↓	11:33			↓	↓		X	X	X							
04	TRC-SB-1 (10-12')	↓	11:36			↓	↓		X	X	X	X	X	X				
05	TRC-SB-2 (1-3')	↓	13:54			↓	↓		X	X	X	X	X	X				
06	TRC-SB-2 (10-12')	↓	13:58			↓	↓		X	X	X							
07	TRC-SB-3 (1-3')	3/20/16	10:25			↓	↓		X	X	X							
08	TRC-SB-3 (10-12')	↓	10:30			↓	↓		X	X	X							
09	TRC-SB-4 (1-3')	3/19/16	10:00			↓	↓		X	X	X							
10	TRC-SB-4 (10-12')	↓	10:03			↓	↓		X	X	X							

Comments: Terracores frozen by TRC on 3/24/16 @ 1700

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other _____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other _____

Relinquished by: (signature)	Date/Time: 3/24/16 17:00	
Received by: (signature)	Date/Time: 3/21/16 1:25	
Relinquished by: (signature)	Date/Time: 3/21/16 4:20	
Received by: (signature) 3.21.16	Date/Time: 16:20	

Turnaround ††
☐ 7-Day
☐ 10-Day
☒ Other 5-DAY
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP ?
○ MCP Form Required
○ RCP Form Required
○ MA State DW Form Required PWSID #

Frozen 3.21.16 16:20

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

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Table of Contents

con-test ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

CHAIN OF CUSTODY RECORD

16C0970

Rev 04.05.12

39 Spruce Street
East longmeadow, MA 01028

Company Name: TRC Solutions Engineers Inc.
Address: 1430 Broadway, 10th Fl
New York, NY 10018
Attention: Patrick Nanea
Project Location: 4500
Sampled By: Rachel Adams

Telephone: 212-221-7822
Project #
Client PO#

DATA DELIVERY (check all that apply)
○ FAX ☒ EMAIL ○ WEBSITE
Fax #
Email: PNARCA@trcsolutions.com
Format: ☒ PDF ☒ EXCEL ○ GIS
○ OTHER
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	CP51/TCL Listed VOCs + TICs	PB/TCL Listed SVOCs + TICs, PB TAL Metals (Post 1978)	TPH - GRO	Hex Chromium	Cyanide, TPH, SO4, pH (Reactivity, Ignitability)
	TRC-SB-5 (1-3')	3/20/16	12:30			S	U	X	X			
* Revised by TRC on 3/21/16 (PN)	TRC-SB-5 (10-12')	↓	12:45			↓	↓	X	X	X	X	X
REVISION	TRC-SB-6 (1-3')	3/19/16	16:35			↓	↓	X	X	X	X	X
	TRC-SB-6 (10-12')	↓	16:40			↓	↓	X	X			
	TRC-SB-7 (1-3')	↓	14:55			↓	↓	X	X			
	TRC-SB-7 (10-12')	↓	15:00			↓	↓	X	X	X	X	X
	TRC-SB-8 (1-3')	3/20/16	19:20			↓	↓	X	X			
	TRC-SB-8 (10-12')	↓	14:25			↓	↓	X	X			
	TRC-SB-9 (1-3')	↓	11:30			↓	↓	X	X			
	TRC-SB-9 (10-12')	↓	11:35			↓	↓	X	X			
# of Containers								3	1	1	1	1
** Preservation												
***Container Code								G	G	G	G	G

ANALYSIS REQUESTED

Comments: Terracores frozen by TRC on 3/20/16 @ 1700

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL= sludge
O = other_____

Relinquished by: (signature)	Date/Time: 3/21/16 1100	
Received by: (signature)	Date/Time: 3/21 1121	
Relinquished by: (signature)	Date/Time:	
Received by: (signature) Paul 3.21.16	Date/Time: 16:20	

Turnaround ††
☐ 7-Day
☐ 10-Day
☑ Other 5-DAY

RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP ?
○ MCP Form Required
○ RCP Form Required
○ MA State DW Form Required PWSID # _____

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

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16C0970

Rev 04.05.12

39 Spruce Street
East longmeadow, MA 01028

Company Name: TRC ~~Solutions~~ Engineers, Inc. Telephone: 212-221-7822

Address: 1430 Broadway, 10th Fl
New York, NY 10018

Project #

Client PO#

Attention: Patrick Narea

Project Location: 450Q

Sampled By: Rachel Adams

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

DATA DELIVERY (check all that apply)
○ FAX ☒ EMAIL ○ WEBSITE
Fax #
Email: PNAREA@Trcsolutions.com
Format: ☒ PDF ☒ EXCEL ○ GIS
○ OTHER
○ "Enhanced Data Package"

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/~~Time~~	Collection Ending ~~Date~~/Time	Composite	Grab	*Matrix Code	Conc Code	CP-51/TCL listed VOCs + TICs	CP-51/TCL listed SVOCs + TICs, PCB, TAL Metals, pest, herb	TPH - GRO	Hex chromium	Cyanide, TPH DRO, pH, reactivity and ignitability
11	TRC-SB-5 (1-3')	3/20/16	12:30			S	U	X	X			
12	TRC-SB-5 (10-12')	↓	12:45			↓	↓	X	X			
13	TRC-SB-6 (1-3')	3/19/16	16:35					X	X	X	X	X
14	TRC-SB-6 (10-12')		16:40					X	X			
15	TRC-SB-7 (1-3')		14:55					X	X			
16	TRC-SB-7 (10-12')	↓	15:00					X	X	X	X	X
17	TRC-SB-8 (1-3')	3/20/16	14:20					X	X			
18	TRC-SB-8 (10-12')		14:25					X	X			
19	TRC-SB-9 (1-3')		11:30					X	X			
20	TRC-SB-9 (10-12')	↓	11:35			↓	↓	X	X			

# of Containers	3	1	1	1	1																			
** Preservation																								
***Container Code	G	G	G	G	G																			

ANALYSIS REQUESTED

Comments: Terracores frozen by TRC on 3/20/16 @ 1700

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:

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☐ 7-Day
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☒ Other 5-Day
RUSH †
☐ †24-Hr ☐ †48-Hr
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† Require lab approval

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Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP ?
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Frozen
3.21.16 16:20

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

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								3	1	3	2	1	1	12				
										H	✓	N	N					
								G	G	G	G	P	P					
21	DUP-1	3/19/16	10:05			S	U	X	X									
22	TRC-GW-1	↓	13:30			GW	↓			X	X	X	X					
~~23~~	~~TRC-GW-2~~	3/20/16				↓	↓			X	X	X	X		(AJ)			
23	TRC-GW-3	↓	14:10			↓	↓			X	X	X	X					
24	TRC-GW-4	3/19/16	15:40			↓	↓			X	X	X	X					
25	TRC-GW-5	3/20/16	13:00			↓	↓			X	X	X	X	X				
26	Trip Blank	—	—			WW	↓	X										

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of Containers
** Preservation
***Container Code

Dissolved Metals
☒ Field Filtered
○ Lab to Filter

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39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY

Sample Receipt Checklist

CLIENT NAME: TRC **RECEIVED BY**: PB **DATE**: 3/21/2016

1) Was the chain(s) of custody relinquished and signed? **Yes** x **No** ____ **No COC Incl.**

2) Does the chain agree with the samples? **Yes** x **No** ____

If not, explain:

3) Are all the samples in good condition? **Yes** x **No** ____

If not, explain:

4) How were the samples received:

On Ice x Direct from Sampling ____ Ambient ____ In Cooler(s) x

Were the samples received in Temperature Compliance of (2-6°C)? **Yes** x **No** ____ **N/A** ____

Temperature °C by Temp blank ____ Temperature °C by Temp gun 6

5) Are there Dissolved samples for the lab to filter? **Yes** ____ **No** x

Who was notified ____ Date ____ Time ____

6) Are there any RUSH or SHORT HOLDING TIME samples? **Yes** x **No** ____

Who was notified ___ Lucy Date ____ Time ____

7) Location where samples are stored: Login

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature: ____

8) Do all samples have the proper Acid pH: **Yes** x **No** ____ **N/A** ____

9) Do all samples have the proper Base pH: **Yes** ____ **No** ____ **N/A** x

10) Was the PC notified of any discrepancies with the CoC vs the samples: **Yes** ____ **N/A** x

Containers received at Con-Test

	# of containers			# of containers
1 Liter Amber	10		16 oz amber	21
500 mL Amber	1		8 oz amber/clear jar	5 Ambers
250 mL Amber (8oz amber)			4 oz amber/clear jar	5 Ambers
1 Liter Plastic			2 oz amber/clear jar	
500 mL Plastic	5		Plastic Bag / Ziploc	
250 mL plastic	10		SOC Kit	
40 mL Vial - type listed below	91		Perchlorate Kit	
Colisure / bacteria bottle			Flashpoint bottle	1
Dissolved Oxygen bottle			Other glass jar	
Encore			Other	

40 mL vials:	# HCl	17	# Methanol	28
	# Bisulfate		# DI Water	46
	# Thiosulfate		Unpreserved	

Time and Date Frozen:
3/21/2016 16:20

Login Sample Receipt Checklist

(Rejection Criteria Listing - Using Sample Acceptance Policy)

Any False statement will be brought to the attention of Client

Question	Answer (True/False) T/F/NA	Comment
1) The cooler's custody seal, if present, is intact.	NA	
2) The cooler or samples do not appear to have been compromised or tampered with.	T	
3) Samples were received on ice.	T	
4) Cooler Temperature is acceptable.	T	
5) Cooler Temperature is recorded.	T	
6) COC is filled out in ink and legible.	T	
7) COC is filled out with all pertinent information.	T	
8) Field Sampler's name present on COC.	T	
9) There are no discrepancies between the sample IDs on the container and the COC.	T	
10) Samples are received within Holding Time.	T	
11) Sample containers have legible labels.	T	
12) Containers are not broken or leaking.	T	
13) Air Cassettes are not broken/open.	NA	
14) Sample collection date/times are provided.	T	
15) Appropriate sample containers are used.	T	
16) Proper collection media used.	T	
17) No headspace sample bottles are completely filled.	T	
18) There is sufficient volume for all requsted analyses, including any requested MS/MSDs.	T	
19) Trip blanks provided if applicable.	T	
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	T	
21) Samples do not require splitting or compositing.	T	

Who notified of False statements? **Date/Time:**

Doc #277 Rev. 4 August 2013 **Log-In Technician Initials:** PB **Date/Time: 3/21/16**

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

March 29, 2016

Pat Narea
TRC Engineers, Inc.
1430 Broadway 10th Floor
New York, NY 10018

Project Location: 450Q
Client Job Number:
Project Number: 450Q
Laboratory Work Order Number: 16C0972

Enclosed are results of analyses for samples received by the laboratory on March 21, 2016. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley
Project Manager

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con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

TRC Engineers, Inc.
1430 Broadway 10th Floor
New York, NY 10018
ATTN: Pat Narea

REPORT DATE: 3/29/2016

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 450Q

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 16C0972

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 450Q

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
TRC-SV-1	16C0972-01	Soil Gas		EPA TO-15	
				EPA TO-15 Modified	
TRC-SV-2	16C0972-02	Soil Gas		EPA TO-15	
				EPA TO-15 Modified	
TRC-SV-3	16C0972-03	Soil Gas		EPA TO-15	
				EPA TO-15 Modified	
TRC-SV-4	16C0972-04	Soil Gas		EPA TO-15	
				EPA TO-15 Modified	
TRC-SV-5	16C0972-05	Soil Gas		EPA TO-15	
				EPA TO-15 Modified	
TRC-SV-6	16C0972-06	Soil Gas		EPA TO-15	
				EPA TO-15 Modified	
TRC-SV-7	16C0972-07	Soil Gas		EPA TO-15	
				EPA TO-15 Modified	

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

EPA TO-15

Qualifications:

L-01

Laboratory fortified blank /laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.

Analyte & Samples(s) Qualified:

Methyl tert-Butyl Ether (MTBE)

B145302-BS1

V-06

Continuing calibration did not meet method specifications and was biased on the high side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the high side.

Analyte & Samples(s) Qualified:

Methyl tert-Butyl Ether (MTBE)

B145302-BS1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Project Manager

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: 450Q
Date Received: 3/21/2016
Field Sample #: TRC-SV-1
Sample ID: 16C0972-01
Sample Matrix: Soil Gas
Sampled: 3/19/2016 10:10

Sample Description/Location:
Sub Description/Location:
Canister ID: 2074
Canister Size: 6 liter
Flow Controller ID: 4246
Sample Type: 1 hr

Work Order: 16C0972
Initial Vacuum(in Hg): 30
Final Vacuum(in Hg): 2.5
Receipt Vacuum(in Hg): -1.1
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Benzene	1.8	0.20		5.7	0.64	4	3/27/16 0:44	TPH
Carbon Tetrachloride	ND	0.10		ND	0.63	4	3/27/16 0:44	TPH
Chlorobenzene	ND	0.20		ND	0.92	4	3/27/16 0:44	TPH
Chloroethane	ND	0.20		ND	0.53	4	3/27/16 0:44	TPH
Chloromethane	ND	0.40		ND	0.83	4	3/27/16 0:44	TPH
1,2-Dichlorobenzene	ND	0.20		ND	1.2	4	3/27/16 0:44	TPH
1,3-Dichlorobenzene	ND	0.20		ND	1.2	4	3/27/16 0:44	TPH
1,1-Dichloroethane	ND	0.10		ND	0.40	4	3/27/16 0:44	TPH
1,2-Dichloroethane	ND	0.20		ND	0.81	4	3/27/16 0:44	TPH
1,1-Dichloroethylene	ND	0.10		ND	0.40	4	3/27/16 0:44	TPH
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	4	3/27/16 0:44	TPH
trans-1,2-Dichloroethylene	ND	0.10		ND	0.40	4	3/27/16 0:44	TPH
1,2-Dichloropropane	ND	0.10		ND	0.46	4	3/27/16 0:44	TPH
Ethylbenzene	1.1	0.20		5.0	0.87	4	3/27/16 0:44	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.20		ND	0.72	4	3/27/16 0:44	TPH
Methylene Chloride	ND	2.0		ND	6.9	4	3/27/16 0:44	TPH
Naphthalene	0.26	0.20		1.4	1.0	4	3/27/16 0:44	TPH
Tetrachloroethylene	0.57	0.10		3.9	0.68	4	3/27/16 0:44	TPH
Toluene	140	0.20		540	0.75	4	3/27/16 0:44	TPH
1,1,1-Trichloroethane	0.16	0.10		0.87	0.55	4	3/27/16 0:44	TPH
Trichloroethylene	0.13	0.10		0.69	0.54	4	3/27/16 0:44	TPH
1,2,4-Trimethylbenzene	0.45	0.20		2.2	0.98	4	3/27/16 0:44	TPH
1,3,5-Trimethylbenzene	ND	0.20		ND	0.98	4	3/27/16 0:44	TPH
Vinyl Chloride	ND	0.10		ND	0.26	4	3/27/16 0:44	TPH
m&p-Xylene	3.7	0.40		16	1.7	4	3/27/16 0:44	TPH
o-Xylene	1.2	0.20		5.1	0.87	4	3/27/16 0:44	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	107	70-130	3/27/16 0:44

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ANALYTICAL RESULTS

Project Location: 450Q
Date Received: 3/21/2016
Field Sample #: TRC-SV-1
Sample ID: 16C0972-01
Sample Matrix: Soil Gas
Sampled: 3/19/2016 10:10

Sample Description/Location:
Sub Description/Location:
Canister ID: 2074
Canister Size: 6 liter
Flow Controller ID: 4246
Sample Type: 1 hr

Work Order: 16C0972
Initial Vacuum(in Hg): 30
Final Vacuum(in Hg): 2.5
Receipt Vacuum(in Hg): -1.1
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15 Modified

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Formaldehyde	ND	15		ND	18	0.75	3/25/16 21:08	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	123	70-130	3/25/16 21:08

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ANALYTICAL RESULTS

Project Location: 450Q
Date Received: 3/21/2016
Field Sample #: TRC-SV-2
Sample ID: 16C0972-02
Sample Matrix: Soil Gas
Sampled: 3/19/2016 10:30

Sample Description/Location:
Sub Description/Location:
Canister ID: 1634
Canister Size: 6 liter
Flow Controller ID: 4247
Sample Type: 1 hr

Work Order: 16C0972
Initial Vacuum(in Hg): 30
Final Vacuum(in Hg): 3
Receipt Vacuum(in Hg): -1.8
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Benzene	4.1	0.20		13	0.64	4	3/27/16 2:03	TPH
Carbon Tetrachloride	ND	0.10		ND	0.63	4	3/27/16 2:03	TPH
Chlorobenzene	ND	0.20		ND	0.92	4	3/27/16 2:03	TPH
Chloroethane	ND	0.20		ND	0.53	4	3/27/16 2:03	TPH
Chloromethane	0.68	0.40		1.4	0.83	4	3/27/16 2:03	TPH
1,2-Dichlorobenzene	ND	0.20		ND	1.2	4	3/27/16 2:03	TPH
1,3-Dichlorobenzene	ND	0.20		ND	1.2	4	3/27/16 2:03	TPH
1,1-Dichloroethane	ND	0.10		ND	0.40	4	3/27/16 2:03	TPH
1,2-Dichloroethane	ND	0.20		ND	0.81	4	3/27/16 2:03	TPH
1,1-Dichloroethylene	ND	0.10		ND	0.40	4	3/27/16 2:03	TPH
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	4	3/27/16 2:03	TPH
trans-1,2-Dichloroethylene	ND	0.10		ND	0.40	4	3/27/16 2:03	TPH
1,2-Dichloropropane	ND	0.10		ND	0.46	4	3/27/16 2:03	TPH
Ethylbenzene	1.1	0.20		4.9	0.87	4	3/27/16 2:03	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.20		ND	0.72	4	3/27/16 2:03	TPH
Methylene Chloride	ND	2.0		ND	6.9	4	3/27/16 2:03	TPH
Naphthalene	ND	0.20		ND	1.0	4	3/27/16 2:03	TPH
Tetrachloroethylene	0.14	0.10		0.92	0.68	4	3/27/16 2:03	TPH
Toluene	94	0.20		350	0.75	4	3/27/16 2:03	TPH
1,1,1-Trichloroethane	ND	0.10		ND	0.55	4	3/27/16 2:03	TPH
Trichloroethylene	ND	0.10		ND	0.54	4	3/27/16 2:03	TPH
1,2,4-Trimethylbenzene	0.41	0.20		2.0	0.98	4	3/27/16 2:03	TPH
1,3,5-Trimethylbenzene	ND	0.20		ND	0.98	4	3/27/16 2:03	TPH
Vinyl Chloride	ND	0.10		ND	0.26	4	3/27/16 2:03	TPH
m&p-Xylene	3.5	0.40		15	1.7	4	3/27/16 2:03	TPH
o-Xylene	1.2	0.20		5.2	0.87	4	3/27/16 2:03	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	108	70-130	3/27/16 2:03

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ANALYTICAL RESULTS

Project Location: 450Q
Date Received: 3/21/2016
Field Sample #: TRC-SV-2
Sample ID: 16C0972-02
Sample Matrix: Soil Gas
Sampled: 3/19/2016 10:30

Sample Description/Location:
Sub Description/Location:
Canister ID: 1634
Canister Size: 6 liter
Flow Controller ID: 4247
Sample Type: 1 hr

Work Order: 16C0972
Initial Vacuum(in Hg): 30
Final Vacuum(in Hg): 3
Receipt Vacuum(in Hg): -1.8
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15 Modified

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Formaldehyde	ND	15		ND	18	0.75	3/25/16 21:43	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	121	70-130	3/25/16 21:43

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ANALYTICAL RESULTS

Project Location: 450Q
Date Received: 3/21/2016
Field Sample #: TRC-SV-3
Sample ID: 16C0972-03
Sample Matrix: Soil Gas
Sampled: 3/20/2016 09:25

Sample Description/Location:
Sub Description/Location:
Canister ID: 2058
Canister Size: 6 liter
Flow Controller ID: 4146
Sample Type: 1 hr

Work Order: 16C0972
Initial Vacuum(in Hg): 25
Final Vacuum(in Hg): 2
Receipt Vacuum(in Hg): -2.3
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Benzene	1.3	0.20		4.0	0.64	4	3/27/16 3:22	TPH
Carbon Tetrachloride	ND	0.10		ND	0.63	4	3/27/16 3:22	TPH
Chlorobenzene	ND	0.20		ND	0.92	4	3/27/16 3:22	TPH
Chloroethane	ND	0.20		ND	0.53	4	3/27/16 3:22	TPH
Chloromethane	ND	0.40		ND	0.83	4	3/27/16 3:22	TPH
1,2-Dichlorobenzene	ND	0.20		ND	1.2	4	3/27/16 3:22	TPH
1,3-Dichlorobenzene	ND	0.20		ND	1.2	4	3/27/16 3:22	TPH
1,1-Dichloroethane	ND	0.10		ND	0.40	4	3/27/16 3:22	TPH
1,2-Dichloroethane	ND	0.20		ND	0.81	4	3/27/16 3:22	TPH
1,1-Dichloroethylene	ND	0.10		ND	0.40	4	3/27/16 3:22	TPH
cis-1,2-Dichloroethylene	0.20	0.10		0.81	0.40	4	3/27/16 3:22	TPH
trans-1,2-Dichloroethylene	ND	0.10		ND	0.40	4	3/27/16 3:22	TPH
1,2-Dichloropropane	ND	0.10		ND	0.46	4	3/27/16 3:22	TPH
Ethylbenzene	ND	0.20		ND	0.87	4	3/27/16 3:22	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.20		ND	0.72	4	3/27/16 3:22	TPH
Methylene Chloride	ND	2.0		ND	6.9	4	3/27/16 3:22	TPH
Naphthalene	0.24	0.20		1.3	1.0	4	3/27/16 3:22	TPH
Tetrachloroethylene	3.5	0.10		24	0.68	4	3/27/16 3:22	TPH
Toluene	0.46	0.20		1.7	0.75	4	3/27/16 3:22	TPH
1,1,1-Trichloroethane	ND	0.10		ND	0.55	4	3/27/16 3:22	TPH
Trichloroethylene	0.26	0.10		1.4	0.54	4	3/27/16 3:22	TPH
1,2,4-Trimethylbenzene	0.79	0.20		3.9	0.98	4	3/27/16 3:22	TPH
1,3,5-Trimethylbenzene	0.23	0.20		1.1	0.98	4	3/27/16 3:22	TPH
Vinyl Chloride	ND	0.10		ND	0.26	4	3/27/16 3:22	TPH
m&p-Xylene	0.81	0.40		3.5	1.7	4	3/27/16 3:22	TPH
o-Xylene	0.31	0.20		1.3	0.87	4	3/27/16 3:22	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	107	70-130	3/27/16 3:22

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ANALYTICAL RESULTS

Project Location: 450Q
Date Received: 3/21/2016
Field Sample #: TRC-SV-3
Sample ID: 16C0972-03
Sample Matrix: Soil Gas
Sampled: 3/20/2016 09:25

Sample Description/Location:
Sub Description/Location:
Canister ID: 2058
Canister Size: 6 liter
Flow Controller ID: 4146
Sample Type: 1 hr

Work Order: 16C0972
Initial Vacuum(in Hg): 25
Final Vacuum(in Hg): 2
Receipt Vacuum(in Hg): -2.3
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15 Modified

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Formaldehyde	ND	15		ND	18	0.75	3/25/16 22:18	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	114	70-130	3/25/16 22:18

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ANALYTICAL RESULTS

Project Location: 450Q
Date Received: 3/21/2016
Field Sample #: TRC-SV-4
Sample ID: 16C0972-04
Sample Matrix: Soil Gas
Sampled: 3/20/2016 10:10

Sample Description/Location:
Sub Description/Location:
Canister ID: 2070
Canister Size: 6 liter
Flow Controller ID: 4247
Sample Type: 1 hr

Work Order: 16C0972
Initial Vacuum(in Hg): 29.5
Final Vacuum(in Hg): 2
Receipt Vacuum(in Hg): -1.3
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Benzene	1.3	0.20		4.1	0.64	4	3/27/16 4:42	TPH
Carbon Tetrachloride	ND	0.10		ND	0.63	4	3/27/16 4:42	TPH
Chlorobenzene	ND	0.20		ND	0.92	4	3/27/16 4:42	TPH
Chloroethane	ND	0.20		ND	0.53	4	3/27/16 4:42	TPH
Chloromethane	ND	0.40		ND	0.83	4	3/27/16 4:42	TPH
1,2-Dichlorobenzene	ND	0.20		ND	1.2	4	3/27/16 4:42	TPH
1,3-Dichlorobenzene	ND	0.20		ND	1.2	4	3/27/16 4:42	TPH
1,1-Dichloroethane	ND	0.10		ND	0.40	4	3/27/16 4:42	TPH
1,2-Dichloroethane	ND	0.20		ND	0.81	4	3/27/16 4:42	TPH
1,1-Dichloroethylene	ND	0.10		ND	0.40	4	3/27/16 4:42	TPH
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	4	3/27/16 4:42	TPH
trans-1,2-Dichloroethylene	ND	0.10		ND	0.40	4	3/27/16 4:42	TPH
1,2-Dichloropropane	ND	0.10		ND	0.46	4	3/27/16 4:42	TPH
Ethylbenzene	2.8	0.20		12	0.87	4	3/27/16 4:42	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.20		ND	0.72	4	3/27/16 4:42	TPH
Methylene Chloride	ND	2.0		ND	6.9	4	3/27/16 4:42	TPH
Naphthalene	0.20	0.20		1.1	1.0	4	3/27/16 4:42	TPH
Tetrachloroethylene	5.0	0.10		34	0.68	4	3/27/16 4:42	TPH
Toluene	1.1	0.20		4.0	0.75	4	3/27/16 4:42	TPH
1,1,1-Trichloroethane	0.13	0.10		0.72	0.55	4	3/27/16 4:42	TPH
Trichloroethylene	ND	0.10		ND	0.54	4	3/27/16 4:42	TPH
1,2,4-Trimethylbenzene	0.24	0.20		1.2	0.98	4	3/27/16 4:42	TPH
1,3,5-Trimethylbenzene	ND	0.20		ND	0.98	4	3/27/16 4:42	TPH
Vinyl Chloride	ND	0.10		ND	0.26	4	3/27/16 4:42	TPH
m&p-Xylene	9.5	0.40		41	1.7	4	3/27/16 4:42	TPH
o-Xylene	2.5	0.20		11	0.87	4	3/27/16 4:42	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	104	70-130	3/27/16 4:42

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ANALYTICAL RESULTS

Project Location: 450Q
Date Received: 3/21/2016
Field Sample #: TRC-SV-4
Sample ID: 16C0972-04
Sample Matrix: Soil Gas
Sampled: 3/20/2016 10:10

Sample Description/Location:
Sub Description/Location:
Canister ID: 2070
Canister Size: 6 liter
Flow Controller ID: 4247
Sample Type: 1 hr

Work Order: 16C0972
Initial Vacuum(in Hg): 29.5
Final Vacuum(in Hg): 2
Receipt Vacuum(in Hg): -1.3
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15 Modified

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Formaldehyde	ND	15		ND	18	0.75	3/25/16 22:53	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	112	70-130	3/25/16 22:53

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ANALYTICAL RESULTS

Project Location: 450Q
Date Received: 3/21/2016
Field Sample #: TRC-SV-5
Sample ID: 16C0972-05
Sample Matrix: Soil Gas
Sampled: 3/19/2016 10:59

Sample Description/Location:
Sub Description/Location:
Canister ID: 2057
Canister Size: 6 liter
Flow Controller ID: 4229
Sample Type: 1 hr

Work Order: 16C0972
Initial Vacuum(in Hg): 28
Final Vacuum(in Hg): 3.5
Receipt Vacuum(in Hg): -4.4
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Benzene	0.36	0.20		1.1	0.64	4	3/27/16 6:01	TPH
Carbon Tetrachloride	ND	0.10		ND	0.63	4	3/27/16 6:01	TPH
Chlorobenzene	ND	0.20		ND	0.92	4	3/27/16 6:01	TPH
Chloroethane	ND	0.20		ND	0.53	4	3/27/16 6:01	TPH
Chloromethane	0.60	0.40		1.2	0.83	4	3/27/16 6:01	TPH
1,2-Dichlorobenzene	ND	0.20		ND	1.2	4	3/27/16 6:01	TPH
1,3-Dichlorobenzene	ND	0.20		ND	1.2	4	3/27/16 6:01	TPH
1,1-Dichloroethane	ND	0.10		ND	0.40	4	3/27/16 6:01	TPH
1,2-Dichloroethane	ND	0.20		ND	0.81	4	3/27/16 6:01	TPH
1,1-Dichloroethylene	ND	0.10		ND	0.40	4	3/27/16 6:01	TPH
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	4	3/27/16 6:01	TPH
trans-1,2-Dichloroethylene	ND	0.10		ND	0.40	4	3/27/16 6:01	TPH
1,2-Dichloropropane	ND	0.10		ND	0.46	4	3/27/16 6:01	TPH
Ethylbenzene	0.66	0.20		2.8	0.87	4	3/27/16 6:01	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.20		ND	0.72	4	3/27/16 6:01	TPH
Methylene Chloride	ND	2.0		ND	6.9	4	3/27/16 6:01	TPH
Naphthalene	0.20	0.20		1.1	1.0	4	3/27/16 6:01	TPH
Tetrachloroethylene	0.20	0.10		1.3	0.68	4	3/27/16 6:01	TPH
Toluene	100	0.20		390	0.75	4	3/27/16 6:01	TPH
1,1,1-Trichloroethane	ND	0.10		ND	0.55	4	3/27/16 6:01	TPH
Trichloroethylene	ND	0.10		ND	0.54	4	3/27/16 6:01	TPH
1,2,4-Trimethylbenzene	0.41	0.20		2.0	0.98	4	3/27/16 6:01	TPH
1,3,5-Trimethylbenzene	ND	0.20		ND	0.98	4	3/27/16 6:01	TPH
Vinyl Chloride	ND	0.10		ND	0.26	4	3/27/16 6:01	TPH
m&p-Xylene	2.3	0.40		9.9	1.7	4	3/27/16 6:01	TPH
o-Xylene	0.74	0.20		3.2	0.87	4	3/27/16 6:01	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	101	70-130	3/27/16 6:01

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ANALYTICAL RESULTS

Project Location: 450Q
Date Received: 3/21/2016
Field Sample #: TRC-SV-5
Sample ID: 16C0972-05
Sample Matrix: Soil Gas
Sampled: 3/19/2016 10:59

Sample Description/Location:
Sub Description/Location:
Canister ID: 2057
Canister Size: 6 liter
Flow Controller ID: 4229
Sample Type: 1 hr

Work Order: 16C0972
Initial Vacuum(in Hg): 28
Final Vacuum(in Hg): 3.5
Receipt Vacuum(in Hg): -4.4
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15 Modified

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Formaldehyde	ND	15		ND	18	0.75	3/25/16 23:28	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	113	70-130	3/25/16 23:28

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ANALYTICAL RESULTS

Project Location: 450Q
Date Received: 3/21/2016
Field Sample #: TRC-SV-6
Sample ID: 16C0972-06
Sample Matrix: Soil Gas
Sampled: 3/20/2016 09:45

Sample Description/Location:
Sub Description/Location:
Canister ID: 1657
Canister Size: 6 liter
Flow Controller ID: 4147
Sample Type: 1 hr

Work Order: 16C0972
Initial Vacuum(in Hg): 29.5
Final Vacuum(in Hg): 3.0
Receipt Vacuum(in Hg): -3
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Benzene	0.94	0.20		3.0	0.64	4	3/27/16 7:20	TPH
Carbon Tetrachloride	ND	0.10		ND	0.63	4	3/27/16 7:20	TPH
Chlorobenzene	ND	0.20		ND	0.92	4	3/27/16 7:20	TPH
Chloroethane	ND	0.20		ND	0.53	4	3/27/16 7:20	TPH
Chloromethane	ND	0.40		ND	0.83	4	3/27/16 7:20	TPH
1,2-Dichlorobenzene	ND	0.20		ND	1.2	4	3/27/16 7:20	TPH
1,3-Dichlorobenzene	ND	0.20		ND	1.2	4	3/27/16 7:20	TPH
1,1-Dichloroethane	ND	0.10		ND	0.40	4	3/27/16 7:20	TPH
1,2-Dichloroethane	ND	0.20		ND	0.81	4	3/27/16 7:20	TPH
1,1-Dichloroethylene	ND	0.10		ND	0.40	4	3/27/16 7:20	TPH
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	4	3/27/16 7:20	TPH
trans-1,2-Dichloroethylene	ND	0.10		ND	0.40	4	3/27/16 7:20	TPH
1,2-Dichloropropane	ND	0.10		ND	0.46	4	3/27/16 7:20	TPH
Ethylbenzene	0.62	0.20		2.7	0.87	4	3/27/16 7:20	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.20		ND	0.72	4	3/27/16 7:20	TPH
Methylene Chloride	ND	2.0		ND	6.9	4	3/27/16 7:20	TPH
Naphthalene	0.26	0.20		1.4	1.0	4	3/27/16 7:20	TPH
Tetrachloroethylene	12	0.10		79	0.68	4	3/27/16 7:20	TPH
Toluene	0.89	0.20		3.4	0.75	4	3/27/16 7:20	TPH
1,1,1-Trichloroethane	0.15	0.10		0.83	0.55	4	3/27/16 7:20	TPH
Trichloroethylene	ND	0.10		ND	0.54	4	3/27/16 7:20	TPH
1,2,4-Trimethylbenzene	0.42	0.20		2.1	0.98	4	3/27/16 7:20	TPH
1,3,5-Trimethylbenzene	ND	0.20		ND	0.98	4	3/27/16 7:20	TPH
Vinyl Chloride	ND	0.10		ND	0.26	4	3/27/16 7:20	TPH
m&p-Xylene	2.8	0.40		12	1.7	4	3/27/16 7:20	TPH
o-Xylene	0.91	0.20		3.9	0.87	4	3/27/16 7:20	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	104	70-130	3/27/16 7:20

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: 450Q
Date Received: 3/21/2016
Field Sample #: TRC-SV-6
Sample ID: 16C0972-06
Sample Matrix: Soil Gas
Sampled: 3/20/2016 09:45

Sample Description/Location:
Sub Description/Location:
Canister ID: 1657
Canister Size: 6 liter
Flow Controller ID: 4147
Sample Type: 1 hr

Work Order: 16C0972
Initial Vacuum(in Hg): 29.5
Final Vacuum(in Hg): 3.0
Receipt Vacuum(in Hg): -3
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15 Modified

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Formaldehyde	ND	15		ND	18	0.75	3/26/16 0:03	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	112	70-130	3/26/16 0:03

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ANALYTICAL RESULTS

Project Location: 450Q
Date Received: 3/21/2016
Field Sample #: TRC-SV-7
Sample ID: 16C0972-07
Sample Matrix: Soil Gas
Sampled: 3/20/2016 09:36

Sample Description/Location:
Sub Description/Location:
Canister ID: 1638
Canister Size: 6 liter
Flow Controller ID: 4152
Sample Type: 1 hr

Work Order: 16C0972
Initial Vacuum(in Hg): 30
Final Vacuum(in Hg): 3.0
Receipt Vacuum(in Hg): -1.2
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Benzene	2.3	0.20		7.3	0.64	4	3/27/16 8:40	TPH
Carbon Tetrachloride	ND	0.10		ND	0.63	4	3/27/16 8:40	TPH
Chlorobenzene	ND	0.20		ND	0.92	4	3/27/16 8:40	TPH
Chloroethane	ND	0.20		ND	0.53	4	3/27/16 8:40	TPH
Chloromethane	ND	0.40		ND	0.83	4	3/27/16 8:40	TPH
1,2-Dichlorobenzene	ND	0.20		ND	1.2	4	3/27/16 8:40	TPH
1,3-Dichlorobenzene	ND	0.20		ND	1.2	4	3/27/16 8:40	TPH
1,1-Dichloroethane	ND	0.10		ND	0.40	4	3/27/16 8:40	TPH
1,2-Dichloroethane	ND	0.20		ND	0.81	4	3/27/16 8:40	TPH
1,1-Dichloroethylene	ND	0.10		ND	0.40	4	3/27/16 8:40	TPH
cis-1,2-Dichloroethylene	ND	0.10		ND	0.40	4	3/27/16 8:40	TPH
trans-1,2-Dichloroethylene	ND	0.10		ND	0.40	4	3/27/16 8:40	TPH
1,2-Dichloropropane	ND	0.10		ND	0.46	4	3/27/16 8:40	TPH
Ethylbenzene	0.24	0.20		1.1	0.87	4	3/27/16 8:40	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.20		ND	0.72	4	3/27/16 8:40	TPH
Methylene Chloride	ND	2.0		ND	6.9	4	3/27/16 8:40	TPH
Naphthalene	ND	0.20		ND	1.0	4	3/27/16 8:40	TPH
Tetrachloroethylene	1.5	0.10		10	0.68	4	3/27/16 8:40	TPH
Toluene	1.0	0.20		3.9	0.75	4	3/27/16 8:40	TPH
1,1,1-Trichloroethane	0.12	0.10		0.63	0.55	4	3/27/16 8:40	TPH
Trichloroethylene	ND	0.10		ND	0.54	4	3/27/16 8:40	TPH
1,2,4-Trimethylbenzene	ND	0.20		ND	0.98	4	3/27/16 8:40	TPH
1,3,5-Trimethylbenzene	ND	0.20		ND	0.98	4	3/27/16 8:40	TPH
Vinyl Chloride	ND	0.10		ND	0.26	4	3/27/16 8:40	TPH
m&p-Xylene	0.95	0.40		4.1	1.7	4	3/27/16 8:40	TPH
o-Xylene	0.32	0.20		1.4	0.87	4	3/27/16 8:40	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	107	70-130	3/27/16 8:40

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ANALYTICAL RESULTS

Project Location: 450Q
Date Received: 3/21/2016
Field Sample #: TRC-SV-7
Sample ID: 16C0972-07
Sample Matrix: Soil Gas
Sampled: 3/20/2016 09:36

Sample Description/Location:
Sub Description/Location:
Canister ID: 1638
Canister Size: 6 liter
Flow Controller ID: 4152
Sample Type: 1 hr

Work Order: 16C0972
Initial Vacuum(in Hg): 30
Final Vacuum(in Hg): 3.0
Receipt Vacuum(in Hg): -1.2
Flow Controller Type: Fixed-Orifice
Flow Controller Calibration
RPD Pre and Post-Sampling:

EPA TO-15 Modified

Analyte	ppbv Results	ppbv RL	Flag/Qual	ug/m3 Results	ug/m3 RL	Dilution	Date/Time Analyzed	Analyst
Formaldehyde	ND	15		ND	18	0.75	3/26/16 0:39	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	115	70-130	3/26/16 0:39

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Sample Extraction Data

Prep Method: TO-15 Prep-EPA TO-15

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
16C0972-01 [TRC-SV-1]	B145302	1.5	1	N/A	1000	400	150	03/26/16
16C0972-02 [TRC-SV-2]	B145302	1.5	1	N/A	1000	400	150	03/26/16
16C0972-03 [TRC-SV-3]	B145302	1.5	1	N/A	1000	400	150	03/26/16
16C0972-04 [TRC-SV-4]	B145302	1.5	1	N/A	1000	400	150	03/26/16
16C0972-05 [TRC-SV-5]	B145302	1.5	1	N/A	1000	400	150	03/26/16
16C0972-06 [TRC-SV-6]	B145302	1.5	1	N/A	1000	400	150	03/26/16
16C0972-07 [TRC-SV-7]	B145302	1.5	1	N/A	1000	400	150	03/26/16

Prep Method: TO-15 Prep-EPA TO-15 Modified

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
16C0972-01 [TRC-SV-1]	B145264	1.5	1	N/A	1000	100	200	03/25/16
16C0972-02 [TRC-SV-2]	B145264	1.5	1	N/A	1000	100	200	03/25/16
16C0972-03 [TRC-SV-3]	B145264	1.5	1	N/A	1000	100	200	03/25/16
16C0972-04 [TRC-SV-4]	B145264	1.5	1	N/A	1000	100	200	03/25/16
16C0972-05 [TRC-SV-5]	B145264	1.5	1	N/A	1000	100	200	03/25/16
16C0972-06 [TRC-SV-6]	B145264	1.5	1	N/A	1000	100	200	03/25/16
16C0972-07 [TRC-SV-7]	B145264	1.5	1	N/A	1000	100	200	03/25/16

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Formaldehyde - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B145264 - TO-15 Prep											
Blank (B145264-BLK1)					Prepared & Analyzed: 03/25/16						
Formaldehyde	ND	10									
Surrogate: 4-Bromofluorobenzene (1)	*22.6*				*20.0*		*113*	*70-130*			
LCS (B145264-BS1)					Prepared & Analyzed: 03/25/16						
Formaldehyde	182				200		91.1	70-130			
Surrogate: 4-Bromofluorobenzene (1)	*23.2*				*20.0*		*116*	*70-130*			
Duplicate (B145264-DUP1)		**Source: 16C0972-07**			Prepared: 03/25/16 Analyzed: 03/26/16						
Formaldehyde	ND	15	ND	18		ND				25	
Surrogate: 4-Bromofluorobenzene (1)	*22.9*				*20.0*		*114*	*70-130*			

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B145302 - TO-15 Prep											
Blank (B145302-BLK1)					Prepared & Analyzed: 03/26/16						
Benzene	ND	0.035									
Carbon Tetrachloride	ND	0.035									
Chlorobenzene	ND	0.035									
Chloroethane	ND	0.035									
Chloromethane	ND	0.070									
1,2-Dichlorobenzene	ND	0.035									
1,3-Dichlorobenzene	ND	0.035									
1,1-Dichloroethane	ND	0.035									
1,2-Dichloroethane	ND	0.035									
1,1-Dichloroethylene	ND	0.035									
cis-1,2-Dichloroethylene	ND	0.035									
trans-1,2-Dichloroethylene	ND	0.035									
1,2-Dichloropropane	ND	0.035									
Ethylbenzene	ND	0.035									
Methyl tert-Butyl Ether (MTBE)	ND	0.035									
Methylene Chloride	ND	0.35									
Naphthalene	ND	0.035									
Tetrachloroethylene	ND	0.035									
Toluene	ND	0.035									
1,1,1-Trichloroethane	ND	0.035									
Trichloroethylene	ND	0.035									
1,2,4-Trimethylbenzene	ND	0.035									
1,3,5-Trimethylbenzene	ND	0.035									
Vinyl Chloride	ND	0.035									
m&p-Xylene	ND	0.070									
o-Xylene	ND	0.035									
Surrogate: 4-Bromofluorobenzene (1)	*8.11*				*8.00*		*101*	*70-130*			

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QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	ppbv RL	ug/m3 Results	ug/m3 RL	Spike Level ppbv	Source Result	%REC		%REC Limits	RPD	RPD Limit	Flag/Qual
Batch B145302 - TO-15 Prep												
LCS (B145302-BS1)					Prepared & Analyzed: 03/26/16							
Benzene	4.99				5.00		99.8		70-130			
Carbon Tetrachloride	4.84				5.00		96.8		70-130			
Chlorobenzene	4.41				5.00		88.2		70-130			
Chloroethane	5.09				5.00		102		70-130			
Chloromethane	5.11				5.00		102		70-130			
1,2-Dichlorobenzene	5.46				5.00		109		70-130			
1,3-Dichlorobenzene	5.23				5.00		105		70-130			
1,1-Dichloroethane	5.11				5.00		102		70-130			
1,2-Dichloroethane	5.52				5.00		110		70-130			
1,1-Dichloroethylene	5.25				5.00		105		70-130			
cis-1,2-Dichloroethylene	5.05				5.00		101		70-130			
trans-1,2-Dichloroethylene	5.09				5.00		102		70-130			
1,2-Dichloropropane	3.98				5.00		79.5		70-130			
Ethylbenzene	5.25				5.00		105		70-130			
Methyl tert-Butyl Ether (MTBE)	6.67				5.00		**133**	*	70-130			L-01, V-06
Methylene Chloride	4.27				5.00		85.4		70-130			
Naphthalene	5.84				5.00		117		70-130			
Tetrachloroethylene	5.34				5.00		107		70-130			
Toluene	5.11				5.00		102		70-130			
1,1,1-Trichloroethane	4.86				5.00		97.3		70-130			
Trichloroethylene	4.68				5.00		93.5		70-130			
1,2,4-Trimethylbenzene	5.67				5.00		113		70-130			
1,3,5-Trimethylbenzene	5.42				5.00		108		70-130			
Vinyl Chloride	5.24				5.00		105		70-130			
m&p-Xylene	11.2				10.0		112		70-130			
o-Xylene	5.24				5.00		105		70-130			
Surrogate: 4-Bromofluorobenzene (1)	*8.58*				*8.00*		*107*		*70-130*			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

L-01	Laboratory fortified blank /laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.
V-06	Continuing calibration did not meet method specifications and was biased on the high side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the high side.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Benzene	AIHA,FL,NJ,NY,VA,ME
Carbon Tetrachloride	AIHA,FL,NJ,NY,VA,ME
Chlorobenzene	AIHA,FL,NJ,NY,VA,ME
Chloroethane	AIHA,FL,NJ,NY,VA,ME
Chloromethane	AIHA,FL,NJ,NY,VA,ME
1,2-Dichlorobenzene	AIHA,FL,NJ,NY,VA,ME
1,3-Dichlorobenzene	AIHA,NJ,NY,ME
1,1-Dichloroethane	AIHA,FL,NJ,NY,VA,ME
1,2-Dichloroethane	AIHA,FL,NJ,NY,VA,ME
1,1-Dichloroethylene	AIHA,FL,NJ,NY,VA,ME
cis-1,2-Dichloroethylene	AIHA,FL,NY,VA,ME
trans-1,2-Dichloroethylene	AIHA,NJ,NY,VA,ME
1,2-Dichloropropane	AIHA,FL,NJ,NY,VA,ME
Ethylbenzene	AIHA,FL,NJ,NY,VA,ME
Methyl tert-Butyl Ether (MTBE)	AIHA,FL,NJ,NY,VA,ME
Methylene Chloride	AIHA,FL,NJ,NY,VA,ME
Naphthalene	NY,ME
Tetrachloroethylene	AIHA,FL,NJ,NY,VA,ME
Toluene	AIHA,FL,NJ,NY,VA,ME
1,1,1-Trichloroethane	AIHA,FL,NJ,NY,VA,ME
Trichloroethylene	AIHA,FL,NJ,NY,VA,ME
1,2,4-Trimethylbenzene	AIHA,NJ,NY,ME
1,3,5-Trimethylbenzene	AIHA,NJ,NY,ME
Vinyl Chloride	AIHA,FL,NJ,NY,VA,ME
m&p-Xylene	AIHA,FL,NJ,NY,VA,ME
o-Xylene	AIHA,FL,NJ,NY,VA,ME
EPA TO-15 Modified in Air	
Formaldehyde	NJ,AIHA,NY,VA,ME

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2018
MA	Massachusetts DEP	M-MA100	06/30/2016
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2017
NY	New York State Department of Health	10899 NELAP	04/1/2016
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2017
RI	Rhode Island Department of Health	LAO00112	12/30/2016
NC	North Carolina Div. of Water Quality	652	12/31/2016
NJ	New Jersey DEP	MA007 NELAP	06/30/2016
FL	Florida Department of Health	E871027 NELAP	06/30/2016
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2016
WA	State of Washington Department of Ecology	C2065	02/23/2016
ME	State of Maine	2011028	06/9/2017
VA	Commonwealth of Virginia	460217	12/14/2016
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2016

16C0972

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http://www.contestlabs.com

Doc #378 Rev 0 5/8/15

CHAIN OF CUSTODY RECORD (AIR)

39 Spruce Street
East Longmeadow, MA 01028

Page 1 of 1

Company Name: TRC Engineers, Inc.
Address: 1430 Broadway, 10th Fl, New York, NY 10018
Phone: 212-221-7822
Project Name: 450 Q
Project Location: 450 Q
Project Number:
Project Manager: Patrick Narea
Con-Test Bid:
Invoice Recipient: Patrick Narea
Sampled By: Lindsay Metcalf, Patrick Narea

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Other: 5 DAY

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☐ EXCEL ☐
Other:
Enhanced Data Package Required: ☐
Email To:
Fax To #:

ANALYSIS REQUESTED

Lab Use	Client Use	Collection Data		Duration	Flow Rate	Matrix	Volume	TO-15 plus SIM (VOCs)*	Formaldehyde - detection limit: 0.016 ppm			" Hg			Please fill out completely, sign, date and retain the yellow copy for your records. Summa canisters and flow controllers must be returned within 15 days of receipt or rental fees will apply. For summa canister and flow controller information please refer to Con-Test's Air Media Agreement	
Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Total Minutes Sampled	☐ m³/min ☐ L/min	Code	☐ Liters ☐ m³					Initial Pressure	Final Pressure	Lab Receipt Pressure	Summa Can ID	Flow Controller ID
01	TRC-SV-1	3/19/16 910	3/19/16 1010	60		SG		X	X			30	2.5	-1.1	2074	4246
02	TRC-SV-2	3/19/16 0935	1030	55				X	X			30	3	-1.8	1634	4247
03	TRC-SV-3	3/20/16 0829	0925	56				X	X			25	2	-2.3	2058	4146
04	TRC-SV-4	3/20/16 0915	1010	60				X	X			21.5	2	-1.3	2070	4247
05	TRC-SV-5	3/19/16 1007	1059	52				X	X			28	3.5	-4.4	2057	4229
06	TRC-SV-6	3/20/16 0845	0945	60				X	X			24.5	3.0	-3	1657	4147
07	TRC-SV-7	3/20/16 0836	0936	60				X	X			30	3.0	-1.2	1638	4152

Comments: NYCSCA Project 26 VOC list
* Detection limits: vinyl chloride - 0.25 µg, TCE - 0.25 µg, carbon tetrachloride - 0.25 µg, formaldehyde - 0.016 ppm

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Matrix Codes:
SG = SOIL GAS
IA = INDOOR AIR
AMB = AMBIENT
SS = SUB SLAB
D = DUP
BL = BLANK
O = Other_____

Relinquished by: (signature)	Date/Time: 3/20/16 1700
Received by: (signature)	Date/Time: 3/21/16 1:25
Relinquished by: (signature)	Date/Time: 3/21/16 4:20
Received by: (signature) 3/21/16	Date/Time: 1620
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Detection Limit Requirements
MA
CT
Other

Special Requirements
☐ MA MCP Required
☐ CT RCP Required
☐ Enhanced Data Package Required

NELAC and AIHA-LAP, LLC Accredited

TURNAROUND TIME (BUSINESS DAYS) STARTS AT 9:00 AM THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON THIS CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME CANNOT START UNTIL ALL QUESTIONS HAVE BEEN ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

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con-test® ANALYTICAL LABORATORY

39 Spruce St.
East Longmeadow, MA.
01028
P: 413-525-2332
F: 413-525-6405

AIR Only Receipt Checklist

CLIENT NAME TRC **RECEIVED BY**: JDL **DATE**: 3/21/2016

1) Was the chain(s) of custody relinquished and signed? **Yes** X **No** ____

2) Does the chain agree with the samples? **Yes** X **No** ____

If not, explain:

3) Are all the samples in good condition? **Yes** X **No** ____

If not, explain:

4) Are there any samples "On Hold"? **Yes** ____ **No** X Stored where:

5) Are there any RUSH or SHORT HOLDING TIME samples? **Yes** ____ **No** X

Who was notified _____ Date _____ Time _____

6) Location where samples are stored:

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature: _____

7) Number of cans Individually Certified or Batch Certified? _____ 7

Containers received at Con-Test

		# of Containers	Types (Size, Duration)
Summa Cans (TO-14/TO-15/APH)		7	6L
Tedlar Bags			
TO-17 Tubes			
Regulators		7	1hr
Restrictors			
Hg/Hopcalite Tube (NIOSH 6009)			
(TO-4A/ TO-10A/TO-13) PUFs			
PCB Florisil Tubes (NIOSH 5503)			
Air cassette			
PM 2.5/PM 10			
TO-11A Cartridges			
Other			

Unused Summas/PUF Media:

Unused Regulators:

1) Was all media (used & unused) checked into the WASP?

2) Were all returned summa cans, Restrictors & Regulators and PUF's documented as returned in the Air Lab Inbound/Outbound Excel Spreadsheet?

Laboratory Comments:				Summa ID's:		2074	2057		Regulators:		4246	4229				
						1634	1657				4247	4147				
						2058	1638				4146	4152				
						2070					4247					

Page 2 of 2

Login Sample Receipt Checklist

(Rejection Criteria Listing - Using Sample Acceptance Policy)

Any False statement will be brought to the attention of Client

Question	Answer (True/False) T/F/NA	Comment
1) The coolers'/boxes' custody seal, if present, is intact.	NA	
2) The cooler or samples do not appear to have been compromised or tampered with.	T	
3) Samples were received on ice.	NA	
4) Cooler Temperature is acceptable.	NA	
5) Cooler Temperature is recorded.	NA	
6) COC is filled out in ink and legible.	T	
7) COC is filled out with all pertinent information.	T	
8) Field Sampler's name present on COC.	T	
9) Samples are received within Holding Time.	T	
10) Sample containers have legible labels.	T	
11) Containers/media are not broken or leaking and valves and caps are closed tightly.	F	972-01,02,04,06,07 received closed without
12) Sample collection date/times are provided.	T	
13) Appropriate sample/media containers are used.	T	
14) There is sufficient volume for all requsted analyses, including any requested MS/MSDs.	T	
15) Trip blanks provided if applicable.	NA	

Who notified of False statements? **Date/Time:**

Doc #278 Rev. 5 October 2014 **Log-In Technician Initials:** **JDL** **3/21/16 1620**

Air Sampling Media Certificate of Analysis

Date Analyzed: 3/14/2016 **Batch #:** F031410.D

Certification Type: *Batch Certified* ☐ *Individual Certified* ☑

Media Type: *Summa Canister* ☑ *Flow Controllers* ☐

Media IDs: BC2074

Note:Two ID's grouped together, for example BC2136/BC3145, represents matched pairs of certified summa canisters and flow controllers.

Units: PPBv

<0.80	Propene	<0.04	Vinyl acetate	<0.02	Dibromchloromethane
<0.02	Dichlorodifluoromethane	<0.20	Hexane	<0.02	1,2-Dibromomethane
<0.04	Chloromethane	<0.02	Ethyl acetate	<0.02	Tetrachloroethylene
<0.02	Freon 114	<0.02	Chloroform	<0.02	Chlorobenzene
<0.02	Vinyl chloride	<0.02	Tetrahydrofuran	<0.02	Ethylbenzene
<0.02	1.3-Butadiene	<0.02	1,2-Dichloroethane	<0.04	m,p-Xylenes
<0.02	Bromomethane	<0.02	1,1,1-Trichloroethane	<0.02	Bromoform
<0.02	Chloroethane	<0.02	Benzene	<0.02	Styrene
<0.08	Acrolein	<0.02	Carbon Tetrachloride	<0.02	o-Xylene
<0.80	Acetone	<0.02	Cyclohexane	<0.02	1,1,2,2-Tetrachloroethane
<0.20	Trichlorofluoromethane	<0.02	1,2-Dichloropropane	<0.02	4-Ethyltoluene
<0.80	Ethanol	<0.02	Bromodichloromethane	<0.02	1,3,5-Trimethylbenzene
<0.02	1,1-Dichloroethylene	<0.02	Trichloroethylene	<0.02	1,2,4-Trimethylbenzene
<0.20	Methylene chloride	<0.02	1,4-Dioxane	<0.02	1,3-Dichlorobenzene
<0.20	Freon 113	<0.02	Methylmethacrylate	<0.02	Benzyl chloride
<0.02	Carbon disulfide	<0.02	Heptane	<0.02	1,4-Dichlorobenzene
<0.02	t-1,2-Dichloroethylene	<0.02	MIBK	<0.02	1,2-Dichlorobenzene
<0.02	1,1-Dichloroethane	<0.02	c-1,3-Dichloropropylene	<0.04	1,2,4-Trichlorobenzene
<0.02	MTBE	<0.02	t-1,3-Dichloropropylene	<0.02	Naphthalene
<0.80	IPA	<0.02	1,1,2-Trichloroethylene	<0.02	Hexachlorobutadiene
<0.20	2-Butanone (MEK)	<0.02	Toluene		
<0.02	c-1,2-Dichloroethylene	<0.02	2-Hexanone (MBK)		

Special Notes:

Analyst Initials/Date: TPH 3/28/16

Air Sampling Media Certificate of Analysis

Date Analyzed: 3/16/2016 **Batch #:** F031621.D

Certification Type: *Batch Certified* ☐ *Individual Certified* ☑

Media Type: *Summa Canister* ☑ *Flow Controllers* ☐

Media IDs: BC1634

Note:Two ID's grouped together, for example BC2136/BC3145, represents matched pairs of certified summa canisters and flow controllers.

Units: PPBv

<0.80	Propene	<0.04	Vinyl acetate	<0.02	Dibromchloromethane
<0.02	Dichlorodifluoromethane	<0.20	Hexane	<0.02	1,2-Dibromomethane
<0.04	Chloromethane	<0.02	Ethyl acetate	<0.02	Tetrachloroethylene
<0.02	Freon 114	<0.02	Chloroform	<0.02	Chlorobenzene
<0.02	Vinyl chloride	<0.02	Tetrahydrofuran	<0.02	Ethylbenzene
<0.02	1.3-Butadiene	<0.02	1,2-Dichloroethane	<0.04	m,p-Xylenes
<0.02	Bromomethane	<0.02	1,1,1-Trichloroethane	<0.02	Bromoform
<0.02	Chloroethane	<0.02	Benzene	<0.02	Styrene
<0.08	Acrolein	<0.02	Carbon Tetrachloride	<0.02	o-Xylene
<0.80	Acetone	<0.02	Cyclohexane	<0.02	1,1,2,2-Tetrachloroethane
<0.20	Trichlorofluoromethane	<0.02	1,2-Dichloropropane	<0.02	4-Ethyltoluene
<0.80	Ethanol	<0.02	Bromodichloromethane	<0.02	1,3,5-Trimethylbenzene
<0.02	1,1-Dichloroethylene	<0.02	Trichloroethylene	<0.02	1,2,4-Trimethylbenzene
<0.20	Methylene chloride	<0.02	1,4-Dioxane	<0.02	1,3-Dichlorobenzene
<0.20	Freon 113	<0.02	Methylmethacrylate	<0.02	Benzyl chloride
<0.02	Carbon disulfide	<0.02	Heptane	<0.02	1,4-Dichlorobenzene
<0.02	t-1,2-Dichloroethylene	<0.02	MIBK	<0.02	1,2-Dichlorobenzene
<0.02	1,1-Dichloroethane	<0.02	c-1,3-Dichloropropylene	<0.04	1,2,4-Trichlorobenzene
<0.02	MTBE	<0.02	t-1,3-Dichloropropylene	<0.02	Naphthalene
<0.80	IPA	<0.02	1,1,2-Trichloroethylene	<0.02	Hexachlorobutadiene
<0.20	2-Butanone (MEK)	<0.02	Toluene		
<0.02	c-1,2-Dichloroethylene	<0.02	2-Hexanone (MBK)		

Special Notes:

Analyst Initials/Date: TPH 3/28/16

Air Sampling Media Certificate of Analysis

Date Analyzed: 2/18/2016 **Batch #:** B021829.D

Certification Type: *Batch Certified* ☐ *Individual Certified* ☑

Media Type: *Summa Canister* ☑ *Flow Controllers* ☐

Media IDs: BC2058

Note:Two ID's grouped together, for example BC2136/BC3145, represents matched pairs of certified summa canisters and flow controllers.

Units: PPBv

<0.80	Propene	<0.04	Vinyl acetate	<0.02	Dibromchloromethane
<0.02	Dichlorodifluoromethane	<0.20	Hexane	<0.02	1,2-Dibromomethane
<0.04	Chloromethane	<0.02	Ethyl acetate	<0.02	Tetrachloroethylene
<0.02	Freon 114	<0.02	Chloroform	<0.02	Chlorobenzene
<0.02	Vinyl chloride	<0.02	Tetrahydrofuran	<0.02	Ethylbenzene
<0.02	1.3-Butadiene	<0.02	1,2-Dichloroethane	<0.04	m,p-Xylenes
<0.02	Bromomethane	<0.02	1,1,1-Trichloroethane	<0.02	Bromoform
<0.02	Chloroethane	<0.02	Benzene	<0.02	Styrene
<0.08	Acrolein	<0.02	Carbon Tetrachloride	<0.02	o-Xylene
<0.80	Acetone	<0.02	Cyclohexane	<0.02	1,1,2,2-Tetrachloroethane
<0.20	Trichlorofluoromethane	<0.02	1,2-Dichloropropane	<0.02	4-Ethyltoluene
<0.80	Ethanol	<0.02	Bromodichloromethane	<0.02	1,3,5-Trimethylbenzene
<0.02	1,1-Dichloroethylene	<0.02	Trichloroethylene	<0.02	1,2,4-Trimethylbenzene
<0.20	Methylene chloride	<0.02	1,4-Dioxane	<0.02	1,3-Dichlorobenzene
<0.20	Freon 113	<0.02	Methylmethacrylate	<0.02	Benzyl chloride
<0.02	Carbon disulfide	<0.02	Heptane	<0.02	1,4-Dichlorobenzene
<0.02	t-1,2-Dichloroethylene	<0.02	MIBK	<0.02	1,2-Dichlorobenzene
<0.02	1,1-Dichloroethane	<0.02	c-1,3-Dichloropropylene	<0.04	1,2,4-Trichlorobenzene
<0.02	MTBE	<0.02	t-1,3-Dichloropropylene	<0.02	Naphthalene
<0.80	IPA	<0.02	1,1,2-Trichloroethylene	<0.02	Hexachlorobutadiene
<0.20	2-Butanone (MEK)	<0.02	Toluene		
<0.02	c-1,2-Dichloroethylene	<0.02	2-Hexanone (MBK)		

Special Notes:

Analyst Initials/Date: TPH 3/28/16

Air Sampling Media Certificate of Analysis

Date Analyzed: 1/26/2016 **Batch #:** B012611.D

Certification Type: *Batch Certified* ☐ *Individual Certified* ☑

Media Type: *Summa Canister* ☑ *Flow Controllers* ☐

Media IDs: BC2070

Note:Two ID's grouped together, for example BC2136/BC3145, represents matched pairs of certified summa canisters and flow controllers.

Units: PPBv

<0.80	Propene	<0.04	Vinyl acetate	<0.02	Dibromchloromethane
<0.02	Dichlorodifluoromethane	<0.20	Hexane	<0.02	1,2-Dibromomethane
<0.04	Chloromethane	<0.02	Ethyl acetate	<0.02	Tetrachloroethylene
<0.02	Freon 114	<0.02	Chloroform	<0.02	Chlorobenzene
<0.02	Vinyl chloride	<0.02	Tetrahydrofuran	<0.02	Ethylbenzene
<0.02	1.3-Butadiene	<0.02	1,2-Dichloroethane	<0.04	m,p-Xylenes
<0.02	Bromomethane	<0.02	1,1,1-Trichloroethane	<0.02	Bromoform
<0.02	Chloroethane	<0.02	Benzene	<0.02	Styrene
<0.08	Acrolein	<0.02	Carbon Tetrachloride	<0.02	o-Xylene
<0.80	Acetone	<0.02	Cyclohexane	<0.02	1,1,2,2-Tetrachloroethane
<0.20	Trichlorofluoromethane	<0.02	1,2-Dichloropropane	<0.02	4-Ethyltoluene
<0.80	Ethanol	<0.02	Bromodichloromethane	<0.02	1,3,5-Trimethylbenzene
<0.02	1,1-Dichloroethylene	<0.02	Trichloroethylene	<0.02	1,2,4-Trimethylbenzene
<0.20	Methylene chloride	<0.02	1,4-Dioxane	<0.02	1,3-Dichlorobenzene
<0.20	Freon 113	<0.02	Methylmethacrylate	<0.02	Benzyl chloride
<0.02	Carbon disulfide	<0.02	Heptane	<0.02	1,4-Dichlorobenzene
<0.02	t-1,2-Dichloroethylene	<0.02	MIBK	<0.02	1,2-Dichlorobenzene
<0.02	1,1-Dichloroethane	<0.02	c-1,3-Dichloropropylene	<0.04	1,2,4-Trichlorobenzene
<0.02	MTBE	<0.02	t-1,3-Dichloropropylene	<0.02	Naphthalene
<0.80	IPA	<0.02	1,1,2-Trichloroethylene	<0.02	Hexachlorobutadiene
<0.20	2-Butanone (MEK)	<0.02	Toluene		
<0.02	c-1,2-Dichloroethylene	<0.02	2-Hexanone (MBK)		

Special Notes:

Analyst Initials/Date: TPH 3/28/16

Air Sampling Media Certificate of Analysis

Date Analyzed: 3/16/2016 **Batch #:** F031618.D

Certification Type: *Batch Certified* ☐ *Individual Certified* ☑

Media Type: *Summa Canister* ☑ *Flow Controllers* ☐

Media IDs: BC2057

Note:Two ID's grouped together, for example BC2136/BC3145, represents matched pairs of certified summa canisters and flow controllers.

Units: PPBv

<0.80	Propene	<0.04	Vinyl acetate	<0.02	Dibromchloromethane
<0.02	Dichlorodifluoromethane	<0.20	Hexane	<0.02	1,2-Dibromomethane
<0.04	Chloromethane	<0.02	Ethyl acetate	<0.02	Tetrachloroethylene
<0.02	Freon 114	<0.02	Chloroform	<0.02	Chlorobenzene
<0.02	Vinyl chloride	<0.02	Tetrahydrofuran	<0.02	Ethylbenzene
<0.02	1.3-Butadiene	<0.02	1,2-Dichloroethane	<0.04	m,p-Xylenes
<0.02	Bromomethane	<0.02	1,1,1-Trichloroethane	<0.02	Bromoform
<0.02	Chloroethane	<0.02	Benzene	<0.02	Styrene
<0.08	Acrolein	<0.02	Carbon Tetrachloride	<0.02	o-Xylene
<0.80	Acetone	<0.02	Cyclohexane	<0.02	1,1,2,2-Tetrachloroethane
<0.20	Trichlorofluoromethane	<0.02	1,2-Dichloropropane	<0.02	4-Ethyltoluene
<0.80	Ethanol	<0.02	Bromodichloromethane	<0.02	1,3,5-Trimethylbenzene
<0.02	1,1-Dichloroethylene	<0.02	Trichloroethylene	<0.02	1,2,4-Trimethylbenzene
<0.20	Methylene chloride	<0.02	1,4-Dioxane	<0.02	1,3-Dichlorobenzene
<0.20	Freon 113	<0.02	Methylmethacrylate	<0.02	Benzyl chloride
<0.02	Carbon disulfide	<0.02	Heptane	<0.02	1,4-Dichlorobenzene
<0.02	t-1,2-Dichloroethylene	<0.02	MIBK	<0.02	1,2-Dichlorobenzene
<0.02	1,1-Dichloroethane	<0.02	c-1,3-Dichloropropylene	<0.04	1,2,4-Trichlorobenzene
<0.02	MTBE	<0.02	t-1,3-Dichloropropylene	<0.02	Naphthalene
<0.80	IPA	<0.02	1,1,2-Trichloroethylene	<0.02	Hexachlorobutadiene
<0.20	2-Butanone (MEK)	<0.02	Toluene		
<0.02	c-1,2-Dichloroethylene	<0.02	2-Hexanone (MBK)		

Special Notes:

Analyst Initials/Date: TPH 3/28/16

Air Sampling Media Certificate of Analysis

Date Analyzed: 1/26/2016 **Batch #:** B012619.D

Certification Type: *Batch Certified* ☐ *Individual Certified* ☑

Media Type: *Summa Canister* ☑ *Flow Controllers* ☐

Media IDs: BC1657

Note:Two ID's grouped together, for example BC2136/BC3145, represents matched pairs of certified summa canisters and flow controllers.

Units: PPBv

<0.80	Propene	<0.04	Vinyl acetate	<0.02	Dibromchloromethane
<0.02	Dichlorodifluoromethane	<0.20	Hexane	<0.02	1,2-Dibromomethane
<0.04	Chloromethane	<0.02	Ethyl acetate	<0.02	Tetrachloroethylene
<0.02	Freon 114	<0.02	Chloroform	<0.02	Chlorobenzene
<0.02	Vinyl chloride	<0.02	Tetrahydrofuran	<0.02	Ethylbenzene
<0.02	1.3-Butadiene	<0.02	1,2-Dichloroethane	<0.04	m,p-Xylenes
<0.02	Bromomethane	<0.02	1,1,1-Trichloroethane	<0.02	Bromoform
<0.02	Chloroethane	<0.02	Benzene	<0.02	Styrene
<0.08	Acrolein	<0.02	Carbon Tetrachloride	<0.02	o-Xylene
<0.80	Acetone	<0.02	Cyclohexane	<0.02	1,1,2,2-Tetrachloroethane
<0.20	Trichlorofluoromethane	<0.02	1,2-Dichloropropane	<0.02	4-Ethyltoluene
<0.80	Ethanol	<0.02	Bromodichloromethane	<0.02	1,3,5-Trimethylbenzene
<0.02	1,1-Dichloroethylene	<0.02	Trichloroethylene	<0.02	1,2,4-Trimethylbenzene
<0.20	Methylene chloride	<0.02	1,4-Dioxane	<0.02	1,3-Dichlorobenzene
<0.20	Freon 113	<0.02	Methylmethacrylate	<0.02	Benzyl chloride
<0.02	Carbon disulfide	<0.02	Heptane	<0.02	1,4-Dichlorobenzene
<0.02	t-1,2-Dichloroethylene	<0.02	MIBK	<0.02	1,2-Dichlorobenzene
<0.02	1,1-Dichloroethane	<0.02	c-1,3-Dichloropropylene	<0.04	1,2,4-Trichlorobenzene
<0.02	MTBE	<0.02	t-1,3-Dichloropropylene	<0.02	Naphthalene
<0.80	IPA	<0.02	1,1,2-Trichloroethylene	<0.02	Hexachlorobutadiene
<0.20	2-Butanone (MEK)	<0.02	Toluene		
<0.02	c-1,2-Dichloroethylene	<0.02	2-Hexanone (MBK)		

Special Notes:

Analyst Initials/Date: TPH 3/28/16

Air Sampling Media Certificate of Analysis

Date Analyzed: 2/21/2016 **Batch #:** F022118.D

Certification Type: *Batch Certified* ☐ *Individual Certified* ☑

Media Type: *Summa Canister* ☑ *Flow Controllers* ☐

Media IDs: BC1638

Note:Two ID's grouped together, for example BC2136/BC3145, represents matched pairs of certified summa canisters and flow controllers.

Units: PPBv

<0.80	Propene	<0.04	Vinyl acetate	<0.02	Dibromchloromethane
<0.02	Dichlorodifluoromethane	<0.20	Hexane	<0.02	1,2-Dibromomethane
<0.04	Chloromethane	<0.02	Ethyl acetate	<0.02	Tetrachloroethylene
<0.02	Freon 114	<0.02	Chloroform	<0.02	Chlorobenzene
<0.02	Vinyl chloride	<0.02	Tetrahydrofuran	<0.02	Ethylbenzene
<0.02	1.3-Butadiene	<0.02	1,2-Dichloroethane	<0.04	m,p-Xylenes
<0.02	Bromomethane	<0.02	1,1,1-Trichloroethane	<0.02	Bromoform
<0.02	Chloroethane	<0.02	Benzene	<0.02	Styrene
<0.08	Acrolein	<0.02	Carbon Tetrachloride	<0.02	o-Xylene
0.89	Acetone	<0.02	Cyclohexane	<0.02	1,1,2,2-Tetrachloroethane
<0.20	Trichlorofluoromethane	<0.02	1,2-Dichloropropane	<0.02	4-Ethyltoluene
<0.80	Ethanol	<0.02	Bromodichloromethane	<0.02	1,3,5-Trimethylbenzene
<0.02	1,1-Dichloroethylene	<0.02	Trichloroethylene	<0.02	1,2,4-Trimethylbenzene
<0.20	Methylene chloride	<0.02	1,4-Dioxane	<0.02	1,3-Dichlorobenzene
<0.20	Freon 113	<0.02	Methylmethacrylate	<0.02	Benzyl chloride
<0.02	Carbon disulfide	<0.02	Heptane	<0.02	1,4-Dichlorobenzene
<0.02	t-1,2-Dichloroethylene	<0.02	MIBK	<0.02	1,2-Dichlorobenzene
<0.02	1,1-Dichloroethane	<0.02	c-1,3-Dichloropropylene	<0.04	1,2,4-Trichlorobenzene
<0.02	MTBE	<0.02	t-1,3-Dichloropropylene	<0.02	Naphthalene
<0.80	IPA	<0.02	1,1,2-Trichloroethylene	<0.02	Hexachlorobutadiene
<0.20	2-Butanone (MEK)	<0.02	Toluene		
<0.02	c-1,2-Dichloroethylene	<0.02	2-Hexanone (MBK)		

Special Notes:

Analyst Initials/Date: TPH 3/28/16

APPENDIX D

SOIL BORING LOGS

TRC
Results you can rely on
1430 Broadway, 10th Floor
New York, NY 10018
Telephone: 212-221-7822
Fax: 212-221-7840

BORING NUMBER: **TRC-SB-1**

PROJECT INFORMATION

Project Name:	Addition to 450Q - Phase II
Project Location:	28-01 41st Avenue, Queens, New York 11101
Project Number:	450Q
Client:	NYCSCA
TRC Eng./Geol:	
Checked By:	

BORING INFORMATION

Boring Depth:	35	Hole Diameter:	2
Date Started:	3/19/16	Date Completed:	3/19/16
Coordinate System:			
North:	Not Surveyed	East:	Not Surveyed
Vertical Datum:		Ground Elevation:	0

DRILLING INFORMATION

Drilling Contractor:	LAWES
Driller(s):	
Drilling Method:	Geoprobe
Equipment/Model:	
Sampler:	

GROUND WATER OBSERVATIONS

MEASUREMENT	At Time of Drilling	At End of Drilling	After Drilling
DATE	3/19/2016		
DEPTH (ft.bgs.)	29		
REFERENCE			
STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
1–5	TRC-SB-1(1-3')		5.0	3.0		0'- 3' (SW) brown m-c SAND, little gravel, little brick fragments, little asphalt, little glass fragments, dry NS/NO	
6						5'- 6' (SW) brown m-c SAND, little gravel, little brick fragments,dry NS/NO	
7						6'- 7' (SP) brown m-c SAND, dry NS/NO	
8–10			5.0	5.0		7'- 29' (SP) tan f-m SAND, dry NS/NO	
11–15	TRC-SB-1(10-12')		5.0	5.0			
16–20			5.0	5.0			
21–25			5.0	5.0			
26–29			5.0	5.0			
30						29'- 35' (SP) tan f-m SAND, wet NS/NO	
31–35			5.0	5.0			

Notes: Bottom of borehole at 35.0 feet.

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BORING NUMBER: **TRC-SB-2**

PROJECT INFORMATION

Project Name:	Addition to 450Q - Phase II
Project Location:	28-01 41st Avenue, Queens, New York 11101
Project Number:	450Q
Client:	NYCSCA
TRC Eng./Geol:	
Checked By:	

BORING INFORMATION

Boring Depth:	35	Hole Diameter:	2
Date Started:	3/19/16	Date Completed:	3/19/16
Coordinate System:			
North:	Not Surveyed	East:	Not Surveyed
Vertical Datum:		Ground Elevation:	0

DRILLING INFORMATION

Drilling Contractor:	LAWES
Driller(s):	
Drilling Method:	Geoprobe
Equipment/Model:	
Sampler:	

GROUND WATER OBSERVATIONS

MEASUREMENT	At Time of Drilling	At End of Drilling	After Drilling
DATE	3/19/2016		
DEPTH (ft.bgs.)	27		
REFERENCE			
STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
1–5	TRC-SB-2(1-3')		5.0	4.0		0'- 4' (SW) dark grey m-c SAND, little gravel, little brick frag, little asphalt, dry NS/NO	
6–7						5'- 7' (SW) brown m-c SAND, some gravel	
8–10			5.0	4.5		7'- 9.5' (SP) tan f-m SAND, dry NS/NO	
11–15	TRC-SB-2(10-12')		5.0	5.0		10'- 27' (SP) tan f-m SAND, dry NS/NO	
16–20			5.0	5.0			
21–25			5.0	5.0			
26–30			5.0	5.0		27'- 35' (SP) tan f-m SAND, wet NS/NO	
31–35			5.0	5.0			

Notes: Bottom of borehole at 35.0 feet.

SOIL BORING/WELL COMPLETION WITH NOTES - TRC-STD US.GDT - 4/14/16
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BORING NUMBER: **TRC-SB-3**

PROJECT INFORMATION

Project Name:	Addition to 450Q - Phase II
Project Location:	28-01 41st Avenue, Queens, New York 11101
Project Number:	450Q
Client:	NYCSCA
TRC Eng./Geol:	
Checked By:	

BORING INFORMATION

Boring Depth:	35	Hole Diameter:	2
Date Started:	3/20/16	Date Completed:	3/20/16
Coordinate System:			
North:	Not Surveyed	East:	Not Surveyed
Vertical Datum:		Ground Elevation:	0

DRILLING INFORMATION

Drilling Contractor:	LAWES
Driller(s):	
Drilling Method:	Geoprobe
Equipment/Model:	
Sampler:	

GROUND WATER OBSERVATIONS

MEASUREMENT	At Time of Drilling	At End of Drilling	After Drilling
DATE	3/20/2016		
DEPTH (ft.bgs.)	30		
REFERENCE			
STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
1	TRC-SB-3(1-3')		5.0	2.0		0'- 1' (SW) Black Asphalt, dry NS/NO	
2						1'- 2' (SW) white/grey SAND, some gravel/concrete fragments, dry NS/NO	
3							
4							
5							
6			5.0	3.8		5'- 8.2' (SW) brown m-c SAND, some f gravel, dry NS/NO	
7							
8							
9						8.2'- 8.75' (SP) tan f-m SAND, dry NS/NO	
10							
11	TRC-SB-3(10-12')		5.0	3.7		10'- 13' (SP) tan f-m SAND, dry NS/NO	
12							
13							
14						13'- 13.66' (SW-SM) tan f-m SAND and SILT, dry NS/NO	
15							
16			5.0	3.3		15'- 18.33' (SW-SM) tan f-m SAND and SILT, dry NS/NO	
17							
18							
19							
20							
21			5.0	4.7		20'- 24.66' (SW-SM) tan f-m SAND and SILT, dry NS/NO	
22							
23							
24							
25							
26			5.0	4.3		25'- 28.25' (SW-SM) tan f-m SAND and SILT, dry NS/NO	
27							
28							
29						28.25'- 28.75' (CL) light brown CLAY, wet NS/NO	
30						28.75'- 28.9' (SW-SM) lt brown f SAND & SILT	
31			5.0	4.8		30'- 32' (SW-SM) lt brown f SAND & SILT	
32							
33						32'- 35' (CL-ML) light brown f SILT & CLAY, wet NS/NO	
34							
35							

Notes: Bottom of borehole at 35.0 feet.

SOIL BORING/WELL COMPLETION WITH NOTES - TRC-STD US.GDT - 4/14/16
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BORING NUMBER: **TRC-SB-4**

PROJECT INFORMATION		BORING INFORMATION			
Project Name:	Addition to 450Q - Phase II	Boring Depth:	25	Hole Diameter:	2
Project Location:	28-01 41st Avenue, Queens, New York 11101	Date Started:	3/19/16	Date Completed:	3/19/16
Project Number:	450Q	Coordinate System:			
Client:	NYCSCA	North:	Not Surveyed	East:	Not Surveyed
TRC Eng./Geol:		Vertical Datum:		Ground Elevation:	0
Checked By:					

DRILLING INFORMATION		GROUND WATER OBSERVATIONS			
Drilling Contractor:	LAWES	MEASUREMENT	At Time of Drilling	At End of Drilling	After Drilling
Driller(s):		DATE			
Drilling Method:	Geoprobe	DEPTH (ft.bgs.)			
Equipment/Model:		REFERENCE			
Sampler:		STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
1–5	TRC-SB-4(1-3')		5.0	4.5		0'- 2' (SW) white/grey m-c SAND, some asphalt, dry NS/NO 2'- 4.5' (SP) tan f-m SAND, dry NS/NO	
6–10			5.0	5.0		5'- 25' (SP) tan f-m SAND, dry NS/NO	
11–15	TRC-SB-4(10-12')		5.0	5.0			
16–20			5.0	4.5			
21–25			5.0	5.0			
26–35						Bottom of borehole at 25.0 feet.	

Notes:

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BORING NUMBER: **TRC-SB-5**

PROJECT INFORMATION

Project Name:	Addition to 450Q - Phase II
Project Location:	28-01 41st Avenue, Queens, New York 11101
Project Number:	450Q
Client:	NYCSCA
TRC Eng./Geol:	
Checked By:	

BORING INFORMATION

Boring Depth:	35	Hole Diameter:	2
Date Started:	3/20/16	Date Completed:	3/20/16
Coordinate System:			
North:	Not Surveyed	East:	Not Surveyed
Vertical Datum:		Ground Elevation:	0

DRILLING INFORMATION

Drilling Contractor:	LAWES
Driller(s):	
Drilling Method:	Geoprobe
Equipment/Model:	
Sampler:	

GROUND WATER OBSERVATIONS

MEASUREMENT	At Time of Drilling	At End of Drilling	After Drilling
DATE	3/20/2016		
DEPTH (ft.bgs.)	30		
REFERENCE			
STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
1–5	TRC-SB-5(1-3')		5.0	4.1		0'- 1' (SW) black ASPHALT, dry NS/NO 1'- 4.2' (SW) red brown m SAND, some m gravel, dry NS/NO	
6–10			5.0	4.8		5'- 8' (SW) red brown m SAND, some m gravel, dry NS/NO 8'- 9.75' (SP) tan f SAND, Dry NS/NO	
11–15	TRC-SB-5(10-12')		5.0	4.8		10'- 14.75' (SP) tan f SAND, Dry NS/NO	
16–20			5.0	4.7		15'- 19.66' (SW-SM) tan f SAND & SILT, moist bands of silt but dry overall, NS/NO	
21–25			5.0	4.8		20'- 24.8' (GW-GM) tan f SILT, trace little gravel, dry NS/NO	
26–30			5.0	4.3		25'- 29.3' (SW-SM) tan f SILT & SAND, trace clay bands and trace gravel, dry NS/NO	
31–35			5.0	4.8		30'- 35' (SW-SM) tan f SAND & SILT, wet NS/NO	

Notes: Bottom of borehole at 35.0 feet.

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BORING NUMBER: **TRC-SB-6**

PROJECT INFORMATION

Project Name:	Addition to 450Q - Phase II
Project Location:	28-01 41st Avenue, Queens, New York 11101
Project Number:	450Q
Client:	NYCSCA
TRC Eng./Geol:	
Checked By:	

BORING INFORMATION

Boring Depth:	35	Hole Diameter:	2
Date Started:	3/19/16	Date Completed:	3/19/16
Coordinate System:			
North:	Not Surveyed	East:	Not Surveyed
Vertical Datum:		Ground Elevation:	0

DRILLING INFORMATION

Drilling Contractor:	LAWES
Driller(s):	
Drilling Method:	Geoprobe
Equipment/Model:	
Sampler:	

GROUND WATER OBSERVATIONS

MEASUREMENT	At Time of Drilling	At End of Drilling	After Drilling
DATE	3/19/2016		
DEPTH (ft.bgs.)	30		
REFERENCE			
STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
1–5	TRC-SB-6(1-3')		5.0	3.0		0'- 3' (SW) white/grey SAND, some asphalt, dry NS/NO	
6–9			5.0	4.0		5'- 9' (SP) brown c SAND, dry NS/NO	
10–15	TRC-SB-6(10-12')		5.0	5.0		10'- 15' (SP) brown m-c SAND, dry NS/NO	
16–20			5.0	5.0		15'- 30' (SP) tan f-m SAND, dry NS/NO	
21–25			5.0	5.0			
26–30			5.0	5.0			
31–35			5.0	5.0		30'- 35' (SP) tan f-m SAND, wet NS/NO	

Notes: Bottom of borehole at 35.0 feet.

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BORING NUMBER: **TRC-SB-7**

PROJECT INFORMATION

Project Name:	**Addition to 450Q - Phase II**
Project Location:	**28-01 41st Avenue, Queens, New York 11101**
Project Number:	**450Q**
Client:	**NYCSCA**
TRC Eng./Geol:	
Checked By:	

BORING INFORMATION

Boring Depth:	**35**	Hole Diameter:	**2**
Date Started:	**3/19/16**	Date Completed:	**3/19/16**
Coordinate System:			
North:	**Not Surveyed**	East:	**Not Surveyed**
Vertical Datum:		Ground Elevation:	**0**

DRILLING INFORMATION

Drilling Contractor:	**LAWES**
Driller(s):	
Drilling Method:	**Geoprobe**
Equipment/Model:	
Sampler:	

GROUND WATER OBSERVATIONS

MEASUREMENT	▽ At Time of Drilling	▼ At End of Drilling	▽ After Drilling
DATE	**3/19/2016**		
DEPTH (ft.bgs.)	**30**		
REFERENCE			
STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	◆VOC SCREENING RESULTS (ppm)
1–5	TRC-SB-7(1-3')		5.0	4.0		0'- 3' (SW) dark grey m-c SAND, little gravel, little brick frag, little asphalt, dry NS/NO	
						3'- 4' (SP) tan f-m SAND, dry NS/NO	
6–10			5.0	5.0		5'- 30' (SP) tan f-m SAND, dry NS/NO	
11–15	TRC-SB-7(10-12')		5.0	5.0			
16–20			5.0	5.0			
21–25			5.0	5.0			
26–30			5.0	5.0			
31–35			5.0	5.0		30'- 35' (SP) tan f-m SAND, wet NS/NO	

Notes: Bottom of borehole at 35.0 feet.

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BORING NUMBER: **TRC-SB-8**

PROJECT INFORMATION

Project Name:	**Addition to 450Q - Phase II**
Project Location:	**28-01 41st Avenue, Queens, New York 11101**
Project Number:	**450Q**
Client:	**NYCSCA**
TRC Eng./Geol:	
Checked By:	

BORING INFORMATION

Boring Depth:	**35**	Hole Diameter:	**2**
Date Started:	**3/20/16**	Date Completed:	**3/20/16**
Coordinate System:			
North:	**Not Surveyed**	East:	**Not Surveyed**
Vertical Datum:		Ground Elevation:	**0**

DRILLING INFORMATION

Drilling Contractor:	**LAWES**
Driller(s):	
Drilling Method:	**Geoprobe**
Equipment/Model:	
Sampler:	

GROUND WATER OBSERVATIONS

MEASUREMENT	▽ At Time of Drilling	▼ At End of Drilling	▽ After Drilling
DATE			
DEPTH (ft.bgs.)			
REFERENCE			
STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	◆VOC SCREENING RESULTS (ppm) (20 40 60 80)
1	TRC-SB-8(1-3')		5.0	3.0		0'- 1' (SW) black ASPHALT, dry NS/NO	
2						1'- 2.5' (SW) grey m-c SAND, some f-c gravel frag, dry NS/NO	
3						2.5'- 3' (SW) brown c SAND, little f gravel frag, dry NS/NO	
4							
5							
6			5.0	2.0		5'- 7' (SW) brown c SAND, little f gravel frag, trace red brick and pulverized stone, dry NS/NO	
7							
8							
9							
10							
11	TRC-SB-8(10-12')		5.0	4.0		10'- 12' (SW) brown m-c SAND, little f-c gravel, dry NS/NO	
12							
13						12'- 14' (SP) brown f SAND & SILT, dry NS/NO	
14							
15							
16			5.0	4.0		15'- 19' (SP) tan f SAND & SILT, dry NS/NO	
17							
18							
19							
20							
21			5.0	4.8		20'- 24.8' (SP) tan f SAND & SILT, dry NS/NO	
22							
23							
24							
25							
26			5.0	4.8		25'- 27' (SP) tan f SAND & SILT, dry NS/NO	
27							
28						27'- 29.8' (SP) tan f SAND & SILT, wet NS/NO	
29							
30							
31			5.0	4.8		30'- 35' (SP) tan f SAND & SILT, wet NS/NO	
32							
33							
34							
35							

Notes:

Bottom of borehole at 35.0 feet.

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BORING NUMBER: **TRC-SB-9**

PROJECT INFORMATION

Project Name:	Addition to 450Q - Phase II
Project Location:	28-01 41st Avenue, Queens, New York 11101
Project Number:	450Q
Client:	NYCSCA
TRC Eng./Geol:	
Checked By:	

BORING INFORMATION

Boring Depth:	35	Hole Diameter:	2
Date Started:	3/20/16	Date Completed:	3/20/16
Coordinate System:			
North:	Not Surveyed	East:	Not Surveyed
Vertical Datum:		Ground Elevation:	0

DRILLING INFORMATION

Drilling Contractor:	LAWES
Driller(s):	
Drilling Method:	Geoprobe
Equipment/Model:	
Sampler:	

GROUND WATER OBSERVATIONS

MEASUREMENT	At Time of Drilling	At End of Drilling	After Drilling
DATE	3/20/2016		
DEPTH (ft.bgs.)	28		
REFERENCE			
STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	VOC SCREENING RESULTS (ppm)
1–5	TRC-SB-9(1-3')		5.0	4.0		0'- 1' (SW) black asphalt, dry NS/NO 1'- 4' (SW) white/grey m-c SAND, some asphalt, some gravel, dry NS/NO	
6–10			5.0	2.5		5'- 7.5' (SW) brown c SAND, some gravel, some bridk frag, dry NS/NO	
11–15	TRC-SB-9(10-12')		5.0	4.0		10'- 13' (SW) brown c SAND, some gravel, some bridk frag, dry NS/NO 13'- 14' (SP) tan f SAND, dry NS/NO	
16–20			5.0	5.0		15'- 28' (SP) tan f SAND, dry NS/NO	
21–25			5.0	5.0			
26–30			5.0	5.0		28'- 35' (CL) light tan CLAY, wet, NS/NO	
31–35			5.0	5.0			

Notes: Bottom of borehole at 35.0 feet.

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BORING NUMBER: **TRC-UST-1**

PROJECT INFORMATION		BORING INFORMATION			
Project Name:	Addition to 450Q - Phase II	Boring Depth:	15	Hole Diameter:	2
Project Location:	28-01 41st Avenue, Queens, New York 11101	Date Started:	3/19/16	Date Completed:	3/19/16
Project Number:	450Q	Coordinate System:			
Client:	NYCSCA	North:	Not Surveyed	East:	Not Surveyed
TRC Eng./Geol:		Vertical Datum:		Ground Elevation:	0
Checked By:					

DRILLING INFORMATION		GROUND WATER OBSERVATIONS			
Drilling Contractor:	LAWES	MEASUREMENT	▽ At Time of Drilling	▼ At End of Drilling	▽ After Drilling
Driller(s):		DATE			
Drilling Method:	Geoprobe	DEPTH (ft.bgs.)			
Equipment/Model:		REFERENCE			
Sampler:		STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	◆VOC SCREENING RESULTS (ppm)
1–5			5.0	4.0		0'- 1' (SW) white/grey SAND, some asphalt, dry NS/NO 1'- 2.5' (SW) dark brown f-c SAND, dry NS/NO 2.5'- 4.5' (SP) tan f-m SAND, dry NS/NO	
6–9			5.0	4.0		5'- 9' (SW) tan f-m SAND, trace small gravel, dry NS/NO	
10–15	TRC-UST-1		5.0	4.5		10'- 14.5' (SP) tan f-m SAND, dry NS/NO	

Bottom of borehole at 15.0 feet.

Notes:

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BORING NUMBER: **TRC-UST-2**

PROJECT INFORMATION

Project Name:	**Addition to 450Q - Phase II**
Project Location:	**28-01 41st Avenue, Queens, New York 11101**
Project Number:	**450Q**
Client:	**NYCSCA**
TRC Eng./Geol:	
Checked By:	

BORING INFORMATION

Boring Depth:	**15**	Hole Diameter:	**2**
Date Started:	**3/19/16**	Date Completed:	**3/19/16**
Coordinate System:			
North:	**Not Surveyed**	East:	**Not Surveyed**
Vertical Datum:		Ground Elevation:	**0**

DRILLING INFORMATION

Drilling Contractor:	**LAWES**
Driller(s):	
Drilling Method:	**Geoprobe**
Equipment/Model:	
Sampler:	

GROUND WATER OBSERVATIONS

MEASUREMENT	▽ At Time of Drilling	▼ At End of Drilling	▼ After Drilling
DATE			
DEPTH (ft.bgs.)			
REFERENCE			
STABILIZATION			

DEPTH (FT.)	SAMPLE NUMBER	SAMPLE TYPE	PENETRATION (FT.)	RECOVERY (FT.)	LITHOLOGY	MATERIAL DESCRIPTION	◆VOC SCREENING RESULTS (ppm)
1–5			5.0	5.0		0'- 1' (SW) white/grey SAND, some asphalt, dry NS/NO 1'- 2.5' (SP) dark brown f-c SAND, dry NS/NO 2.5'- 15' (SP) tan f-m SAND, dry NS/NO	
6–10			5.0	5.0			
11–15	TRC-UST-2		5.0	5.0			

Bottom of borehole at 15.0 feet.

Notes:

APPENDIX E

TEST FIT/SKETCH STUDY

To	: Nina Kubota – Vice President, Capital Planning		
Through	: Stan Dahir, RA - Director, Quality Control & Construction Support Studio - A&E		
From	: Peter J. Percudani, RA - Design Manager, Quality Control & Construction Support Studio - A&E		
Requested Facility	: **New High School @ Newcomers HS (Q450) - HS of American Studies**		
Subject	: **Test Fit / Sketch Study (New Building)**		
Site / Address	: 28-01 41st Avenue Queens, N.Y. 11101 [Block: 404 / Lot(s): 1 (Portion)		
District	: 20 (*"Long Island City / Ravenswood Subdistrict"*)		
Adjusted Capacity	: 860 *(with D75)*	**LLW#:**	**104408**
Date	: February 3, 2016	**Estimated Cost[1]:**	**$90,000,000**

As requested, a *"Test Fit / Sketch Study"* was initiated in lieu of a Feasibility Study to determine whether or not the subject School property, which is +/-100,000 square feet in area with existing physical improvements (school building, play yard, parking lot, etc.), could accommodate a new stand-alone school building, which would provide an Adjusted Capacity of 860.

This *"Test Fit / Sketch Study"* is not as informative as a typical Feasibility Study, which typically provides an overview of an Educational Program of Requirements (POR), describe existing positive and negative site characteristics, topography and geology, zoning, utilities, transportation, traffic and sustainable site development density information as well as a design approach for the school; nor does it include either a "Phase I or II Environmental Site Assessment", a "Geotechnical Report", or a "State Environmental Quality Review (SEQRA) Assessment".

Although various codes, rules and regulations may been noted herein, the principal objective of this *Study* is to assess what may physically be provided at the subject Site and identify issues and concerns that should be given due consideration so that an informed decision may be made by the Feasibility Committee as to whether or not a project should move forward, or if additional research and development is warranted prior to such a decision.

Overview of Issues and Concerns:

- Non-compliance with NYC Zoning Regulations for *"use"* and *"bulk"* ***[zoning]***
- The proposed new stand-alone building would require a new building address and NYC/DOB BIN# ***[regulatory]***
- The ability to comply with the intent of recent legislation [See Exhibit – 3] regarding the elimination of existing outdoor play space ***[legal]***

  In addition to the above, available outdoor play area for the existing and new school area is approximately 72% less than what is targeted by a typical POR ***[legal / program]***
- The existing site and/or new building is adjacent to and/or within 200-feet of existing MTA/NYCT structures ***[regulatory / design / construction]***
- A secondary electrical service may be required to the property ***[regulatory]***
- The level of groundwater is not known. ***[design / construction]***
- Available area around and within the site is limited for mobilization and construction activities and overhead utility line bound all street fronts. ***[construction]***

See the following "Study" for additional information and/or detail.

cc:	L. Grillo	M. La Rocca	B. Barrett	K. Ou	J. O'Connell	A. Lempert	L. Guterman	G. Tung	K. King-Yara
	G. Roussey	E. Abneri	C. Liu	M. Gomez	M. Zhang	M. Mirisola	F. Maley	A. Mantello	Project File (1)

[1] ***"Estimated Cost"*** is based on the design scheme 's gross square footage **(139,000sf)**, on the *"magnitude"* of the proposed work and does not include the cost of *"license agreements"* with adjacent property owners for the execution of the work, nor does it include the removal of hazardous materials such as, but not limited to, *"asbestos"*.

1. Volume and Type of Local Vehicular Traffic, and Traffic Patterns

The proposed Site, which is a portion of the subject property (Block #404 - Lot #1), is bounded by three (3) street fronts. The following is a general description of these streets, the type of vehicular traffic and observed traffic patterns:

- **40th Avenue:** This is a narrow[2] one-way street that appears to be lightly trafficked by private and commercial vehicles.
  - Additional vehicular traffic brought to this location by the proposed school may cause congestion.
- **29th Street:** This is a narrow one-way street that appears to be lightly trafficked by private and commercial vehicles.
  - Additional vehicular traffic brought to this location by the proposed school may cause congestion.
- **28th Street:** This is a narrow one-way street that appears to be lightly trafficked by private and commercial vehicles.
  - Additional vehicular traffic brought to this location by the proposed school may cause congestion.

~~The aforementioned existing traffic and additional traffic brought-on by school buses[3] as well as cars and vans used by parents to drop-off and pick-up their children; and the existing complicated traffic patterns in the immediate vicinity of the subject Site may present an undesirable and possibly hazardous condition to young school age children who typically lack the experience and sophistication to deal with complex traffic patterns. Hence, a *"Traffic Study"* is recommended.[4]~~

---

2 Streets whose width are 75-feet or greater are wide streets; and streets whose width is less than 75-feet are narrow streets. (Street widths are measured from property/street line to property/street line. The actual roadbed (curb to curb) is the remaining street width after sidewalk depths are deducted from the "street width".)

3 ~~Although, as indicated above, the adjacent streets are conducive to the drop-off and pick-up of children, the D75 component of the given POR may bring additional school busses to the local streets that would take a significant amount of time to pick-up and discharge the children and further hamper existing traffic patterns.~~

4 ~~**NYC Health Code - §45.11 Physical Facilities:** (a) School or children's institution shall not be conducted in a factory, mercantile or business building, unless the premises are approved by the Department. Such approval shall **not** be granted unless the premises and the area surrounding the premises are free from fire, traffic or other safety hazards.~~

2. Site and Site Adjacencies (Local Environs)

The subject property is an existing school that occupies an entire tax *"block"*[5] in the neighborhood known as *"Long Island City".*

The Site is presently improved by a 5-story high school *("Newcomers High School")*, open outdoor play area and a parking lot.

The lot area that is under consideration for a new stand-alone high school is the portion of the property that is presently used for outdoor play and parking, which is the area north of 40th Road.

Site Location Map

- **<u>40th Avenue - North Property/Street Line:</u>** This property/street line provides +/-**<u>200-feet</u>** of street frontage with deep sidewalks.
  - There several street trees.
  - Overhead utility lines run the length of this portion of the property.
  - This street predominantly residential and institutional (church).
  - A hotel *("Verve Hotel")* is located at the corner of 29th Street and 40th Avenue.
- **<u>29th Street - East Property/Street Line:</u>** This property/street line provides +/-**<u>500-feet</u>** of street frontage with deep sidewalks.
  - MTA / NYCT infrastructure (tunnels, ventilation structures, etc.) are located on the east side of this street (Block #403 - Lot #1).
  - There several street trees.
  - The portion of the subject site that is under consideration for a new stand-alone school has +/-**<u>250-feet</u>** of street frontage with overhead utility lines run the length of this portion of the property.
  - 40th Road terminates at this street.
  - This street predominantly residential.
  - A hotel *("Verve Hotel")* is located at the corner of 29th Street and 40th Avenue.
- **<u>Existing High School - South Boundary Line:</u>** This imaginary boundary line is +/-**<u>200-feet</u>** in length.
  - Trash containers are located along this side of the existing school.
- **<u>28th Street - West Property/Street Line:</u>** This property/street line provides +/-**<u>500-feet</u>** of street frontage with deep sidewalks.
  - There several street trees.
  - The portion of the subject site that is under consideration for a new stand-alone school has +/-**<u>250-feet</u>** of street frontage with overhead utility lines run the length of this portion of the property.
  - This street predominantly residential and commercial
- The Site is accessible by both MTA/NYC Bus/Transit Lines such as the "#7", "F", "E", "M", "R", "Q" and "N" Transit Lines as well as the "N29", "S28", and "S" Bus Lines, all of which are within a 1/4 -mile of the site.

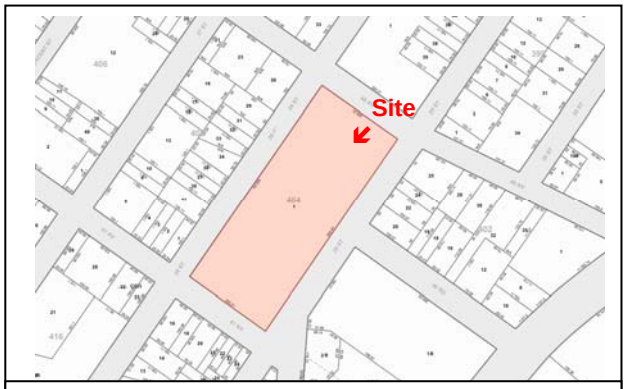
[5] **<u>ZR12-10 Definitions</u>**: A *"block"* is a tract of land bounded by: (a) streets; (b) public parks;(c) railroad rights-of-way, when located at or above ground level but not including sidings or spurs in the same ownership as the zoning lot; (d) airport boundaries; (e) pierhead lines (or shore lines where no pierhead lines have been established); or (f) corporate boundary lines of New York City.

3. NYC Zoning Regulations[6]

The subject Site is located within a designated Special Purpose District known as *"Special Long Island Mixed Use District"* ***(LIC)***[7] as well as a **(M1-2[8])** Manufacturing Zoning District, and several **(R5B, R5D and R6A)**[9] Residential Zoning Districts.

Even though a preliminary zoning analysis has not been provided, it can be safely anticipated that a number of ***"Zoning Waivers"*** for *"bulk"* would be required, and possibly for *"use"* also.

NYC Zoning Map – 9b



NYC Tax Map

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6 ~~The following preliminary analysis is not an analysis of compliance with all relevant NYC Zoning Regulations. The actual type and need for ***"Zoning Waivers"*** would be determined by the proposed project's final design.~~

7 **Special Long Island City Mixed Use District (LIC):** This district is designed to promote and protect the public health, safety and general welfare of the Long Island City community. These general goals include, among others, the following specific purposes: (a) support the continuing growth of a mixed residential, commercial and industrial neighborhoods by permitting expansion and development of residential, commercial, community facility and light manufacturing uses where adequate environmental standards are assured; (b) encourage the development of moderate to high density commercial uses within a compact transit-oriented area; (c) strengthen traditional retail streets in Hunters Point by allowing the development of new residential and retail uses; (d) encourage the development of affordable housing; (e) promote the opportunity for people to work in the vicinity of their residences; (f) retain jobs within New York City; (g) provide an opportunity for the improvement of Long Island City; and (h) promote the most desirable use of land and thus conserve the value of land and buildings and thereby protect City tax revenues.

8 **Light Manufacturing Districts [High Performance] (M1-2):** These districts are designed for a wide range of manufacturing and related uses which can conform to a high level of performance standards. Manufacturing establishments of this type, within completely enclosed buildings, provide a buffer between Residence (or Commercial) Districts and other industrial uses which involve more objectionable influences. New residences are excluded from these districts, except for: (a) joint living-work quarters for artists in M1-5A and M1-5B Districts; (b) dwelling units in M1-5M and M1-6M Districts; (c) dwelling units in M1-1D, M1-2D, M1-3D, M1-4D and M1-5D Districts, where authorized by the City Planning Commission, both to protect residences from an undesirable environment and to ensure the reservation of adequate areas for industrial development; and (d) dwelling units in M1-6D Districts.

9 **R3-2, R4, R4B, R5, R6, R7, R8, R9 and R10 - General Residence Districts:** These districts are designed to provide for all types of residential buildings, in order to permit a broad range of housing types, with appropriate standards for each district on density, open space, and spacing of buildings. However, R4B Districts are limited to single- or two-family dwellings, and zero lot line buildings are not permitted in R3-2, R4 (except R4-1 and R4B), and R5 (except R5B) Districts. The various districts are mapped in relation to a desirable future residential density pattern, with emphasis on accessibility to transportation facilities and to various community facilities, and upon the character of existing development. These districts also include community facilities and open uses which serve the residents of these districts or benefit from a residential environment.

Table – 2 / Other Land and Use Regulations or Property Encumbrances[10]

Tax Lot Subdivision and/or Merger ..... *(The Site is (1) tax lot that needs to be subdivided, or more than one (1) tax lot that would need to be merged)*		No
NYS Liquor Authority [See Exhibit - 1]..... *(The proposed school entrance is within 200-feet of an establishment that sells or serves alcohol)*	[11]	**Yes**
Adult Establishments [See Exhibit - 2] ..... *(The Site is within 500-feet of an adult establishment)*	[12]	No
Industrial Business Zone ..... *(The Site is within a designated "Industrial Business Zone")*	[13]	No
Flood Zone (FEMA)... ..... *(The Site is within a designated "Flood Zone")*	[14]	No

Industrial Business Zone

FEMA Flood Zone

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10 See *"Section 4"* and/or footnotes for information that pertains to items indicated as **Yes** or **TBD**.

11 **NYS Liquor Authority / 200-foot Rule:** The statute refers to schools on the same street as the licensed premises. The buildings do not have to be on the same block. With respect to an establishment or school/ place of worship on a corner lot, the building is considered to be on both streets, whether or not there is an entrance to the building on both streets. *[Existing establishments are grandfathered]*

While the law *("NYS Liquor Authority / 200-foot Rule")* uses the phrase *"building used exclusively"* as a school, the courts have adopted a test that looks to whether the building is used primarily as a school. The court determined that a building will still be considered a school as long as any use is incidental to, and is not inconsistent with or detracting from the predominant character of the building as a school. Hence, since the proposed *"Mixed-use"* building would not be exclusively used as a school, establishments that serve and/or sell alcohol, within 200-feet of the school, would not be prohibited. [Note: The *"NYSLA"* presumes establishments are permitted within a *"mixed-use"* building. [See Exhibit - 1]

12 **Rules of the City of New York:** Under 1 RCNY § 9000-1, the Department clarifies criteria for determining the dates of establishment and discontinuance for adult establishments, houses of worship and schools. New adult establishments are **not** permitted within a 500 foot radius of established adult establishments, houses of worship and schools.

Adult establishments that obtained a new building or alteration permit between 08/08/2001 and 07/09/2010 that has not obtained a Temporary Certificate of Occupancy (TCO), or if applicable a Department sign-off, by July 10, 2011 or started operating within six months of TCO or sign-off, will lose the priority to operate as an adult establishment if a new adult establishment, house of worship or school obtains a permit to be located within a 500 foot radius of the adult establishment. ***Note**: Houses of worship, schools and adult establishments in existence and operating prior to Aug. 8,2001 that have not discontinued operation for a continuous period of one year or longer are considered established.*

13 ***"NYC Economic Development Corporation" (EDC):*** In early 2006, the City created 16 Industrial Business Zones across the City where expanded business services are available for industrial and manufacturing businesses. This designation fosters high-performing business districts by creating competitive advantages over locating in areas outside of NYC. The IBZs are supported by tax credits for relocating within them, zone-specific planning efforts, and direct business assistance from Industrial Providers of NYC Business Solutions Industrial and Transportation. In light of the purpose of IBZs to foster industrial sector growth by creating real estate certainty, the previous administration stated that it would not support the rezoning of these areas for residential use.
[http://www.nycedc.com/industry/industrial/nyc-industrial-business-zones]

14 **FEMA Flood Zones**: (Zone AE) - The area subject to inundation from the 1% annual chance flood. These areas are not subject to high velocity wave action but are still considered high risk flooding areas. AE zones have BFEs established. (Zone X) - Areas of moderate coastal flood risk outside the 1% annual chance flood up to the 0.2% annual chance flood level.

Table – 2 / Other Land and Use Regulations or Property Encumbrances (continued)

MTA Structures (subway, elevated rail line, open rail cut, etc.) ..... *(The Site is within 200-feet of an "MTA Structure")*	**Yes**
Wetlands ..... *(The Site is within a designated "Wetland")*	No
NYC Parks Department (Parks) ..... *(The Site is a "NYC Public Park" or a "Jointly Operated Playground")*	No
NYC Parks Department (Landmarks)..... *(The Building or Site has landmark status)*	No
NYC Parks Department (SHPO) ..... *(The Building or Site has landmark status)*	No
Environmental Restrictive Declarations (CEQR) .....[15] *(The Site is encumbered by environmental conditions)*	No
Environmental Restrictive Declarations (ULURP) .....[16] *(The Site is subject to an environmental review)*	No
State Pollutant Discharge Elimination System (SPDES) .....[17] *(Storm water\wastewater discharges into surface waters or ground waters of the state - not connected to NYC Sewer System)*	No
Easements (right-of-ways, utilities, etc.)..... *(The Site is encumbered by easements for access by other private or public entities)*	**TBD**
NYC Department of Transportation..... *(The Site is encumbered by a future NYC/DOT street widening)*	No
Adverse Possession.....[18] *(A portion(s) of the Site is openly used by others for their benefit)*	No
NYC Zoning - Article VI, Chapter I .....Special Regulations Applying Around Major Airports[19] *(The Site is within a designated "Flight Approach Path")*	No

Flight Obstruction Path Map - LGA

Flight Obstruction Map - JFK

[15] **ZR11-15**: Environmental Restrictions pertain to hazardous materials, air quality and/or noise. See Appendix "C" of the NYC Zoning Regulations.

[16] See Appendix "D" of the NYC Zoning Regulations.

[17] **50 CFR 122.26(b)(15)(i)**: Construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than 1- acre and less than 5-acres. Small construction activity also includes the disturbance of less than 1-acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than 1 and less than 5-acres.

[18] Under current law, as articulated by the Court of Appeals (June 2006) in the case of *Walling v. Przybylo*, a claim of adverse possession can be made if an individual "openly, notoriously and exclusively" uses someone else's property continuously for 10 years, believing he has the right to do so.

[19] Also see NYC Building Department Bulletin 2009-008, issued on April 7, 2009.

4. Design / Functionality / Other Issues and Concerns

In addition to the aforementioned issues and/or concerns, the following pertain to design and functionality:

- The available area for outdoor play[20], for rest and recreation by the children, would be as follows:

  The existing open yard for *"Newcomers HS"* is approximately 47,000sf in area. The proposed new stand-alone school for the *"HS of American Studies"* will result in the elimination of the existing open yard for *"Newcomers HS".* **Hence**, the construction of the proposed new stand-alone school for the *"HS of American Studies"* on the site of *"Newcomers HS"* would not comply with recent legislation [See Exhibit-3] unless suitable and adequate physical activities or space to accommodate the physical and recreational needs of the pupils is provided.

Target as per the Draft POR[21]	=	53,250sf	(30sf / pupil)
Conceptual Outdoor Play Area	=	15,000sf	(Roof of New Stand-alone building only)
Difference	=	38,250sf	/ 53,250sf = **+/-72% Less than targeted**

  Note: Existing legislation [See Exhibit - 3], which continues to address required open-air playgrounds for NYC Schools was amended to address the loss of existing outdoor area at existing school facilities. Hence, it is important that suitable and adequate outdoor area always be provided to accommodate the physical and recreational needs of the children for existing and new schools.

  Except for Parks that are jointly operated (JOP) between the NYC Parks Department and the Board of Education, existing Public Parks do not typically lend themselves to school use[22].

- The subject Site is adjacent to and within 200-feet of MTA/NYCT structures. Subway grates that provide access to MTA/NYCT Subway Tunnels are within the sidewalk on 29th Street and a subway ventilation structure and other structures are on the east side of 29th Street. [See pages 10, 13 and 15]

  Without a survey it cannot be determined if the MTA/NYCT have any structures beneath the site that require easements for access or would prevent new construction.

- Although the existing "*Newcomers HS"* was constructed *as "Long Island City HS"* in approximately 1905 *(C.J. Snyder),* as per the SCA's *"Project Tracking System" (PTS),* the building is indicated as not eligible for *"SHPO"* (SHPO ID: 00PR3690).

- The proposed new stand-alone building would require a new building address and NYC/DOB BIN# [regulatory]

- The existing school utilizes refuse containers for the removal of trash. Its continued need or increase in capacity cannot be determined at this time.

- The level of groundwater is not known.

- Narrow adjacent streets and very little available site area for mobilization and construction activities may necessitate sidewalk and/or street closures.

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20 ~~**Outdoor Space:** *"NYC Health Department and NYS Law"* requires a school to have outdoor area for rest and recreation - New York City Rules & Regulations - Title 24 - Health Code, Sections §45:11(h) and §49.13; and NY CLS Educ. 2556(5).~~

- ~~When available, open space at grade, is typically utilized for the gathering of children during arrival times and for the organized dismissal of the children at the end of each school day.~~
- *"Research confirms the importance of physical education for health, learning, and social development. In New York City, physical education and sports have also played an integral part in the fabric of civic life and public schools. For countless children, immigrants and native-born, schoolyards and playing fields have provided the forum for friendships made and opportunity forged, the level playing field on which children from disparate backgrounds have met and tested themselves without advantage or benefit accorded privilege." ~ "Hit or Miss-Fitness & Sports Opportunities in the New York City Public Schools (New York, Educational Frameworks Inc., 2000)".*

21 (Existing School Capacity = +/-915 Students) + (Draft POR Capacity = 860) = 1,775 Students (*"Newcomers HS"* + *"HS of American Studies"*)

22 **Rules and Regulations of the NYC Parks Department, §1-05 Regulated Uses, paragraph s.:** Areas within the parks designated by the Commissioner for exclusive use shall include: 1.Exclusive Children Playgrounds: Adults allowed in playground areas only when accompanied by a child under the age of twelve (12).

When children are brought off a school property there are liability risks regarding the children permission is required from parents/legal guardians.

- During what is deemed a conceptual design phase, the area needed for structural systems and mechanical systems (ducts, pipes, closets, etc...) are not typically accounted for at this level of design and due to the limited site area and constrained dimensions they may have an adverse impact on the final design and the POR when these systems are accounted for in the actual design and development of the subject school.
- District 75 Citywide Education[23] often requests to have the flexibility of a secondary school entrance to facilitate their unique needs of the D75 children as they arrive and depart a school.
- ~~Noise Pollution: "Aircraft noise disturbs the normal activities of airport neighbors--their conversation, sleep, and relaxation--and degrades their quality of life. Depending on the use of land contiguous to an airport, noise may also affect education, health services, and other public activities.~~[24]

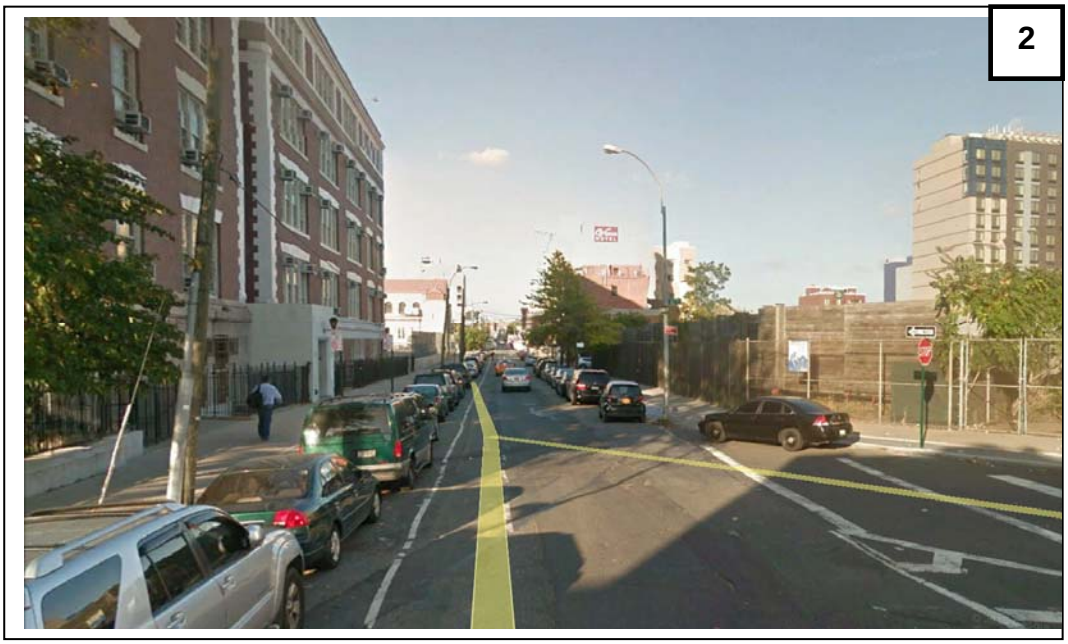
[23] District 75 provides citywide educational, vocational, and behavior support programs for students who are on the autism spectrum, have significant cognitive delays, are severely emotionally challenged, sensory impaired and/or multiply disabled.
[*Source: http://schools.nyc.gov/Academics/SpecialEducation/D75/Feeds/slider/AppropriateLearningEnvironments.htm*]

[24] ~~*"LaGuardia Airport: Can the Airport and Community Coexist, By Congressman Joseph Crowley, page 14. [http://www.areco.org/LaGuardia.pdf]*~~

5. Photographs, Plans and Other Attachments

The Photographs, Plans and other attachments that follow are provided to illustrate the above noted issues and concerns, to provide a basis for open discussion, and direction for the possible development of a project. Please note that neither the Program of Requirements nor the Design Scheme provided herein is final.

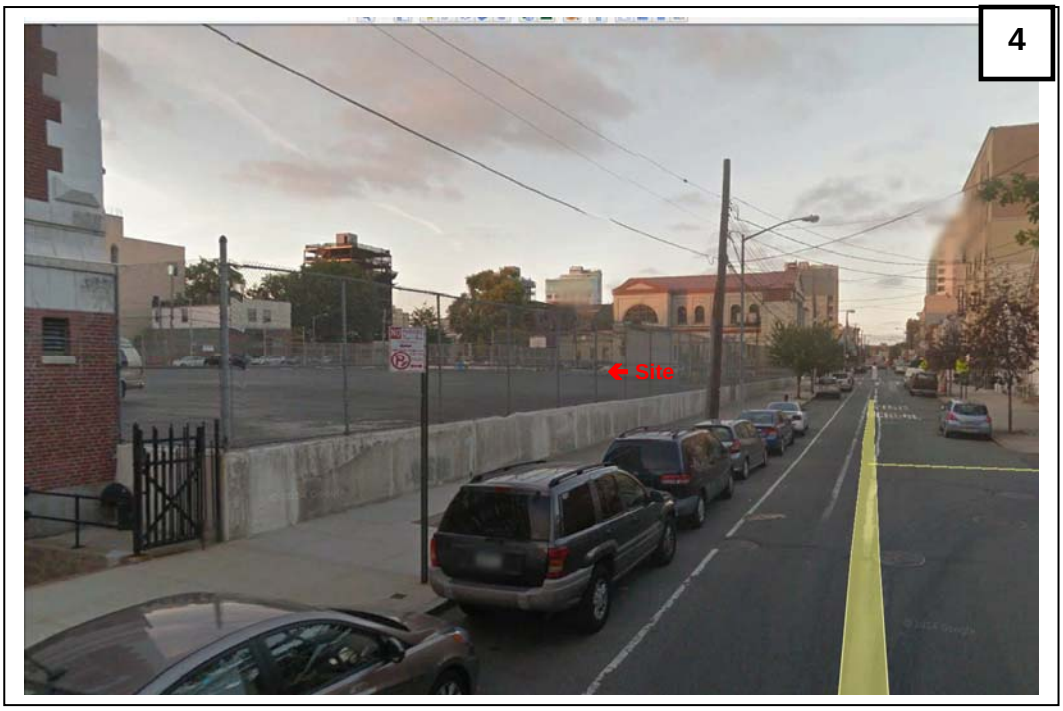
View looking East on 41st Street



View looking North on 29th Street

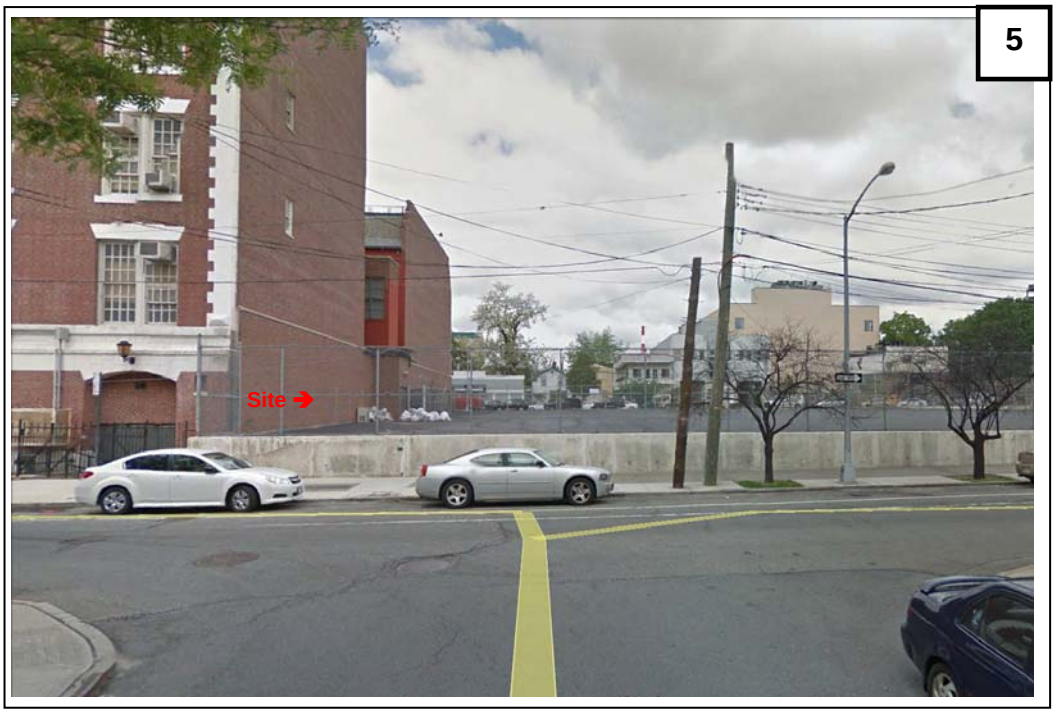
STREET VIEWS

View of MTA/NYCT Access in Sidewalk on 29th Street

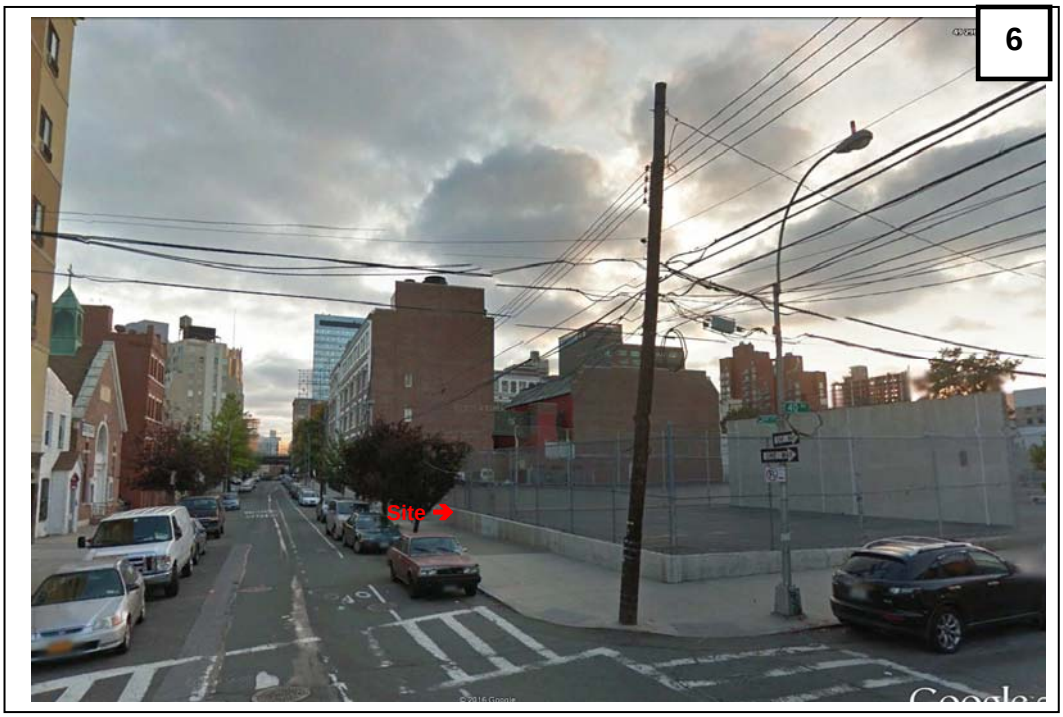


View looking North on 29th Street

STREET VIEWS



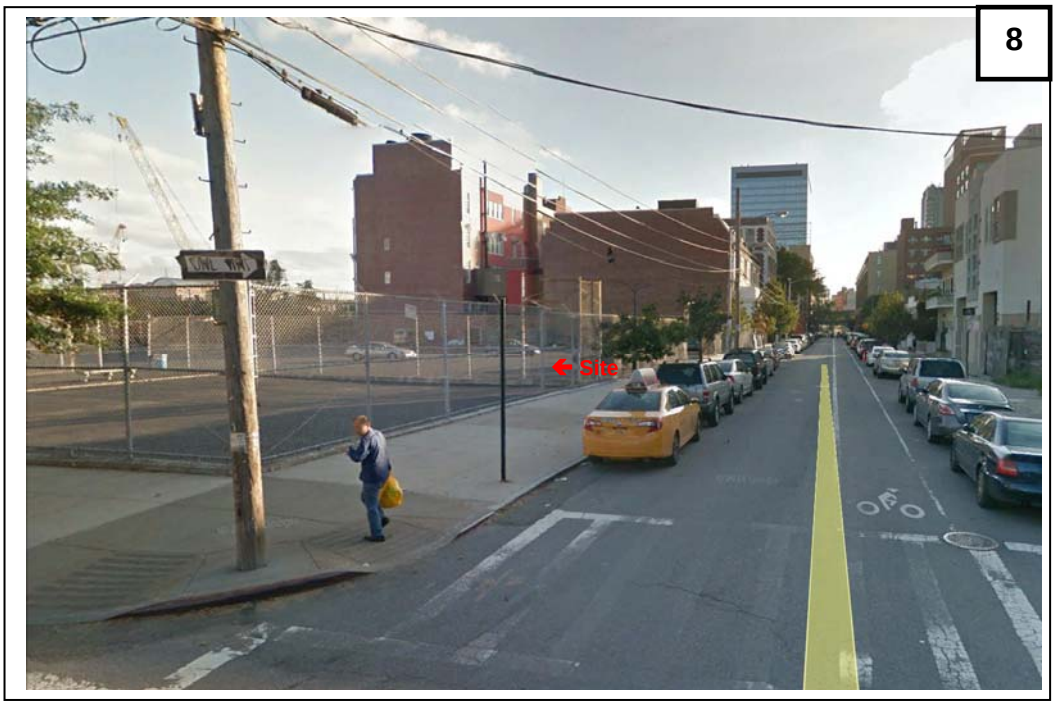
View looking West from 40th Road



View looking South on 29th Street

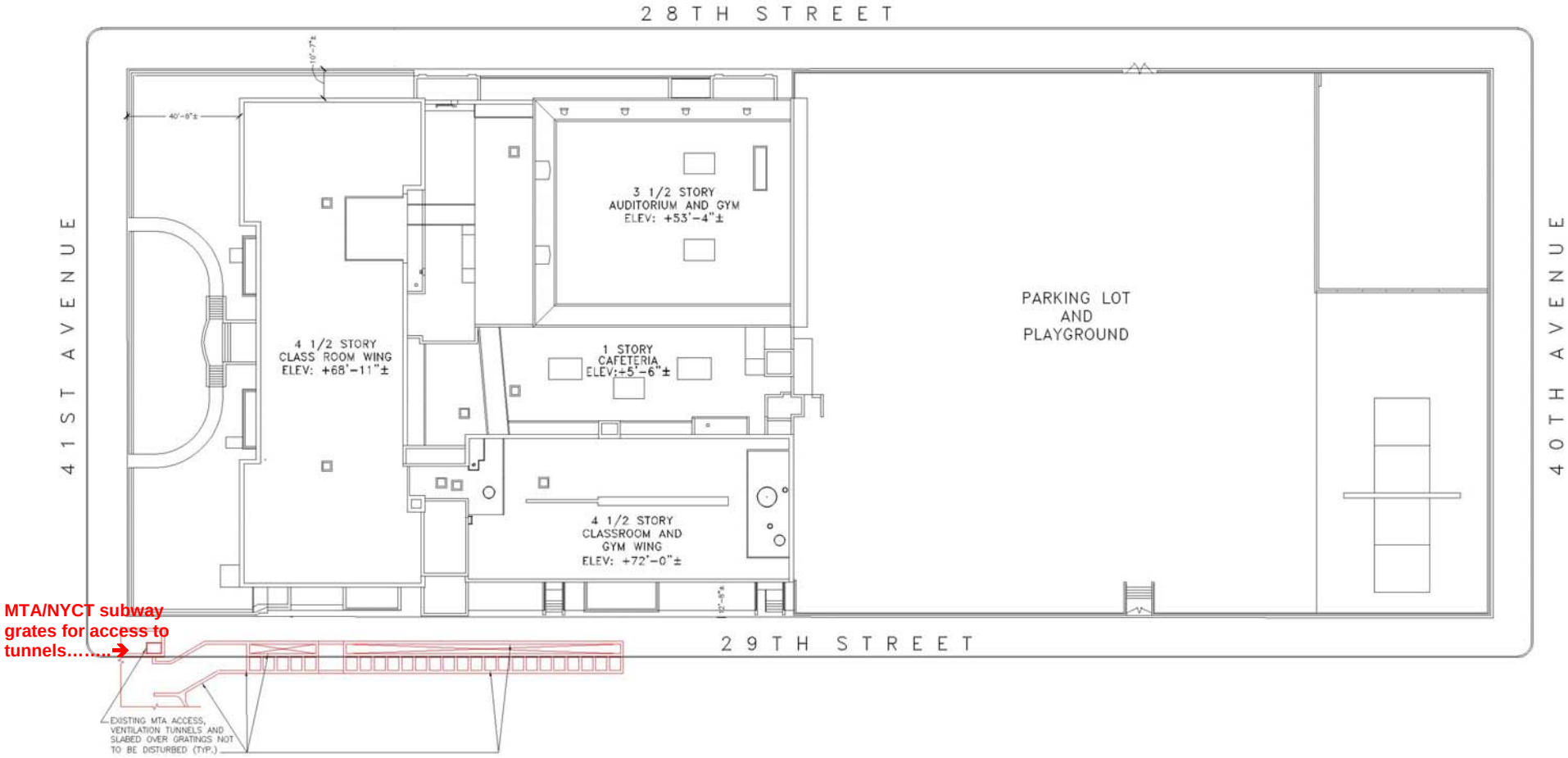
STREET VIEWS

View looking West on 40th Street



View looking South on 28th Street

STREET VIEWS



EXISTING SITE PLAN / MTA-NYCT INFRASTRUCTURE IN 29TH STREET

4. Conceptual Plans:

Through an expedited singular design approach the following conceptual plans *["Test Fit / Sketch Study"]* attempt to accommodate a given POR in the most straight forward viable approach possible while keeping in mind, amongst other things, functionality, layout, circulation, impact to local environs, impact to existing site conditions, impact to existing buildings, costs, codes, zoning, phasing and constructability issues.

The goal of the following conceptual plans is to successfully address all issues and concerns that can be resolved through design, and if not successfully address all issue and concerns that can be resolved through design, at a minimum, expose those issues and concerns that may present significant challenges for both the design and construction of a proposed project.

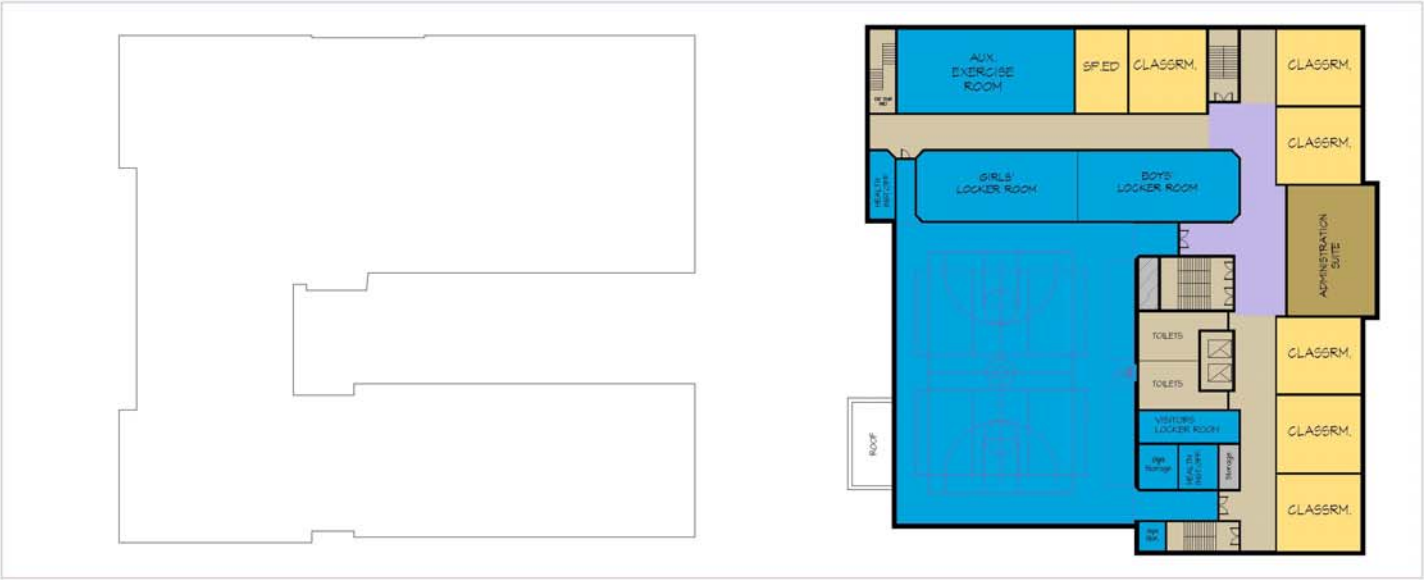
In the end, it is hoped that if a project is assigned to a Design Team that the following conceptual plans *["Test Fit / Sketch Study"]* assists that Design Team in their efforts to develop and provide a design that best addresses the multiple complex and sometimes competing and/or contradictory needs of a project.

SITE / FIRST FLOOR PLAN

LEGEND:

- GROUP 1 – INSTRUCTIONAL
- GROUP CW – CITY WIDE SP. ED – D75
- GROUP 2 – SPECIALIZED INSTRUCTION
- GROUP 3 – SCIENCE
- GROUP 4 – PHYSICAL EDUCATATION
- GROUP 5 – ASSEMBLY
- GROUP 6 – LIBRARY
- GROUP 7 – LOBBY
- GROUP 8 – STUDENT SUPPORT
- GROUP 9 – STORAGE
- GROUP 10 – ADMINISTRATION
- GROUP 11 – CAFETERIA, STAFF LUNCH
- GROUP K – KITCHEN/FOOD SERVICES
- GROUP 12 – CUSTODIAL
- CORRIDOR/STAIR/ELEVATOR/ MECHANICAL/ELECTRICAL/TOILETS

CELLAR FLOOR PLAN



LEGEND:

- GROUP 1 – INSTRUCTIONAL
- GROUP CW – CITY WIDE SP. ED – D75
- GROUP 2 – SPECIALIZED INSTRUCTION
- GROUP 3 – SCIENCE
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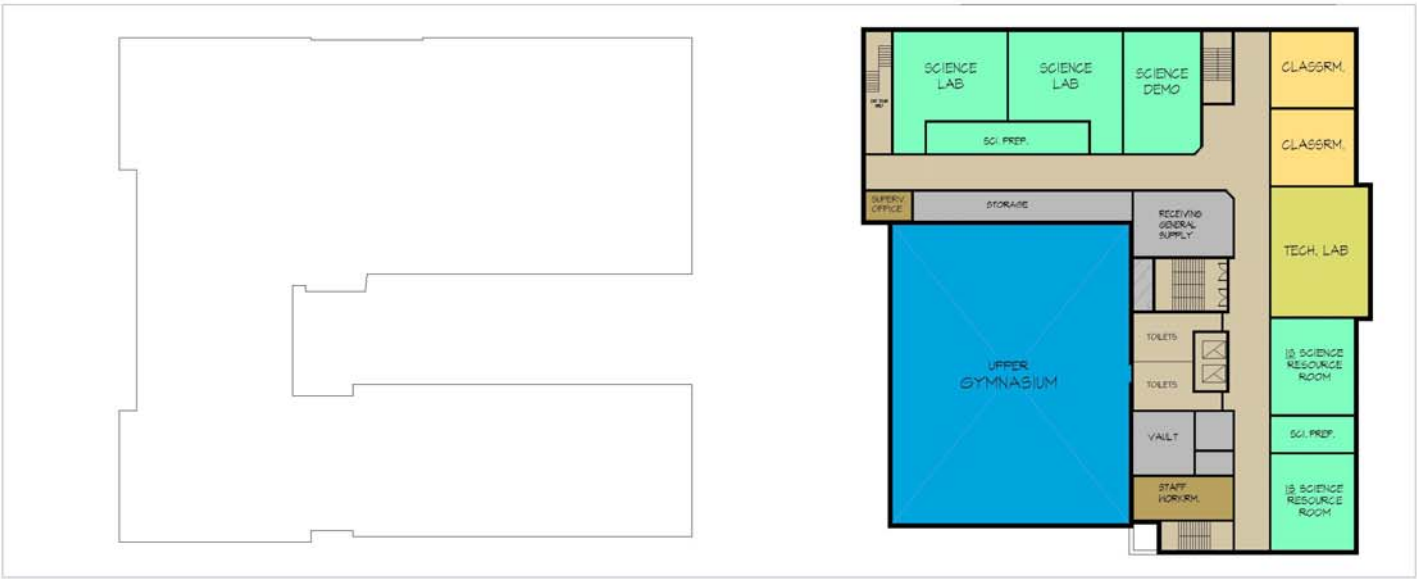
- GROUP 11 – CAFETERIA, STAFF LUNCH
- GROUP K – KITCHEN/FOOD SERVICES
- GROUP 12 – CUSTODIAL
- CORRIDOR/STAIR/ELEVATOR/ MECHANICAL/ELECTRICAL/TOILETS

SECOND FLOOR PLAN



LEGEND:

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- GROUP CW – CITY WIDE SP. ED – D75
- GROUP 2 – SPECIALIZED INSTRUCTION
- GROUP 3 – SCIENCE
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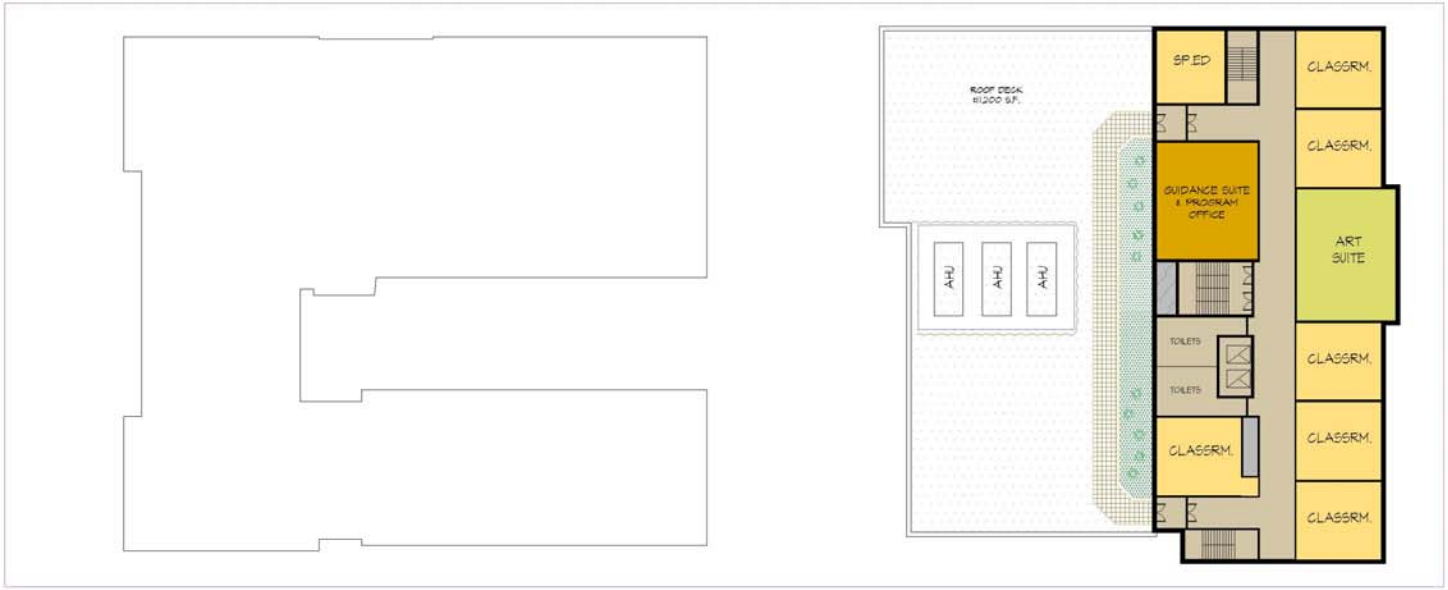
- GROUP K – KITCHEN/FOOD SERVICES
- GROUP 12 – CUSTODIAL
- CORRIDOR/STAIR/ELEVATOR/ MECHANICAL/ELECTRICAL/TOILETS

THIRD FLOOR PLAN



LEGEND:

- GROUP 1 – INSTRUCTIONAL
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- GROUP 2 – SPECIALIZED INSTRUCTION
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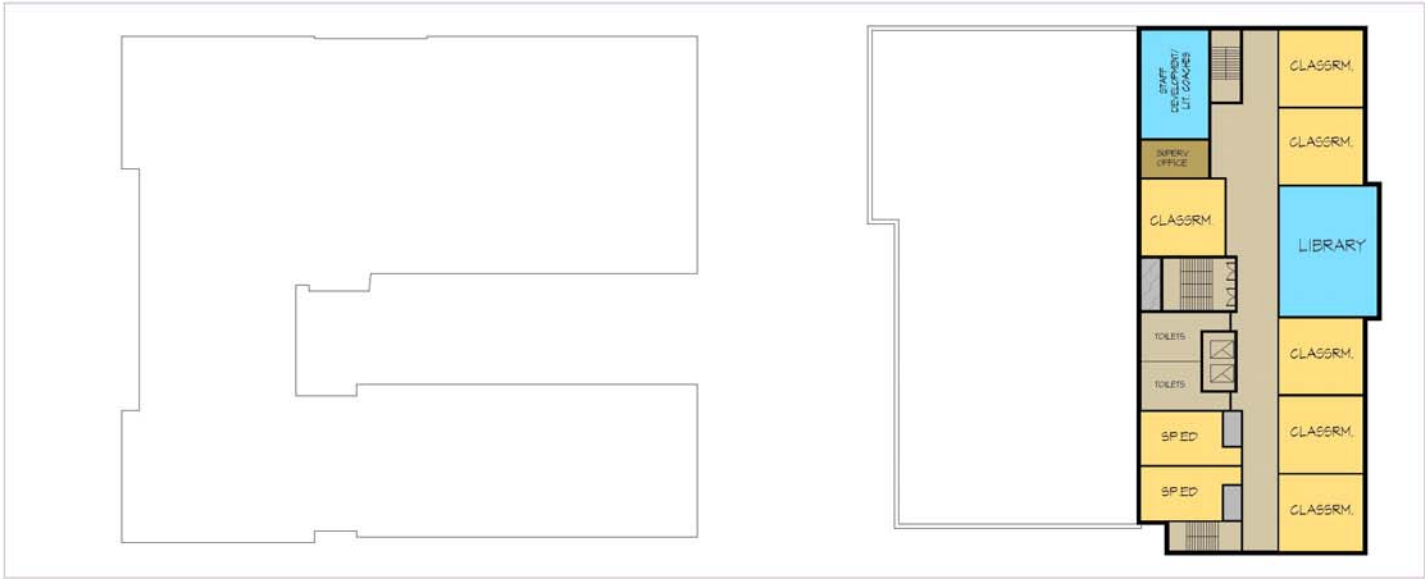
- GROUP 12 – CUSTODIAL
- CORRIDOR/STAIR/ELEVATOR/ MECHANICAL/ELECTRICAL/TOILETS

FOURTH FLOOR PLAN



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- GROUP 1 – INSTRUCTIONAL
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- GROUP 2 – SPECIALIZED INSTRUCTION
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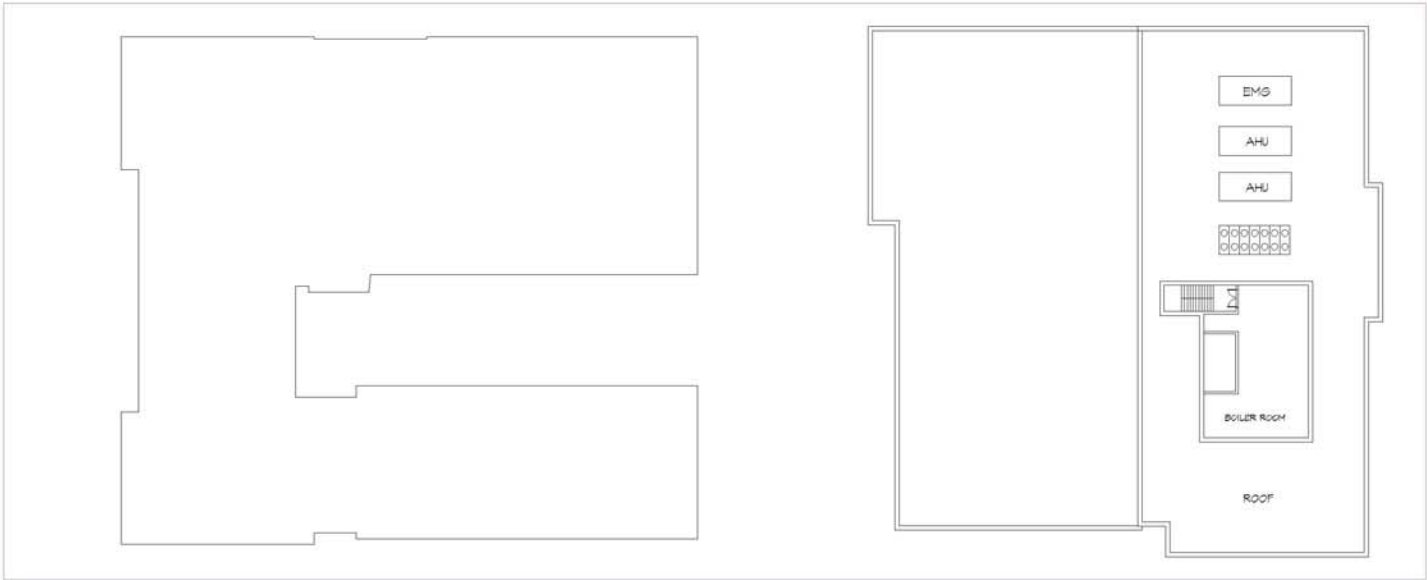
- GROUP 4 – PHYSICAL EDUCATATION
- GROUP 5 – ASSEMBLY
- GROUP 6 – LIBRARY
- GROUP 7 – LOBBY
- GROUP 8 – STUDENT SUPPORT
- GROUP 9 – STORAGE
- GROUP 10 – ADMINISTRATION
- GROUP 11 – CAFETERIA, STAFF LUNCH
- GROUP K – KITCHEN/FOOD SERVICES
- GROUP 12 – CUSTODIAL
- CORRIDOR/STAIR/ELEVATOR/ MECHANICAL/ELECTRICAL/TOILETS

FIFTH FLOOR PLAN



LEGEND:

- GROUP 1 – INSTRUCTIONAL
- GROUP CW – CITY WIDE SP. ED – D75
- GROUP 2 – SPECIALIZED INSTRUCTION
- GROUP 3 – SCIENCE
- GROUP 4 – PHYSICAL EDUCATATION
- GROUP 5 – ASSEMBLY
- GROUP 6 – LIBRARY
- GROUP 7 – LOBBY
- GROUP 8 – STUDENT SUPPORT
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- GROUP K – KITCHEN/FOOD SERVICES
- GROUP 12 – CUSTODIAL
- CORRIDOR/STAIR/ELEVATOR/ MECHANICAL/ELECTRICAL/TOILETS

ROOF PLAN

(School Name)						
	Program of Requirements for a New ISHS Building					
					UNIT	TOTAL
ROOM		NO. OF	CAPACITY		AREA	NET
LAYOUT	ROOM TYPE	UNITS	UNIT	TOTAL	[SQ. FT.]	AREA
	GROUP 1 - INSTRUCTION					
1-20	Typical Classrooms - Grade 9 - 12	20	30	600	750	15,000
1-30	District Special Ed. Classrooms -IS use	2	12	24	500	1,000
1-30	District Special Ed. Classrooms - HS use	2	15	30	500	1,000
1-41	Resource Room (Small group Instruction)	0	5	0	375	0
	GROUP CW - CITY-WIDE SPECIAL ED - DISTRICT 75 (clustered at first floor or stacked on 1 & 2)					
CW10-11	Special Education Classrooms (w/ toilets) - District 75	4	12	48	750	3,000
CW10-10	Special Education Classrooms(w/ toilets) - District 75	4	12	48	550	2,200
CW17-12	Citywide Special Ed Speech Rm (w/ storage) - Dist. 75	2	---	---	200	400
	Main Office	1			300	300
	Resource Room	3	---	---	200	600
CW30-00	Guidance Office/Other Office - District 75	2	---	---	200	400
CW34-00	Occupational Therapy Room	1	---	---	400	400
	Physical Therapy Room	1	---	---	600	600
CW40-70	Supervisory Office (w/ storage) - District 75	1	---	---	250	250
	Multi-purpose Room w/ wall padding no fixed furniture	1	---	---	600	600
CW80-00	Storage Room - District 75	2	---	---	250	500
CW12-10	Changing Room	1	---	---	100	100
	GROUP 2 - SPECIALIZED INSTRUCTION					
2-20	Art Classroom (w/ 250 sf storage)	1	30	28	1,500	1,500
2-40 or	HS Instrumental Music CR (w/ practice cubicles)	1	30	30	1,000	1,000
2-43	or HS Choral Music Room					
2-44	HS Music Instrument Storeroom (shared)	1	---	---	375	375
HS	Technology Lab (CADD, Desk-top Publishing, etc.)	1	30	30	1,500	1,500
	GROUP 3 - SCIENCE					
3-14	Science Lab/Demo - IS use	2	28	56	875	1,750
3-15	Science Project/Prep Rm (w/ doors to Lab/Demo & corridor)	1	---	---	375	375
3-20	Science Lab - trifacial	2	30	60	1,250	2,500
3-24	Science Demo Room - HS use	1	30	30	1,000	1,000
3-42	Science Preparation Room (w/ doors to labs & corridor)	1	---	---	500	500

(School Name)						
	Program of Requirements for a New ISHS Building					
					UNIT	TOTAL
ROOM		NO. OF	CAPACITY		AREA	NET
LAYOUT	ROOM TYPE	UNITS	UNIT	TOTAL	[SQ. FT.]	AREA
	GROUP 4 - PHYSICAL EDUCATION					
4-20	Gymnasium (Competition) w/ Bleachers	1	45	45	8,500	8,500
4-22m	Auxiliary Exercise Room	1	30	28	1,500	1,500
4-40	Locker Rooms w/ showers (Provide Type 2 lockers) one locker ur	2	80	units	1,375	2,750
4-41	Community / Visiting Team Locker Room	1	---	---	375	375
4-52	Health Instructor's Office (adj. to gym)	1	or 2 @ 150		300	300
4-54	Gymnasium Storeroom (adjacent to competition gym)	2	---	---	250	500
	PLAYGROUND: Hard-surface General Playground @ 30 sf/student if possible; HS Athletic fields if space permits,					
	GROUP 5 - ASSEMBLY AREA					
	Assembly					5,500
	Seating Area	1	300	seats	3,000	
	Stage, Wings and Orchestra Area	1			1,600	
	Makeup / Dressing Rooms - M/F (250 sf each)	1			500	
	Coat / Ticket Room	1			125	
	Storage Room	1			125	
	Projection room	1			150	
	GROUP 6 - LIBRARY					
6-21m	Library	1	---	---	1,500	1,500
D	Staff Development/Literacy Coaches Room (cubicles and workshop area) (adjacent to Library)	1	---	---	750	750
	GROUP 7 - LOBBY / MAIN ENTRANCE					
7-21	Lobby- max double height area not to exceed 50% of Lobby area	1	---	---	1,000	1,000

(School Name)						
	Program of Requirements for a New ISHS Building					
					UNIT	TOTAL
ROOM		NO. OF	CAPACITY		AREA	NET
LAYOUT	ROOM TYPE	UNITS	UNIT	TOTAL	[SQ. FT.]	AREA
	GROUP 8 - STUDENT SERVICES					
8-21,8-47	Guidance suite/attendance and lateness office	1	---	---	500	500
8-22	Guidance, SAT, HS Coll/Voc Suite	1			375	375
8-44	Records/Storage Room adj to guidance 8-21	1			125	125
8-45	~~student store~~					
8-60	Medical Suite	1	---	---	---	625
	Medical Suite Waiting & Intake	1	---	---	180	---
	Medical Suite Toilet	1	---	---	50	---
	Nurses Office	2	---	---	125	---
	Examination Room	1	---	---	110	---
	Rest area	2	---	---	50	---
	GROUP 9 - STORAGE					
	Educational storage closet- books etc	1	per floor	---	75	375
	General Storage	1	---	---	750	750
9-19	Grounds Equipment Storeroom	1	---	---	125	125
9-23	Vault' with Anteroom	1	---	---	375	375
9-24	Refuse and Recycling room (w/ floor drain and hose bib) (on 1st floor if possible)	1	---	---	250	250
9-25	Computer/AV storeroom (1 ea instr. floor)	5	---	---	50	250
	Bicycle Storage	1			165	165
	Shower/Changing room for Bike users	1			135	135
	GROUP 10 - ADMINISTRATION					
	Administration Suite	1	---	---	---	1,300
10-11	General Office Cubicles/Waiting Room/Time & Mail	1	---	---	550	---
10-13	Principal's office w/ conference area	1	---	---	400	---
10-14	Records Room	1	---	---	200	---
10-17	Duplicating Room	1	---	---	150	---
10-21	Program Office /ATS Suite	1	---	---	200	200
	Supervisory office	2	---	---	150	300
10-24	Staff Work Room/Lockers (w/ toilet)	1	---	---	375	375
10-26	Parent/Community Office	1	---	---	375	375
	GROUP 11 - CAFETERIA / STAFF LUNCH					
11-12	Staff Lunch	1	---	---	600	600
11-41	Students' Dining Area -(100% Capacity / 3*15 Sq. Ft.)	1	287	---	4,301	4,301

(School Name)						
	Program of Requirements for a New ISHS Building					
					UNIT	TOTAL
ROOM		NO. OF	CAPACITY		AREA	NET
LAYOUT	ROOM TYPE	UNITS	UNIT	TOTAL	[SQ. FT.]	AREA
	GROUP K - KITCHEN					
	Kitchen Complex (See K1 for gross area)	1	---	---	2,700	2,700
K2	Kitchen					
K6	Dietitian's Office					
K7	Help Locker Room - M/F (w/ toilet)					
	Food Storage (75% may be remote from kitchen)					
	GROUP 12 - CUSTODIAL					
12-10	Custodial Locker Rm - M/F	2	---	---	150	300
12-11	Custodian's Office	1	---	---	375	375
12-14,16	Custodian's Storage/Workshop (include hydraulic lift)	1	---	---	500	500
12-17	Janitor's Sink Closet			(1 per floor)		
12-25	Telecommunications Room	1	---	---	300	300
12-26	Telecommunications Switch Closet	3	---	---	100	300
12-27	Unisex toilet for non-ambulatory use-Verify if reqd	1	---	---	60	60
12-28	School Safety office/locker rooms	1	---	---	450	450
	Roof Equipment storage	1	---	---	75	75
	TOTAL PROGRAMMED AREA (62% Gross)					**76,086**
	TOTAL CORE AREA (38% Gross)					**42,798**
	TOTAL GROSS AREA (100%)					**118,884**
	ADJUSTED CAPACITY PER SCHOOL:			**860**		

NEWCOMERS HIGH SCHOOL

GERMAN SARMIENTO, PRINCIPAL
28-01 41 AVENUE, QUEENS, NY 11101
PHONE: 718-937-6005

NYC Department of Education

DOE Home Page > SchoolPortals > Q555

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Q555

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Welcome

Please visit our main website:
http://newcomershs.schoolwires.net/

Tuesday, February 02, 2016

Map of School Area and Directions

DOE School Calendar

School Details

Newcomers High School

School Number: Q555

Address: 28-01 41 AVENUE QUEENS, NY 11101

Phone: 718-937-6005

Fax: 718-937-6316

School Hours

Student Enrollment: 915

Grades Served: 09, 10, 11, 12, SE

PRINCIPAL GERMAN SARMIENTO

Parent Coordinator: Eduardo Duarte

PA President: Shally Perez

Police Precinct: 114

Geographic District: 30

High School Office

Superintendent: KAREN WATTS

Address: 1396 BROADWAY BROOKLYN, NY 11221

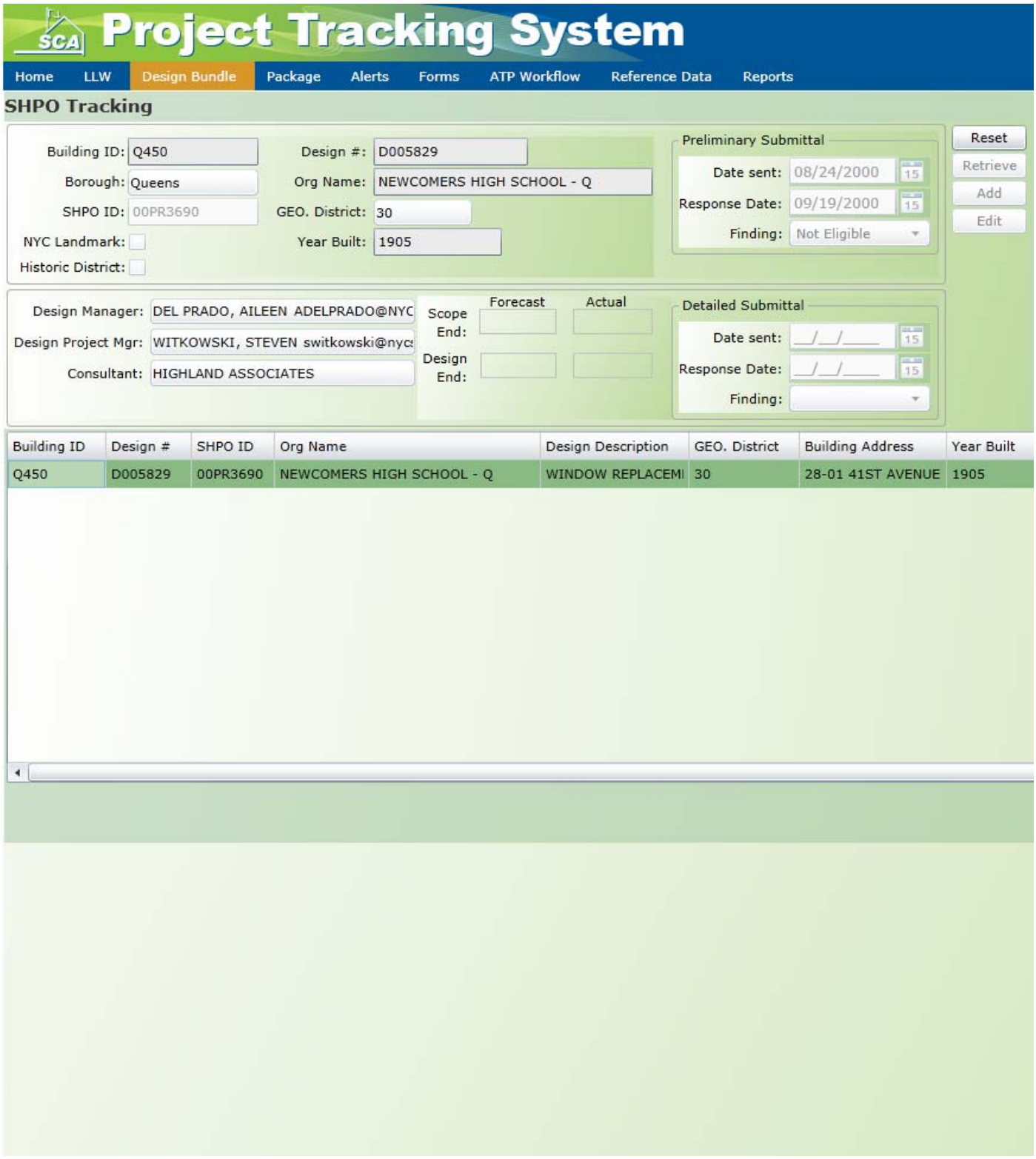
Phone: 718-455-4635

Family Leadership Coordinator: Gregory Hagin
Email: GHagin@schools.nyc.gov

Family Support Coordinator: Corrine Mattis
Email: CMattis@schools.nyc.gov

Education Council President: Deborah Alexander and Valarie Lamour

DOE SCHOOL PROFILE



SCA PROJECT TRACKING SYSTEM (PTS) / SHPO

"Measuring the Distance" The 200 and 500 Foot Rules

NEW YORK STATE LIQUOR AUTHORITY

DIVISION OF ALCOHOLIC BEVERAGE CONTROL

The 200 Foot Rule

The Alcoholic Beverage Control Law prohibits certain licenses from being issued if the location of the establishment is on the same street and within 200 feet of a building that is used exclusively as a school, church, synagogue or other place of worship. This restriction is commonly called the 200 foot rule and applies to any retail establishment where liquor will be sold for on premises consumption and any retail establishment where liquor or wine will be sold for consumption off the premises.

Measurement of distance

The law provides that the measurement be taken in a straight line from the center of the nearest entrance of the school/place of worship to the center of the nearest entrance of the establishment. The distance is determined using only entrances that are regularly used to give ingress to (a) the students of the school, (b) the general public into the place of worship; and (c) patrons into the establishment. Emergency/fire exits, maintenance access, and doors to gain access to non-public areas are not used in the measurement. If the entrance is set back from the sidewalk by a walkway or doorway, the measurement is taken from the center of the line where the walkway/doorway meets the sidewalk. For an establishment in a multi-story building, the building entrance at street level is used.

NYS LIQUOR AUTHORITY – 200-FOOT RULE

Exhibit - 1

From: abc.sm.albany.counsel <legal@sla.ny.gov>
Sent: Friday, September 11, 2015 3:03 PM
To: PERCUDANI, PETER
Subject: RE: Mixed-Use Building / School / Alcohol 200-foot Rule

Since the building would not be exclusively used as a school, new establishments within 200 feet would not be prohibited by the 200' law. Presumably, this would be true of a school located within the same mixed use building as well.

From: PERCUDANI, PETER [mailto:PPERCUDANI@NYCSCA.ORG]
Sent: Friday, September 11, 2015 12:17 PM
To: abc.sm.albany.counsel
Subject: Mixed-Use Building / School / Alcohol 200-foot Rule

To Whom it may concern,

We are currently evaluating a new project in NYC where a mixed-use building would be part commercial, office, and school (6th to 8th grades).

Would an establishment that sold or served alcohol be permitted within the building itself?

In addition, would any new establishments that sold/served alcohol be permitted within 200-feet of the school's entrance since the building would not be exclusively used as a school?

Thank you for your time and attention to this matter.

Peter Percudani, RA
NYC School Construction Authority
Managing Architect - Design Development
Quality Control & Construction Services Studio / 718-472-8756

RESPONSE FROM NYS LIQUOR AUTHORITY

Exhibit - 1

1 RCNY §9000-01

CHAPTER 9000

Zoning

§9000-01 Adult establishments.

Dates of establishment and discontinuance of adult establishments, houses of worship, and schools for the purposes of sections 32-01 and 42-01 of the zoning resolution. In determining whether an adult establishment may lawfully be established at a a location pursuant to sections 32-01 and 42-01 of the zoning resolution, the department will use the following criteria to determine the dates of establishment and discontinuance for adult establishments, houses of worship and schools located or proposed to be located within 500 feet of each other.

(a) The date of establishment of an adult establishment, house of worship, or school in existence and operating prior to August 8, 2001 shall be the date of issuance of an appropriate department permit or, if no permit was required, the date that it commenced operation, as determined by the department.

(b) Except as otherwise provided in subdivision a of this section, the date of establishment of an adult establishment, house of worship, or school shall be the date of issuance of an appropriate department permit, subject to the following qualifications:

(1) With respect to a new building permit or alteration permit:

(i) significant progress must be shown toward completion of the work under the permit. For the purposes of this paragraph, the term "significant progress" means the issuance of a temporary certificate of occupancy or, if applicable, department signoff of the work within one year of issuance of the permit, except that upon application, the commissioner or his or her designee, may extend the one year period in accordance with subdivision c of this section for a period of time not exceeding one year, and

(ii) the use or operation for which the building is constructed or altered must commence within six months after the issuance of a temporary certificate of occupancy or, if applicable, within six months after a department signoff that the work has been completed, except that upon application, the commissioner or his or her designee, may extend the six month period in accordance with subdivision c of this section for a period of time not exceeding six months.

(2) With respect to applications for permits filed solely to establish priority, where no work requiring a building permit is proposed, the use or operation for which the permit is issued must commence within two months of the issuance of such permit, except that upon application, the commissioner or his or her designee may extend such two month period in accordance with subdivision c of this section for a period of time not exceeding two months.

(c) An extension of time pursuant to subdivision b of this section may be granted where the permittee submits an application no later than 30 days prior to the expiration of the applicable time period together with satisfactory evidence that significant progress or the commencement of use or operations within the applicable time period is impracticable. The commissioner or his or her designee shall make a determination and notify the applicant in writing of his or her determination not later than 30 days after receipt of the application by the department. If the application is denied, the commissioner or his or her designee shall state the reason(s) therefor. If the commissioner or his or her designee fails to act upon the application within such 30-day period, the application shall be deemed to be granted.

(d) An adult establishment, otherwise in compliance with the zoning resolution, may be established within 500 feet of a discontinued adult establishment, house of worship or school. For the purposes of this subdivision, once established, an adult establishment, house of worship, or school shall not be deemed to be discontinued until it has ceased operation for a continuous period of one year or longer.

(e) The time periods set forth in this section for significant progress of work, or for commencement of operations shall commence to run as of the effective date of this section or issuance of the permit, whichever is later.

1 RCNY § 9000-1 / Adult Establishments, Houses of Worship & Schools

Exhibit - 2

S T A T E O F N E W Y O R K

151--A

2013-2014 Regular Sessions

I N A S S E M B L Y

(PREFILED)

January 9, 2013

Introduced by M. of A. NOLAN, BRENNAN, TITONE -- read once and referred to the Committee on Education -- committee discharged, bill amended, ordered reprinted as amended and recommitted to said committee

AN ACT to amend the education law, in relation to restricting the sale, lease, transfer or authorization of open-air schoolhouse playgrounds for certain uses

THE PEOPLE OF THE STATE OF NEW YORK, REPRESENTED IN SENATE AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. Subdivision 5 of section 2556 of the education law, such section as renumbered by chapter 762 of the laws of 1950, is amended to read as follows:

5. It shall be unlawful for a schoolhouse to be constructed in the city of New York without an open-air playground attached to or used in connection with the same. EXISTING PLAYGROUNDS SHALL NOT BE SOLD, LEASED OR TRANSFERRED, OR PERMANENTLY AUTHORIZED FOR OTHER USES SUCH AS SCHOOL BUILDING CONSTRUCTION, RENOVATION, PLACEMENT OR STORAGE OF BUILDING MATERIALS FOR SUCH WORK THAT WOULD ELIMINATE THE USE OF SUCH PLAYGROUND SPACE FOR OUTDOOR RECREATIONAL ACTIVITIES UNLESS A PLAN IS ESTABLISHED AND IMPLEMENTED TO PROVIDE SUITABLE AND ADEQUATE PHYSICAL ACTIVITIES OR SPACE TO ACCOMMODATE THE PHYSICAL AND RECREATIONAL NEEDS OF THE PUPILS OF SUCH BUILDING. THE PROVISIONS OF THIS SUBDIVISION SHALL NOT APPLY TO SCHOOL CONSTRUCTION OR RENOVATION ACTIVITIES THAT OCCUR ON OR REQUIRE THE USE OF SUCH PLAYGROUNDS FOR A DURATION OF NO MORE THAN ONE YEAR.

§ 2. This act shall take effect on the one hundred eightieth day after it shall have become a law; provided however, that the commissioner of education is authorized and directed to promulgate any rules or regulations necessary for the timely implementation of this act on or before such date.

EXPLANATION--Matter in ITALICS (underscored) is new; matter in brackets [ ] is old law to be omitted.

LBD00128-03-3

NYS LEGISLATION / PLAYGROUNDS

Exhibit – 3

From:	OU, KENRICK
Sent:	Monday, December 21, 2015 12:29 PM
To:	BARRETT, E BRUCE; KUBOTA, NINA; LEMPERT, ALEX
Cc:	ABNERI, ELAN; DEL PRADO, AILEEN; DAHIR, STANLEY; PERCUDANI, PETER; GUTERMAN, DEBORAH LEE; BROWN, TRENTON A.; CIECIERSKA, ANNA; LIU, CORA; TUNG, GORDON; FONTANET, JENNIFER; BRENNAN, FRANK; ZHANG, MI; LA ROCCA, MELANIE; GARCIA, MARGUERITA
Subject:	Due Diligence Request: Addition to Newcomers High School, Queens (Q450)

We have been asked to complete a feasibility study for the construction of additional Capacity at the Newcomers High School site (Q450) in Long Island City in District 30.

Property Information:

CSD:	30 (Long Island City/Ravenswood Subdistrict)
Address:	28-01 41st Avenue, Queens
Block/Lots:	404/1
Description:	The subject property is an entire block owned by the City of New York and under the jurisdiction of the New York City Department of Education. It contains an existing school building (Q450), which is occupied by two DOE high schools - Newcomers High School and the Academy of American Studies – as well as extensive paved area which has been used for vehicle parking. The Academy of American Studies also occupies a leased annex (Q451) located across the street at 28-04 41st Avenue.
Access:	Please contact the principal and/or custodian should access to the property be required.

Request:

- Capital Plan Management is requested to create an LLW# for this study and provide A&E with the draft Program of Requirements for use in the study.
- A&E is requested to assess the cost and feasibility of constructing additional capacity at the site to accommodate the Academy of American Studies, and permit the DOE either to terminate or repurpose the use of the Q451 building.
- I&EH is requested to complete environmental due diligence investigations for this property.

Thank you.

1

REQUEST FOR "TEST FIT – SKETCH STUDY"

APPENDIX F

RECOMMENDED REMEDIATION AND COST ESTIMATES

To address the RECs, VECs, and environmental concerns that require special considerations and/or affect the suitability of the Site for use as a school facility, TRC recommends the following:

- As a preventive measure, an active sub-slab depressurization system and soil vapor barrier should be integrated into the building design to prevent petroleum-related and solvent-related VOCs in soil vapor from entering the proposed school building.
- Based on the results of preliminary design sampling that was completed during the Phase II ESI, a pre-design investigation should be performed in the area of soil boring location TRC-SB-1 to confirm the extent of areas of hazardous lead impacted soil.
- If soil is to be excavated during construction activities of the proposed public school facility, TRC recommends properly characterizing the soil to identify appropriate material handling, reuse, and/or disposal requirements. Excavated material should be managed in accordance with applicable federal, state, and local laws and regulations and in consideration of the results of the characterization sampling and analysis. Additionally, the project construction specifications should require completion of waste characterization sampling by the contractor.
- The Test Fit/Sketch Study provided by the NYCSCA indicates that a new stand-alone five-story building with a basement is to be constructed on the Site. The proposed new addition to the Site may encounter the two USTs during construction activities. A determination should be made regarding the continued operation of the two USTs. If the USTs interfere with construction of the proposed new addition, they should be closed and removed in accordance with NYSDEC requirements.
- After the proposed new building and grounds are constructed, if exposed soil (landscaped areas) are incorporated into the development of the Site, any exposed soil should be covered by a minimum 2-foot thick layer of environmentally clean fill.
- Although not anticipated based on the presumed depth of groundwater, if dewatering is necessary during school construction activities, it is expected that characterization and treatment of dewatering effluent may be required prior to discharge to the municipal sewer. Dewatering, groundwater treatment, and disposal should be performed in accordance with applicable local, state and federal regulations. Dewatering required during construction should be minimized to mitigate potential influx of contaminated water from off-site sources toward the Site.
- Any suspect ACM, LBP, PCB-containing materials, including buried structures, affected by Site development should be properly managed during such activities.

1st Remediation Measure – Transportation and Disposal of Hazardous Waste

The cost estimate for the first remediation measure uses the following assumption:

1. Soil in an area of approximately 8,800 square feet (in the vicinity of TRC-SB-1) to a depth of 12 feet bgs will be characterized as hazardous waste exhibiting the toxicity characteristic for lead.

Transportation and Disposal of Hazardous Waste Cost Estimate

Activity	Units	Rate	Total
Transportation and disposal of hazardous waste	5,900 tons	$120/ton	$708,000
Activity Total Cost (rounded)			**$708,000**
Engineering Design, Specifications, Drawings, Data Evaluation, and Labor Expenses (5%)			**$35,400**
Subtotal Project Costs (rounded)			**$743,400**
15% Contingency on all Costs (rounded)			**$111,510**
		Total System Cost (rounded):	**$854,910**

1st Engineering Control – Soil Vapor Barrier

The cost estimate for the vapor barrier is based on the following:

1. A Test Fit/Sketch Study was completed for the Site by the NYCSCA on February 3, 2016. The Test Fit/Sketch Study considers a stand-alone, five-story building with basement to be constructed in the approximately 47,000 square foot (sf) asphalt-paved playground/parking area located north of the adjacent school building.
2. The area of the vapor barrier includes an assumed building footprint of approximately 25,620 square feet with a 12 foot deep basement for the cellar. Therefore, for cost estimating purposes, TRC has assumed that the total area to be covered by the vapor barrier is approximately 35,000 square feet.

Vapor Barrier Cost Estimate

Activity	Units	Rate	Total
Install Vapor Barrier (Building footprint and sub-grade walls of partial cellar)	35,000 sf	$5.50/sf	$192,500
Activity Total Estimated Cost			$192,500
Engineering Design, Specifications, Drawings, Data Evaluation, and Reporting Labor Expenses (20%)			**$38,500**
Subtotal Estimated Project Costs			**$231,000**
15% Contingency on all Costs			**$34,650**
		Total System Cost (rounded):	**$265,650**

2nd Engineering Control – Sub-Slab Depressurization System

The cost estimate for the installation of an active SSDS uses the following assumptions:

1. A Test Fit/Sketch Study was completed for the Site by the NYCSCA on February 3, 2016. The Test Fit/Sketch Study considers a stand-alone, five-story building with basement to be

constructed in the approximately 47,000 square foot (sf) asphalt-paved playground/parking area located north of the adjacent school building.

2. The building footprint is approximately 25,620 square feet with a 12 foot deep basement for the cellar.

3. The SSDS would underlie the entire footprint of the proposed school building.

4. For purposes of this cost estimate, TRC has assumed that one (1) suction point pit will be required for every 7,500 square feet of building footprint; therefore, three suction point pits will be required. Each suction point pit will consist of a 3-foot long by 3-foot wide by 1-foot deep pit containing an open ended 4-inch galvanized steel iron pipe embedded in gas permeable aggregate.

5. Operations and maintenance (O&M) costs are not included.

Sub-Slab Depressurization System Cost Estimate

Activity	Units	Rate	Total Cost
Non-Woven Drainage Geotextile	3,223 sy	$3/sy	$9,669
12 Inches of Gas Permeable Aggregate Backfill and Compaction	1,075 cy	$45/cy	$48,375
Suction Pits and Associated Sub-Slab Piping	3 each	$5,000/ea	$15,000
Galvanized steel riser (three)	180 lf	$95/lf	$17,100
Roof-Mounted Suction Fans and Accessories	2 ea	$10,000/ea	$20,000
Monitoring Points	3 ea	$1,000/ea	$3,000
Testing	1 ea	$5,000/ea	$5,000
Activity Total Estimated Cost			**$118,144**
Engineering Design, Specifications, Drawings, Data Evaluation, and Reporting Labor Expenses (20%)			$23,629
Subtotal Project Costs			**$141,773**
15% Contingency on all Costs			**$21,266**
		Total System Cost (rounded):	**$163,039**

Total Engineering Cost Estimate (Rounded)

Line Item Description	Cost
Disposal of Hazardous Waste	**$854,910**
1st Engineering Control (Vapor Barrier)	**$265,650**
2nd Engineering Control (Sub-Slab Depressurization System)	**$163,039**
Total (rounded)	**$1,283,599**